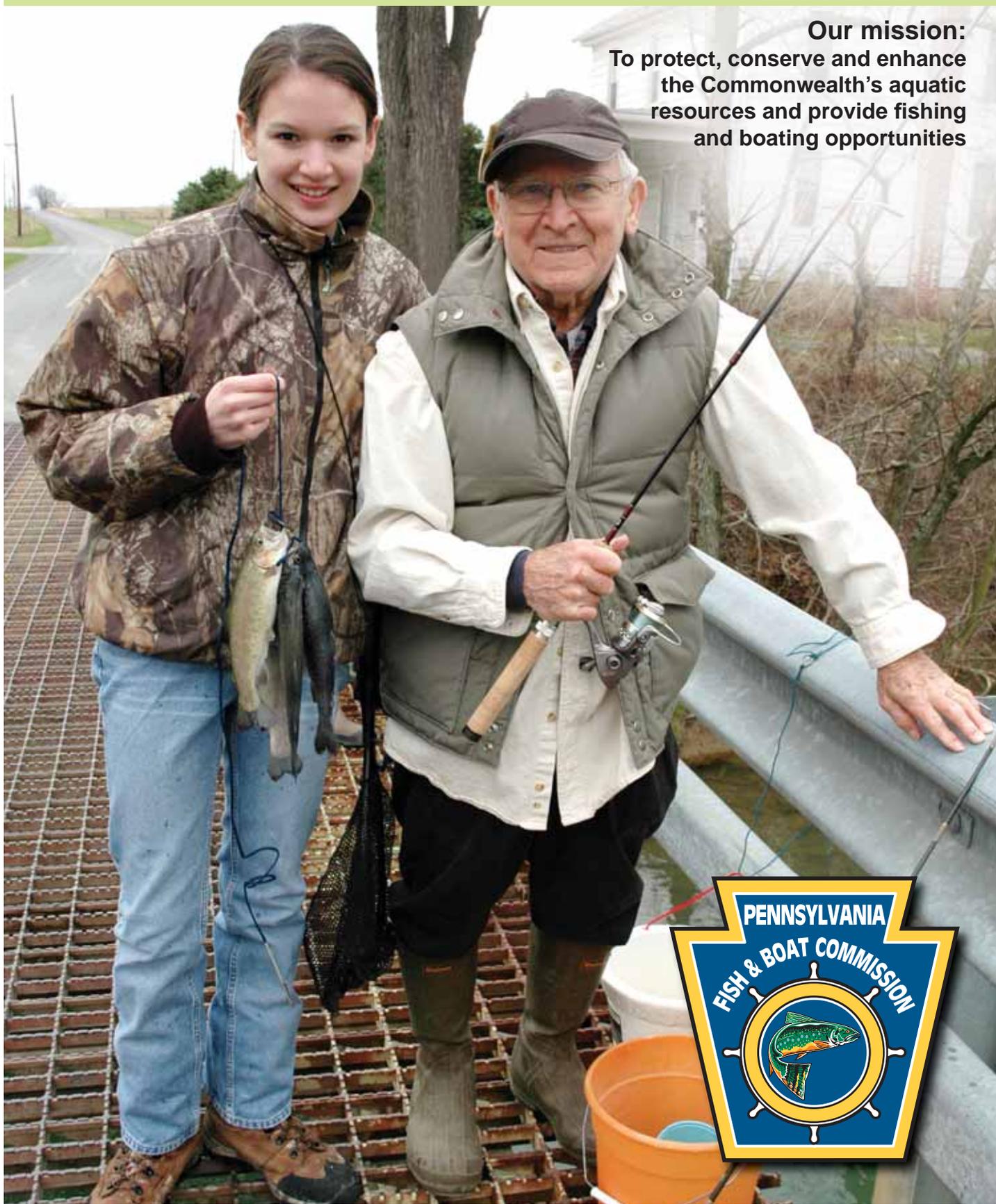


2007 ANNUAL REPORT

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



PA Fish & Boat Commissioners

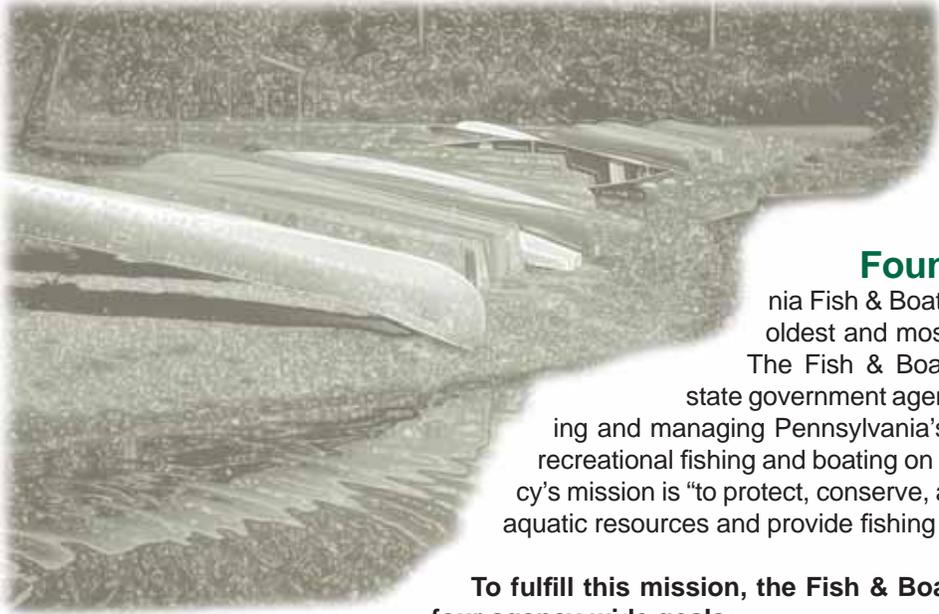


From left—Samuel Concilla, William Worobec, Frederick Osifat (deceased), Robert Bachman, Thomas Shetterly, William Sabatose, Donald Anderson, Leonard Lichvar, Richard Czop, Steven Ketterer



Douglas J. Austen, Ph.D.
Executive Director





Introduction and Background

Founded in 1866, the Pennsylvania Fish & Boat Commission is one of the nation's oldest and most effective conservation agencies. The Fish & Boat Commission is an independent state government agency with responsibilities for protecting and managing Pennsylvania's fishery 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."

To fulfill this mission, the Fish & Boat Commission has established four agency-wide goals:

- **To protect, conserve and enhance all aquatic resources.**
- **To provide for the protection of aquatic resource users.**
- **To address the expectations of anglers and boaters.**
- **To advocate the wise, safe use of Pennsylvania's aquatic resources.**

Statutory authority to address these goals appears 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.

By addressing these goals, the agency's activities help meet the recreational needs of the nearly 2 million people who fish and boat in Pennsylvania each year. In 2007, the Fish & Boat Commission sold more than 843,357 fishing licenses and 593,547 trout/salmon and Lake Erie fishing permits.¹ Consequently, fishing has a tremendous positive affect on Pennsylvania's economy, generating an overall estimated annual economic benefit of over \$1.65 billion.

Pennsylvania's diverse water resources include Lake Erie, small impoundments, large reservoirs, rivers, and streams. These waters provide many recreational opportunities for the more than 2.5 million people who boat in Pennsylvania each year. During 2007, 341,547 boats were registered in Pennsylvania, and the Fish & Boat Commission estimates that this boating activity has a total impact of \$1.7 billion per year for the Commonwealth's economy.

Oversight of the Fish & Boat Commission is provided by the 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 Commission operations are overseen by the Executive Director. Douglas J. Austen, Ph.D., is the Fish & Boat Commission's ninth Executive Director. He also serves as the Commission's chief executive officer and chief waterways conservation officer. The Executive Director oversees staff that includes a complement of 432 full-time employees and about 150 wage (temporary and seasonal) employees who are hired during periods of peak operation.

The Fish & Boat Commission executive-level staff annually develops a plan of work, outlining key tasks that need to be accomplished throughout the year. This plan of work is then carried out by the Executive Office and the specialized bureaus.

The information presented in this document is a review of key tasks, accomplishments, and organizational unit reports that support the Fish & Boat Commission's mission and goals.

¹License and trout stamp sales figures for 2007 cannot be finalized until all issuing agents have submitted reports.



Beginning in 2007, the Commission began offering all categories of the 2008 Pennsylvania fishing licenses and permits through the Commission's new Pennsylvania Automated License Service (PALS).



PALS allows for on-site printing of licenses, stamps, and permits on durable, waterproof licenses, eliminating the need for secured storage of customer social security numbers and other private information.

Pennsylvania Automated License Service (PALS)

Historically, the Fish & Boat Commission has relied on some 1,000 authorized license issuing agents throughout the Commonwealth to sell its paper-based licenses and permits. This antiquated system did not allow the Commission an effective way to communicate with, and understand the needs of, the anglers who support Commission programs through the purchase of these licenses and permits.

Beginning in 2007, the Commission began offering all categories of the 2008 Pennsylvania fishing licenses and permits through the Commission's new Pennsylvania Automated License Service, also known as PALS, at select issuing agents. The PALS system was phased in for complete integration with all current issuing agents on December 1, 2007. This new electronic licensing system streamlines and simplifies the license-buying process for anglers and agents. It also provides the Commission with better tools to understand and directly communicate with customers. PALS-issued licenses are now available in every county and are sold through the Commission's network of roughly 850 authorized PALS license issuing agents.

With PALS, a small transaction fee (PA House Bill 1109) of \$0.70 for each license and permit pays for the development and maintenance of all point-of-sale applications; specialized point-of-sale equipment; a centralized real-time authorization process; database administration and management; license system administration features; reporting; electronic funds transfers; 24-hour toll-free customer support for license buyers, issuing agents and Commission personnel; and the computer and communications networks needed to operate the system. Total annual costs to the Commission for the PALS system are estimated to be about \$1 million for each of the next nine fiscal years. This estimate assumes that the PFBC will annually sell an estimated 850,000 fishing licenses and 600,000 stamps/permits through the system, and that it will incur a transaction cost of \$0.70 for each of the estimated 1,420,000 transactions.

Like any new automation project, there have been some obstacles with the development and implementation of this system. However, the Commission and its issuing agents are satisfied overall with the PALS system and many of the new and improved features and services it now provides. The PALS system offers many important conveniences and necessities that the outdated paper-based system was not able to offer, including the following:

- Makes available electronic sales reports and electronic accounting system, which eliminates labor-intensive monthly reporting requirements imposed on issuing agents and provides simplified compliance and auditing.
- Improves customer service through efficiency and streamlined business processes by simplifying the license-buying experience, eliminating inventoried pre-printed licenses, stamps and permits, and providing the capability for issuing agents to upgrade a current license with additional privileges or issue a replacement license regardless of where the original license was sold.
- Provides a secure system with provisions to protect personal information. For example, social security numbers need to be provided only once and then a sportsman's ID can be used thereafter.
- Allows for on-site printing of licenses, stamps, and permits on durable, waterproof licenses, eliminating the need for secured storage of customer social security numbers and other private information at issuing agent locations.

- Retains angler (license buyer) demographic information while providing better, more efficient licensing services to the angler.
- Provides timely and accurate license sales and customer data for resource management, enforcement and accounting purposes.
- Ensures a more timely and accurate license sales revenue collection process.
- Offers a conduit for communicating directly with license-buying anglers and immediately with issuing agents.
- Allows the Commission to concentrate resources on fisheries management and the enforcement of fishing regulations.
- Helps the Commission with establishing priorities for securing and/or acquiring access to address local needs for angling and boating (that is, provide locations near the users).
- Presents a means for cost-effective human dimensions survey work.



Hatchery upgrades

In 2005, the Fish & Boat Commission, along with other Commonwealth agencies, hailed the enactment of Growing Greener II, a voter-approved plan that invests \$625 million in environmental programs, including \$27.5 million for improvement of Commission facilities. The agency's Commissioners have approved the use of Growing Greener II funds for critical infrastructure upgrades at Commonwealth-owned fish hatcheries and for dams managed by the Commission. A brief synopsis of these improvements and their status is provided on the next page (see Figure 1). Among these activities, the Commission is improving the quality of water leaving its hatcheries and entering receiving streams by installing new effluent filtration systems at both Tylersville and Pleasant Gap State Fish Hatcheries (SFH). The process involves the hatchery discharge water traveling through a series of fine-mesh microscreen disk filters that removes a large percentage of the solids. These filters have contributed to a 60 percent to 70 percent decrease in the average annual total suspended solids in the effluent (see figures 2 and 3). Wastewater treatment systems at Bellefonte, Huntsdale, Benner Spring and Reynoldsdale SFHs will also be renovated using the microscreen systems. Growing Greener II funds are being used to implement these projects.



Linesville State Fish Hatchery



Tylersville State Fish Hatchery Effluent Filtration Project



Tylersville State Fish Hatchery

Figure 1. State Fish Hatchery Upgrades

State Fish Hatchery		Status
Linesville	(Crawford Co.)	Design influent and effluent treatment upgrades - Pending. Install domestic sewage pumps - Completed.
Corry	(Erie Co.)	Design influent and effluent treatment upgrades - Pending. Install pipeline from Foster Well to hatchery - In progress. Well No. 2 - Pump testing was completed and a pump is selected for this installation. Install pipeline from upper to lower raceways - Completed. Repairs to Foster Spring pump - Completed. Change over to new electric service - Completed.
Fairview		Upgrade alarm system - In progress. Replace hatchery roof - Completed. Storage building - In progress.
Union City		Design influent and effluent treatment upgrades - Pending.
Tionesta	(Forest Co.)	Upgrade electrical and alarm systems, flow meter and raceways - In progress. Repair raceways - Completed Well No. 1 emergency repairs - Completed. Domestic service pump replacement - Completed. Replace Tubb's Run Pump - In progress. New generator building - In progress.
Bellefonte	(Centre Co.)	Design influent and effluent treatment upgrades - In progress.
Benner Spring		Design influent and effluent treatment upgrades - In progress.
Pleasant Gap		Microscreens - In progress.
Tylersville		Microscreens - In progress. Oxygen system balancing - Installed a 20hp variable-frequency drive on the motor. Feed storage bin - In progress. Design new administration building - In progress.
Oswayo	(Potter Co.)	Alarm system upgrades - Completed. Well No. 8 - New casing - Completed.
Reynoldsdale	(Bedford Co.)	Design influent and effluent treatment upgrades - In progress.
Huntsdale	(Cumberland Co.)	Design influent and effluent treatment upgrades - In progress. Replace/Repair warm water spring pumps and controls - In progress. Install a new transformer - Completed. New Electrical Service - In progress.
Big Spring		Closure Plan - In progress.
Pleasant Mount	(Wayne Co.)	Pond No. 12 embankment stabilization and field survey work - Completed. Design of long-term improvements - In progress. Water line - Completed.

Figure 2. Monthly Average TSS levels in the Tylersville SFH Effluent (2002-2007).

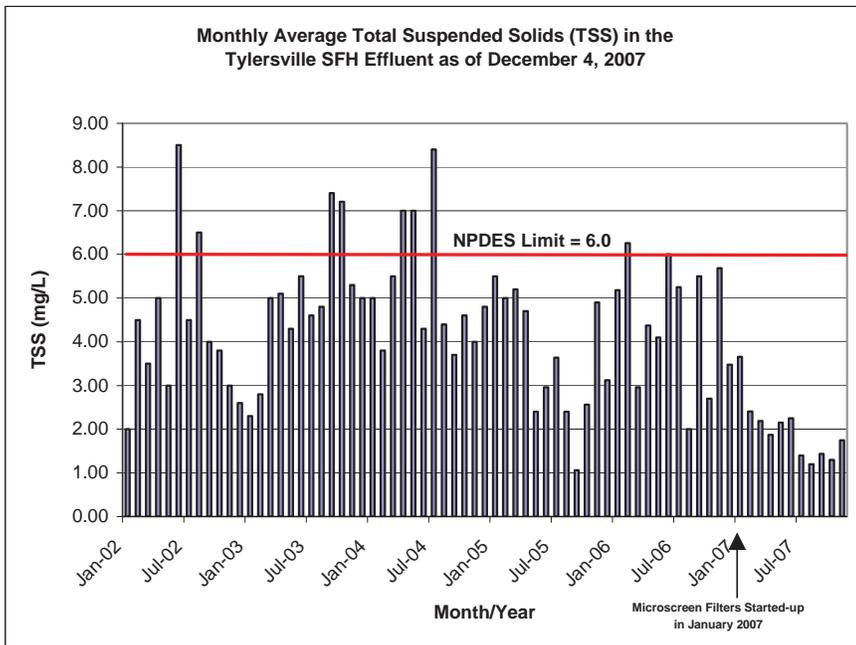
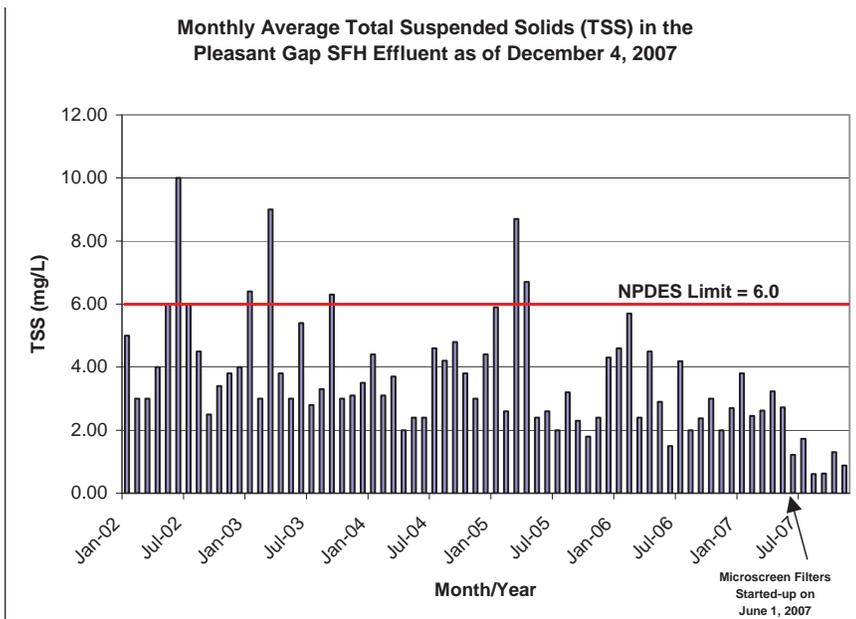
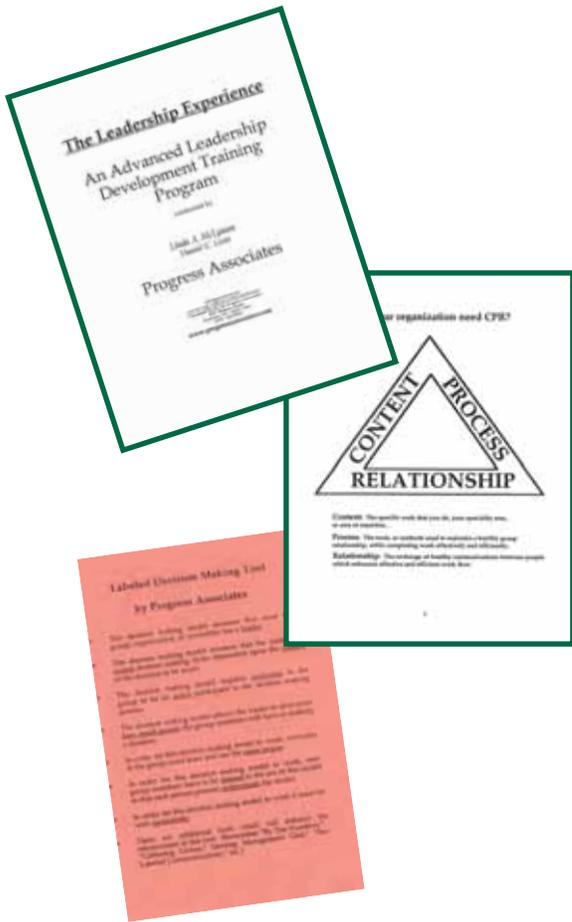


Figure 3. Monthly Average TSS levels in the Pleasant Gap SFH Effluent (2002-2007).



Pleasant Gap State Fish Hatchery





Natural Resources Leadership Development Program

The Fish & Boat Commission recognizes that fulfilling its mission depends on maintaining and enhancing the skills of staff. Developing and enhancing leadership skills is as important as hatchery infrastructure or dam repair. For the second year, the PFBC has contracted with Worldscope, Inc. (doing business as Progress Associates), a training consultant firm from Syracuse, NY to implement a Natural Resources Emerging Leaders Development Program (NRELDP) focusing on six universal leadership development traits: decision-making, critical thinking, interpersonal skills, communications, motivation and emotional maturity.

The Fish & Boat Commission strives to create an environment in which employees understand various leadership traits, recognize leadership opportunities, and are motivated to apply leadership skills. To affect this cultural change, Progress Associates presented its leadership program through highly interactive sessions, reading and research exercises delivered over several months. In addition to last year's course for the Commission, Progress Associates has successfully presented several similar NRELDPs through Michigan State University and many other sessions with federal and state natural resources agencies.

The NRELDP presentation included two five-day sessions of interactive instruction at the Fish & Boat Commission's Harrisburg headquarters. The 2006-07 session of 12 Commission staff graduated in early 2007, while a new group of 17 began the program in the fall of 2007 and will complete the training in early 2008.

To diversify the learning experience further, several natural resource partners joined the Commission in this demanding but rewarding experience. As it did in the previous year, the PA Game Commission is participating in the sessions.

Trout Management Plan

Since 1986, the Pennsylvania Fish & Boat Commission has developed three statewide plans for trout management. These plans have been based on the Policy for the Conservation and Management of Fishery Resources that was adopted by the Commission on January 5, 1981. This policy statement formally declared a shift in the philosophy and mission of the agency from recreation first to Resource First. It is memorialized in Section 57.1 of the Commission's regulations, which states,

"It will be the policy of the Commission to protect, conserve, and enhance the quality and diversity of the fishery resources of this Commonwealth including reptiles and amphibians and to provide continued and varied angling opportunity through scientific inventory, classification, and management of that resource. To achieve the objective of this policy the Commission will:

1. Establish and maintain a current database on the quality and quantity of the aquatic and fishery resources of the Commonwealth for effective environmental protection and resource conservation.
2. Develop statewide management programs to ensure consistent treatment of all resources within any given class. Similar waters will be managed to meet the same objectives under the same philosophy on a statewide basis.
3. Manage self-sustaining fish populations as a renewable natural resource to conserve that resource and the angling it provides.
4. Use hatchery fish to provide recreation in those waters where fish populations are inadequate to sustain the fishery at desired levels.



Brook trout

5. Develop appropriate regulations and operational strategies to replace policies that are not compatible with management through resource classification.”

As support for this policy and philosophy, Commission staff since 1997 has conducted angler use and harvest evaluations on trout-stocked lakes; convened the 2002 Trout Summit to gather angler input on trout management in Pennsylvania; completed a statewide angler use, harvest and economic assessment on wild trout streams (2004); completed a statewide angler use, harvest and economic assessment on stocked trout streams (2005); completed preseason stocked trout residency assessments (2006, 2007); and completed opening weekend angler use and cost benefit assessments on stocked trout streams (2006, 2007).

During this same period, operational changes have occurred in trout management and include a reduction in the statewide creel limit from eight to five trout per day beginning with the 2000 season, a reduction in hatchery production of adult trout in 2002 due to hatchery water quality and quantity concerns, the revision of special regulations programs in 2005 and 2006, the addition of two regional opening days of trout season in 2007, and a revision in adult trout production that resulted in fewer but larger adult trout stocked in 2007.

These activities and recently collected data have necessitated the updating of a new statewide management plan. As expected, there are evolving challenges to trout management, and as the costliest program to operate in the Commission, new, innovative ideas are needed to keep pace with these challenges and minimize expenses. In 2007, the Commission took action to address this need by initiating the development of a new statewide trout management plan. This began with a facilitated session at the September Commission meeting, during which the Commissioners were asked to provide a list of issues that staff should address under four topic areas involving trout management. These include: Trout fishery management, trout production, habitat management, and environmental protection. The Trout Work Group, which convened in 2007 and consists of Commission staff, two Commissioners, and 19 members of the general public, is assisting in developing the plan. The first meeting of the Trout Work Group was held on November 17, 2007. During this meeting, the participants were asked to provide input on issues in the plan that should be addressed by staff, including problems and opportunities with the current program. The resulting actions from this input include a review of the agency’s trout management policy, a statewide telephone survey, additional meetings of the Trout Work Group, presentations by staff at Commission meetings, and a series of public meetings with the goal of finalizing the plan by October 2008.



Brown trout



Falling Spring Branch, Franklin County



2007 PFBC reorganization



In 2007, staff took steps to improve communications, enhance coordination of priorities, and strengthen common goals by increasing organizational efficiency. These changes are designed to improve efficiency and effectiveness in the Commission by realigning operational elements to enhance communication and promote collaboration among allied units under the direction of a common manager. These changes have resulted in the following:

(1) Expand the role of the Policy, Planning and Operations Section to include the newly proposed Division of Communications and reorganize the section into the Bureau of Policy, Planning and Communications.

(2) Create the Division of Communications to provide direction, leadership and a common voice among the Commission's existing communications functions and educational elements. This division will be comprised of the Press Office, Media Productions Section, Promotions and Special Events (Marketing), Aquatic Resource Programs and Education Section, and Program Analysis and Evaluation.

(3) Create the Office of Administration, Boating and Engineering, to consist of the renamed Bureau of Engineering and Property Services, Bureau of Administration and the newly created Bureau of Boating and Access. This Office is proposed to facilitate communications and administrative support and to align similar Commission functions. In this work unit, support functions from both existing bureaus are realigned functionally within one office. Included in this realignment, the Human Resources Office is to be relocated from the Executive Office into the Bureau of Administration. This placement mirrors the Commonwealth's traditional alignment for this function. Also, within the Bureau of Administration, the establishment of the Financial Management Section will consolidate grants management, budget and procurement under a single fiscal officer.

(4) Create the Bureau of Boating and Access. With the recent retirement of the director of the Bureau of Boating & Education, an opportunity presents itself to separate functions that previously had been cobbled together and forced to fit. By realigning these other elements with similar Commission functions, the boating function is further unveiled. In this organization, in addition to the traditional boating roles, the Bureau of Boating and Access will spearhead one of the single most important issues for sportsmen—access. The newly created Fishing and Boating Access Program seeks to expand and create opportunities for anglers and boaters through long-term public access.

(5) Formally establish the Three Rivers Ecological Research Center.



Three Rivers, Pittsburgh



F.J. Sayers Lake, Bald Eagle State Park, Centre County

Norfolk Southern settlement

On November 15, 2007, the Pennsylvania Fish & Boat Commission announced that it reached a settlement with Norfolk Southern Corporation and Norfolk Southern Railway Company regarding the train derailment that occurred near Gardeau, in Norwich Township, McKean County, on June 30, 2006. The derailment spilled sodium hydroxide into the environment, resulting in damage to the natural resources of Big Fill Run, Sinnemahoning-Portage Creek and the Driftwood Branch of Sinnemahoning Creek.

As part of the settlement, Norfolk Southern has agreed to pay the Commonwealth of Pennsylvania \$7.35 million as restitution for the natural resource damages that occurred. The Commission will receive one-half of that amount, or \$3,675,000, and will use the funds (less its investigative and response costs) for purposes of developing and implementing projects that benefit recreational fishing and boating and the aquatic resources of Cameron, McKean, Elk and Potter counties. Initially the Commission will focus on projects in the Sinnemahoning Creek Watershed upstream of the confluence with the First Fork of Sinnemahoning Creek. The projects will be implemented using Commission staff, contracted services, or grants to Commission partners. Projects to be considered include, but are not limited to, acid mine drainage abatement; habitat protection, enhancement and restoration; acquisition of properties (in fee or easements) for public fishing and access and improvements to existing access areas; and aquatic community inventories. The Commission will deposit its share of the settlement into an interest-bearing, restricted revenue account in the Fish Fund. This ensures that the money will be used only for its specified purposes.

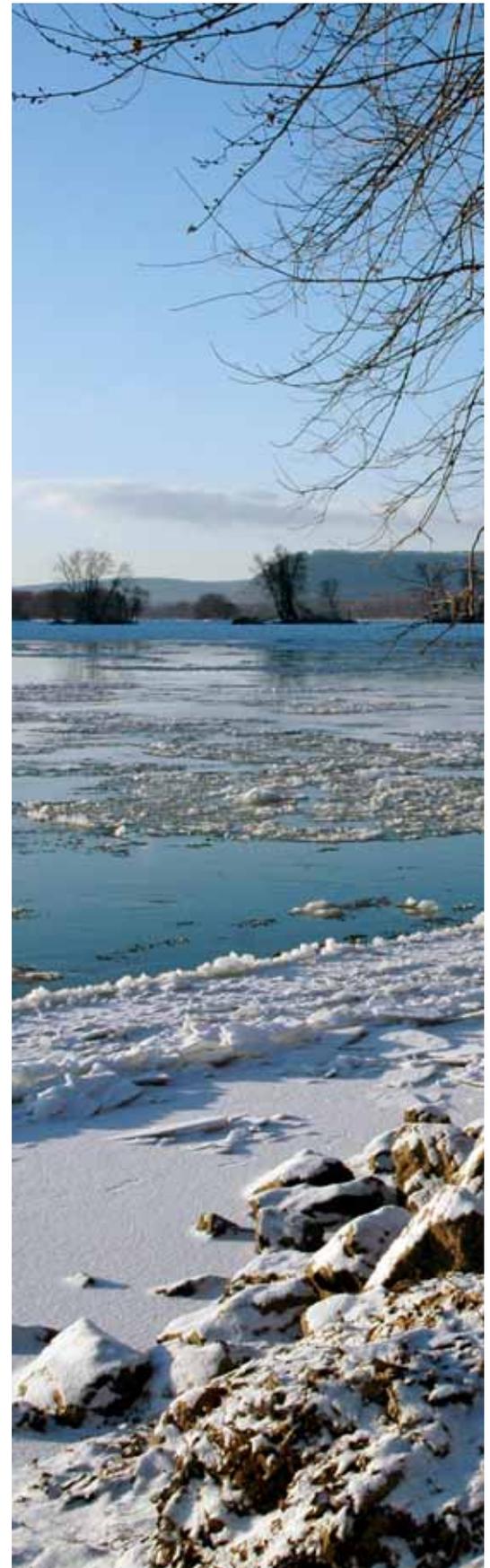
Before funding projects in the watershed affected by the derailment, the Commission will convene a stakeholder group to seek input regarding the best ways to mitigate affects stemming from the sodium hydroxide spill in the Sinnemahoning-Portage Creek and Driftwood Branch watersheds. The first stakeholders' meeting will take place in early 2008. The role of the stakeholders group will be to give advice and make recommendations to the Commission regarding projects that meet the objectives described above.

Organizational Unit Report

Executive Office

The Executive Office administers the operations and activities of the entire Fish & Boat Commission with the Executive Director serving as the Commission's chief waterways conservation officer. The Executive Director is also 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. Before the mid-fall reorganization, the Executive Director was supported by staff from the Office of Chief Counsel; Legislative Liaison; Press Secretary; Director of Policy, Planning & Operations; and Human Resources Office. The Executive Director is now supported by the Bureau Director of Policy, Planning and Communications; the Deputy Director of the Office of Administration, Boating and Engineering; the Bureau Director of Fisheries; the Bureau Director of Law Enforcement; the Office of Chief Counsel; and the Executive Secretary.

In concert with the revised mission statement, the Fish & Boat Commission has nearly completed the establishment of the Division of Habitat Management and Fish Passage. Located in the Bureau of Fisheries, the emphasis of this Division is to provide guidance and oversight to fish habitat restoration and management activities. This work will provide long-



Susquehanna River



French Creek Watershed



Little Juniata River, Huntingdon County



term benefits to the Commonwealth's aquatic resources by enhancing and protecting habitats that support aquatic life. This coordinated, statewide approach will provide critical technical support to our partners, including other state and federal agencies, non-governmental organizations, fishing clubs and other groups to help achieve these habitat improvements. As highlighted in the Bureau of Fisheries section of this report, this Division has already documented several achievements.

In 2007, Policy and Planning staff continued to work in the Commission and with Commission partners to coordinate projects and programs. Among these efforts include the Landowner Incentive Program (LIP), which successfully completed its first permanent conservation easement in the French Creek Watershed. Working with the Pennsylvania Game Commission and the Western Pennsylvania Conservancy, this U.S. Fish & Wildlife Service-funded program is anticipated to complete additional easement agreements in the near future. These easements are designed to provide protection to sensitive habitats and species in this high-quality watershed. The Pennsylvania Wildlife Action Plan (WAP) is a key guidance document for protection of species and habitats in the Commonwealth. As required by Congress, completion of many action items in the WAP are being addressed through State Wildlife Grant projects and by working with our governmental and non-governmental partners to access other funding sources. Other federal programs, as offered through the Farm Bill, represent important funding sources for Fish & Boat Commission activities such as dam removal. Staff continued to work with the USDA and other partners to help maintain these funds.

During 2007, the Office of Chief Counsel continued to provide legal advice and guidance to Commissioners, the Executive Director and agency staff. The Office also represented the Commission in litigation before Pennsylvania's courts and administrative tribunals, such as the Environmental Hearing Board. The Commission, along with the Department of Environmental Protection and the Department of Conservation and Natural Resources, continued its efforts to preserve the public's rights in the Little Juniata River. This litigation, which commenced in 2003, culminated with a decision by Huntingdon County Court of Common Pleas Judge Stewart Kurtz on June 13, 2007, in which he denied Donny Beaver's and the other defendants' motion for post-trial relief that was filed after Judge Kurtz's original decision in January 2007. In addition to upholding his original findings that the Little Juniata River is navigable and therefore public, Judge Kurtz permanently enjoined the defendants "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 defendants appealed the decision to the Commonwealth Court, but the appeal was withdrawn in February 2008.

The Office of Chief Counsel also assisted in drafting key legislation and regulations regarding several issues of importance to the Commission. The Office worked with staff to draft legislation pertaining to the youth fishing license, implementation of point of sale (the Pennsylvania Automated Licensing Service, or PALS) and boating under the influence. On the regulatory front, the Office drafted or assisted with the drafting of updated regulations pertaining to scientific collectors' permits; seasons, sizes and creel limits for black bass, muskellunge, muskellunge hybrids and other species on the Delaware River and River Estuary; and seasons, sizes and creel

limits for various fish species and mussels on the Conowingo Reservoir. The Office also drafted or assisted with the drafting of new regulations for reporting by dealers of American eels, the importation of tautog and the transportation of viral hemorrhagic septicemia-susceptible fish out of the Lake Erie Watershed.

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 countless real estate documents, contracts for the procurement of goods and services, interagency agreements, memoranda of understanding and grant agreements. The Office also provided legal support for the development of the Pennsylvania Automated Licensing Service (PALS), including ongoing review of the vendor's performance under the terms of the Commission's agreement and the negotiation of an amendment to that agreement.

Important legislation for the Fish & Boat Commission included HB-778 (boating under the influence), HB-1109 (point-of-sale pass-through fee, prohibition on the use of one-day licenses, no fees for replacement of stamps/permits, agent operational procedures), SB-880 (license/permit vouchers), and HB-1436 (expansion of youth programs/youth fishing license). In addition to these important legislative actions, considerable effort was expended meeting the new members (50+) and working with legislators in new leadership positions. The 2007-2008 legislative sessions began on January 2, 2007, and will end on November 30, 2008.

As a result of the Commission's legislative efforts, Act 27 of 2007 (HB-778) modified the boating-under-the-influence (BUI) statute so that the language for BUI is very similar to the standards established for driving under the influence. HB-1109 received a concurrence vote in the House of Representatives and signature by the Governor on February 4, 2008. SB-880 needs three considerations and a final vote in the House of Representatives and signature by the Governor. Another legislative highlight of 2007, many agency staff participated in a public hearing held in Philadelphia on September 27, 2007, by the House Game and Fisheries Committee regarding HB-1436.



American eel



Smallmouth bass



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Pennsylvania's Great Lakes Region.

With assistance from the Marketing Section, the Fish & Boat Commission has continued to reverse the trends of declining license sales over the past two years. In 2007, license sales increased by about 2.1 percent from the previous year's levels. These increases have been fostered by the Marketing Section's emphasis on Internet license sales, web information resources, tourism relationships, trout and combo permit sales, brand awareness, and streamlining processes and procedures in communicating with the public.

Specific projects completed by the Marketing Section, with assistance from a great diversity of staff responsible for the agency's web site, law enforcement, education, educational media, and fisheries, were designed to address the following activities:

- the first standardized manual for sports show management and procedures.
- a multi-media advertising and direct mail campaign promoting the two opening days of trout and bigger stocked fish.
- a multi-media campaign promoting Pennsylvania water trails.
- a multi-media campaign to build safe boating awareness.
- a multi-media marketing and promotional campaign to build awareness for steelhead fishing opportunities in Erie and increase combo permit sales.
- development of a proposal to engage multiple agency marketing partnerships, event planning for the Director's Tour, and several tourism relations initiatives.
- the development of several projects focused on communicating more consistent and meaningful messages to the public.

Paddle PA's Water Trails

Long before highways, Pennsylvania's waterways provided a means of transportation. Get a glimpse of Pennsylvania history as you travel these same routes on a Pennsylvania Water Trail. From ripples to rapids, paddling Pennsylvania's liquid highways is an awesome adventure.

Visit www.fishandboat.com/watertrails to learn more about Pennsylvania Water Trails and to download free trail guides.

Pennsylvania Fish & Boat Commission

> ready > set > paddle www.fishandboat.com/watertrails

**EVER GO
12 ROUNDS
WITH A FISH?**

Here's your chance.
Win a steelhead fishing trip to Erie.

CLICK HERE TO ENTER

Fish too big for tall tales.

More Days, Bigger Fish. A Super-Sized Season in Pennsylvania!

Trout season in Pennsylvania is now so big, we need two opening days just to kick it off. As if that's not enough, our waters are so full of trophies that even the stocked fish will be 30% bigger. So on March 31st head to Southeastern Pennsylvania for the first Opening Day of trout season. Then hit the rest of Pennsylvania on April 14th to get that first big catch all over again.

WIN A FISHING TRIP! Act by March 30th.
Enter to win a two-night fishing trip for two courtesy of Pheasant Field Bed & Breakfast, Cold Spring Anglers, and Boiling Springs Tavern. For details go to fishandboat.com/bigtrout.

Join us for **TWO Opening Days!**

Pennsylvania Fish & Boat Commission

Find out more at www.fishandboat.com

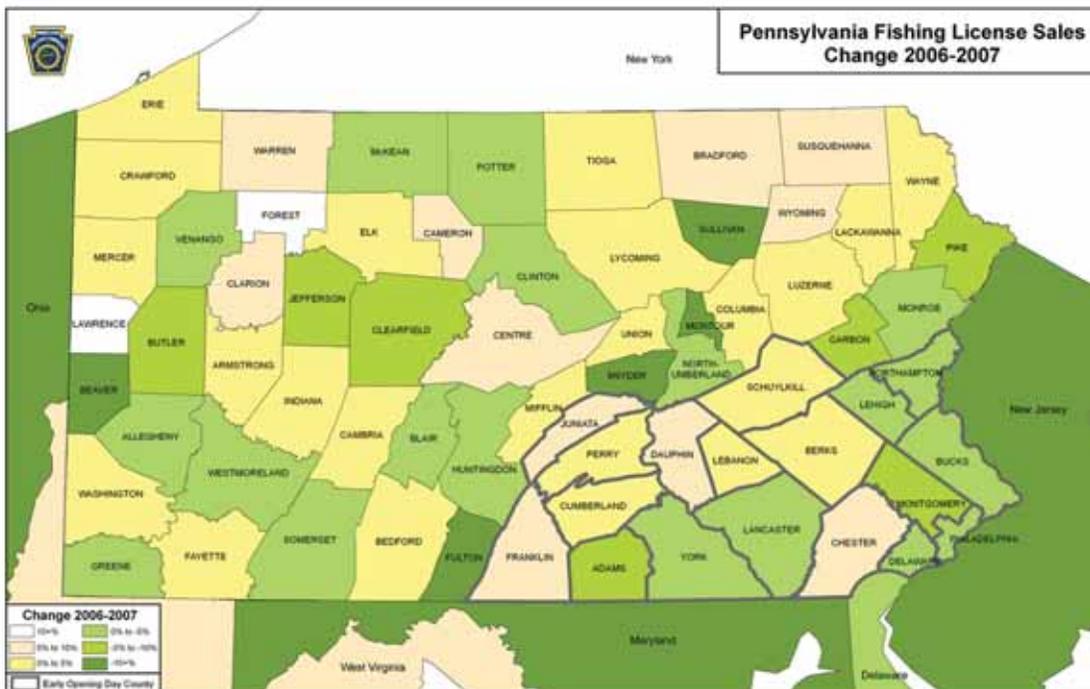
Bureau of Administration

The Bureau of Administration, now under the Deputate of Administration, Boating, and Engineering, provides administrative support services for all Fish & Boat Commission programs and operations. This work includes 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; and forms and records retention.

Statewide license sales in 2007 increased by about 2.1 percent from 2006 levels, but changes in sales between years varied among counties (see Figure 4). License and trout stamp sales figures for 2007 will not be finalized until the spring of 2008 when all outstanding license issuing agents have submitted final reports. Nevertheless, sales figures at the end of November 2007 totaled 843,357 licenses (see Figure 5). That figure compares to 825,662 licenses for the same period in 2006. Similarly, combined trout/salmon stamps and the Lake Erie permits showed a net increase of a little less than one percent. At this point, it appears that sales in every license category increased in 2007. As a result, revenue from license and stamp sales increased \$906,702, totaling \$24,794,028.

The Commission's boat registration and titling transaction activities increased by nearly 2.4 percent in 2007 to 222,765 transactions. This figure compares with 217,615 transactions completed through the same period last year. While registration renewal transactions were up by more than 2.5 percent, registration transfers between private parties fell by 4.5 percent. However, new title and registration transactions increased by 2.4 percent.

Figure 4. Percent change in Pennsylvania fishing license sales, by county from 2006-2007.



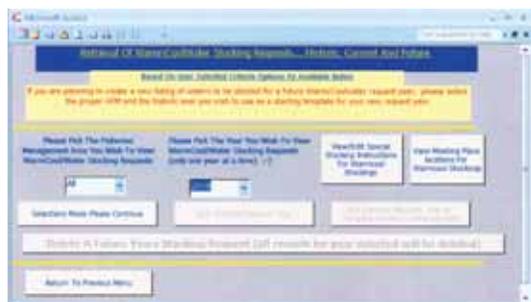
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Figure 5. Fishing licenses & permits (units) and boat registration transactions for 2007.

Fishing License & Permit Types (Jan. 1 - Dec. 31, 2007)	Units Sold
Resident	732,634
Senior Resident	17,242
Senior Lifetime	11,001
1-Day Resident	3,366
PA Resident National Guard/Reserve	725
Non-Resident	39,879
1-Day Tourist	6,333
3-Day Tourist	25,108
7-Day Tourist	6,778
Lake Erie Permit	19,792
Combination Lake Erie & Trout/ Salmon Stamp Permit	78,962
Trout/Salmon Stamp	494,793
Total Licenses & Stamps:	1,436,613

Boat Registration & Titling Transaction Types (Jan. 1 - Dec. 31, 2007)	Transactions
Registration Renewal	139,233
Registration Transfer	13,279
Registration New	28,769
Registration Change	1,705
Registration Duplicate	4,456
Title New	18,464
Title Transfer	12,508
Title Correction	1,354
Title Duplicate	911
Total All Boat Transactions	220,679



The Commission's Charter Boat/Fishing Guide Permit program was established in 2005 and went into effect on January 1, 2006. Bureau of Administration staff issued 269 resident and 46 non-resident guide permits during 2007. Bureau of Administration staff also coordinated the annual accounting and administration of the Sand and Gravel Royalties program. Royalties of more than \$900,000 are collected annually from five companies that dredge Pennsylvania waters.

As a result of the Commission's reorganization plan that was approved during 2007/2008, the Office of Human Resources is now part of the Bureau of Administration and has been renamed the Division of Human Resources. This change reflects the more traditional placement of Human Resources in Commonwealth agencies. The Division of Human Resources manages the Commission's 432 full-time salaried positions and 150 part-time wage positions by providing guidance to Commission staff and processing requests that include classification, employee relations issues, benefits, workers compensation, personnel administration, time administration, safety, Equal Employment Opportunity, workforce and succession planning, employee training, and recruitment and placement.

Major work efforts for 2007 included the planning and implementation of a comprehensive, multiple bureau reorganization, continuing and expanding the Commission's leadership development program, revising the Fisheries Biologist and Fisheries Technician job series, and creating and enhancing several one-position class specifications to help maintain efficient and effective operations. A series of supervisory changes was also made in the Information Technology (IT) Section to allow the section manager to delegate daily operational decision-making and supervisory duties to three subordinate IT supervisors. The new organizational structure with the IT Section will assist the section manager in working on "big picture" management and planning duties in an effort to support other Commission units in fulfilling the agency's mission.

During 2007, the Fish & Boat Commission managed some 51 federally funded projects, which returned more than \$12.1 million in revenue. While the majority of federal funds (\$9.5 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 21 percent of the Commission's revenue in the Commission's fiscal year, which ended June 30, 2007 (see figures 6 and 7). Since 1986, federal revenue has averaged slightly over 20 percent of the Commission's total revenue.

Bureau of Administration staff also coordinated the agency's team effort in working with the Legislative Budget and Finance Committee during a performance audit of the Commission for fiscal periods 2000 through 2006. A previous audit was conducted in 1998. The Bureau of Administration staff worked closely with key Commission staff in gathering requested data and responding to various inquiries about the current audit and recommendations from the 1998 audit.

The Bureau's Information Technology (IT) staff worked with Bureau of Fisheries staff to further develop IT systems that will be used for 1) the collection, evaluation and analysis of habitat and fish-passage information, 2) the development of a database application to be used for the stocking of warmwater and coolwater fish species, 3) the improvement of the species impact review database, 4) the introduction of a system that allows

the input and tracking of eel sales for eel vendors licensed in the Commonwealth, 5) the data warehousing of information collected during the continuing Susquehanna/Juniata Rivers creel survey, 6) the development of an automated system designed to meet agency requirements concerning fish disease and treatment, and 7) working 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 about properties owned by the Commission.

Throughout 2007, Bureau staff engaged in many smaller yet essential projects that provided the Fish & Boat Commission with increased revenue, cost savings and program efficiency. These projects include the development of a new automated check processing system that eliminates the need to physically deposit thousands of customer checks received for boat registration and titling applications; the creation and refinement of SAP vendor registration processes that makes it easier and more efficient for Commission vendors to register with the state's procurement system; the successful re-engineering of the annual renewal process for the Special Permits and Charter Boat/Fishing Guide Permit programs and the generation of routine correspondence for license and registration issuing agents; the development of a system to better manage the bonding of fishing license and boat registration and titling issuing agents; the further refinement of the procedures used by Commission staff for making more efficient and less costly purchases through the Commonwealth's purchasing card program; the successful training of key Fish & Boat Commission staff on the use of the Commonwealth's new revenue tracking software; and the development of accounting systems for the management and analysis of payments made to third party partners who receive funding through the Commission's federally funded State Wildlife Grant program.

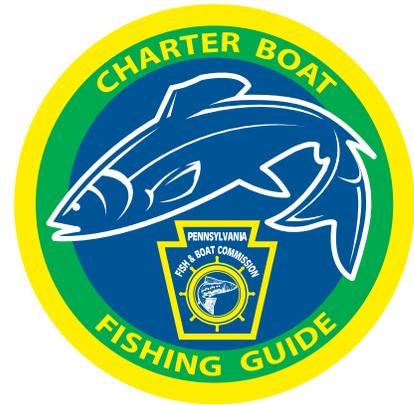


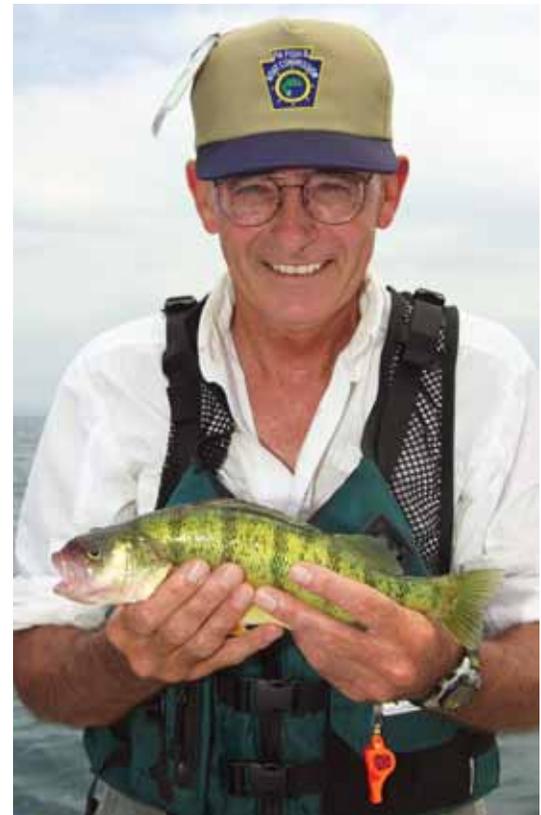
Figure 6. Fiscal 2006-2007 Year Report: Actual Commission expenditures charged to fiscal year 2006-07 from July 1, 2006, to June 30, 2007

Expenditures

	<i>Fish Fund</i>	
Personnel	21,902,874	67%
Operating	7,873,157	24%
Fixed Assets	1,367,204	4%
Grants	1,033,129	3%
Payment to State Agencies	322,523	1%
Fish Fund Total	32,498,887	100%

	<i>Boat Fund</i>	
Personnel	8,167,187	59%
Operating	3,056,943	22%
Fixed Assets	1,252,762	9%
Grants	1,355,375	10%
Payments to State Agencies	10,884	0%
Boat Fund Total	13,843,151	100%

	<i>Fish/Boat Fund Total</i>	
Personnel	30,070,060	65%
Operating	10,930,100	24%
Fixed Assets	2,619,965	6%
Grants	2,388,505	5%
Payments to State Agencies	333,408	1%
Fish/Boat Fund Total	46,342,038	100%



Yellow perch



Blue Marsh Lake, Berks County



Channel catfish

Figure 7. Fiscal 2006-2007 Year Report: Actual Revenue deposited from July 1, 2006, to June 30, 2007.

Revenue

	Fish Total	
Licenses & Fees	24,196,643	48%
Fines and Penalties	447,931	2%
Miscellaneous	3,684,279	28%
Augmentations	7,340,704	22%
Fish Fund Total	35,669,557	100%

	Boat Total	
Licenses & Fees	6,724,240	50%
Fines and Penalties	212,886	2%
Miscellaneous	3,823,258	27%
Augmentations	3,105,332	21%
Boat Total	13,865,716	100%

	Fish/Boat Total	
Licenses & Fees	30,920,883	62%
Fines and Penalties	660,817	1%
Miscellaneous	7,507,537	15%
Augmentations	10,446,036	21%
Fish/Boat Fund Total	49,535,273	100%

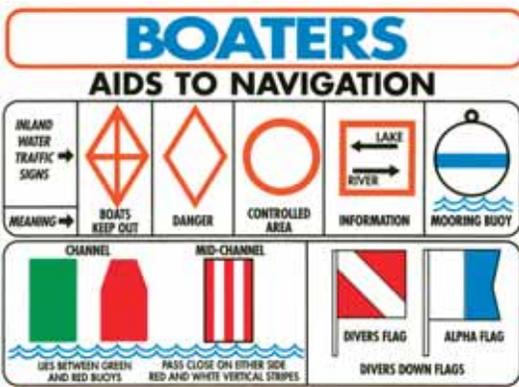
Organizational Unit Report

Bureau of Boating & Education

During 2007, the Bureau of Boating & Education's staff developed diverse educational media capabilities; designed and produced brochures, booklets, maps and pamphlets; provided color lithographic, duplicating and bindery services; coordinated and facilitated a wide variety of educational and informational services; and produced the Fish & Boat Commission's *Pennsylvania Angler & Boater* magazine. The bureau administered the agency's aids-to-navigation activities, the certification of passenger-for-hire boat operations, the operation of the North East and Walnut Creek marinas, and the planning and development of a comprehensive boating access and facilities program. The bureau director served as the Commonwealth's boating law administrator.

The Fish & Boat Commission operates an extensive Aids-to-Navigation Program (ATON). Efforts over the years have resulted in the location and permitting of all private aid/floating structures on state waters. Currently there are 3,526 permitted structures. Bureau staff has begun using a new database that better helps us track our ATONs and will work fluently with latitude/longitude information to create waterway maps. In 2007, the Commission issued 23 aids-to-navigation plans for bridge construction/demolition projects throughout the Commonwealth. Through these projects, the Fish & Boat Commission has tentatively secured three "primitive" access areas through PennDOT. Confirmation and completion of these projects is not expected until 2009 or 2010.

Under the Bureau's Boating Facilities Grant Program, the Fish & Boat Commission awarded 21 grants totaling \$1,732,000 to local governments to design, engineer, develop and rehabilitate public boat launch facilities in the Commonwealth. The funds from this program are used to ensure that



recreational boaters are provided with the highest quality boating facilities on waters open to public boating. The grantees were:

- Woodward Township, Clinton County, \$118,000.
- Manor Township, Lancaster County, \$3,000.
- Silver Spring Township, Cumberland County, \$23,000.
- Tidioute Borough, Warren County, \$25,000.
- Clearfield Borough, Clearfield County, \$25,000.
- Sharpsburg Borough, Allegheny County, \$185,000.
- City of Bethlehem, Lehigh County, \$125,000.
- Wellsboro Borough, Tioga County, \$107,000.
- Lower Providence Township, Montgomery County, \$40,000.
- Allegheny County, \$65,000.
- Bridgewater Borough, Beaver County, \$113,000.
- City of Reading, Berks County, \$41,000.
- Lehigh County, \$80,000.
- Luzerne County, \$200,000.
- Ebensburg Borough, Cambria County, \$40,000.
- Halifax Borough, Dauphin County, \$55,000.
- Columbia Borough, Lancaster County, \$250,000.
- Loyalsock Township, Lycoming County, \$27,000.
- Lackawanna County, \$40,000.
- Lower Merion Township, Montgomery County, \$95,000.
- Dauphin County, \$75,000.

In 2007, the Commission also paid grants of more than \$1.4 million to partners who have completed their projects :

- Schuylkill County, \$50,000.
- City of Harrisburg, Dauphin County, \$111,000.
- Hunlock Township, Luzerne County, \$40,000.
- Carbon County, \$39,552
- East Pennsboro Township, Cumberland County, \$98,400
- North Coventry Township, Chester County, \$3,000.
- Halifax Borough, Dauphin County, \$65,000.
- East Coventry Township, Chester County, \$10,895
- Middletown Township, Bucks County, \$11,900
- Ohioville Borough, Beaver County, \$190,000.
- Sharpsburg Borough, Allegheny County, \$150,000.
- Steelton Borough, Dauphin County, \$150,000.
- Washington County Planning Commission, Washington County, \$90,000.
- Sewickley Borough, Allegheny County, \$150,000.
- Lower Allen Township, Cumberland County, \$25,000.
- Cambria Somerset Authority, Cambria County, \$25,000.
- Harborcreek Township, Erie County, \$300,000.
- Tamaqua Borough, Schuylkill County, \$12,684.
- Silver Spring Township, Cumberland County, \$23,000.
- Manor Township, Lancaster County, \$3,000.



Harborcreek Township, Erie County
Before



Harborcreek Township, Erie County
After



Lower Allen Township,
Cumberland County
Before



Lower Allen Township,
Cumberland County
After



Holman Lake, Little Buffalo State Park,
Perry County

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 & Education in conjunction with the Bureau of Engineering and Development were responsible for locating and securing properties that fall under the purview of this act.

In 2007, the Bureau of Boating & Education executed real estate closings on two properties. Currently, there is one offered acquisition in “due diligence” stage. There are 10 properties offering easements in various stages of the process for a total of 12 properties (one property is an acquisition/easement combination). The total cost of these acquisitions and easements was approximately \$1,829,600 of which the Commission has approved a contribution of \$701,600. The properties will provide about 16,245 linear feet (or 3.08 miles) of access on Lake Erie and tributary streams.

In 2007, 18 organizations received Sportfishing and Aquatic Resource Education Grants from the Fish & Boat Commission’s Education Section to develop or expand programs that increase fishing and boating knowledge and/or participation. A total of 47 applications were received from sportsmen’s clubs, school districts, community groups and county agencies, with funding requests exceeding \$194,000. The Commission awarded more than \$67,000 in grants from the applications received.

About 419 teachers participated in resource education training workshops led by education staff in 2007. Most of these workshops were offered to teachers for graduate-level credit or for professional development hours. More than 1,000 classrooms also received educational assistance from the Fish & Boat Commission in receiving the Pennsylvania League of Angling Youth newsletter, a publication produced four times a year by education staff and the Educational Media Section.

Trout in the Classroom (TIC), an education program that connects students with their watersheds and introduces environmental concepts into the classroom, and other classroom-based aquarium programs expanded with the support of the bureau’s education staff in 2007. The Pennsylvania Chapter of Trout Unlimited (PATU) received a 06-07 and 07-08 Sportfishing and Aquatic Resource Education Grant from the Commission for TIC. For the TIC project, grant funds were matched with local dollars (from TU chapters and schools), to purchase equipment needed for the program. More than 25 programs have received equipment from these grants. In addition to the TIC programs funded through these grants, the Fish & Boat Commission has record of nearly 75 other educational programs around the state participating in TIC or some derivation.

In late November, staff cooperatively shipped eyed trout eggs to some 50 schools from the Benner Spring State Fish Hatchery. Education staff’s continuing efforts include collaborating with the Delaware River Shad Fishermen’s Association to pilot a similar program raising American shad with several schools in the Lehigh River Watershed. Additional curriculum resources for both programs were developed in 2007.

More than 81 Family Fishing Programs (FFP) were scheduled through the Bureau’s education staff in 2007. FFPs provide a family-friendly opportunity to learn the basics of fishing, improve existing fishing skills, and provide a chance to fish. Six of the scheduled FFPs were cancelled, the majority because of inclement weather. FFP instructors have provided reports on 62 of the 81 programs, reaching nearly 1,700 participants. About half of these participants were youth under the age of 16.

Education staff also trained 200 new fishing skills instructors in 2007. Partners and instructors trained by the Commission offered angler educa-

tion programs in 2007, reaching more than 2,300 participants. Education staff estimates that more than 15,000 youth received instruction or materials, or used Commission-owned fishing equipment in other programs in 2007. These programs include Youth Field Days, SMART Angler clinics, day/residential camps, derbies and other youth-oriented fishing events.

At the end of 2007, there were 48 fishing tackle loaner sites in Pennsylvania. These sites, mostly located at state parks, offer fishing rods, reels and terminal tackle for loan. The loans are made to individual park visitors and to groups conducting fishing programs.

The Fish & Boat Commission certified more than 14,600 students in National Association of State Boating Law Administrators-approved boating courses in 2007, of which 13,230 took Fish & Boat Commission education courses. Not everyone who took a course applied for a Boating Safety Education Certificate (BSEC). Many people are not required to have one and take a boating course just for fun or enrichment. Education staff and its volunteers taught 139 PA Basic Boating courses to more than 2,500 students who successfully completed the course. More than 2,058 applied for and were issued a BSEC.

Volunteers and staff also taught 55 Commission Boating and Water Safety Awareness courses to more than 2,400 students in 2007. Only 859 of those students applied for a BSEC, even though all were eligible to do so.

Even more successful were the Commission's Boat Pennsylvania Internet and correspondence courses. In 2007, more than 10,300 individuals successfully completed one of the Commissions two long-distance learning courses and were issued a BSEC.

The Bureau of Boating & Education's nationally acclaimed Water Rescue Program had its best year ever in 2007. The Commission certified more than 1,700 students through 126 courses. The Commission has a trained volunteer instructor corps of 154 individuals who provided more than 5,000 hours of training this past year. The Commission has the largest program of its kind in the United States.

In 2007, the Commission also received more than 850 requests for education staff to present educational or informational programs in 2007. The Commission provided a speaker or an instructor for more than 400 of these requests and educational support materials to the majority of requests not staffed.

The Educational Media Section completed more than 345 work orders in 2007 in an efficient, timely and cost-effective manner. With the Fish & Boat Commission's commitment to cost-effectiveness and paper reduction, on-demand production of the Commission's publications suite is a key service provided by the Educational Media Section. These mainstay publications include the *Pennsylvania Fishing Summary*, *Boating Handbook*, *Boating Regulations Recap*, the statewide *PFBC Fishing & Boating Map*, seven region guides, water trail guides and the Commission's bimonthly flagship publication, *Pennsylvania Angler & Boater* magazine. Site administration and supporting product development for the Commission's online store, The Outdoor Shop, is also an important revenue lead to offering various specialty products and soft-bound publications to the fishing and boating public.

Organizational Unit Report

Bureau of Fisheries

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





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



Brown trout

ates the agency's 13 state fish hatcheries. The Bureau consists of four divisions: Fisheries Management, Fish Production, Habitat Management, and Environmental Services as well as the newly-formed Three Rivers Ecological Research Center.

The Bureau of Fisheries represents the Executive Director and the Fish & Boat 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 the permitting and permit review functions of the Division of Environmental Services, coordinating with the Bureau of Engineering and Development on infrastructure and renovations of the facilities under management of the Bureau of Fisheries, and engaging in large volumes of correspondence with anglers; developers; federal, state and local governmental agencies; and non-governmental organizations on those issues that are part of the Bureau's areas of responsibility.

With support from a State Wildlife Grant, the Fish & Boat Commission established the Three Rivers Ecological Research Center (3RERC) as a new unit in the Bureau of Fisheries. The Center is headed by Dr. Sue Thompson, who began as full-time director in November 2006. The Center will develop a more complete understanding of the ecology and biology of the large rivers in Pennsylvania's Ohio River Watershed to benefit habitats, species and public resources. The 3RERC will work with governmental and non-governmental partners to expand our understanding and capacity to more fully protect this important river watershed. During 2007, an office for the 3RERC was established in a historic building along the Monongahela River on Pittsburgh's South Side. Dr. Thompson devoted much of 2007 to meeting with potential partners and stakeholders to develop a strategic work plan for the Center.

Understanding the state's aquatic resources is critical to directing fisheries management efforts. To do so, in 2007 Division of Fisheries Management staff conducted surveys on 47 rivers, 58 warmwater streams, 43 transitional streams, and 85 trout stream sections, as well as 36 lakes. Sampling also included evaluations of panfish enhancement regulations, wild brook trout enhancement regulations, and walleye population fluctuations in Pymatuning Lake. Information from these surveys is used to monitor the status of fish populations and for the development of management plans. Recommendations from management plans outline the needs for adjustments in regulations, stocking programs, and habitat improvement projects, and they establish the basis for reviewing permit applications pertaining to encroachments, water allocation, mining, and other types of development.

For example, staff evaluated hatchery trout residency in 28 stream sections previously identified as problem areas for stocked trout in 2006. In 2007, trout residency improved on 17 stream sections, and the retention of hatchery trout improved to at least a fair level (40 percent retention) in 10 stream sections. One possible explanation for these improvements was improved stream flow that may have resulted in better instream habitat conditions.

The needs of species are being addressed through the collection and compilation of much-needed data. To help the Commission gain a more complete understanding of the resources and anglers' needs, data collection includes both the direct sampling of the fish populations as well as direct input from anglers through creel surveys. Critical species findings and surveys conducted during 2007 include anadromous fish passage, lake trout status, striped bass populations, and smallmouth bass spawn and survival.

American shad passage continued to be a high priority topic for the Fish & Boat Commission. Annual video monitoring of the Lehigh River in 2007 documented the passage of 1,397 shad at the Easton fishway. Although a decline from the numbers recorded in 2006 (2,023 shad), this figure represented an increase from the numbers observed in 2003 (422), 2004 (754), and 2005 (675). A total of 2.35 million viable American shad eggs were collected during spawning operations from the Delaware River in 2007. These eggs are used to supply the Commission's American shad culture program.

The Commission's Anadromous Fish Restoration Unit hatched, reared and stocked over 2 million American shad fry into the Susquehanna, Delaware, Lehigh and Schuylkill rivers and their tributaries in 2007. The U.S. Fish & Wildlife Service contracted egg collection services on the Potomac River, and Fish & Boat Commission staff from Area 5 again collected shad eggs on the Delaware River. More than 7.8 million hickory shad fry were released into one Susquehanna and two Delaware River tributaries in 2007.

Fish passage efforts continued at the four Susquehanna River hydroelectric dams. During the spring run of 2007, a total of 25,464 American shad passed the fish lift at Conowingo Dam, 10,338 at Holtwood, 7,215 at Safe Harbor, and 192 at York Haven. Run numbers were below long-term averages even though flow conditions were favorable. Shad runs are down throughout the East Coast range of this species.

Staff has been heavily engaged in project planning and settlement agreement negotiation for a 401 Water Quality certificate for a Federal Energy Regulatory Commission license amendment application by PPL for the Holtwood Hydroelectric Plant and fish passage facility upgrades. Staff was also involved in the rewrite and update of the American shad range-wide stock assessment through the Atlantic States Marine Fisheries Commission.

Gill net sampling in 2007 for lake trout in Lake Erie yielded an average capture per unit effort of 3.16 lake trout/standard lift. This rate was nearly twice the long-term average of 1.6 lake trout/standard lift. In addition, the incidence of sea lamprey attacks on lake trout declined in 2007. Sampling results for yellow perch in Lake Erie were positive with high catch rates and multiple year classes present.

Striped bass remain a priority species in the lower Delaware River and Delaware Estuary. In 2007, sampling results included a total of 184 striped bass ranging from 6 to 40 inches in length. Although the total catch rate of all striped bass was below average in 2007, the catch rate of larger striped bass (those greater than or equal to 28 inches in length) did not differ from the average catch rate over the previous 12-year period.

To help understand future prospects for smallmouth bass, 2007 data collection included sampling of young-of-year at 111 sites on Pennsylvania's large rivers. Findings showed that year-class abundance was above average in the Allegheny, Ohio, Lehigh, Schuylkill, Delaware, and the North Branch Susquehanna rivers. Year-class abundance was average in the Juniata River and West Branch Susquehanna River, and below average in the Susquehanna River. The Commission is directing greater attention to Susquehanna River water quality for the purpose of identifying a cause of reduced young-of-year density and the presence of diseased specimens from assessment samples in recent years.

In addition to direct surveys of fish populations, the Susquehanna River was the focus of a major effort to understand angler catch and harvest. From April through October 2007, the Fish & Boat Commission interviewed anglers on the Susquehanna River from Sunbury to the Holtwood Dam, and on the Juniata River from Port Royal to the mouth. Over 5,500 angler interviews were conducted on the 130 miles that comprise these river sec-



American shad



Yellow Perch



Smallmouth bass

tions. Information collected from the survey will be useful in guiding future management plans on these waters.

In 2007, the Commission began its efforts to stock larger trout. With this effort, the hatcheries are now rearing and stocking more than 3.4 million rainbow, brook and brown trout, each averaging 11 inches and almost 2/3-pound (see Figure 8). Trout opening day angler counts and interviews were conducted on 76 stream sections to examine the cost benefit of stocking and to evaluate angler acceptance of the new structure of two opening days of trout season in 2007. Cost benefit was based on comparing stocking costs with angler trip expenditures and fishing license expenditures. Results indicated that 15 stream sections had negative opening weekend cost benefit values for at least one of the cost-expenditure comparisons. Seventy-three percent of the anglers interviewed in the 18 county regional opening day area and 56 percent of the anglers interviewed in the traditional opening day area agreed with having two opening days of trout season.

See Figure 9 for warmwater and coolwater fish stocking information.

To further support the agency's fish production efforts, the deed to the Tylersville State Fish Hatchery was transferred from the U.S. Fish & Wildlife Service (USFWS) to the Fish & Boat Commission in 2007. The Tylersville hatchery was originally constructed in 1963 by the USFWS and was closed in 1977. In 1984, the Fish & Boat Commission entered into a lease agreement with the USFWS to maintain and operate the facility. Recognizing the importance of the facility to Pennsylvania and the Commission's desire to make significant infrastructure upgrades there, the two agencies jointly supported federal legislation to transfer ownership of the Tylersville hatchery to the Commonwealth. That act of Congress reached fruition with the formal conveyance in a brief ceremony at the hatchery on April 5, 2007.

Other fish production activities in 2007 included the Aquaculture Technology Unit, with assistance from the Water Quality Unit and hatchery personnel, initiating two continuing microscreen filter effectiveness evaluations at the Tylersville and Pleasant Gap hatcheries. Staff also initiated a continuing passive integrated transponder tagging study of brood esocids (pike family) at the Linesville hatchery and completed the report for several years of studies of polychlorinated biphenyls (PCBs) in trout feed. Annual monitoring of PCBs in hatchery trout that were stocked in 2007 revealed that no hatchery trout exceeded the statewide one meal per week consumption advisory. The Commission is developing integrated hatchery management plans for all state fish hatcheries.

The Fish Health Unit continued to provide diagnostic and disease treatment services to the state fish hatchery system. The Investigative New Animal Drug Program continues to provide opportunities to use needed chemicals and drugs to maintain fish health and meet U.S. Food and Drug Administration regulations. Continued effort was expended in dealing with the ramifications of the U.S. Department of Agriculture's Animal and Plant Health Inspection Service federal order regarding viral hemorrhagic septiemia. The Unit worked closely with Fisheries Management staff to provide disease diagnoses and sample preparation for smallmouth bass collected during the die-offs in the summer months.

The Cooperative Nursery Unit continued its work with volunteer sportsmen's groups to assist them in rearing trout, steelhead, perch, bass, and walleye for stocking into publicly accessible waters. The Unit was also relocated from Pleasant Gap to the Benner Spring Research Station, thus placing all Fish Production staff under one roof. Six regional nursery sponsor meetings were held in 2006. Four prospective cooperative nursery sites were evaluated and 34 grant agreements were developed for 34 cooperative nursery sponsors.



Figure 8. Trout Stockings in PA (January 1, 2007, to December 31, 2007).

SPECIES	FINGERLING NUMBER	ADULT NUMBER	TOTAL NUMBER
BROOK	290,600	585,149	875,749
BROWN	1,020,233	1,023,234	2,043,467
RAINBOW	887,299	1,860,826	2,748,125
TROPHY GOLD	0	9,278	9,278
TOTAL	2,198,132	3,478,487	5,676,619



Figure 9. Warm/Coolwater Stockings in PA (January 1, 2007, to December 31, 2007).

KEY FOR LIFE STAGES

LIFE STAGE	STAGE NAME	LIFE STAGE	STAGE NAME
ADLT	ADULT	PH1	PHASE 1 FINGERLING
EE	EYED EGGS	PH2	PHASE 2 FINGERLING
FING	FINGERLING	YRLN	YEARLING
FRY	FRY	FRYA	ADVANCED FRY

SPECIES	LIFE STAGE	STOCKED
AMERICAN SHAD	FRY	2,246,619
BLUEGILL	FING	6,700
CHAIN PICKEREL	FING	3,750
CHANNEL CATFISH	FING	62,350
GOLDEN SHINER	ADLT	2,700
HICKORY SHAD	FRY	7,815,640
LAKE TROUT	FING	31,572
LAKE TROUT	YRLN	85,499
LAKE TROUT	ADLT	160
LARGEMOUTH BASS	FING	13,300
LARGEMOUTH BASS	PH1	8,734
MUSKELLUNGE	FING	104,243
MUSKELLUNGE	YRLN	2,525
NORTHERN PIKE	FING	6,530
RAINBOW TROUT - STEELHEAD	YRLN	1,004,907
SMALLMOUTH BASS	FING	1,080
STRIPED BASS	FRY	6,199,000
STRIPED BASS	PH1	212,734
STRIPED BASS	ADLT	81
TIGER MUSKELLUNGE	FING	102,202
TIGER MUSKELLUNGE	YRLN	7,400
WALLEYE	FRY	51,318,350
WALLEYE	FRYA	88,907
WALLEYE	PH1	1,015,578
WHITE X STRIPED BASS	FING	153,370
WHITE X STRIPED BASS	PH2	2,446
YELLOW PERCH	FRY	947,600
YELLOW PERCH	FING	81,588





Timber rattlesnake

Protecting the Commonwealth's diversity of aquatic habitats and species is ensured by the Division of Environmental Services staff whose responsibility is to provide technical advice to Commission programs as well as other state and federal regulatory and natural resource agencies. Staff specialists predict risks and assess damages to our Commonwealth's rare species, aquatic resources and fishing and boating activities. The Division includes three sections: The Watershed Analysis Section, the Aquatic Resources Section, and the Natural Diversity Section.

In 2007, the Aquatic Resources Section staff was the Commission's principal investigators in significant resource damage assessments. These investigations included pollution cases on Skippack Creek and Wissahickon Creek, assessments for the Palmerton Superfund Site, and the Norfolk Southern train derailment case.

Aquatic Resources Section staff assisted the Penn State Cooperative Extension in developing educational materials, including a video for pond management and safe use of aquatic pesticides. Other major projects of this section included a lake-wide treatment proposal review for Conneaut Lake, agency technical representation for the West Branch Susquehanna River Abandoned Mine Drainage Reclamation Initiative, representing agency positions in the update of the State Water Plan, reevaluation of stream restoration criteria with the DEP Bureau of Mining and Reclamation for longwall mining-impacted streams, and administration of grants for the Valley Creek Restoration Program and the Tulpehocken & Quittapahilla Creek Watershed Enhancement Program.

Natural Diversity Section staff coordinated protection and management programs for non-game, threatened and endangered species under Fish & Boat Commission jurisdiction. Staff consulted on more than 3,000 threatened and endangered species impact reviews, issued more than 1,000 permits for Scientific Collectors, Venomous Snake and Organized Amphibian and Reptile Hunts, and for the commercial collection of snapping turtles.

Among the critical trust species receiving dedicated work was the timber rattlesnake. In 2007, the Natural Diversity Section coordinated a population study during which 233 rattlesnake sites were assessed and 350 rattlesnakes were marked with PIT tags for population monitoring purposes. This data will help provide the information necessary for developing a comprehensive management plan for this species.

Other high-priority species evaluated in 2007 include bog turtles, green salamanders, eastern spadefoot toads, timber rattlesnakes, eastern massasauga rattlesnakes, and eastern pearlshell mussels. An ichthyologist/non-game biologist was added to the staff and will be a great asset for rare fish issues. Increasing the efficiency of the Section will be a new web-based interactive Scientific Collector's Permit program that was developed with the help of Fish & Boat Commission's Information Technology staff. This program provides a way for staff to organize collection data. Staff is actively involved in vital resource topics such as the state Wind Power Policy and Science Committee, the Governor's Invasive Species Council, the Wild Resource Conservation Fund Advisory Committee, the PA Natural Heritage Program, and the PA Biological Survey Steering and Technical Committees.

The Watershed Analysis Section is responsible for reviewing DEP Water Obstruction and Encroachment Permit Applications, Corps of Engineers Clean Water Act Permit Applications, Transportation Projects, and Solid Waste Applications. In addition to reviewing 1,100 permit applications in 2007, other major accomplishments of the section included:

- Partnering with the Department of Transportation to develop a list of maintenance activities that would require no further coordination if rare species conflicts are encountered during the environmental review process.

- Assisting the Department of Environmental Protection and the Department of Transportation to develop guidance for aids-to-navigation plans associated with waterway encroachment projects that may have temporary impacts on recreational boating.
- Assisting the Bureau of Law Enforcement in the investigation of three water pollutions that occurred on Perkiomen Creek (Lehigh County), the Clarion River (Elk County), and Skippack Creek (Montgomery County).
- Recommending that four dams in southwest Pennsylvania be removed as mitigation for transportation project impacts. These dams included the Trafford Dam on Turtle Creek (Westmoreland County), two dams along Bigby Creek (Somerset County), and one dam along Miller Run (Somerset County). A total of \$500,000 was set aside to remove these four dams for unavoidable impacts to perennial streams associated with the Route 22 and 219 projects.

The Division of Habitat Management (DHM) was initiated in July 2006 with the purpose of providing review and oversight of the Commission's habitat restoration and management, and fish passage projects. The DHM is composed of four sections that provide assistance in several programmatic areas: Lake Habitat Section, Stream Habitat Section, Fish Passage Section, and the Regional Habitat Section.

Lake Section staff conducted 19 habitat and fish assessments and inventories on project waters and coordinated 26 projects involving the construction and placement of 914 fish enhancement structures in Commonwealth lakes, ponds and impoundments by cooperators in 2007. A total of 15 new lake habitat plans were designed and provided to cooperators. The Section also continued to advance a cooperative project with the Pennsylvania Department of Conservation and Natural Resources that targets four lakes in state parks for extensive habitat enhancement activities with associated public outreach: Pymatuning Lake (Crawford County), F.J. Sayers Lake (Centre County), Glendale Lake (Cambria County), and Lake Nockamixon (Bucks County). The Adopt-a-Lake program contributed nearly \$10,000 for project materials on a matching basis during 2007.

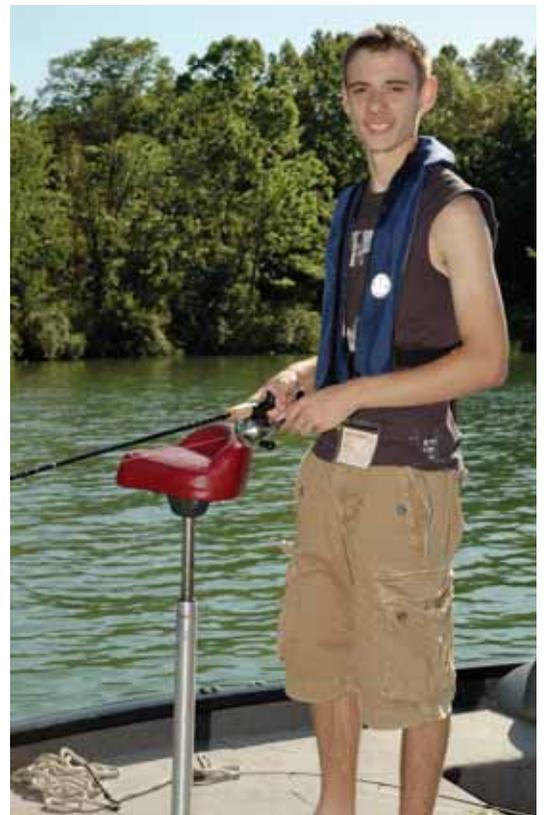
Stream Habitat Section staff had 50 active Adopt-a-Stream projects, installed 184 instream habitat structures and completed 13 new stream habitat plans in 2007. Three pre-project habitat assessments and two post-project aquatic assessments were conducted. The Adopt-a-Stream program contributed over \$18,000 for materials on a matching basis for these projects.

The Technical Assistance Program (TAP) was initiated in 2007. This program was created to increase the Division of Habitat Management's ability to provide assistance for stream habitat improvement on public as well as private lands by limiting staff activities to assisting in project design and providing construction oversight. Unlike Adopt-a-Stream, TAP projects do not receive financial assistance or labor from the Fish & Boat Commission to construct habitat devices. The Stream Habitat Section provided varying levels of technical support through TAP for habitat improvement projects at 158 sites. This support included construction oversight for 82 instream habitat improvement structures, and a total of 55 permit/plan reviews were completed under TAP.

The Fish Passage Section's Consultation and Grant Program for Fish Passage and Habitat Restoration advanced the completion of 16 dam removals and construction of a rock ramp fishway resulting in the reopening and restoration of nearly 135 miles of stream habitat for migratory and resident fishes (see Figure 10). More than \$1.2 million of funding assistance was obtained in 2007 to support completion of these projects. Approximately 100 dam removal and fishway projects continue.



Lake Wallenpaupack



F.J. Sayers Lake, Bald Eagle State Park, Centre County



Figure 10. 2007 Dam Removal Projects with Commission Involvement.

River Basin	Stream	Dam Number	Project Name	Miles Opened	Stream Channel Restored (ft)
Susquehanna	North Branch Wilmer Run	17-004	Berwindsdale Dam Removal	0.9	1175
Susquehanna	Tributary Turtle Creek	60-055	Bailey Dam Removal	1.4	135
Erie	Fourmile Creek	25-057	Spring Creek Inc. Dam Removal	1.0	129
Erie	Fourmile Creek	25-062	Behrend Capped Waterfall Dam Removal	8.3	132
Susquehanna	Tr Glade Run	49-028	Glade Run Dam Removal	2.1	185
Susquehanna	Spring Ck	14-022	McCoy Dam Removal	10.8	2693
Susquehanna	Tr Cedar Run	21-062	Unnamed Dam Removal	0.1	100
Susquehanna	Tr Cedar Run	21-061	Smith Dam Removal	0.6	100
Susquehanna	Yellow Breeches Creek	21-003	Wittlinger Dam Removal	39.4	3957
Delaware	Mahoning Creek	13-005	Heilman Dam Removal	30.5	1935
Ohio	Laurel Run	11-091	Unnamed (Girl Scout) Dam Removal	2.1	257
Susquehanna	Fishing Creek	19-076	Trestle Dam Removal	21.3	1675
Delaware	Tr Pigeon Creek	15-403	Nestle Dam Removal	0.6	
Delaware	Pennypack Creek		PWD Sewer Line Rock Ramp	1.4	
Delaware	Pennypack Creek	46-013	Lorimer Park Dam Removal	10.0	2640
Delaware	Tohickon Creek	09-128	Ralph Stover Dam Removal	1.8	1500

Two additional regional habitat biologists were hired to complete the complement total of six habitat biologists. They provide technical assistance in planning, coordinating, and obtaining resources to support more than 100 projects that benefit the conservation, enhancement, and restoration of habitat for Pennsylvania's fish, amphibian, and reptiles. In 2007 this work included obtaining more than \$600,000 from a variety of grant programs and other sources for habitat work. Habitat biologists also conducted 21 pre- and post-monitoring studies to evaluate project impacts on physical habitat and biota. The Division continued to advance cooperative projects with non-governmental organizations and federal, state and county agencies.

State Wildlife Grants, other funding sources

For some six years, the Fish & Boat Commission has been receiving funds from the U.S. Fish & Wildlife Service through the State Wildlife Grants Program (SWG) and more recently through the Landowner Incentive Program (LIP). These funds are directed to species that are rare, declining in abundance or distribution, threatened, endangered or candidate species. Furthermore, programs offered through the U.S. Department of Agriculture can provide significant funding for fish and wildlife needs. For several years, the Commission Habitat Division has used funds from the Wildlife Habitat Incentive Program for many dam removal projects.

LIP Tier 1 funds are being directed toward providing technical assistance to private landowners to protect habitats of these species. Using LIP Tier 2 and working with the U.S. Fish & Wildlife Service, Pennsylvania Game Commission, Western Pennsylvania Conservancy, and the French

Creek Valley Conservancy, a permanent conservation easement of approximately 40 acres has been developed, and two projects are being developed to protect about 120 additional acres of riparian habitats in the French Creek Watershed.

The Pennsylvania Wildlife Action Plan is the guiding document for protection, recovery and management of Pennsylvania's most vulnerable species and habitats. The State Wildlife Grants program is a critical source of funding to address the goals and objectives of the Wildlife Action Plan. In 2007, the Fish & Boat Commission either initiated or approved nine SWG Program projects. The scope of these projects characterizes the diversity of species and habitats encompassed by the Fish & Boat Commission's jurisdiction. These projects will be supported with more than \$1.1 million from the U.S. Fish & Wildlife Service's SWG Program and will leverage an additional \$982,577 of non-federal matching funds.

Habitat Enhancement at Four State Park Lakes-Pennsylvania: This project is a collaborative effort between the Fish & Boat Commission and Department of Conservation and Natural Resources (DCNR) to assess the quality of existing habitat and implement habitat activities on four lakes owned and managed by DCNR. Commission staff will study the response of the habitats and fishes to evaluate project impacts and will engage the public to assist through a citizen-monitoring program.

Stream Restoration and Watershed Stabilization: This three-year project will provide a collaborative low-cost approach to stream restoration and watershed stabilization that encourages direct participation by local watershed groups. Working with the Northcentral Pennsylvania Conservancy, the Commission will provide technical and financial support for the design, permitting, construction, monitoring and maintenance of stream restoration projects in the upper Ohio, Genesee and upper Susquehanna watersheds.

Freshwater Mussels: Two mussel research projects, to be conducted by the Western Pennsylvania Conservancy, include:

- **Mussel Sampling Protocol Development and enhancement of the Pennsylvania Aquatic Community Classification Database:** This two-year project will develop a database to provide a common format for storage and retrieval of information about mussels, including distribution and population trends.

- **Distribution of Yellow Lampmussel in the Susquehanna River Watershed:** This three-year project will sample some 85 locations on the Susquehanna River and major tributaries to assess freshwater mussels, especially the yellow lampmussel. The conservation of the yellow lampmussel in Pennsylvania is especially critical because Pennsylvania contains a significant portion of this species' global range.

Eastern Spadefoot Toad Assessment: This three-year project will provide background data for developing a management plan for this species in Pennsylvania. It will compile much-needed information on habitat and other features at sites where the toads are found.

Planning for the Protection of the Eastern Massasauga: The eastern massasauga snake is listed as a state-endangered species in Pennsylvania, and across its range, populations of this reptile are similarly declining, making it a candidate species for federal listing. For this project, the Western Pennsylvania Conservancy will develop a Massasauga Protection Plan that prioritizes critical habitats for this species, provides a timeline and identifies specific conservation efforts such as the placement of conservation easements and habitat management.

Assessing the Genetic Status of Timber Rattlesnake Populations in Pennsylvania: The study of conservation genetics is important for the



Spike (freshwater mussel)



Eastern spadefoot toad



Eastern massasauga rattlesnake



Timber rattlesnakes



management of many species, especially for populations that are widely distributed, such as timber rattlesnakes in Pennsylvania. This project will provide genetic information for the timber rattlesnake from the state's western and southcentral regions.

Fishes of the Ohio River: The Commission has approved funding for an additional year of sampling the deep waters of the Ohio River to understand more fully the distribution of fish species and their habitats and to assist the Commission in evaluating species as threatened or endangered in Pennsylvania.

Understanding Habitat and Species Associations with Geographic Information Systems (Conservation Planning Polygons): Resource managers and planners will be greatly assisted by this project, which will use geographic information systems (GIS) to map critical habitats. These mapped habitats, called "conservation planning polygons," will provide information for wildlife protection and management, environmental review, planning and decision-making and to help further conservation efforts in priority areas of Pennsylvania.

Organizational Unit Report

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. In 2007, the Bureau of Law Enforcement duties and responsibilities involved Pennsylvania Fish and Boat Code enforcement, public outreach, specialized boating safety, 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) provided conservation education programs, reviewed permits for mine drainage and stream encroachments, administered the Commission's special activities permits, and participated in fish stocking operations. The Bureau also operated the Commission's most active volunteer program, a force of more than 190 deputy waterways conservation officers.

The Bureau of Law Enforcement maintained operations throughout most of the year with many vacant districts as a result of retirements. Neighboring WCOs, deputies and regional office staff performed additional work to provide coverage in areas without an assigned district officer.

By December 18, 2007, conservation officers issued and the courts adjudicated 4,372 summary citations for fishing violations and 3,422 summary citations for boating violations. Lack of personal flotation devices or improper personal flotation devices onboard boats continued to be the most common boating violations. Fishing without a license and littering continued to be the most common fishing violations.

There were 43,399 warnings for fishing and boating violations issued by officers and 118 Crimes Code summary citations that were directly related to fishing and boating activities. Disorderly conduct, underage drinking, and violations of state parks regulations comprised the majority of the citations issued. There were also 1,936 summary fish and boat violation citations filed in district courts in 2007 that are awaiting final resolution.

Eighty-seven arrests were made in 2007 for boating under the influence (BUI) with the earliest made May 18 and the latest made October 6. The Southcentral Region led the state in BUI arrests with a total of 29. Specialized BUI enforcement details were conducted throughout the state on waterways with the highest recreational boating use, including Presque Isle Bay, Three Rivers, Lake Wallenpaupack, Raystown Lake, Delaware River,

Blue Marsh Lake, and several boating pools on the Susquehanna River. Officers generally observed reduced levels of boating activity during the late summer, which more than likely resulted from the high fuel costs. Officers investigated several high-profile boating accidents that involved multiple fatalities on Commonwealth waters. Officers investigated a total of 62 reportable boating accidents.

The Northwest Region conducted specialized enforcement involving the migration of steelhead to the Lake Erie tributaries during the final three months of 2007 using officers from all over the Commonwealth. Enforcement details focused on popular steelhead fishing locations such as Elk Creek, Walnut Creek, Twelvemile Creek, Sixteenmile Creek, Twentymile 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 274 citations for violations and 536 warnings. Officers also encountered five illegal foreign nationals in violation of the Fish and Boat Code who were subsequently turned over to the U.S. Border Patrol in Erie.

Other duties completed by the Bureau of Law Enforcement in 2007 include issuing 2,441 special activities permits for fishing tournaments and regattas, conducting safety evaluations on board 28,874 recreational boats, and training issuing agents on the new Pennsylvania Automated License Service system. Officers also staffed Commission displays at more than 20 outdoor sports shows and expos held throughout the state. WCOs attended and/or presented informational programs at more than 1,200 public relations events in 2007. Officers also conducted 290 investigations involving pollutions or encroachments in or along Commonwealth waters. They also worked closely with the Fish & Boat Commission's legal counsel in crafting the joint settlement with DEP for the Norfolk Southern train derailment pollution. Officers reviewed and provided comments on 230 mine drainage applications and 463 stream encroachment permit applications.

The Fish & Boat Commission's deputy force continued to maintain its current level. At the end of 2007, the Commission's deputy force included 190 members. The Bureau of Law Enforcement held a basic Deputy Waterways Conservation Officer Training Class in 2007 and added 16 new deputies to the current force. As with any volunteer position, recruitment of new deputies remained a challenge.

Because training is an integral part of operating a professional workforce, in 2007 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 deputies 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 July. Other Bureau staff received specialized training in handling and measuring timber rattlesnakes.

The Bureau conducted an optional advanced training program for deputy officers in September. Training topics included court procedures including mock trials, firearms marksmanship exercises, interviewing techniques and basic boat accident investigation skills. Training was provided by Commission staff and an instructor from the Pennsylvania State Police.



Trout Run, Erie County



The Bureau also completed the training process for a class of new waterways conservation officers. The Commission hired 10 applicants to become part of the 18th WCO Class in July 2006. The new cadet class graduated from the training program in August 2007. All 10 new officers received assignments in vacant law enforcement districts. This is the first time in several years that the Fish & Boat Commission has an officer assigned to each of the 78 law enforcement districts. The new officers were assigned to the following districts:

New WCO	Assignment (Region)
David Hurst	Cumberland (SC)
Darrin Kephart	Southern York (SC)
Robert Plumb	N. Pike/S.Wayne (NE)
Jeffrey Sabo	Northampton (SE)
Jeffrey Schmidt	Southern Lancaster (SE)
Brendan Ryan	Northern Bucks (SE)
John Hopkins	SC Crawford/E. Mercer (NW)
Gregory Kraynak	Southern Luzerne (NE)
Douglas Kunkle	Delaware (SE)
Jeremiah Allen	S. Pike/NE Monroe (NE)



Organizational Unit Report

Bureau of Engineering and Development

The newly named Bureau of Engineering and Property Services directs the planning, survey, design, construction and maintenance of fishing and boating facilities and property; plans and designs site-engineered structures including roadways, bridges, ponds, raceways, impoundments, wells, pumps, fishways, shoring, piling, docks, wharfs and boat launch ramps; plans and designs buildings for Fish & Boat Commission use; plans, designs and inspects the construction, renovation and major maintenance of dams and impoundments; directs the acquisition, leasing and management of Fish & Boat Commission-owned or controlled property; and constructs, renovates and maintains buildings, structures, utilities, dams, impoundments, docks, wharfs, weirs, boat ramps, piers, access areas, roads, parking areas and other Fish & Boat Commission facilities.

In 2007, the Bureau's Engineering Section improved hatchery upgrades and provided administrative support to develop the Underground Utility Notification Policy and a project tracking sheet that lists the Propagation Infrastructure Improvement Programs, Growing Greener II, and other major projects, budgets and schedules. An in-house engineering time and cost estimate spreadsheet was also developed and implemented for a new vision, mission and core functions statement. Employee work plans were developed and staff position descriptions were updated in 2007.

In 2007, a pump design spreadsheet template was developed for all engineering staff to use so there is consistency with calculations and ease of performing quality assurance review. The engineering staff reviewed and commented on Huntsdale State Fish Hatchery and Bellefonte State Fish Hatchery upgrade projects. The Bureau also reviewed and commented on the National Pollutant Discharge Elimination System Water Quality Management Permits for Pleasant Gap and Benner Spring State Fish hatcheries.

The Engineering Section also completed geotechnical testing and preliminary engineering at Opossum Lake with the assistance of the DEP Division of Dam Safety and the Friends of Opossum Lake Conservancy. In addition to the geotechnical work, the Commission established a complete model for repairs in an alternative analysis for Opossum Lake Dam. Bureau staff also completed the Mauch Chunk Lake tower gate renovations,



Huntsdale State Fish Hatchery



Opossum Lake, Cumberland County

and the embankment renovations project went out to bid. In 2007, the Bureau conducted annual dam inspections for its 40 high-hazard dams and conducted underwater dam inspections at Opossum Lake, Mauch Chunk Lake, Meadow Grounds Lake, High Point Lake, Somerset Lake, Kyle Lake, Nessmuk Lake and Colyer Lake. Bureau staff also submitted and posted the remaining original Emergency Action Plans and seven plans for the five-year updates.

The Bureau's Property Services Section is responsible for providing statewide real estate and surveying services for the Commission. The Section is comprised of the Real Estate Unit and the Survey Unit. The Section has engaged in several significant projects in 2007. A few of the projects are as follows:

- Participated in the processing and implementing of property rights acquisitions for the Erie Access Improvement Program. The properties are as follows:

Rick Road Access. 4.2-acre property acquisition on Elk Creek at the Rick Road Bridge (McKean County, Erie County).

Avonia Road Easement. 0.749-acre conservation easement acquisition on Lake Erie at Avonia Beach Park, Fairview Township (Erie County).

Dutch Road Access. 19.3-acre property acquisition on Walnut Creek at Dutch Road between SR 5 and SR 20 at the railroad grades in Fairview Township (Erie County).

- Processed and implemented a new lease agreement with the Union City Water Authority for fishing access to the 117-acre Union City Reservoir (Erie County).
- Created a real estate database that will allow Commission staff to access and view relevant real estate documents and information on their computers.
- Processed and executed a license agreement with the Bellefonte Sewer Authority for placement of a sewer line across Commission property at Spring Creek (Centre County).
- Performed a topographic survey for a warmwater fish rearing pond upgrade at the Pleasant Mount State Fish Hatchery (Wayne County).
- Performed a 1.5-mile route (topographic) survey for a proposed water line running along Washington Avenue and SR 6, from the Foster Well to the Corry State Fish Hatchery complex, Wayne and Concord townships (Erie County).
- Performed a topographic survey of 1,000 feet of stream corridor for the proposed removal of two stream obstructions (dam footers) and proposed stream habitat structures on Big Spring Creek, North Newton and Penn Township (Cumberland County).
- Performed a topographic/property survey for proposed easement and stream corridor stabilization on Trout Run at the end of Avonia Road, Fairview Township (Erie County).
- Performed a topographic survey for a proposed access site upgrade at Cranberry Glade Lake Access, Lower Turkeyfoot Township (Somerset County).

In 2007, the Bureau's Construction Division constructed and renovated the following access areas:

Glassworks, Greene County: This new site provides a concrete launch ramp, concrete ADA sidewalk and fishing pier, bulkhead and docks, and a paved parking area.

Cambridge Springs, Crawford County: Crews removed the existing boat launch ramp, constructed a new concrete launch ramp in a deeper pool, expanded the existing parking lot and constructed new site drainage.

Speedwell Forge Lake, Lancaster County: Crews removed the existing boat launch ramp and constructed a new concrete launch ramp. A



Trout Run Observation Deck,
Erie County



Glassworks, Greene County



Glassworks, Greene County



North East Marina, Erie County



North East Marina, Erie County

concrete ADA sidewalk was poured to make the floating docks available to disabled anglers and boaters.

Montgomery Ferry, Perry County: Crews removed the existing boat launch ramp and constructed a new concrete launch ramp. Drainage and erosion control was placed in swales and along the shoreline. The parking lot was graded with stone and paved.

Starbrick, Warren County: Crews removed the existing boat launch ramp, constructed a new concrete launch ramp and expanded the parking area.

Speers, Washington County: Crews removed the existing boat launch ramp and constructed a new concrete launch ramp.

Middletown, Dauphin County: Crews removed the existing boat launch ramp, constructed a new concrete launch ramp and renovated the bulkhead for the docks.

North East Marina, Erie County: Some 10,180 cubic yards of material, from west of the marina basin, was removed, placed and leveled on the beach at the eastern side of the marina.

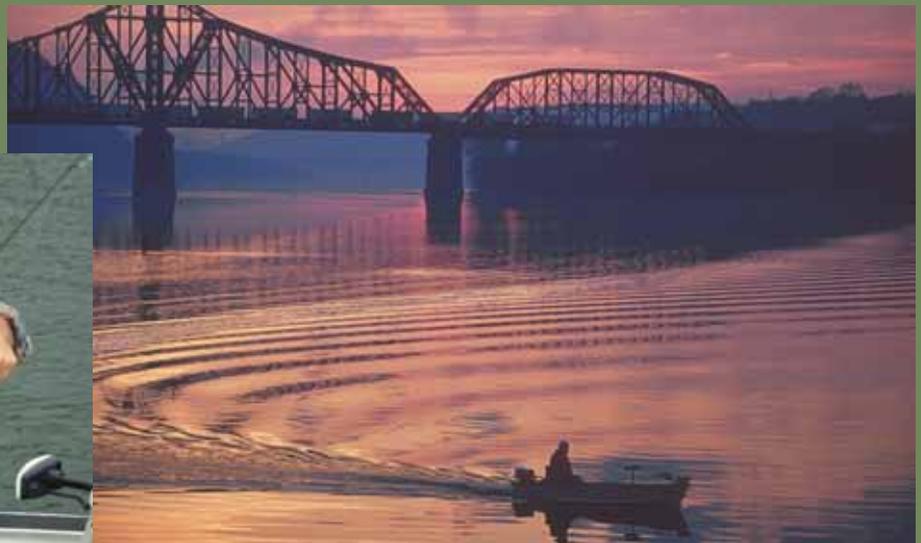
Muddy Creek, York County: Potholes and cracks in the asphalt were removed, the sub-base was placed, the parking lot was paved and traffic lines were painted.

Halifax, Dauphin County: Potholes and cracks in the asphalt were removed, the sub-base was placed, the parking lot was paved and traffic lines were painted.

The Bureau's carpentry and electrical crews constructed various projects in 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.





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January 2008