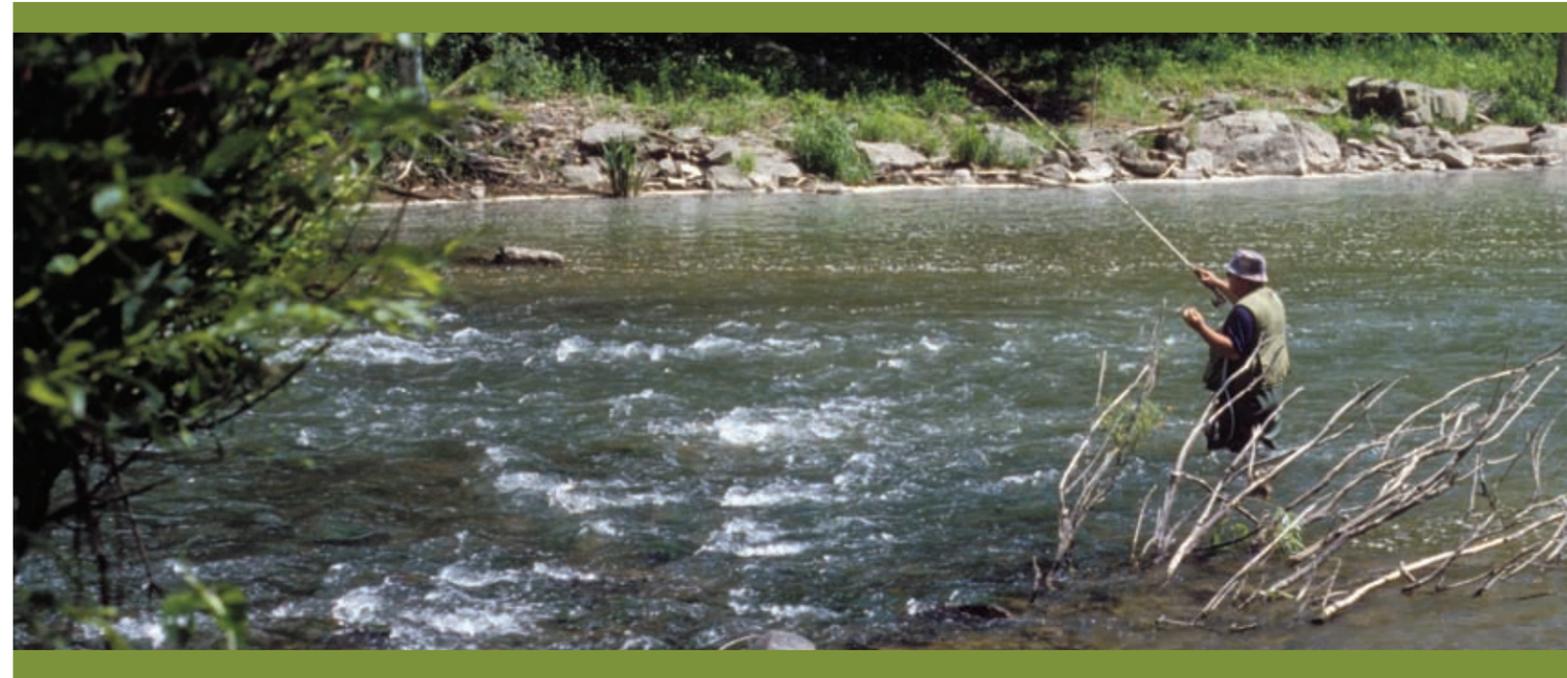


# ANNUAL REPORT

2020

Pennsylvania Fish and Boat Commission  
[fishandboat.com](http://fishandboat.com)



The Pennsylvania Fish and Boat Commission is charged with protecting, conserving and enhancing the Commonwealth's aquatic resources, including waterways, fish populations and habitats of fish and non-game species. From stocking waterways and measuring native populations to patrolling lakes and restoring habitats, our employees strive to protect the resource, for the resource is the foundation for everything we do. High quality streams, clean water and good habitat ensure that we successfully carry out the second part of our mission, to provide recreational fishing and boating opportunities for both Pennsylvanians and out-of-state visitors.

Resource First is the management philosophy that best describes our mission. The phrase was coined in the mid 1980s and represented a change in focus from recreational considerations alone to the resource and its users. In April 2008, the Commissioners took formal action to adopt the most recent iteration of Resource First, clearly reaffirming their expectations that the agency's work will be evaluated and practiced within the context of this philosophy.

The philosophy ensures that staff will make decisions based on long-term conservation of aquatic resources and will make scientifically informed decisions. Resource First also has been the foundation for strategic planning discussions between Commissioners, staff and stakeholders. The outcome of these discussions will be clearly identified goals, objectives, activities and measures framed by Resource First. Commission planning efforts currently underway include the Trout Management Plan, Statewide Access Plan and the agency-wide five-year Strategic Plan.

The 2008 Annual Report is a summary and review of the key accomplishments which support the Fish and Boat Commission's mission and goals.



Leonard Lichvar  
President



Douglas J. Austen, Ph.D.  
Executive Director

**Background**

Founded in 1866, the Pennsylvania Fish and Boat Commission is one of the oldest and most effective conservation agencies in the nation. It is an independent state government agency with responsibilities for protecting and managing Pennsylvania's aquatic resources and regulating recreational fishing and boating on Pennsylvania's waters. The agency's mission is "To protect, conserve, and enhance the Commonwealth's aquatic resources and provide fishing and boating opportunities." Statutory authority to address our mission is founded in the Fish and Boat Code of 1980 [Title 30, Pa. Consolidated Statutes] with fishing and boating regulations set forth in Title 58 of the Pennsylvania Code.

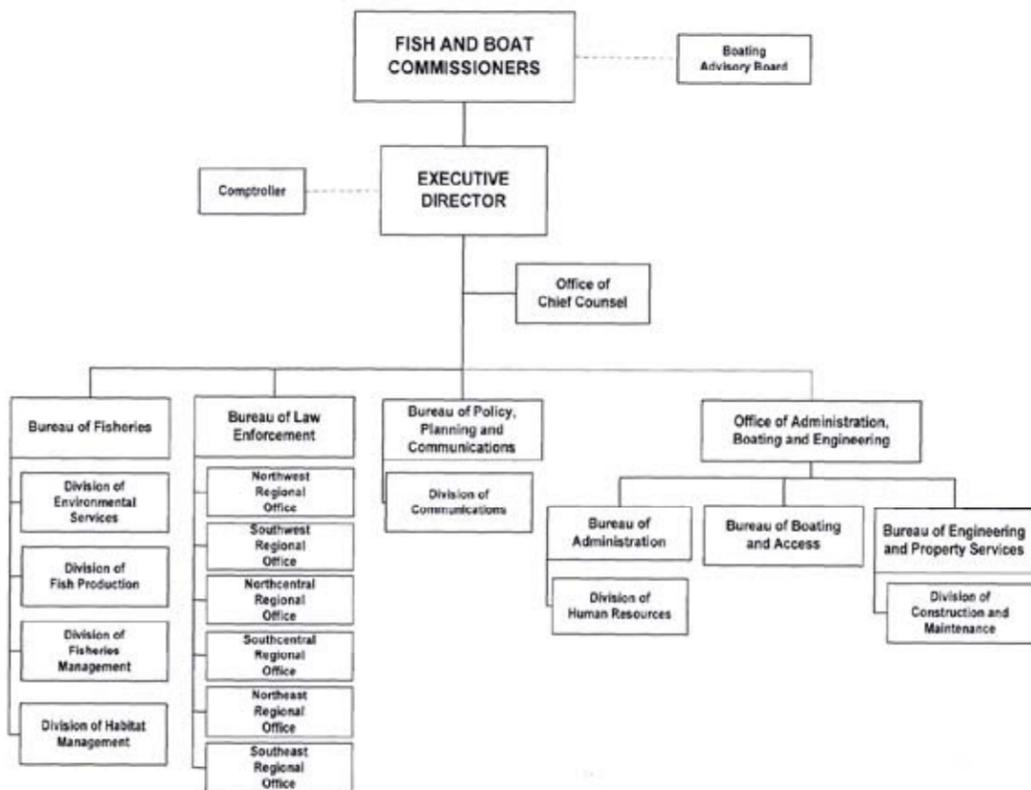
The agency meets the recreational needs of 1.5 million people who fish and boat in Pennsylvania each year. In 2008, the Fish and Boat Commission sold approximately 843,000 fishing licenses and 590,000 trout/salmon and Lake Erie fishing permits.

Pennsylvania's diverse water resources include Lake Erie, small impoundments, large reservoirs, rivers and streams. These waters provide numerous recreational opportunities for the more than 2.5

million people who boat in Pennsylvania each year. During 2008, approximately 338,566 boats were registered in Pennsylvania. Collectively, fishing and boating activities have a tremendous positive impact on Pennsylvania's economy, generating an overall estimated annual economic benefit of over \$3.4 billion.

The Fish and Boat Commission is governed by a 10-member Board of Commissioners, who are appointed by the Governor with the advice and consent of the majority of the Pennsylvania Senate. Commissioners serve terms of eight years. Eight Commissioners are selected based on districts and two Commissioners, representing boating interests, have an at-large, statewide appointment.

Day-to-day operations of the Commission are overseen by the Executive Director. Douglas J. Austen, Ph.D., is the Fish and Boat Commission's ninth Executive Director and serves as the Commission's chief executive officer and chief waterways conservation officer. The Executive Director oversees staff that include a complement of 432 full-time employees, and about 150 temporary and seasonal employees who are hired during periods of peak operation.



**PA Fish and Boat Commissioners**



Leonard Lichvar  
President



Thomas Shetterly  
Vice President



Donald Anderson



Robert Bachman



Samuel Concilla



Richard Czop



Norman Gavlick



Steven Ketterer



William Sabatose



William Worobec

## Executive Office

The Executive Office administers the operations and activities of the entire Fish and Boat Commission. Additionally, the Executive Director is an ex officio member of the Atlantic States Marine Fisheries Commission, the Environmental Quality Board, the Mid-Atlantic Fisheries Management Council and the Boating Advisory Board. The Executive Director is supported by the Office of Chief Counsel; the Executive Secretary; the Deputy Director of the Office of Administration, Boating and Engineering; the Bureau Director of Fisheries; the Bureau Director of Law Enforcement; and the Bureau Director of Policy, Planning and Communications.

### Office of Chief Counsel

During 2008, the Office of Chief Counsel represented the Commission in litigation before Pennsylvania's courts and administrative tribunals. The Commission, along with the Department of Environmental Protection (DEP) and the Department of Conservation and Natural Resources (DCNR), continued its efforts to preserve the public's rights in the Little Juniata River. This litigation, which commenced in 2003, ended in February 2008, when the appellants withdrew their appeal to the Commonwealth Court of Pennsylvania. The appellant previously had appealed the decision of the Court of Common Pleas of Huntingdon County declaring that the Little Juniata River is navigable and permanently enjoining the appellants "from interfering with the public's rights in the Little Juniata, including the posting and/or hanging of signs, advertising the Little Juniata River as private waters and threatening, harassing and otherwise attempting to exclude the public from fishing, boating, wading and/or recreating on and in the Little Juniata River and the submerged lands owned by the Commonwealth."

The Commission, DEP and three sand and gravel dredging companies settled related appeals before the Environmental Hearing Board in 2008. The Commission previously had intervened in these appeals to help defend a fish survey permit condition imposed by DEP on the dredgers in the Allegheny and Ohio rivers. As a result of the settlement, the dredging companies are still required to perform fish surveys in areas prior to receiving authorization to dredge

them, and certain protections for endangered and threatened fish species remain in place.

The Commission also filed a notice of intervention in proceedings before the Federal Energy Regulatory Commission regarding an application for a license amendment filed by PPL Holtwood, LLC, for the expansion of its hydropower facility on the Lower Susquehanna River. The Commission was engaged in extensive negotiations with PPL and other resource agencies regarding the application, and PPL had agreed to design its project to improve fish passage (especially for American shad) at its facility as well as other improvements to benefit resident fish passage, angler access and boating. In December 2008, PPL withdrew its application for business reasons.

In March 2008, the Commission received a check from Norfolk Southern Corporation in the amount of \$3,582,000 in settlement of the Commission's natural resource damages stemming from a June 30, 2006, train derailment in rural Norwich Township, McKean County. The derailment resulted in the discharge of more than 40,000 gallons of sodium hydroxide into Big Fill Run and then into Sinnemahoning-Portage Creek and the Driftwood Branch of Sinnemahoning Creek. The Commission placed this money in a restricted, interest-bearing account, and it will be used for the development and implementation of projects that benefit recreational fishing and boating and the aquatic resources of Cameron, McKean, Elk and Potter counties. Monies may be used for, among other things, grants to Commission partners. To that end, the Office of Chief Counsel worked with Commission

staff to develop and finalize program guidelines and the application package for the Sinnemahoning Creek Watershed Restoration Grant Program. The Commission began soliciting applications for this program in the fall of 2008.

The Office of Chief Counsel, along with the Bureau of Law Enforcement, reached a settlement agreement with Merck & Co., Inc., for a pollution event on the Wissahickon Creek, Montgomery County, which resulted in a fish kill. The settlement, which was part of a larger settlement involving DEP and the U.S. Environmental Protection Agency, was approved by Judge Robreno of the United States District Court for the Eastern District of Pennsylvania in March 2008. Under the settlement agreement, Merck made payment to the Commission in the amount of \$75,000.

The Office of Chief Counsel, working in concert with staff from DEP and the Berks County Conservancy, was successful in securing a conservation easement on 8.69 acres of land in Longswamp Township, Berks County. The conservation easement is held by the Conservancy and is for the long-term preservation and management of the Eastern spadefoot toad, a Pennsylvania endangered species, and its habitat. The Commission, DEP and DCNR are beneficiaries of that easement.

Throughout 2008, the Office of Chief Counsel continued to provide advice and guidance to Commissioners, the Executive Director and agency staff on a variety of issues. The office also assisted in drafting key legislation and regulations regarding a

number of issues of importance to the Commission. The office worked with Commission staff to draft legislation to provide for gift vouchers for fishing licenses and permits and to convey the Commission's Ingham Spring property in Solebury Township, Bucks County, to the township. On the regulatory front, the office drafted or assisted with the drafting of new regulations pertaining to Approved Trout Waters Open to Year-Round Fishing; the sale, introduction, transportation and importation of species of fish that are susceptible to Viral Hemorrhagic Septicemia (VHS); egg collection and the possession or use of eggs as bait. The office also assisted with the drafting of amendments to the Commission's regulation pertaining to the use of crossbows, spears and gigs to permit the harvest of catfish and drafted amendments to the Commission's regulation regarding the release of documents and records to make it consistent with the new Right-to-Know Law.

The Office of Chief Counsel further provided support in the continued success of grant programs, such as the Erie Access Improvement Program, the Sportfishing and Aquatic Resource Education Program, the Statewide Grant Program for Fish Passage and Habitat Restoration, the State Wildlife Grant Program, the Boating Facility Grant Program, the Cooperative Nursery Grant Program and the Landowner Incentive Program. The office drafted and assisted with the drafting of real estate documents, contracts for the procurement of goods and services, interagency agreements, memoranda of understanding and grant agreements.



The Commission's Office of Chief Counsel successfully defended the public's right to use the Little Juniata River for recreational purposes.

# Bureau of Administration

The Bureau of Administration, which is under the Deputate of Administration, Boating and Engineering, provides administrative support services for all Fish and Boat Commission programs and operations, including issuance of and accounting for fishing licenses, stamps and permits; purchasing and procurement of supplies, equipment and services; fixed asset accounting services; issuance of boat registrations and titles; fiscal planning, budget preparation and expenditure, and revenue review; vehicle fleet management; insurance; warehousing and inventory; surplus property management; issuance of special permits; mail and messenger services; federal grants administration; purchasing and travel card management; development and management of information systems; forms and records retention; employee safety; and all human resource-related programs.

## License Sales and Boating Registrations

Statewide license sales in 2008 decreased by about 1.79 percent from 2007 levels, with sales figures at the end of November 2008 totaling 835,282 licenses, which compares to 850,245 licenses for the same period in 2007. Similarly, combined trout/salmon stamps and the Lake Erie permits showed a net decrease of a little more than 2.42 percent. The number of stamps sold decreased from 595,720 in 2007 to 589,354 in 2008.

The Commission's boat registration and titling transaction activities decreased by 5.51 percent in 2008

## Fishing License & Permit Types

Jan 1 – November 30, 2008	Units Sold
Resident	719,545
Senior Resident	18,138
Senior Lifetime	15,341
1-Day Resident	3,328
PA Resident National Guard/Reserve	537
Non-Resident	39,760
1-Day Tourist	6,156
3-Day Tourist	24,864
7-Day Tourist	7,168
Disabled Veteran	445
Lake Erie Permit	18,865
Combination Lake Erie & Trout/ Salmon Stamp Permit	85,685
Trout/Salmon Stamp Permit	484,804
Total Licenses & Permits:	1,424,636

to 210,634 transactions. This figure compares with 222,916 transactions completed through the same period last year. There are 338,566 actively registered boats in Pennsylvania.

The Commission's Charter Boat and Fishing Guide Permit program issued 322 resident and 45 non-resident guide permits during 2008. The Commission sold 816 casting permits.

Staff also coordinated the annual accounting and administration of the Sand and Gravel Royalties program. Royalties in excess of \$900,000 are collected annually from five companies that dredge Pennsylvania waters for sand and gravel.

## Boat Registration & Titling Transaction Types

Jan 1 – November 30, 2008	Transactions
Registration Renewal*	134,167
Registration Transfer	11,628
Registration New	26,858
Registration Change	1,332
Registration Duplicate	4,236
Title New	16,539
Title Transfer	12,236
Title Correction	1,239
Title Duplicate	861
Total Boat Transactions	210,634

\* Boat registrations are valid for two years.

**Figure 1. Fiscal Year 2007-2008 Report:**

Actual expenditures charged from July 1, 2007, to June 30, 2008

Expenditures		
Fish Fund		
Personnel	21,414,653	64%
Operating	8,926,023	26%
Fixed assets	1,654,231	5%
Grants	1,261,924	4%
Payments to state agencies	324,513	1%
<b>Fish Fund total</b>	<b>33,581,344</b>	<b>100%</b>
Boat Fund		
Personnel	77,978,453	62%
Operating	2,937,830	23%
Fixed assets	843,408	7%
Grants	978,365	8%
Payments to state agencies	11,408	0%
<b>Boat Fund total</b>	<b>12,749,464</b>	<b>100%</b>
Fish Fund, Boat Fund Total		
Personnel	29,393,107	63%
Operating	11,863,852	26%
Fixed assets	2,497,638	5%
Grants	2,240,288	5%
Payments to state agencies	335,922	1%
<b>Fish Fund, Boat Fund total</b>	<b>46,330,807</b>	<b>100%</b>

**Figure 2. Fiscal Year 2007-2008 Report:**

Actual revenue deposited from July 1, 2007, to June 30, 2008

Revenue		
Fish Total		
Licenses, fees	26,444,060	64%
Fines, penalties	470,140	1%
Miscellaneous	3,470,292	9%
Federal	10,797,340	26%
<b>Fish Fund total</b>	<b>41,181,832</b>	<b>100%</b>
Boat Total		
Licenses, fees	6,593,087	49%
Fines, penalties	240,640	2%
Miscellaneous	2,895,850	21%
Federal	3,718,258	28%
<b>Boat Fund total</b>	<b>13,447,835</b>	<b>100%</b>
Fish Fund, Boat Fund Total		
Licenses, fees	33,037,147	60%
Fines, penalties	710,780	1%
Miscellaneous	6,366,142	12%
Federal	14,515,598	27%
<b>Fish Fund, Boat Fund total</b>	<b>54,629,667</b>	<b>100%</b>

## Federally Funded Projects

During 2008, the Fish & Boat Commission managed approximately 49 federally funded projects, which returned more than \$12.3 million in revenue. While the majority of federal funds (\$9.2 million) were received from the U.S. Fish & Wildlife Service, other federal agencies provided the Fish & Boat Commission with financial support. They include the U.S. Environmental Protection Agency, U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service, the U.S. Department of Transportation, Federal Highway Administration, the U.S. Department of Homeland Security, and the U.S. Coast Guard. The combined total of all federal revenue comprised about 26 percent of the Commission's revenue in the fiscal year, which ended June 30, 2008 (Figures 1 and 2). Since 1986, federal revenue has averaged slightly over 22 percent of the Commission's total revenue.

## Division of Human Resources

The Division of Human Resources manages the Commission's 432 full-time, salary positions and 150 wage positions by providing guidance to Commission staff and processing numerous personnel-related requests related to job classifications, employee relations, employee benefits, workers compensation, personnel administration, time administration, Equal Employment Opportunity, workforce and succession planning, employee training, and recruitment and placement.

Major accomplishments for 2008 included continuing and expanding the Commission's leadership development program, and creating and enhancing several one-position class specifications to help maintain efficient and effective operations. Additionally, this year involved ongoing collective bargaining negotiations with the Fraternal Order of Police, the labor union that represents the Waterways Conservation Officers (WCO), and the completion of an updated Employee Handbook. Additionally, the Human Resource Division developed and implemented an Employee Orientation program designed to provide new Commission employees with information related to the Commission's workplace policies and procedures and employee benefits and entitlements. Employee Orientation also allowed new employees to meet the Executive Director, learn about the operations of each bureau and to gain valuable insight into the history, mission and the challenges facing the Commission.

## Information Technology Assistance

The bureau's Information Technology (IT) staff worked with Bureau of Fisheries staff to enhance IT systems that are used for:

- the collection, evaluation and analysis of habitat and fish passage information; the development of a database application to be used for the stocking of warmwater and coolwater fish species;
- the improvement of the species impact review database; the introduction of a system that allows the input and tracking of eel sales for eel vendors licensed in the Commonwealth;
- the data warehousing of information collected during the ongoing Susquehanna/Juniata Rivers creel survey;
- the development of an automated system designed to meet agency requirements relative to fish disease and treatment; and

The bureau also worked with Bureau of Engineering and Property Services staff on implementation and improvements to the Commission's Real Estate Information System. This database provides a comprehensive package of tools needed to enter, track, store, and analyze information relative to properties owned by the Commission.

During 2008, there were no unscheduled downtimes for Commission central computer system users, and millions of transactions were processed throughout the year at the central computer center. Additionally, servers were placed in several regional offices throughout the year, giving remote staff better access to their information needs. Line speeds were increased, and additional geographic information systems (GIS) capabilities were given to remote staff. The IT Section also made major enhancements to the Commission's Law Enforcement System, allowing for the management and reporting of additional data and information for Law Enforcement management.

## Geographic Information Systems

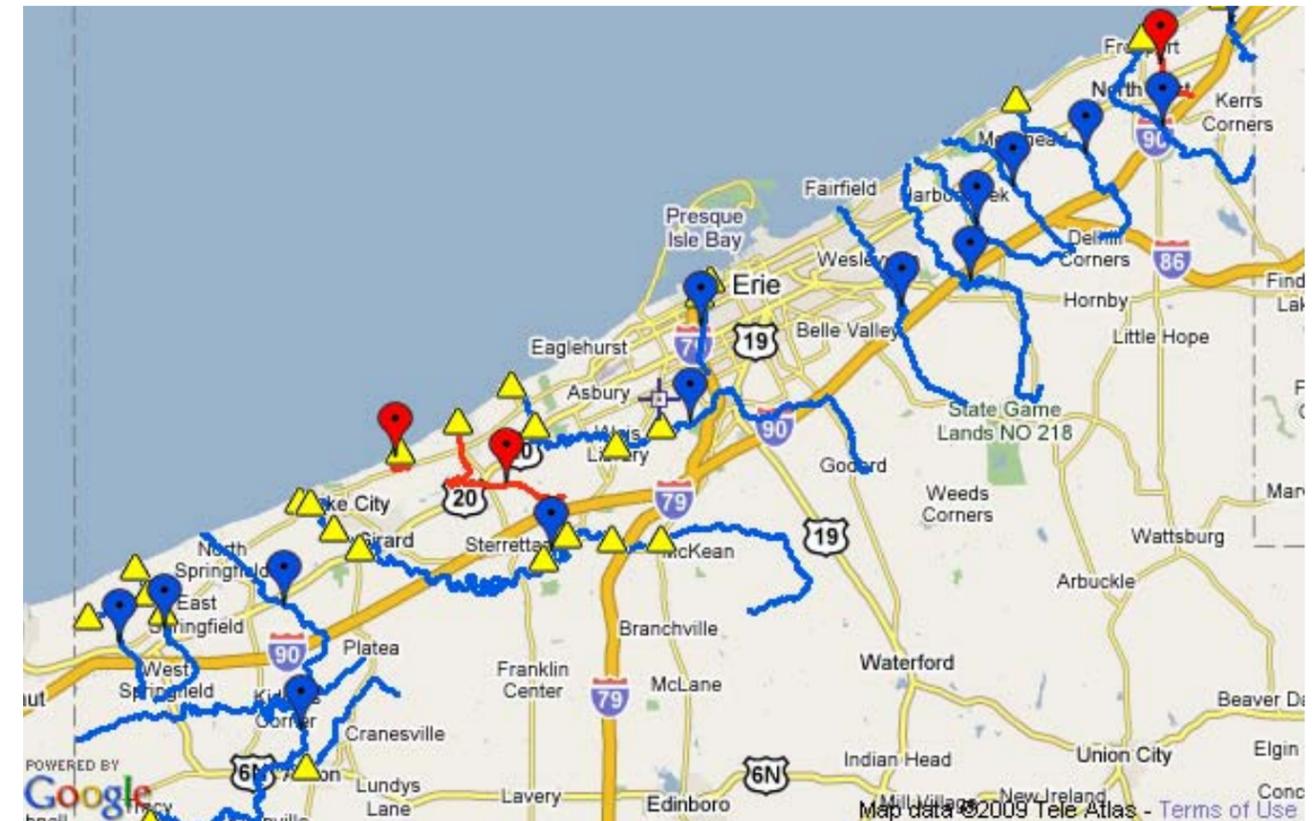
Geographic information systems (GIS) continued to play an important part in the way information is presented to both the public and Commission staff. Several GIS development efforts occurred during 2008. The primary development has been numerous web GIS applications which are now available on the

PFBC web site. Current web GIS pages are related to fishing hot spots, biologist reports, steelhead fishing, state fish hatcheries, and the PFBC office directory. The pages provide interactive mapping, allowing users to easily find locations on a map and quickly obtain more information, such as stocking lists, reports, regulation information, and driving directions.

GIS staff continues to update and maintain a PFBC properties GIS layer which delineates the actual boundaries for the 350 properties and links to various agency databases. Numerous updates were made over the past year to the 40 GIS layers that GIS staff maintains and shares with other agencies and the public. GIS has been a central focus of the Pennsylvania fishing and boating statewide access plan effort, where locations of proposed access improvements were collected across the Commonwealth in a series of regional stakeholder meetings and through various additional inputs. The improvement data was compiled into a GIS database, and summary data and statistics, along with various

maps, were produced to assist in the preparation of the final plan and for internal use as the PFBC continues fishing and boating access development.

GIS software and data and GPS units were deployed to all WCO's over the past year. The deployment was provided region by region and included in-class and field training. A large number of additional mapping and analysis projects were completed over the past year, including those related to: analysis of Point-of-Sale (POS) system fishing license data; analysis of known and potential wild trout resources; numerous species of special concern maps and analyses; various law enforcement violations and related issues mapping; and numerous PFBC properties mapping. Additionally, the IT Section provided enhancements to the Agency Resource Database, developed the Fish Pathology Database System, enhanced the Warmwater/Coolwater System, and developed a Real Estate Tracking System to track and monitor Commission real estate holdings.



Commission staff have used geographic information systems (GIS) to make web pages more interactive. GIS pages, like the one for steelhead fishing, allow users to easily find locations on a map and quickly obtain more information, such as stocking lists, regulation information and driving directions.

# Bureau Of Boating and Access

The Bureau of Boating and Access continued to play a key role in the Commission's boating, regulatory, fishing and boating access, water rescue and boating safety programs. The bureau director serves as the Commonwealth's boating law administrator, boating accident review officer, and the secretary of the Boating Advisory Board. The Boating Advisory Board met twice in 2008 and several boating regulatory items were recommended to the Commission for proposed rulemaking.

Recreational boating accident fatalities were down in 2008. Eight fatalities were recorded, a safe year when compared to the 10-year average of 12. However, all such accidents are preventable and even one fatality is too many.

In 2008, the bureau continued to administer the agency's aids-to-navigation activities, which include the preparation of aids-to-navigation plans for bridge repair and replacements throughout the Commonwealth and the issuing of floating structure permits. Bureau administrative staff also administered the certification of passenger-for-hire vessels and their operators. Operation of the North East and Walnut Creek marinas near Erie was another task administered in close cooperation with the Bureau of Engineering and Property Services. Staff also worked closely with the Bureau of Law Enforcement to administer the certification and inspection for compliance of run-of-the-river dam warning markings and the planning and development of a comprehensive boating access and facilities program.

## Aids-to-Navigation Program

The Commission operates an extensive Aids-to-Navigation Program (ATON). Efforts over the years have resulted in the location and permitting of all private aid and floating structures on state waters. Currently there are 3,274 permitted structures. Bureau staff has begun using a new database that facilitates the tracking of ATONs and will work fluently with latitude/longitude information to create waterway maps. In 2008, the Commission issued 32 Aids-to-Navigation Plans for bridge construction and demolition projects throughout the Commonwealth. Through these projects, the Commission has tentatively secured five "primitive" access areas through PennDOT. Confirmation and completion of these projects is expected in 2009/2010.



Kayaking has become an increasingly popular activity in Pennsylvania, thanks in part to water trail maps produced by the PFBC.

## Boating Facilities Grant Program

The Commission did not award any new grants under the Boating Facilities Grant Program in 2008. The Commission deliberately chose this action in order to evaluate this important program and to start developing a statewide boating access plan. In April of 2008, the Commission opened the program again and accepted applications for the next round. The deadline for applicants was Oct. 31, 2008. Many of the applicants that applied for funding in the first three rounds of the Boating Facilities Grant Program have completed their projects. The applicants listed in Figure 3 have finished the construction of their projects and have been reimbursed.



Access areas like Speedwell Forge, Lancaster County, make it easy for families to enjoy fishing and boating activities.

Figure 3 - Completed Boating Facility Projects

Schuylkill County -	\$50,000
Cambria Somerset Authority, Cambria County	\$25,000
Hunlock Township, Luzerne County	\$40,000
Harborcreek Township, Erie County	\$300,000
Carbon County	\$39,553
Tamaqua Borough, Schuylkill County	\$12,684
Halifax Borough, Dauphin County	\$65,000
East Coventry Township, Chester County	\$10,895
Sewickley Borough, Allegheny County	\$150,000
Lower Allen Township, Cumberland County	\$25,000
Silver Spring Township, Cumberland County	\$23,000
Manor Township, Lancaster County	\$3,000
City of Monessen, Westmoreland County	\$125,000
East Penn Township, Carbon County	\$157,808
Lackawanna County	\$40,000
Union Township, Berks County	\$75,000
Lower Providence Township, Montgomery County	\$40,000
Northumberland Borough, Northumberland County	\$35,000
Lehigh County	\$75,356
Ebensburg Borough, Cambria County	\$40,000
Dauphin County	\$75,000
City of Pittsburgh, Allegheny County	\$42,973
<b>Total</b>	<b>-\$1,450,272</b>

## Erie Access Improvement Grant Program

The Erie Access Improvement Grant Program was created in 2004 by Act 159, which, in turn, created a new Lake Erie stamp, now known as a permit. This permit is required for anglers fishing in the Lake Erie watershed. The Act provides that all proceeds from the sale of this stamp are to "be used to provide public fishing access on or at Lake Erie and the watersheds of Lake Erie." The Bureau of Boating and Access, Bureau of Engineering and Property Services and Bureau of Law Enforcement were responsible for locating and securing properties that fall under the purview of this act.

During 2008, Girard and Millcreek townships donated fishing easements providing 5,550 linear feet of stream frontage. In addition, a Fairview Township acquisition included an easement on Lake Erie. All three townships had received funding to acquire the properties in prior years from the Grant Program. Lake Erie Region Conservancy (LERC) received a grant to acquire a property along Elk Creek that will provide 4,900 linear feet of stream frontage. LERC will donate a public fishing easement to Commission in 2009 on this property. Three public fishing easements were acquired with Erie access improvement funds: two on Elk Creek that provide 3,850 linear feet of access and one on Walnut Creek that provides 2,885 linear feet of access. The bureau currently has another eight projects in progress that have been approved by the Commission. Negotiations are continuing with many other landowners.

A similar public fishing easement program will be launched in 2009 in the Upper Juniata Watershed. The bureau worked with the Department of Environmental Protection (DEP), Department of Conservation and Natural Resources (DCNR) and the Little Juniata River Association to design the program during 2008. DEP has committed \$50,000 to the project while DCNR has awarded the Little Juniata River Association a \$100,000 grant for this project. Settlement funds from American Hydro Corporation will be used by the bureau for additional funding for the project. The Juniata River, Little Juniata and the Frankstown Branch of the Juniata in Huntingdon and Blair counties are the targeted streams for the project.



Commission Environmental Education Specialist Adam Spangler demonstrates how to properly enter the water for a "go" rescue.

## Statewide Access Plan

The bureau began a planning process for a statewide access plan in cooperation with the Pennsylvania Environmental Council and DCNR. Six regional meetings were held with stakeholders to obtain comments on the state of fishing and boating access in the Commonwealth. Several recommendations received during regional meetings have been implemented, including the change to the Boating Facilities Grant Program and a cooperative agreement with DCNR Bureaus of State Parks and Forestry. The agreement provides for the development of primitive access sites on these lands. The plan will be completed in the spring of 2009.

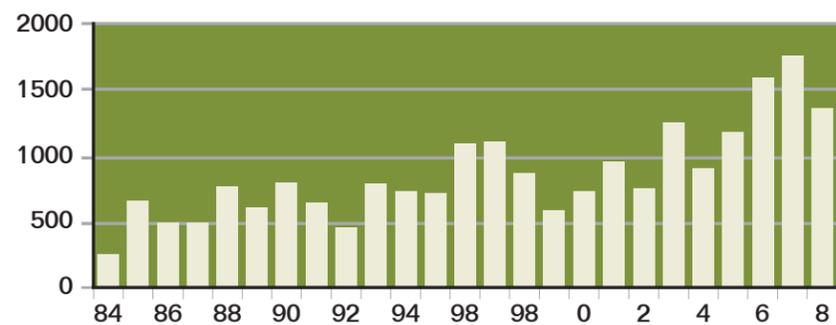
## Water Rescue Program

The Commission's nationally acclaimed Water Rescue Program had another very good year in 2008. The core water rescue program, Water Rescue and Emergency Response, was updated with a brand new lesson plan and PowerPoint presentation. This two and a half-day program is the foundation on which all other curricula are based. Four two- or three-day instructor workshops were held to train instructors in 2008. Commission instructors certified 1,352 students through 94 courses in 2008, the third best year on record for this valuable program (Figure 4). The Commission has a trained volunteer instructor corps of 150 individuals who provided more than 5,000 hours of training this past year. The two and one-half hour Water Rescue for the First Responder Course had another very good year as well. More than 38 courses were taught with a student enrollment greater than 730. The program is the largest program of its kind in the United States.



Commission Lead Water Rescue Instructor Chris Calhoun demonstrates how to safely cross the ice.

Figure 4 - Water Rescue Students Certified



# Bureau of Engineering and Property Services

The Bureau of Engineering and Property Services directs the planning, survey, design, construction and maintenance of fishing and boating facilities and property. The bureau plans and designs various site-engineered structures, including roadways, bridges, ponds, raceways, impoundments, wells, pumps, fishways, shoring, piling, docks, wharfs and boat launch ramps. It also plans and designs buildings for Commission use, and designs and inspects the construction, renovation and major maintenance of dams and impoundments. In addition, the bureau directs the acquisition, leasing and management of Commission-owned or controlled property.

## Engineering Section

In 2008, the bureau's Engineering section approved hatchery upgrades and reviewed the design and permitting phases of three hatchery renovation projects at Huntsdale, Bellefonte and Benner Spring. The estimated design and permitting for outside professional services for these three projects was \$1,084,495, and the estimated construction cost is \$10,710,255.

### Bellefonte

- Reviewed and approved the design consultant's drawings for major upgrades to the facility's water treatment system to ensure adherence to the scope of work, design intent and conformance to industry standards. Oversaw the bidding and awarding of the construction contracts.
- Coordinated the emergency repairs and replacement of the Well No. 2 pump, piping and motor starter.

### Benner Spring

- Reviewed and approved the design consultant's drawings for major upgrades to the facility's water treatment system to ensure adherence to the scope of work, design intent and conformance to industry standards. The bidding phase is expected to begin in early 2009.
- A closed circuit television camera inspection of the influent supply piping was performed to evaluate the condition of the piping and

determine if any obstructions were restricting flows.

### Corry

- Well No. 2 pump, motor and wiring was installed.
- The Foster Spring pump was repaired.
- The design of the Foster Well water line was initiated.

### Fairview

- Completed the construction of the new maintenance and Law Enforcement garage.
- Alarm system improvements were completed.
- The hatchery roof was replaced.

### Huntsdale

- Reviewed and approved the design consultant's drawings for major upgrades to the facility's water treatment system to ensure adherence to the scope of work, design intent and conformance to industry standards. Oversaw the bidding and awarding of the construction contracts.
- Design and installation of a new 15kV electric line was completed.
- Alarm system improvements were initiated.

### Linesville

- The domestic sewage pumps were rebuilt.
- Staff worked with the DCNR to successfully relocate a proposed new sewage treatment plant

for Linesville Borough to a site that would not impact Commission operations.

#### Oswayo

- Upgraded the alarm system.
- The spring pipeline was relocated.
- Well No. 8 was rehabilitated.
- Work was initiated on a new electrical service with standby generator for Well No. 8.

#### Pleasant Gap

- Phase I of the new alarm system was completed.
- The emergency generator was tested and repaired.
- A new clarifier pump was installed.
- Inspected the influent supply lines to determine their condition.
- Electrical power was extended under the railroad tracks for a remote water quality sampler.

#### Pleasant Mount

- Temporary repairs were made to Pond 12 embankment.
- New influent control gates were installed.
- Crews completed the installation of the new waterline and valves.
- A contractor was retained to demolish the old barn.

#### Reynoldsdale

- Engineering is working on the recycle and effluent treatment design.
- The boiler was replaced in the administration building.
- Construction crews completed the installation of the new 18-inch show tank waterlines and hatch house roof.

#### Tionesta

- Repaired concrete in several raceways.
- Completed emergency repairs to Well No. 1.
- Replaced the domestic service pump.



Every year thousands of people attend the open house at the Linesville State Fish Hatchery in Crawford County.

- Replaced the Tubb's Run Pump.
- Completed construction of the new generator building. The old Tylersville generator will be relocated here.

#### Tylersville

- Began construction of the administration building expansion.
- Inspected the effluent disk filter supply piping to determine flow restrictions. Significant algal growth was found and subsequently removed.
- Oxygen system balancing problems were identified and resolved.

#### Union City

- Replaced the boiler.
- Completed storm water culvert design and repairs for Bentley Run.

### Facilities Design Section

In 2008, the Facilities Design section developed plan specification and permitting packages for renovations to Opossum Lake Dam and completed the Mauch Chunk Lake embankment renovation project. In 2008, the bureau conducted annual dam inspections for its 40 high hazard dams.

### Property Services Section

The Property Services section is responsible for providing statewide real estate and surveying services to the Commission. The section is comprised of the Real Estate unit and the Survey unit. The section was engaged in a number of noteworthy projects in 2008, including:

- The Real Estate Unit completed the initial entry of the Commissions property records into the recently established Real Estate Database. This involved the review, scanning, linking, and input of approximately 3,300 property files. The Real Estate Database will provide Commission staff with an electronic conduit to access and utilize property data.
- Conducted new property acquisitions by acquiring fee title on stream frontage along Falling Spring Creek near Chambersburg, Franklin County, and an easement along Tea Creek north of Reedsville, Mifflin County.
- New public access agreements were negotiated and secured with PA American Water Company for Comfort Pond, Susquehanna County, and for a site on the Allegheny River in the city of Parker, Armstrong County.
- Negotiated and conducted a property acquisition with the PennDOT for a boat access on the Juniata River in the Lewistown Narrows, Juniata County.
- Negotiated and processed agreements to facilitate the access needs of a developer at the Conneaut Lake Access, Crawford County.
- Processed and executed a cooperative agreement with Carbon County that will have the County pay \$37,000 to the PFBC for access area improvements to be performed by the Commission at Mauch Chunk Lake, Carbon County.
- Completed mapping of a 1.5 mile route (topographic) survey for a proposed waterline running along Washington Avenue and SR 6, from the Foster Well to the Corry State Fish Hatchery complex in Erie County.
- Performed topographic surveys and site maps for six Commission-owned or controlled boat access sites for use in design of miscellaneous site upgrades.

- Performed a topographic survey and site plans for various proposed site upgrades at Walnut Creek Marina Access, Erie County.
- Performed a route survey and site plan for proposed waterline replacement from Well # 8 to the Oswayo State Fish Hatchery Complex, Potter County

### Construction and Maintenance Division

In 2008, the Construction and Maintenance Division constructed and renovated the following access areas:

- Cloe Lake, Jefferson County - Crews placed and graded 300 tons of stone on the two parking lots to improve parking and travel through the lots.
- Cranberry Glade Lake, Somerset County - Crews removed the deteriorated boat launch ramp and constructed a new 20-foot wide concrete launch ramp, bulkhead, and floating dock.
- Fort Hunter Access, Dauphin County - Crews removed the deteriorated boat launch ramp, constructed a new 20-foot wide concrete launch ramp, and paved the parking lot.
- Frankford Bunker Removal, Philadelphia County - Crews demolished the aging military bunker and cleaned up the site. A portion of the bunker was left intact.
- Harvey's Lake, Luzerne County - Crews removed the deteriorated boat launch ramp, constructed a new 20-foot wide concrete launch ramp, and paved the parking lot.
- High Point Lake, Somerset County - Crews removed the existing boat launch ramp, and constructed a new 20-foot wide concrete launch ramp and a new concrete fishing walkway which meets standards of the Americans with Disabilities Act.
- Hyner, Clinton County - Crews constructed a new 10-foot wide concrete plank ramp, excavated new drainage swales, and stabilized the banks.
- Kettle Creek, Potter County - Crews renovated the parking lot and site drainage.
- Neshannock, Lawrence County - Crews developed a new canoe access site.

- North East Marina, Erie County - Crews moved over 17,000 cubic yards of sand from the west beach to the east beach to allow for lateral drift and dredged the marina basin with the hydraulic dredging barge. Crews also removed the "E" dock assembly to make repairs over the winter.
- Oakland, Susquehanna County - Crews removed the existing boat launch ramp, constructed a new 20-foot wide concrete launch ramp, and expanded the parking lot.
- Parker, Armstrong County - Crews removed the existing boat launch ramp, constructed a new 20-foot wide concrete launch ramp, and paved the parking lot.
- Rosston, Armstrong County - Crews developed a new parking lot.
- Walnut Creek Marina, Erie County - Crews performed dredging operations in Walnut Creek to

allow safe passage for boats entering and leaving the marina. This work required the long reach excavator to remove approximately 20,000 cubic yards of material that was blocking the channel.

The bureau's carpentry and electrical crews constructed various projects within the State Fish Hatcheries. These projects included roof replacements, building renovations, new water lines, generator buildings, pole buildings, pump installations, raceway repairs, and electrical maintenance and installation for all facilities. The five regional maintenance areas serviced the Commission's more than 360 access areas, which included mowing, litter pick-up and minor repairs. The maintenance staff also mowed more than 40 dam breasts and performed minor repairs to the embankments and related structures in 2008.



In 2008, crews performed dredging operations at the Walnut Creek Marina in Erie County to allow safe passage for boats entering and leaving.

# Bureau of Fisheries

The Bureau of Fisheries directs the management and protection of all fish, reptiles, amphibians and certain aquatic invertebrates, threatened and endangered non-game species and their habitats in the Commonwealth that fall under the agency's jurisdiction. The bureau also operates the agency's 14 state fish hatcheries.

The Bureau of Fisheries represents the Commission on various interstate commissions including the Mid-Atlantic Fishery Management Council, the Atlantic States Marine Fisheries Commission, the Instream Flow Council, the Mississippi Interstate Cooperative Resource Association, and the Lake Erie Committee.

The bureau also addresses many environmental and legal issues. These include permitting and permit review functions and coordinating with the Bureau of Engineering and Property Services on infrastructure and renovations of the facilities under management of the Bureau of Fisheries. The bureau also engages in large volumes of correspondence with anglers; developers; federal, state, and local governmental agencies; and non-governmental organizations on those issues that fall within the bureau's areas of responsibility.

The bureau consists of four divisions: Fisheries Management, Fish Production, Habitat Management, and Environmental Services as well as the Three Rivers Ecological Research Center.



Stocking fish is a popular family tradition around the state.

## Stocking

### Warm/Cool Water Species

Species	Lifestage*	Number	Weight (lbs)
American Shad	Fry	3,832,584	NA**
Black Crappie	Fing	18,355	1,373
Bluegill	Fing	200	50
Chain Pickerel	Fing	2,570	76
Channel Catfish	Fing	110,900	2,025
Golden Shiner	Adlt	8,463	988
Hickory Shad	Fry	7,180,216	NA
Lake Trout	Adlt	80	800
Lake Trout	Fing	1,997	1,070
Lake Trout	Sfng	49,978	123
Lake Trout	YrIn	57,890	4,170
Largemouth Bass	Fing	44,005	122
Largemouth Bass	Ph1	8,300	13
Muskellunge	Fing	137,672	6,050
Muskellunge	Sfng	20,298	154
Muskellunge	YrIn	1,665	134
Northern Pike	Fing	6,530	53
Paddlefish	Fing	4,502	1,473
Rainbow Trout Steelhead	Sfng	51,000	365
Rainbow Trout Steelhead	YrIn	1,071,426	97,817
Striped Bass	Fry	1,800,000	NA
Striped Bass	Ph1	386,857	250
Striped Bass	YrIn	278	311
Tiger Muskellunge	Fing	75,359	3,490
Walleye	Fry	32,000,000	NA
Walleye	Ph1	1,137,234	714
White X Striped Bass	Fing	67,290	428
Yellow Perch	Fry	1,456,600	NA

Trout Species			
Trout Species	Lifestage	Number	Weight
Brook Trout	Fing	307,900	17,580
	Adult	521,635	296,005
Brown Trout	Fing	1,235,300	22,733
	Adult	906,592	530,379
Rainbow Trout	Fing	1,022,646	28,854
	Adult	2,060,911	1,196,611
Trophy Golden	Fing	12,000	360
	Adult	11,905	25,302



Dozens of Commission employees and their families help stock fish each spring.

\* Fing - Fingerling  
 Sfng - Small fingerling  
 Yrln - Yearling (1 year old)  
 Ph1 - Phase 1 fingerlings (35-40 day old)  
 \*\* Fry are too small to be handled and weighed

## Fish Population Sampling

In 2008, the Division of Fisheries Management staff conducted surveys on numerous lakes, rivers and streams. Information from these surveys is used to monitor the status of fish populations and for the development of management plans. To help the Commission gain a more complete understanding of the resources and anglers' needs, data collection includes both the sampling of the fish populations as well as direct input from anglers through on-the-water and telephone surveys. The ability of the Fish and Boat Commission to gain the needed understanding of the resource was greatly enhanced in 2008 with the hiring of three new fisheries biologists dedicated to improving our knowledge of large river resources throughout the Commonwealth.

Annual video monitoring of American shad passage on the Lehigh River in 2008 documented the passage of 408 shad at the Easton fishway. This was a considerable decline from the number that passed in 2007 (1,397) and represented the lowest number observed since 2003 when 422 shad passed. A total of 1.67 million viable American shad eggs were collected from the Delaware River in 2008. Viable eggs were also obtained from the Potomac River (3.49 million eggs), and the Susquehanna River at Conowingo Dam (0.52 million eggs). The Commission's Anadromous Fish Restoration unit hatched, reared and stocked nearly four million American shad fry into the Susquehanna, Delaware,

Lehigh, and Schuylkill rivers and their tributaries in 2008. A total of 7.21 million viable hickory shad eggs were obtained from the Susquehanna River at Conowingo Dam. More than 7.18 million hickory shad fry were released into one Susquehanna (Octoraro Creek) and two Delaware River (Pennypack Creek and Ridley Creek) tributaries in 2008.

Gill net sampling efforts in 2008 for lake trout in Lake Erie yielded an average capture per unit effort of 4.44 lake trout per standard lift. This was the highest catch rate on record and was more than 2.5 times the long-term average of 1.6 lake trout per standard lift. Sea lamprey wounding rates continued to decline in 2008. Overall wounding was 13.5 percent with fresh wounds comprising 4.5 percent of the wounds and "old" wounds comprising 9 percent of all sea lamprey wounding. Our objective is 5 percent for fresh wounds.

Striped bass remain a high priority species in the lower Delaware River and Delaware Estuary. In 2008, a total of 259 striped bass were collected from the river and estuary ranging from 6 inches to 45 inches in length. The total catch rate of striped bass from the index sites was the second highest on record during the 14-year sampling period. The catch rate of legal size striped bass (28 inches) was similar to the long-term average.

To help understand future prospects for the Commonwealth's smallmouth bass fisheries, data collection continued in 2008 on Pennsylvania's large

rivers. Findings showed young-of-year abundance was above average in the Delaware drainage, slightly below average in the Susquehanna drainage and below average in the Ohio drainage. Greater attention was directed to Susquehanna River water quality for the purpose of identifying the causes for reduced young-of-year density in recent years and the presence of disease in young-of-year bass. These efforts concentrated on monitoring water temperature and dissolved oxygen in the microhabitats critical for young bass survival.

## Trout

Trout opening day angler counts were conducted on 32 stream sections to examine the cost-benefit of stocking. Cost-benefit was based on comparing stocking costs with angler trip expenditures and fishing license expenditures. Results indicated that only one stream section had a negative opening weekend cost-benefit relationship. However, work was initiated to further refine estimates of the costs of the stocked trout program.

A telephone survey by Responsive Management was administered to 1,562 Pennsylvania trout anglers. This survey documented that 84 percent of Pennsylvania's trout anglers were satisfied with trout fishing in the state, 61 percent release the trout that they catch, 93 percent fish in trout stocked waters at least half the time, and 49 percent typically travel no more than 15 miles (one way) to trout fish in Pennsylvania.

2008 was the second year of the larger size trout stocking program. Hatcheries reared and stocked over 3.4 million trout averaging 11 inches.

## Staff Training

A new version of the Fish Culture School was initiated in 2008 and fish culturists were trained in a short course entitled "Introduction to Fish Culture, Fish Health and Warm/Cool Water Production." Staff also received training in biosecurity; boat operation, maintenance and trailering; confined space entry; leadership and numerous other courses provided by the Office of Administration.



Biologists regularly conduct fish sampling tests to calculate populations in waterways. As part of these creel studies, biologists also measure and weigh the fish.

## Fish Health and Effluent Treatment

Staff continued to refine procedures for microscreen filtration of effluent at Pleasant Gap and Tylersville State Fish Hatcheries (SFH). Effluent renovation construction has started at Bellefonte SFH and renovations at the Huntsdale SFH will begin in 2009.

The Aquaculture Technology unit completed the evaluation of the efficiency of the microscreen filters in removing total suspended solids from the effluent at the Pleasant Gap SFH and initiated a flow management study at Pleasant Gap SFH. Other projects included tagging of brood muskellunge at the Linesville SFH; walleye egg disinfection; PCB monitoring in hatchery trout; and a trout feed performance study. Staff also worked with DEP and a drug company to utilize an improved drug to fight bacterial infections at hatcheries.



An important part of fisheries management is performing water tests to ensure that conditions are ideal for nurturing and maintaining fish populations.

The Cooperative Nursery unit was busy making emergency nursery visits as the summer and fall of 2008 were again marked by low flows and drought conditions. A total of 35 sponsors received Cooperative Nursery grant funding totaling \$59,989 for nursery improvement projects. Cooperative nurseries received approximately 1.2 million trout fingerlings, 150,000 eyed steelhead eggs and fingerlings, walleye eggs, yellow perch eggs and largemouth bass fry from state fish hatcheries. Cooperative Nursery staff conducted 350 routine visits, three prospective site visits, one construction inspection, and 74 emergency (fish health) visits in 2008.

The Fish Health unit continued to provide diagnostic and disease treatment, annual hatchery disease inspection, brood stock disease monitoring, and disease prevention services to the state fish hatcheries, cooperative nurseries, Division of Fisheries Management, and the Bureau of Law Enforcement. Annual hatchery disease inspections were expanded to include non-salmonid production fish and their wild broodstocks. Continuing effort was expended in dealing with the ramifications of the federal Animal and Plant Health Inspection Service (APHIS) order prohibiting movement of fish from the Great Lakes states due to VHS disease concerns. Draft plans for disease management in PFBC hatcheries and procedures to minimize the movement of aquatic invasive species through activities of PFBC staff were developed.

A fluidized bed system was installed at the Van Dyke Hatchery to increase source water pH and hardness of the source water. The Anadromous Fish Restoration unit leader represented the Commission

on the Chesapeake Bay Program's Living Resources Sub-Committee, the Atlantic State Marine Fisheries Commission's Shad and River Herring Technical Committee, and the Susquehanna River Anadromous Fish Co-operative.

The Water Quality unit staff provided sample processing, data compilation and other support for the microscreen filter studies. National Pollution Discharge Elimination System permit renewals were submitted for the Reynoldsdale and Linesville hatcheries.

Fish Production Services staff also led negotiations and settlement agreement development for the Holtwood/PPL hydroelectric plant re-licensing; participated in re-licensing meetings for Conowingo Hydroelectric Dam and Muddy Run Pumped Storage Project and York Haven Hydroelectric Project, securing a grant from APHIS to conduct VHS sampling on wild fish; and worked with DCNR to address fish passage concerns at the Sunbury inflatable dam.

## Environmental Services

The Division of Environmental Services contains fisheries specialists and support staff that predict risks and assess damages to our Commonwealth's rare species, aquatic resources, and fishing and boating activities. Staff work on a wide variety of issues including stream and wetland encroachments; sand and gravel dredging; coal and non-coal mining; oil and gas well drilling; transportation projects; pollution incidents and fish kills; public health consumption advisories and other matters that might impact the Commonwealth's waters and aquatic habitats. The Division includes three sections: the Watershed Analysis Section, the Aquatic Resources Section, and the Natural Diversity Section.

In 2008, Aquatic Resources Section (ARS) staff reviewed applications for the following programs:

Mining	Drawdown	Triploid Grass Carp	Aquatic Herbicide	Hydro Power	Water Allocation
194	159	267	1225	7	82

Biomonitoring downstream of discharges from the Bellefonte, Benner Spring, Pleasant Gap and Huntsdale hatcheries was completed to assess environmental performance of the effluent treatment systems at these hatcheries.

ARS staff assisted the Penn State Cooperative Extension with a two-year Environmental Protection Agency Pesticide Safety Grant. Paperless review of aquatic herbicide permits was initiated with the DEP Southcentral Region. Staff developed site impact reduction and water withdrawal recommendations for the rapidly expanding Marcellus shale natural gas development. Staff represented the PFBC on committees that updated the State Water Plan.

ARS staff were involved in the Palmerton Superfund Site natural resources damage settlement negotiations. Staff provided the agency lead for development of Upper Delaware and Lehigh River flow release plans and assisted Bureau of Law Enforcement staff in pollution investigations on Chappel Fork, McKean County; Watts Creek, Clearfield County; and Turtle Creek, Westmoreland County.

Natural Diversity Section (NDS) staff conducted 3,550 threatened and endangered species impact reviews; issued 440 Scientific Collector Permits; 560 Venomous Snake Permits; seven Organized Amphibian and Reptile Hunt Permits; 26 Commercial Snapping Turtle permits; and 27 Special (Endangered



The Natural Diversity Section performs habitat surveys on threatened and endangered species, like the bog turtle and timber rattlesnake.

Species) Permits. Also, 143 rattlesnake sites were assessed and 350 rattlesnakes were tagged with Passive Integrated Transponders (PITs) for population monitoring purposes. NDS staff managed 22 active and new State Wildlife Grant projects. Staff performed habitat and presence-absence surveys for the following T&E species: bog turtles, green salamanders, eastern spadefoot, timber rattlesnake, eastern massasauga rattlesnake, and eastern pearlshell mussels. Staff coordinated a statewide project, under contract to DEP, to develop a method to assess the health of the Commonwealth waters using fish community indicators.

Other highlights include specialized venomous snake training to Waterways Conservation Officers and training to habitat biologists on bog turtle natural history and management. Staff also revised project review tracking system and implemented new environmental review tools; proposed de-listing of fish species, and listing of new mussel species as T&E; prepared eastern pearlshell mussel and spadefoot toad management plans; and consulted on various high-profile development projects with T&E species conflicts.

Watershed Analysis section staff reviewed DEP water obstruction and encroachment permit applications, Corps of Engineers Clean Water Act permit applications, transportation projects, and solid waste applications. Over 1,000 permit applications were reviewed by this section in 2008.

Staff also provided guidance on wild trout issues, EV wetland issues, the Pennsylvania Wetland Condition Rapid Assessment Protocol, and the Aquatic Resource Compensation Document as a member of the Water Resources Advisory Committee Chapter 105 Adhoc Workgroup.

In response to large land development permit applications, staff partnered with DEP and the Commission's Division of Fisheries Management to document wild trout populations and wetland determinations in the Catawissa Creek watershed, Schuylkill County; and the West Branch Perkiomen Creek, Berks County, .

Staff and the Division of Habitat Management worked with PennDOT and DEP to incorporate innovative instream habitat structures on various road and bridge projects. Active coordination with PennDOT and DEP to assist with pre-application field views and permit reviews on numerous bridge



Mud sill cribbing uses rock and logs to help stabilize eroding stream banks while providing overhead fish cover.

projects across the state occurred in response to the Governors' Accelerated Bridge Program.

### Habitat Management

The Division of Habitat Management (DHM) is comprised of four sections that provide assistance in several program areas. These include the Lake Habitat Section, Stream Habitat Section, Fish Passage Section, and the Regional Habitat Section.

In 2008, the Lake Habitat Section worked on 41 Cooperative Habitat Improvement Program (CHIP) projects (formerly known as Adopt-a-Lake). Staff assisted with construction of 1,892 lake habitat structures and completed 13 new lake habitat plans for cooperators. Lake Section staff conducted 14 habitat and fish assessments and inventories on project waters and worked 56 days in the field supervising, constructing and placing fish enhancement structures. The CHIP- Lakes program contributed nearly \$35,000 for project materials on a matching basis to cooperators. The Technical Assistance Program (TAP) was created to increase the DHM's ability to provide assistance for habitat improvement on private lands. TAP activities are limited to assisting in project design and providing construction oversight, and TAP projects do not get financial support from the PFBC. In 2008, the Lake Section's TAP assisted eight projects.

The section also continued to advance cooperative projects with DCNR. These efforts involved extensive lake habitat enhancement work and associated

public outreach at state park lakes. DCNR lakes that received large-scale habitat treatment were Pymatuning Reservoir, Crawford County; F. J. Sayers Lake, Centre County; Lake Nockamixon, Bucks County; G. B. Stevenson Reservoir, Cameron County; Chapman Lake, Warren County; and Glendale Lake, Cambria County. The Lake Section also partnered with the Baltimore District of the U. S. Army Corps of Engineers to complete a large scale project at Hammond Lake, Tioga County.

Stream Section staff worked on 51 active CHIP projects (formerly known as Adopt-a-Stream) in 2008. Staff assisted with the construction of 161 in-stream habitat structures and completed 22 new stream habitat development plans that were provided to cooperators. Stream Section staff conducted six habitat and fish assessments and inventories of project waters. The CHIP- Streams program provided nearly \$26,000 to cooperators for project materials on a matching basis during 2008. The Stream Section's TAP provided various levels of support at 182 habitat



Natural growth along waterways, called riparian buffers, are used to prevent bank erosion and to filter nutrient runoff from land into waterways.

improvement projects. This included construction oversight for 36 projects. A total of 100 permits and plan reviews were completed.

The Fish Passage Section supported the completion of approximately 30 dam removal and fish passage projects resulting in the reopening and restoration of nearly 100 miles of stream habitat for migratory and resident fishes. Approximately 100 dam removal and several fishway projects are ongoing. Over \$250,000 of funding assistance was obtained in 2008 to support completion of these projects.

The Regional Habitat Section provided technical assistance in planning, coordinating, and obtaining resources to support over 150 projects that benefit the conservation, enhancement, and restoration of habitat for Pennsylvania's fish, amphibian, and reptile fauna; this includes leveraging over \$500,000 of funding from a variety of grant programs and other sources. Habitat biologists participated in approximately 20 monitoring studies to evaluate project impacts on physical habitat, water quality, and biota. The DHM established a grant program to mitigate impacts stemming from a major pollution damage settlement in the Driftwood Branch of Sinnemahoning Creek watershed.

### 3 Rivers Ecological Research Center

The 3 Rivers Ecological Research Center (3RERC), established in late 2006, continued to develop both its facility and its mission to expand our understanding of the large river systems in Pennsylvania's Ohio Basin. The 3RERC's three-year work plan was presented to the Commissioners at the April 2008 meeting.

3RERC staff assisted in several surveys on the



The 3 Rivers Ecological Center was established to study and improve the Commission's understanding of the large river systems in Pennsylvania's Ohio Basin.

Allegheny River, including adult and young-of-year smallmouth bass, walleye, and the U.S. Geological Survey Emerging Contaminant Study. Work in the Pittsburgh Pool of the Monongahela River completed benthic fish surveys on this river for Pennsylvania.

Staff conducted benchmarking visits to other river centers, especially ones focused on the Upper Mississippi River, and participated in field work with fisheries biologists from the Upper Mississippi Long-Term Resource Monitoring Program. 3RERC staff worked with the other PFBC river biologists in developing an outline for river management plans and a timeline for implementing the river biologist's program at PFBC.

Also, 3RERC staff were active in the National Fish Habitat Action Plan. 3RERC is closely involved with the candidate Ohio River Basin Fish Habitat Partnership and participated in developing a conservation action plan for the basin. Staff also represented the PFBC at meetings of the Ohio River Fish Management Team, Mississippi Interstate Cooperative Resource Association, and Mississippi River Basin Panel on Aquatic Invasive Species.

# Bureau of Law Enforcement

The Bureau of Law Enforcement directs the enforcement of Pennsylvania fishing and boating laws and regulations and certain water pollution laws. The bureau's annual duties and responsibilities involve Pennsylvania fish and boat code enforcement, public outreach efforts, specialized boating safety efforts, pollution and encroachment investigations, fish stocking, and emergency assistance during weather-related incidents. In addition to executing duties and responsibilities listed above, Waterways Conservation Officers (WCOs) also provide conservation education programs, review permits for mine drainage and stream encroachments, administer the Commission's special activities permits and participate in fish stocking operations. The bureau also operates the Commission's most active volunteer program, utilizing a force of more than 170 Deputy Waterways Conservation Officers.

In 2008, conservation officers issued and the courts adjudicated more than 4,343 summary citations for fishing violations and 3,155 summary citations for boating violations. Lack of personal flotation devices or improper personal flotation devices on boats continued to be the most common boating violations and fishing without a license and littering continued to be the most common fishing violations.

There were 26,214 warnings for fishing and boating violations issued by officers and 104 crimes code summary citations that were directly related to fishing and boating activities. Disorderly conduct, underage drinking, and violations of state park regulations comprised the majority of the crimes code citations issued. There were also 1,738 summary fish and boat violation citations filed with district courts in 2008 that are awaiting final resolution.

Eighty-three arrests were made in 2008 for boating-under-the-influence (BUI). The Southcentral Region led the state in BUI arrests with a total of 27. Specialized BUI enforcement details were conducted throughout the state on waterways with the highest recreational boating use, including Presque Isle Bay, Pittsburgh's three rivers, Lake Wallenpaupack, Raystown Lake, Delaware River, Blue Marsh Lake, and several boating pools on the Susquehanna River. Officers investigated a total of 78 reportable boating accidents.

The recreational boating activity on all of our waterways dropped significantly in 2008 clearly as a result of high fuel prices. Recreational boaters that ventured out on the water generally found a spot on the waterway and spent the better part of the day at anchor.

The Northwest Region conducted specialized enforcement involving the migration of steelhead to the Lake Erie tributaries during the final three months of 2008 using local officers and officers from all over the Commonwealth. Enforcement details focused on popular steelhead fishing locations such as Elk Creek, Walnut Creek, Twelve-Mile Creek, Sixteen-Mile Creek, Twenty-Mile Creek and the nursery waters of Trout Run. The most common violations were snag-fishing, littering, exceeding creel limits, fishing in nursery waters or other prohibited areas, and the use of illegal devices. The entire specialized enforcement operation resulted in the issuance of 312 citations for violations and 811 warnings. Fishing without the Lake Erie permit violations increased over past years. Almost 3,000 patrol hours were dedicated to Fish and Boat Code enforcement efforts involving the Lake Erie steelhead fishery.

Other duties completed by the Bureau of Law Enforcement in 2008 include issuing 2,414 special activities permits for fishing tournaments and regattas and conducting safety evaluations on 28,082 recreational boats. Officers also staffed Commission displays at over 20 outdoor sports shows and expos held throughout the state. WCO's attended and presented informational programs at more than 1,148 public relations events in 2008. Additionally, officers conducted 294 investigations involving pollution or encroachment incidents in or along Commonwealth waters. Officers reviewed and provided comments on 175 mine drainage applications and 341 stream encroachment permit applications. The bureau

expanded its environmental enforcement work regarding gas and oil drilling in the Commonwealth as a direct result of the new Marcellus Shale gas exploration and development.

The Fish and Boat Commission's deputy force declined slightly from the 2007 level. At the end of 2008, the Commission's deputy force contained 170 members. The Bureau of Law Enforcement was unable to convene a basic Deputy Waterways Conservation Officer Training Class in 2008 due to an insufficient number of qualified applicants. As with any volunteer position, recruitment of new deputies remained a challenge.

Because training is an integral part of operating a professional workforce, in 2008 the Bureau of Law Enforcement presented regional, in-service update training to all salaried officers and to all deputies. Training presented to the veteran officers included: Fish and Boat Code and regulation changes and updates, Act 120 legal updates regarding Title 18 (Crimes Code) and Title 75 (Vehicle Code), policy changes, fisheries management issues, and legislative issues. Annual recertification update training at regional levels continued throughout the year at each region to all WCOs and DWCOs regarding CPR, first aid, firearms day fire, and tactical and dim light qualifications. Bureau firearms instructors convened for a training and skills assessment workshop in June.



Waterways Conservation Officers ensure that boaters follow safety requirements when they are on the Commonwealth's lakes and rivers.

# Bureau of Policy, Planning and Communications

The Bureau of Policy, Planning and Communications is responsible for developing and implementing the Commission's strategic plan; advancing a legislative agenda to support Commission priorities; pursuing conservation initiatives; and implementing communications programs. A Division of Communications within the bureau is responsible for marketing, media relations, education and outreach programs, media productions and print shop, and website content and development.

## Strategic Planning

The bureau commenced the agency's strategic planning process which will result in a new comprehensive five-year agency strategic plan. The process is being directed by a strategic-planning steering team consisting of 22 staff from all levels within the Commission. A survey was issued to staff, Commissioners, stakeholders, and partners to gather information for further strategic planning discussions. Also, staff held a number of stakeholder meetings to inform them of the planning process and gather input.

Staff also assisted with the development of the Governor's Outdoor Task Force Report and the Statewide Comprehensive Outdoor Recreation Plan. Both will be used to create and expand inter- and intra-agency partnerships to help connect more people to the outdoors in their schools, communities and in nature, and they will be used to inform the Commission's strategic plan.

## Legislative Initiatives

The Commission's legislative liaison successfully worked with the legislature to pass Senate Bill 880 (Act 26 of 2008), which simplified the process of purchasing a fishing license as a gift. The law enables an individual to easily buy a gift license voucher without having to provide the required information of a license holder, including Social Security number, name and address. The information is now collected from the individual who redeems the voucher for a license. Vouchers can be redeemed for a fishing license at any issuing agent.

Also in 2008, the Governor signed Act 94 (SB 1308) which authorizes the Commission to convey approximately 48 acres of its Ingham Spring property situated in Solebury Township, Bucks County, to the township to be used for recreation, conservation and historical purposes. In addition, the state of Ohio signed into law on June 13, 2008, legislation which increased the horsepower limit on Pymatuning Lake to 20 hp. Pennsylvania had passed similar legislation in 2004, but the increased limit could not take effect until Ohio passed matching legislation.

The year ended on a high note when the U.S. Fish and Wildlife Service (USFWS) established the new Cherry Valley National Wildlife Refuge, encompassing over 20,000 acres in Monroe and Northampton counties. The Commission's interest in the conservation and protection of Cherry Valley runs deep, as it has a multitude of trust species such as the brook trout, American eel, and state-endangered bog turtle that inhabit and thrive in the refuge's diverse habitats. Over the years, the Commission has worked collaboratively with the USFWS field office and the Pennsylvania Chapter of The Nature Conservancy on conservation efforts to protect and enhance the Cherry Valley for the bog turtle. Cherry Valley is Pennsylvania's third National Wildlife Refuge and is the first new refuge established in the Northeast in nearly a decade.

## Conservation Coordinator

The Conservation unit, working with the Commission's Natural Diversity Section and the Division of Habitat Management, identified priority

topics for State Wildlife Grants for the implementation of the State Wildlife Action Plan. The 2008 projects focused extensively on the continuing effort to advance the Commission's understanding of the status of freshwater mussels, among the most globally imperiled species. Projects were also directed at increasing our understanding of two turtle species, the eastern mud turtle and Blanding's turtle.

The Conservation unit also provided support to the Landowner Incentive Program (LIP) by working with partners such as the Western Pennsylvania Conservancy, the Pennsylvania Game Commission and the USFWS to develop permanent conservation easements and to support development of management plans and outreach materials for private landowners. The Conservation unit worked with staff to pursue grant opportunities for bog turtles and additional land protection for mussels in the French Creek watershed. To help advance the Governor's Green Strategies campaign, the Commission developed a policy for the ecological management of its properties.

## Division of Communications

### Marketing

This year marked the first of a three-year multi-media campaign with the Virginia-based Recreational Boating & Fishing Foundation (RBFF) to reduce the number of lapsed anglers, those individuals who purchased a license in one year but not in the following year. The campaign evaluated license system data to develop a direct mail marketing program, including postcards and letters. The campaign also



The Commission partnered with the Recreational Boating & Fishing Foundation on a direct marketing program aimed to reduce the number of lapsed anglers.

used print ads, web banners, and a statewide radio campaign timed to broadcast during the drop times of the postcards. The results were positive, showing that approximately 2,464 customers purchased their fishing license after having received the direct mail campaign pieces. This number represents 11.35 percent of the total number of customers (21,705) who received the two RBFF mailings. The Commission is participating in the second year of the program in 2009.

The Marketing unit this year also launched two multi-media campaigns to increase sales for trout stamps and combo permits. The Spring Trout Campaign used a mail insert that was sent to 1 million recipients; a statewide radio campaign through the Radio PA Network; and a promotional giveaway through Gander Mountain. The results were promising. Fishing license sales at the end of the second quarter were approximately 9 percent higher than 2007 levels and total permit sales were over 6.70 percent ahead of the 2007 levels.

The 2008 Steelhead Fishing Multi-Media Campaign was designed to increase combo permit sales by 4.5 percent. The campaign used print advertisements in Fly Fisherman magazine; direct mail postcards to Fly Fisherman subscribers in New York and PA; and web banners and email blasts. The results were positive, showing that combo stamp sales through November 2008 were up by more than 9 percent.

Preliminary results of the 2009 License Gift Voucher Radio Campaign have been positive. The four-week campaign consisted of three radio ads encouraging listeners to purchase gift vouchers. By the end of the campaign, customers had purchased more than 5,000 vouchers.

The Marketing unit this year continued its annual Safe Boating Awareness Campaign. An insert promoting safe boating practices was included in the annual boat registration renewal mailing to approximately 175,000 boat owners. A four-week statewide radio campaign through the Radio PA Network was used to promote water trails and safe boating practices.

### Education and Outreach

Ten organizations received Sportfishing and Aquatic Resource Education Grants from the PFBC to develop or expand programs that teach fishing and boating skills or educate participants about waterways and the organisms that live within them. A total of



More than 1,000 people participated in dozens of Family Fishing Programs, which provide a family-friendly opportunity to learn basic fishing skills.

18 applications were received from sportsman's clubs, school districts, community groups and county agencies, with funding requests exceeding \$90,000. A formal evaluation of the programs funded through the grants was conducted in 2008. Results from that research show that participants increased their skills, knowledge and interest in fishing and boating.

Trout in the Classroom (TIC) expanded significantly in 2008. In fall 2008, 94 schools registered with the Commission and received eyed eggs from Benner Spring State Fish Hatchery. In 2007, approximately 45 schools participated in the program. Also in 2008, 21 additional schools received start-up grants to launch TIC programs.

PA Trout Unlimited (PATU) received a 2008-09 Sportfishing and Aquatic Resource Education Grant of \$10,000 per year for the next three years to implement Trout in the Classroom statewide. Previously, PATU received a \$5,000 grant in 2006-07 and 2007-08. Grant funds are matched with local dollars (from TU chapters, conservation organizations, and schools) to purchase equipment. In January, the PFBC hired a regional education specialist as the state-wide coordinator for TIC to meet the growing needs of the program. In addition, PATU hired an AmeriCorps volunteer to assist with TIC and other PATU programs.

More than 54 Family Fishing Programs (FFP) took place in 2008, with more than 1,100 people participating. Family Fishing Programs provide a family-friendly opportunity to learn a new skill, or improve existing skills as well as a chance to fish.

In addition, approximately 500 teachers participated in 12 resource education training workshops led by bureau staff in 2008. The majority of these workshops were offered for graduate-level credit or for professional development hours. More than 1,000 classrooms received the Pennsylvania League of Angling Youth newsletter.

The Commission certified more than 13,800 students who participated in boating courses approved by the National Association of State Boating Law Administrators (NASBLA). The number of boating safety education certificates being issued is stable with only minor fluctuations over the last five years. Commission staff and volunteer instructors taught 217 PFBC Basic Boating classes and issued boating safety education certificates to 2,073 students. Commission volunteers, staff and physical education teachers taught 113 Boating and Water Safety Awareness Courses, reaching some 9,000 youth.

In January 2008, the Commission amended regulations relating to criteria for courses of instruction in boating safety education. Criteria for internet, video and classroom courses were published in the Pennsylvania Bulletin in April 2008. The criteria for internet courses requires that the course be actively managed, where students must spend a specific amount of time on each content area and demonstrate proficiency before moving on. Effective July 1, 2008, the Commission had entered into agreement with five providers. More than 9,900 people obtained their Boating Safety Education Certificate from either internet courses or the video correspondence courses.



Commission volunteers, staff and physical education teachers taught 113 Boating and Water Safety Awareness Courses, reaching approximately 9,000 youth.

## Phone Directory

### Service Numbers

<b>Fishing Licenses</b>	<b>717-705-7930</b>
<b>Boat Registration and Titling</b>	<b>866-262-8734</b> <b>866-BoatReg</b> <b>717-705-7940</b>
<b>Boating Safety Education Courses</b>	<b>888-723-4741</b> <b>888-PaFish1</b>

<b>Main - Harrisburg</b>	<b>717-705-7800</b>
<b>Executive Office</b>	
Executive Director	717-705-7801
Legal	717-705-7810

<b>Bureau of Fisheries</b>	
<b>Pleasant Gap</b>	<b>814-359-5100</b>
Environmental Services	814-359-5147
Fisheries Management	814-359-5110
Fish Production	814-359-5222
Habitat Management	814-359-5124
Production Services	814-353-2220
Three Rivers Ecological Research Center (Pittsburgh)	412-381-1297

<b>Bureau of Law Enforcement</b>	<b>717-705-7861</b>
Northeast Region	570-477-5717
Southeast Region	717-626-0228
Northcentral Region	814-359-5250
Southcentral Region	717-486-7087
Northwest Region	814-337-0444
Southwest Region	814-445-8974

<b>Bureau of Policy, Planning &amp; Communications</b>	<b>717-705-7805</b>
Education & Outreach	717-705-7848
Legislative Liaison	717-705-7816
Media Calls	717-705-7805
Publications	717-705-7833

<b>Office of Administration, Boating &amp; Engineering</b>	
Deputy Director	717-705-7900

<b>Bureau of Administration</b>	<b>717-705-7900</b>
Human Resources	717-705-7820
Information Systems	717-705-7904

<b>Bureau of Boating &amp; Access</b>	<b>717-705-7834</b>
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<b>Bureau of Engineering &amp; Property Services</b>	
<b>Pleasant Gap</b>	<b>814-359-5152</b>
Construction and Maintenance	814-359-5128

### Addresses

PFBC Headquarters  
Harrisburg  
1601 Elmerton Avenue  
PO Box 67000  
Harrisburg, PA 17106-7000  
717-705-7800

Pleasant Gap Offices  
450 Robinson Lane  
Bellefonte, PA 16823-9620

H. R. Stackhouse School  
1150 Spring Creek Road  
Bellefonte, PA 16823  
814-355-4159

Three Rivers Ecological Research Center  
16 Terminal Way  
Pittsburgh, PA 15219-1209  
412-381-1297

North East Marina  
11950 East Lake Road  
North East, PA 16428  
814-725-8244  
[The North East Marina is owned by the PFBC and operated by North East Marine Services, Inc.]



## Mission Statement

*To protect, conserve and enhance the  
Commonwealth's aquatic resources and provide  
fishing and boating opportunities*

PA Fish & Boat Commission  
1601 Elmerton Avenue  
Harrisburg, PA 17110-9299