

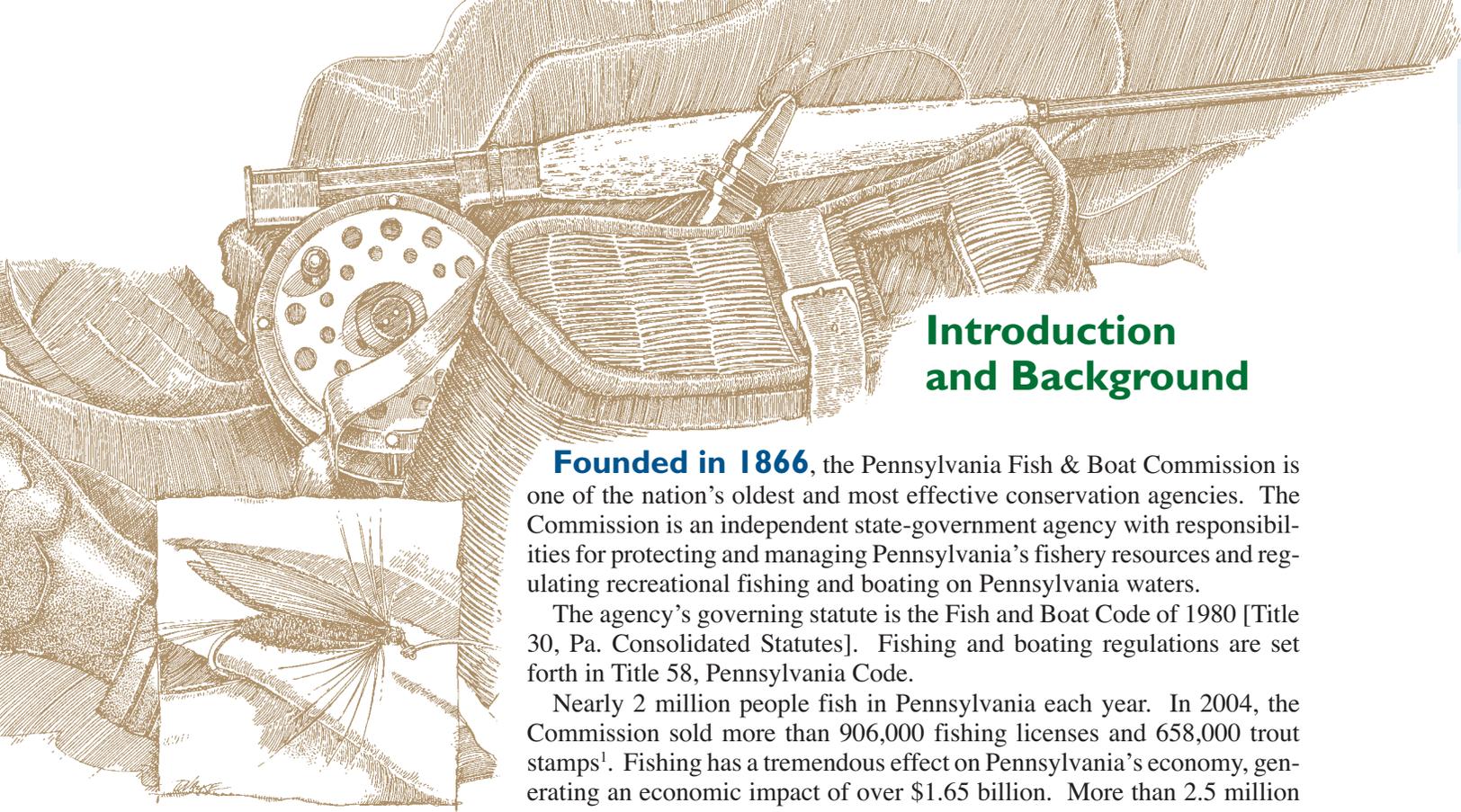


2004

Annual Report

Our mission:

To provide fishing and boating opportunities through the protection and management of aquatic resources.



Introduction and Background

Founded in 1866, the Pennsylvania Fish & Boat Commission is one of the nation's oldest and most effective conservation agencies. The 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 waters.

The agency's governing statute is the Fish and Boat Code of 1980 [Title 30, Pa. Consolidated Statutes]. Fishing and boating regulations are set forth in Title 58, Pennsylvania Code.

Nearly 2 million people fish in Pennsylvania each year. In 2004, the Commission sold more than 906,000 fishing licenses and 658,000 trout stamps¹. Fishing has a tremendous effect on Pennsylvania's economy, generating an economic impact of over \$1.65 billion. More than 2.5 million people boat on Pennsylvania waters each year. During 2004, 353,478 boats were registered in Pennsylvania. The Commission estimates that boating has a total annual economic effect of \$1.7 billion.

Members of the Commission are appointed by the governor to eight-year terms with the advice and consent by the majority of the Pennsylvania Senate. Eight commissioners are selected based on districts; two at-large (statewide) commissioners represent boating interests.

Douglas J. Austen, Ph.D., is the Commission's ninth executive director. He is the Commission's chief executive officer and chief waterways conservation officer. Dr. Austen supervises the Commission's day-to-day operations. In 2004, the Commission's complement was capped at 431 full-time employees. The wage (temporary and seasonal) complement averages about 150 employees during the peak stocking and recreational season.

The agency's mission is "To provide fishing and boating opportunities through the protection and management of aquatic resources."

To accomplish this mission, the 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.**

To accomplish these goals, the Commission is organized into five specialized bureaus and an Executive Office that coordinates the agency's policy and programmatic direction as established by the commissioners. This document outlines several major agency-wide programmatic accomplishments for 2004 and reports on organizational unit-specific actions that support the Commission's mission and goals.



¹ License and trout stamp sales figures for 2004 cannot be finalized until all issuing agents have submitted reports, some of which are still outstanding.



Featured Programmatic Initiatives:

Funding

Addressing funding needs was the dominant issue faced by the Fish & Boat Commission in 2004. No organization, no program, no idea can be successful without adequate fiscal resources. Entering 2004, the Commission faced two equally pressing but distinct challenges: Securing a much needed and long overdue operational revenue enhancement and securing a long-term, stable funding source for addressing a backlog of major projects on Commonwealth-owned infrastructure managed by the Commission.

The Commission is unlike most state agencies in that it receives no general tax dollars to fund its programs. Instead, the Commission receives most of its money directly from anglers and boaters. When anglers purchase fishing licenses and trout stamps, their money goes into the “Fish Fund,” a special fund in the Pennsylvania Treasury. The user fees paid by anglers are the source of about 80 percent of the annual Fish Fund revenue. In turn, Fish Fund expenditures support hatcheries for warmwater/coolwater fish and trout, law enforcement, fisheries management and habitat improvement efforts, facilities for anglers and boaters, and education and communications programs.

Coming into 2004, the Fish Fund was at the end of a periodic license cycle as costs exceeded revenue, and the fund balance was in decline. Even though historically fishing license fees have been adjusted on average about every 6.25 years, 2004 marked the ninth consecutive year with the same price for a fishing license and the fourteenth consecutive year with the same price for a trout stamp.

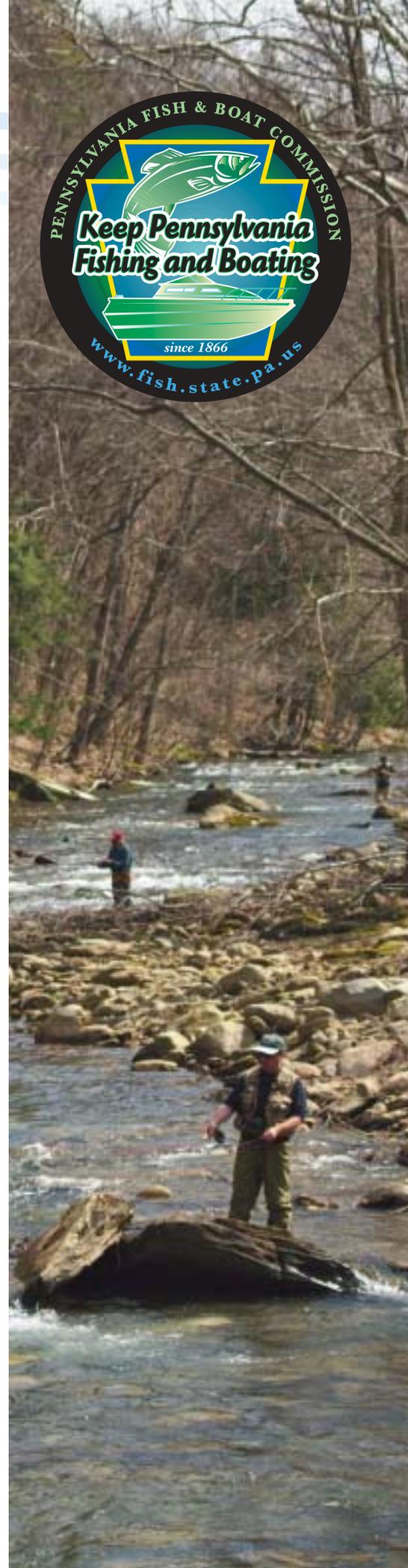
Similarly, boat registration fees, the Boat Fund’s primary revenue source, have not been updated since 1991. The Boat Fund supports boating safety education, aids to navigation, water rescue training and public boat launches.

House of Representatives Game & Fisheries Committee Majority Chairman Bruce Smith and Minority Chairman Ed Staback worked with representatives of the state’s major fishing, boating and sportsmen’s organizations to develop a bill (House Bill 2155) to address the Commission’s operational revenue needs. The bill implemented a new fishing license and boat registration fee structure.

The Commission endorsed this legislation and much effort was expended in 2004 to support the legislation. The agency created and widely distributed to constituent groups and individuals numerous information pieces that explained the need for additional operational revenue. Waterways conservation officers and other staff members addressed tens of thousands of anglers and boaters at club meetings and other public forums to explain the funding issues, answer questions and field suggestions. Commissioners and executive staff also spent much time meeting with legislators to explain the funding crisis and ask for support.

On June 15, a “Keep Pennsylvania Fishing and Boating Rally” was held in the state Capitol to encourage improved funding for the Commission. The event was organized by the Pennsylvania Federation of Sportsmen’s Clubs, and it was co-sponsored by the Pennsylvania Boating Association of Southeast Pennsylvania, Pennsylvania Trout, Pennsylvania B.A.S.S., Pennsylvania Boating Association of Southwest Pennsylvania, Coalition of Concerned Pennsylvania Anglers and Unified Sportsmen of Pennsylvania.

The overwhelming public support for enhanced operational funding was reflected by members of the General Assembly when they voted on House Bill 2155 in the fall. The bill passed in the House of Representatives on



Infrastructure—dams, hatcheries and public access areas—is the backbone of boating and fishing in Pennsylvania.



November 10 by a 161-34 vote, and in the Senate, it passed on November 18 with a vote of 46-1. Governor Rendell signed the bill into law November 30 as Act 159 of 2004.

The Commission is very thankful for the work of Representatives Smith and Staback, the House and Senate leadership, the Rendell Administration and the anglers and boaters of Pennsylvania for their work in obtaining final passage.

While Act 159 addresses the Commission's short-term operational funding needs, efforts to secure long-term infrastructure funding in 2004 were not as successful.

Through state ownership, the Commission manages 14 fish hatcheries, 62 publicly accessible lakes and about 250 boating access areas. All of these properties and facilities are owned by the Commonwealth and managed by the Commission. The 14 hatcheries provide fishing opportunities by stocking some 4 million catchable adult trout and more than 100 million juvenile fish, including warmwater/coolwater fish.

The Commission's day-to-day operating funds from license sales and boat registrations will never be enough to pay all the costs of major capital projects for hatcheries, dams, access areas and other properties. Historically, the Commission has participated in major state conservation bond initiatives. Unfortunately, Project 500 (during the 1970s) was the last time the Commonwealth as a whole made a major investment in fish and wildlife habitat, hatcheries, dams and boat ramps. As a result, a long-term investment of more than \$100 million is needed to upgrade state fish hatcheries, state dams and state access areas under the Commission's jurisdiction.

This infrastructure—dams, hatcheries and public access areas—is the backbone of boating and fishing in Pennsylvania. Funding for these facilities would make a positive impact on fishing and boating. Sportsmen would also benefit from investments in open-space and habitat conservation, abandoned mine lands reclamation, remediation of acid mine drainage, and non-point source pollution abatement.

In July, the Commission joined members of the Administration on a bus tour that visited three western Pennsylvania waterways to show that the health of state rivers, lakes and streams, and the vitality of their surrounding communities, hinge on future investments.

A Green Ribbon Panel created by the General Assembly and Governor Rendell is actively exploring legislation to address a wide scope of environmental and natural resource funding needs.

Featured Programmatic Initiatives:

Strategic Planning

In 2004, the commissioners and staff worked on developing and implementing a new strategic plan. The development process began in the fall of 2003 with an initial facilitated meeting with the commissioners and throughout 2004 with a series of facilitated meetings, five in all, with executive staff and an internal planning team. A commissioner retreat was held September 1-2, 2004, to review the initial Commission guidance and direction and the staff-developed strategies.

Before the retreat, staff finalized a host of planning documents, and lead staff for many of the Commission initiatives met with the executive director to discuss operational plans. Commission staff is working on a plan summary for public distribution and hopes to make this available in February 2005.

Through this process, the Pennsylvania Fish & Boat Commission leadership has identified six overriding strategies it will implement in its efforts to fulfill its mission.

- **The Commission will position itself as an organization known for serving the fishing and boating public and the resources it protects.**
- **The Commission will invest in activities, resources and programs to increase boating and fishing participation in the Commonwealth.**
- **The Commission will explore and implement methods to increase traditional and non-user fee-based sources of revenue.**
- **The Commission will enhance relationships, leading to partnership opportunities with stakeholder groups, corporations, natural resource agencies, non-government organizations and others.**
- **The Commission will develop the internal structure and processes needed to effectively protect and manage aquatic resources and fishing and boating activities.**
- **The Commission will develop a coordinated, agency-wide approach to aquatic resource management, protection and conservation.**

During the first year of this long-range strategic plan, the Pennsylvania Fish & Boat Commission leadership has decided that it will begin to implement the following operational objectives. These operational objectives were developed and selected to support the overriding strategies.

- **Develop specific marketing and public relations initiatives targeted at key audiences.**
- **Develop and implement a Boating Access Improvement Program.**
- **Develop a systematic approach to improve streamside and shoreline angling opportunities.**
- **Reengineer trout fishing opportunities to improve the attractiveness to anglers.**
- **Increase revenue from “soft” sources (mitigation, habitat, grants, etc.).**
- **Seek legislation to capture an equivalent portion of general fund revenue generated by fishing and boating.**
- **Identify and communicate the roles of the commissioners and agency staff.**

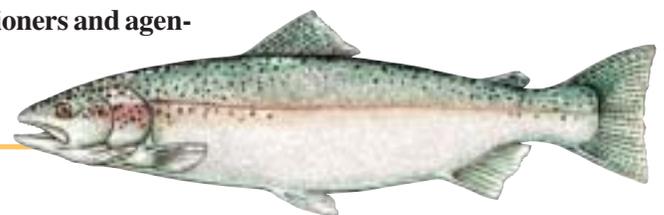
Featured Programmatic Initiatives:

Economic Value of the Steelhead Fishery

As if catching trophy trout nearly three feet long weren't enough, a 2004 study demonstrated that steelhead fishing in Pennsylvania's Lake Erie tributaries is a “keeper” for the local economy in Erie County, generating \$9.5 million in annual economic activity.

Under the direction of Pennsylvania Sea Grant and the Pennsylvania Fish & Boat Commission, researchers collected information regarding angler expenditures. That data was analyzed by the Department of Agricultural Economics and Rural Sociology, Pennsylvania State University, and released in a report by the Commission's Lake Erie Research Unit.

According to the results, steelhead fishing activity in Pennsylvania nearly tripled in the last decade, going from around 70,000 trips in 1993 to over 200,000 trips in 2003. As interest in the fishery has grown, attracting anglers from across Pennsylvania, 28 states and Canada, it has become a notable part of the local tourism economy.



Steelhead

There is a very real and direct economic impact to Erie's economy through sport fishing. The \$9.5 million in trip-related expenditures in 2003 resulted in \$5.71 million in new value-added economic activity in Erie County that directly and indirectly creates 219 local jobs.



Fish ladder



Before and after dam removal

The study revealed that anglers catch more than 500,000 steelhead each year. Not only are large numbers caught, but the catch rate is also impressive, with the average angler landing a steelhead about every hour-and-a-half.

The steelhead study results represent Phase II of an Economic Impact of Sport Fishing (EISF) in Erie County study. According to Phase II of the study, the economic impact of steelhead fishing in Lake Erie tributary fisheries is \$9.5 million. That figure is part of the overall \$28 million to \$36 million in total fishery expenditures in Erie County as determined in Phase I of the study.

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Phase II of the study noted that sport fishing for steelhead is high in October through December. The average out-of-town angler spends \$62 per day, while the local angler spends \$6.60 per day.

Featured Programmatic Initiatives:

Dam Removal and Habitat Restoration

Pennsylvania is considered a national leader in restoring stream habitat through dam removal, in large part because of the Fish & Boat Commission's initiative in developing partnerships for funding and action. Since 1995, the Commission and its partners have facilitated the construction of 12 fishways and the removal of nearly 75 dams, resulting in the reopening and/or restoration of over 500 miles of previously blocked or otherwise affected stream habitat. The Commission has also obtained over \$5 million in funding to support project design and implementation.

In 1995, the Commission created the Consultation and Grant Program for Fish Passage and Habitat Restoration. The program supports efforts to restore migratory and resident fishes to the Susquehanna River Basin. Barriers to migration are removed and stream habitat is restored. Project coordination and outreach are provided as part of the program as well as technical and financial assistance to dam owners. These services address constructing and operating fish-passage facilities and the removal of dams that no longer serve a functional purpose. In addition, habitat restoration is conducted as needed in individual projects. All dam removal projects are potentially eligible for assistance. Several criteria are used to evaluate, prioritize and select dam removal projects for assistance, including project cost, amount and quality of stream habitat, and public safety benefits.

The Commission expanded the program in 2004 to address projects statewide. At the Commission's October 2004 meeting, grant authority was provided for the statewide implementation. A biologist was added to the program staff to acquire and use a variety of funding sources to advance dam removal and habitat restoration statewide. Funds for dam removal and habitat restoration in excess of \$1.5 million were obtained in 2004 as a result of staff efforts. Fifty dam removal/habitat restoration projects were underway in 2004. Of these, 12 dams were removed and construction of two fish passageways was completed. The approximate cost for completed projects totaled \$1 million. This figure included stream and riparian restoration activities where warranted.

Fish Passage Name	Passage Type	Water	County	Drainage	Cost
Charming Forge Dam	Dam Removal	Tulpehocken Creek	Berks	Delaware	\$50,000
Reading Museum Dam #1	Dam Removal	Wyomissing Creek	Berks	Delaware	\$140,000
Reading Museum Dam #2	Dam Removal	Wyomissing Creek	Berks	Delaware	
Durham Dam	Dam Removal	Cooks Creek	Bucks	Delaware	\$75,000
Irving Mill Dam	Dam Removal	Ridley Creek	Delaware	Delaware	\$90,000
Unnamed (Grove City) Dam	Dam Removal	Wolf Creek	Mercer	Ohio	\$25,000
Cleversburg Water Supply Dam	Dam Removal	Milesburn Run	Cumberland	Susquehanna	\$30,000
Good Hope Dam	Restoration	Conodoguinet Creek	Cumberland	Susquehanna	\$85,000
Heishman's Mill Dam	By-pass Channel	Conodoguinet Creek	Cumberland	Susquehanna	\$130,000
Hershey Foods Dam	Denil Fishway	Swatara Creek	Dauphin	Susquehanna	\$250,000
Shiffer's Mill Dam	Dam Removal	Wiconisco Creek	Dauphin	Susquehanna	\$25,000
Esh Dam	Dam Removal	Mill Creek	Lancaster	Susquehanna	\$5,000
Reedsville Mill Dam	Dam Removal	Tea Creek	Mifflin	Susquehanna	\$55,000
Detter's Mill Dam	Dam Removal	Conewago Creek	York	Susquehanna	\$40,000
Total: 11 Dam Removals, 2 Fishways, 1 Restoration follow-up					\$1,000,000

Featured Programmatic Initiatives:

Access Area Improvements

Pennsylvania provides nearly unlimited opportunities for recreational boaters. The Commonwealth has 83,000 miles of rivers and streams ranging from headwaters to major river systems. Also within the state's borders are 76 natural lakes that provide 5,266 flatwater acres. An additional 2,300 constructed impoundments provide another 200,000 acres of boatable waters. Lake Erie has over 63 shoreline miles and 735 square miles of water within PA boundaries. The Delaware River provides 56 miles of tidal water within PA, providing access to the Atlantic Ocean. However, to take advantage of the recreational boating opportunities this vast aquatic resource offers, users must be able to access the water.

To facilitate access, the Commission, through state ownership, manages about 250 boating access areas and launch ramps that it has developed for free public use. The Commission also works with local governments at the county and municipal level for the development and improvement of access sites. In 2004, the Commission began a focused effort to rehabilitate and improve many access areas. More than \$1 million was invested as part of this effort.

Major project work started with Commission crews cleaning the lot and paving over the existing parking area at the Frankford Arsenal Boat Launch in Philadelphia County. At the Yardley Access in Bucks County, the boat launch ramp was replaced. At the Limerick Access in Montgomery County, the stone ramp was replaced with a new concrete ramp. Next, workers moved to the Phoenixville Access in Chester County, where they replaced the ramp, raised the parking lot 12 inches, created a new turn-around area, and paved the entire parking lot and entranceway.

In the fall of 2004, Bureau of Engineering & Development staff spent several weeks cleaning up and eventually reopening the Tacony Access in Philadelphia. This access had been closed for three years because of vandalism and litter problems. At the urging of local legislators and the community, the Commission invested considerable effort in returning this access to productive use, and it has again become an asset to the community.

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Elsewhere, the Springdale Access in Allegheny County and the Monongahela Access in Washington County were replaced. The launch ramp at Brady's Bend Access in Armstrong County was also replaced. The parking lot at Walker Access in Juniata County was enlarged to allow boats and trailers to park. At Newton Hamilton Access in Mifflin County, Commission crews replaced the ramp and installed a French drain system around the parking area. At Bald Eagle Access in Clinton County, the Commission redirected and replaced the existing ramp and placed new stone on the parking lot. At the North East Access in Erie County, a new drainage system was placed on both the up and down roadways to the access and new pavement was placed over it.

The Commission also made grants totaling \$200,000 to the city of Pittsburgh to make improvements to the Southside Access, the only public access in the city. This grant will be used to reconstruct the launch ramps and build a dock for temporary use by visiting boats. A \$100,000 grant was also issued to the borough of Point Marion, Fayette County, for construction of a visiting boat dock. These facilities will be under construction in the spring of 2005 and will provide much-needed facilities for boaters who travel up and down the Monongahela River. The substantial completion of the development of facilities for transient boats along the main wharf in the city of Erie also took place in 2004. Through the Boating Infrastructure Grants Program, awards totaling \$300,000 were presented for facilities accommodating transient boats over 26 feet in length. These facilities made it easier for the city to attract boating from across the Great Lakes. They have been nearly 100 percent full during the entire summer boating season.

Programmatic Initiatives:

State Wildlife Grants Program

The State Wildlife Grants Program is a federal program funded through the U.S. Fish & Wildlife Service and administered by state wildlife agencies. The purpose of the State Wildlife Grants Program is to provide funding to states to help meet the conservation needs of fish and wildlife considered "at risk." The program's primary emphasis is conservation of traditionally under-funded species such as nongame fish and wildlife. Because distribution of funds is based on land area and population size, Pennsylvania has received a large proportion of these funds.

At the outset of this program, the Fish & Boat Commission and the Pennsylvania Game Commission decided to work with conservation partners on high-priority conservation efforts to leverage additional resources and maximize the benefits of conservation projects. Working with conservation partners has enabled intervention in wildlife conservation and management at the state level before species require drastic protective action. The International Association of Fish and Wildlife Agencies has held up the Pennsylvania program as a national model.

Projects are underway that will assess the distribution and abundance of declining species before they reach federally endangered status, undertake restoration of species before they reach federally endangered status, gauge the success of previous reintroduction efforts and identify habitats to target for protection and management before such protection involves impacts to development projects. Examples of projects funded and/or continuing in 2004 that are making a positive impact on Commission management and species conservation efforts include:

Reptile Species Inventory and Habitat Monitoring, Management and Restoration

This project aims to identify the presence, determine the abundance and monitor populations of bog turtles, a Pennsylvania endangered and federally threatened species, in a series of wetlands that contain a significant metapopulation of bog turtles. Habitat management techniques will be used to improve and maintain essential habitat features.



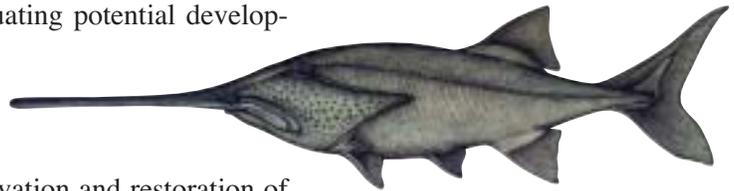
Eastern spiny softshell turtle

Range Determination and Metapopulation Assessment of the Eastern Massasauga Rattlesnake in PA

This project will benefit the Commonwealth by determining the range and specific distribution of the massasauga rattlesnake in Pennsylvania. The project will include assessment of historical sites and new sites, and spatial analysis. In addition, the project would provide assistance to rural communities in western Pennsylvania by evaluating potential development areas for the presence of this species.

Paddlefish Population Status, Abundance and Restoration

As the next step in understanding the conservation and restoration of paddlefish in Pennsylvania, the objective of this project is to determine the relative abundance of juvenile and adult paddlefish in the Ohio and Allegheny rivers, and to develop a comprehensive paddlefish management plan for Pennsylvania.



Paddlefish

Contemporary Population Status and Identification of Spawning Locations of Delaware River Atlantic Sturgeon

This project will investigate the current status and spawning habitat needs of this species at the center of its historic worldwide range. Atlantic sturgeon populations collapsed under market pressure around the 1900s. Their status in the Delaware River is unknown, but an adult was found in 2001, which suggests some spawning.



Atlantic sturgeon

Organizational Unit Report:

Executive Office

The Executive Office administers the operations and activities of the entire Commission. The executive director serves as the chief waterways conservation officer of the Commission and as an ex-officio member of the Atlantic States Marine Fisheries Commission, the Environmental Quality Board, the Mid-Atlantic Fisheries Management Council and the Boating Advisory Board. The executive director is supported by a variety of staff including the chief counsel, legislative liaison, press secretary, the director of policy and planning, and the Human Resources Office.

On January 27, 2004, Douglas J. Austen, Ph.D., was officially sworn in as the Pennsylvania Fish & Boat Commission's ninth executive director. Dr. Austen brings to the Commission more than 25 years of fisheries and natural resource management experience in a variety of top-level positions. He served as head of the Technical Support Section of the Illinois Department of Natural Resources and as an adjunct faculty member in the Department of Natural Resources and Environmental Sciences at the University of Illinois. In 1992, he earned a doctorate from the Department of



Douglas J. Austen, Ph.D.



www.fish.state.pa.us



Fish production and stocking are two of the more visible and publicly valued bureau functions. In all, 118 million fish were stocked. All were safe to catch, handle and eat.

Animal Ecology at Iowa State University. In addition, he earned a master's degree in fisheries science at Virginia Polytechnic Institute and State University and a bachelor's degree in wildlife and fisheries science at South Dakota State University.

The Executive Office took the lead in participating in a series of meetings and hearings related to House Resolution 222, a feasibility study of transferring enforcement of fish, boat and game laws to a single agency of the executive branch. The Legislative Budget and Finance Committee authored the report. It found that the cost of consolidating the law enforcement functions of the Fish & Boat Commission, Game Commission and Department of Conservation and Natural Resources would increase by \$5.8 million. It would not decrease the costs of providing conservation law enforcement in Pennsylvania. In addition to increasing costs, service to anglers, boaters and others would diminish because of the elimination of the deputy program and because of a broadening of the current focused approach that our current program provides. The Commission opposed the consolidation of law enforcement functions but praised the report's analysis of the viability of alternative funding for conservation law enforcement efforts.

The Commission's web site (www.fish.state.pa.us) is administered by the Executive Office and continues to expand in popularity as a flagship information source. The site experienced nearly 8.5 million unique page views in 2004, an increase in volume of 41 percent from the previous year. Some major improvements to the web site were enacted in 2004, including a major redesign of the main page. To further reduce the amount of staff time required to address email, a form-based inquiry system was added to combat the heavy volume of junk email typically received. In February, a function allowing online boat registration renewals was added. A function for voluntary contributions to the Fish Fund and Boat Fund was also created.

One of the greatest challenges that the Fish & Boat Commission continues to face relates to the privatization of public waters. Throughout the Commonwealth there are many waterways where private landowners have asserted ownership and control while the Commonwealth has maintained their navigable status. It appears that a case-by-case determination will be required for each waterway. In 2003, the Commission, along with the Department of Environmental Protection and the Department of Conservation and Natural Resources, filed suit in Huntingdon County, asking the court to declare the Little Juniata River navigable and to enjoin certain riparian landowners and their lessees from interfering with public fishing, boating and other recreation. The agencies continued to defend the public's rights in the Little Juniata River in 2004, while the litigation continued.

Organizational Unit Report:

Bureau of Fisheries

The Bureau of Fisheries directs the research, management, production, protection, propagation and distribution of fish, fisheries, habitat, reptiles, amphibians and certain threatened and endangered/nongame species in the Commonwealth. The bureau also directs the operation of all state fish hatcheries operated by the Fish & Boat Commission. It also represents the executive director and the Commission at various partner meetings, including the Mid-Atlantic Fishery Management Council, develops and

provides briefings and presentations, and relays policy statements. The bureau addresses many environmentally, legally and politically sensitive issues related to the major permitting and permit review functions of the Division of Environmental Services; serves as the Commission's Lake Erie manager on the international and interstate Lake Erie Committee; and provides oversight of the infrastructure and renovations of the Pleasant Gap Complex, including the Stackhouse School of Conservation property.

Fisheries biologists and technicians spent considerable field time in 2004 sampling various aspects of fisheries on 23 river, 32 warmwater stream, 42 transitional stream, and 150 trout stream sections and 12 impoundments. Documenting the quality and quantity of fish populations is important not only for updating management plans (stocking, regulations, etc.) but also for establishing the basis for reviewing applications for encroachment permits.

An angler survey was conducted on 200 reaches representing 2,763 miles of unstocked wild trout streams open to public fishing. Electrofishing occurred on 40 of those reaches, estimating wild trout populations.

There were 189 spawning striped bass sampled, ranging from 15 to 43 inches long, in the lower Delaware River and Estuary in the Philadelphia-Chester area. Monitoring the Easton fishway indicated that 754 adult American shad entered the Lehigh River, and marks indicated that 81 percent originated from fry stocking. Shad netting on the Delaware River at Smithfield Beach produced 427 adult American shad that were used to characterize the upper river shad population.

Fish salvage operations occurred at Dutch Fork Lake, Washington County, as the reservoir was drained because of damage caused by Hurricane Ivan. Personnel assisted in major electrofishing and seining at the Benner Spring State Fish Hatchery to capture displaced trout because of flooding also caused by Hurricane Ivan.

Fisheries management personnel attended many meetings, prepared dozens of reports from field studies and provided 46 web page summaries covering recent fieldwork. Staff also reviewed information for creating additional web maps depicting locations of warmwater and coolwater fish populations worthy of special mention. Staff began the planning of angler use-and-harvest studies on 30 trout-stocked stream sections for 2005 and simplifying trout fishing regulations.

The Anadromous Fish Restoration Unit received over 17 million American shad eggs and stocked over 5 million fry in the Susquehanna and Delaware rivers and their tributaries. Egg collection and fry stocking were hampered by higher-than-average river levels. The hickory shad restoration program continued with over 6 million fry stocked in four Pennsylvania tributaries.

Fish culture research projects included evaluation of a vegetable-based, PCB-free trout diet, which unfortunately was terminated by Hurricane Ivan flood damage. The study was re-initiated in November. Annual PCB monitoring of all state fish hatcheries continued.

The Lake Erie Unit completed a full-season (eight months) steelhead angler use-and-economic-impact survey. The survey showed that 25,000 anglers fished for steelhead in Pennsylvania's Lake Erie tributaries. Anglers from 23 states and Canada caught more than 500,000 steelhead and pumped over \$11 million into the local economy.

The Annual (2004) Lake Erie Boat Angler Survey confirmed that the yellow perch fishing was outstanding. An estimated 238,235 hours were directed at yellow perch, with 750,132 perch caught and 552,052 perch



American shad



PFBC's research vessel—Perca.



Benner Spring State Fish Hatchery during Hurricane Ivan



Trout stocked in 2004 included 4,223,763 adult trout at 1,892,667 pounds, and 1,718,722 fingerling trout 36,446 pounds.

harvested. The targeted catch rate was 4.58 perch per angler hour and targeted harvest rate was 3.36 perch per angler hour.

Hurricane Ivan's flooding caused significant damage at the Benner Spring Research Station/State Fish Hatchery. Equipment and research losses exceeded \$500,000. Approximately 170,000 trout were lost from the hatchery. The cleanup response was rapid and equipment replacement continues.

The Fish Health Unit participated in a spring viremia carp virus-screening project to determine if this harmful disease occurs in Pennsylvania's carp population. Fish kills of wild carp in the Allegheny River and crappies in Sayers Lake were investigated. Routine monitoring and special-case diagnoses and treatments of hatchery fish occurred throughout the year.

The Water Quality Unit continued to ensure that National Pollution Discharge Elimination System (NPDES) permit requirements were met. Some 3,800 hatchery effluent water samples were processed. Hazardous materials and right-to-know update training was provided to all state fish hatchery staff.

The Environmental Services Division's staff deal with a wide variety of activities that pose threats to the Commonwealth's aquatic resources, their habitats and to fishing and boating opportunities. The division is organized in four sections—the Watershed Analysis Section, Aquatic Resources Section, Habitat Management Section and the Natural Diversity Section with a total of 24 professional, clerical and seasonal staff. In 2004, state and federal regulators looked to the Commission for specialized expertise to assist them with the review of 4,780 permit applications. Environmental Services staff assisted law enforcement agents in the investigation and prosecution of 17 water pollution and watershed disturbance cases.

The Environmental Services Division issued 123 permits for drawing down ponds and lakes, 41 permits for using explosives in Commonwealth waters, 1,033 permits for applying herbicides, 217 permits for the stocking grass carp, 1,181 permits for hunting timber rattlesnakes and 493 permits for scientific data collection.

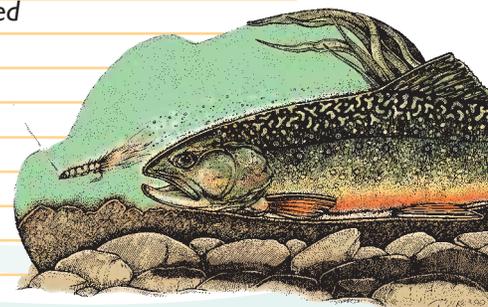
Environmental Services also prepared 133 plans for improving aquatic habitats in Commonwealth streams and lakes that involved the placement by volunteer cooperators of 182 (100 lake and 82 stream) habitat structures.

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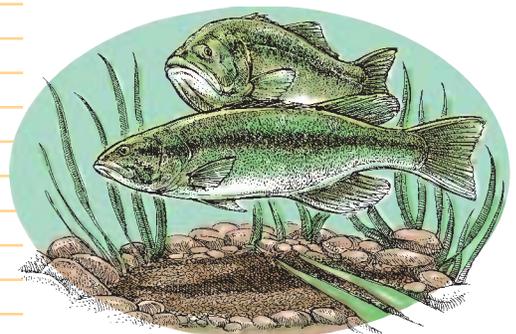
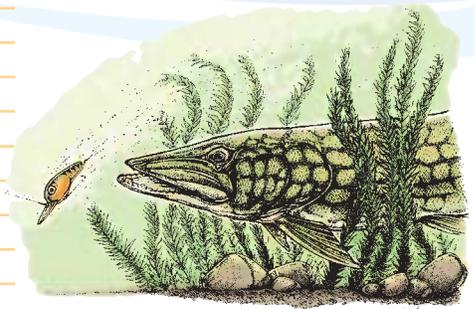
2004 Trout Production and Stocking

Species	Lifestage	Number Stocked
Brook Trout	Adult	945,867
	Fingerling	367,500
Brown Trout	Adult	1,776,645
	Fingerling	798,502
Rainbow Trout	Adult	1,492,455
	Fingerling	552,720
Golden R. Trout	Adult	8,796
Totals		5,942,485



2004 Warmwater/Coolwater Fish Production and Stocking

Species	Lifestage	Number Requested	Number Stocked
American Shad	Fry	2,000,000	4,709,872
Black Crappie	Fingerling	24,000	4,735
Bluegill	Adult	50	50
Bluegill	Fingerling	23,900	228
Chain Pickerel	Fingerling	4,750	1,635
Channel Catfish	Fingerling	235,250	253,601
Fathead Minnow	Adult	105,500	105,500
Grass Carp	Adult	400	200
Hickory Shad	Fry	0	6,115,730
Lake Trout	Fingerling	68,000	81,990
Largemouth Bass	Fingerling	16,850	16,850
Muskellunge	Fingerling	123,905	122,389
Muskellunge	Yearling	1,465	1,603
Northern Pike	Fingerling	6,620	6,620
Paddlefish	Fingerling	9,800	5,717
Redear Sunfish	Fingerling	34,700	34,700
Rock Bass	Fingerling	6,800	6,800
Sauger	Phase One	34,920	18,624
Sauger	Phase One	37,150	4,000
Smallmouth Bass	Fingerling	22,400	22,400
Steelhead	Yearling	1,045,000	1,074,385
Striped Bass	Fry	6,650,000	13,690,000
Striped Bass	Phase One	401,100	37,018
Striped Bass Hybrid	Fingerling	126,000	93,125
Tiger Muskellunge	Fingerling	72,700	80,474
Walleye	Fry	82,651,050	84,057,550
Walleye	Phase One	1,100,600	799,340
White Crappie	Fingerling	20,450	8,088
Yellow Perch	Fry	1,000,000	1,000,000
Totals		95,888,330	112,353,224



Organizational Unit Report:

Bureau of Administration

The Bureau of Administration provides administrative support services for all Commission programs and operations including: issuance of fishing licenses, stamps and permits; purchasing and procurement of supplies, equipment and services; issuance of boat registrations and titles; fiscal planning, budget preparation and expenditure, and revenue review; vehicle fleet management; insurance; warehousing and inventory; issuance of special permits; mail and messenger services; federal grants administration; purchasing and travel card management; sale of surplus property; development and management of information systems; and forms and records retention. The bureau also includes the surplus property officer; administers and coordinates all federal grants; plans, directs and operates the Harrisburg Data Processing Center and the Pleasant Gap Data Processing Center; formulates the Commission's annual budget and re-budget; records and analyzes expenditures and revenue; administers the agency's Vendor Information Payment System (VIPS) and the VISA Purchasing Card Program; handles the distribution, accounting and record-

During 2004, the Fish & Boat Commission managed approximately 30 federally funded projects, which returned more than \$8.8 million in revenue to the Commission.



Bureau of Administration's employees complete packaging of 2005 licenses for shipment to license issuing agents.

License Type/Units Sold

Resident	785,115
Senior Resident	17,118
Senior Lifetime	50,709
Non-Resident	3,299
3-Day Tourist	13,355
7-Day Tourist	36,684
Trout/Salmon Stamp	658,631
Total Licenses & Stamps	1,564,911

Transaction Type/Transactions

Registration Renewal	136,279
Registration Transfer	17,047
Registration New	29,509
Registration Correction	238
Registration Duplicate	3,769
Title New	20,638
Title Transfer	10,856
Title Correction	796
Title Duplicate	730
Total Boat Transactions	219,862

keeping of the sale of fishing licenses; handles the registration, titling and transfers of boats; issues Special and Scientific Collector's Permits; and administers the procurement, warehousing and distribution of supplies, equipment, goods and services; and provides office and building services, and mail, messenger and related services.

License sales in 2004 rose from 2003 levels. License and trout stamp sales figures for 2004 will not be finalized until the spring of 2005, when all outstanding issuing agents have submitted reports. Nevertheless, sales figures at the end of December totaled 906,574. That compares favorably to the 890,822 for the same period

in 2003. Similarly, trout stamps also showed a net increase. Through December 2004, a total of 658,631 were purchased, compared to 646,220 through December 2003. At this point, it appears that sales in every major license category increased in 2004. Revenue from license and stamp sales was up \$334,376 to \$18,666,207.

During 2004, the Fish & Boat Commission managed approximately 30 federally funded projects, which returned more than \$8.8 million in revenue to the Commission. While the majority of federal funds (\$6.6 million) were received from the U.S. Department of the Interior's Fish & Wildlife Service, other federal agencies provided the 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; and U.S. Department of Homeland Security, U.S. Coast Guard. The combined total of all federal revenue comprised about 22.5 percent of the Commission's revenue in the state fiscal year, which ended June 30, 2004. Since 1986, federal revenue has averaged nearly 20 percent of the Commission's total revenue.

On November 30, 2004, Governor Rendell signed into law Act 159 of 2004, which provided the Commission with much-needed funding for fishing and boating programs. As a result of the passage of Act 159, the licensing and registration staff worked long hours to design and establish procedures to handle and administer the new 1-day resident fishing license and two permits for anglers who fish the Pennsylvania waters of Lake Erie, Presque Isle Bay and tributaries.

Act 159 of 2004 also necessitated some changes in the Commission's Internet sales system, "The Outdoor Shop." This system had to be modified for three new license categories and to change the credit card processor to the state's new credit card provider.

A new system to handle the allocation, distribution, sales, accounting, settlement and audit of our licenses and stamps was fully implemented during the year. This was a major project with many features required for the licensing system.

Another exciting project that was started during the 2004 year was the process to implement a point of sale (POS) system that will drastically change the way the Commission sells fishing licenses and renews boat registrations. This is a large, complex project that will change the way we do business in the future. The POS system will assist the Commission in marketing products such as licenses and stamps. This project was implemented in partnership with the Pennsylvania Game Commission and is expected to be completed during 2007.

The Information Systems Section also began exploring the use of GIS (Geographic Information Systems) to provide information to both Commission computer users and to the public.

Organizational Unit Report:

Bureau of Boating & Education

The Bureau of Boating & Education plans and directs the statewide development and implementation of fisheries, boating and conservation education and public involvement programs geared to enhance fishing and boating opportunities; plans, develops and implements a comprehensive, statewide conservation education program and the public involvement programs structured to enhance the aquatic environment; plans, develops and implements a comprehensive, statewide boating education and safety program and the public involvement programs structured to enhance recreational boating in the Commonwealth; serves as the Commonwealth's boating law administrator; administers the agency's aids-to-navigation activities; directs the operation of marinas and large access areas owned by the agency, including the North East Marina, Walnut Creek and Frankford Arsenal; edits and produces the Commission's *Pennsylvania Angler & Boater* magazine; develops and implements electronic media capabilities including video production; produces special publications such as brochures, booklets, maps and pamphlets; and provides lithographic, duplicating and bindery services for Commission programs and activities.

More than 600 teachers participated in resource education workshops led by bureau staff in 2004. The majority of these workshops were offered for graduate-level credit or for professional development hours. More than 1,000 classrooms received the Pennsylvania League of Angling Youth newsletter.

The aquatic resources training staff completed an evaluation of the effectiveness of educator training workshops and workshop formats. The results of this evaluation were presented at two professional development conferences in 2004. Results show that participants increased knowledge and showed a change in their attitudes about teaching the information learned in the workshop. Participants also indicated a very high likelihood that they will use the materials and lessons provided by the Commission. The study also showed that there were not significant differences between the workshop formats.

The bureau received more than 700 requests for the Commission to present educational programming. The Commission provided staff or volunteers for more than 500 of these requests. More than 1,000 requests for educational materials were processed in 2004.

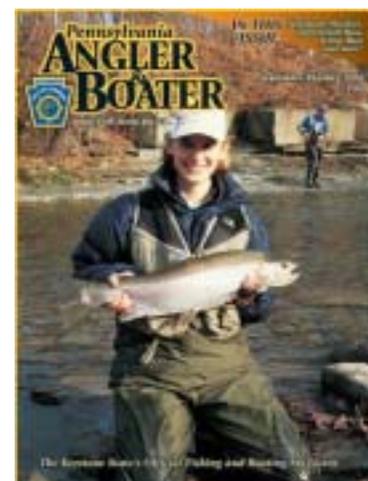
Regional Aquatic Resources Program Specialists trained about 150 adult fishing skills instructors. Trained instructors presented more than 128 basic fishing programs, reaching nearly 5,000 participants. The Commission and its partners offered nine ice fishing programs/events in 2004.

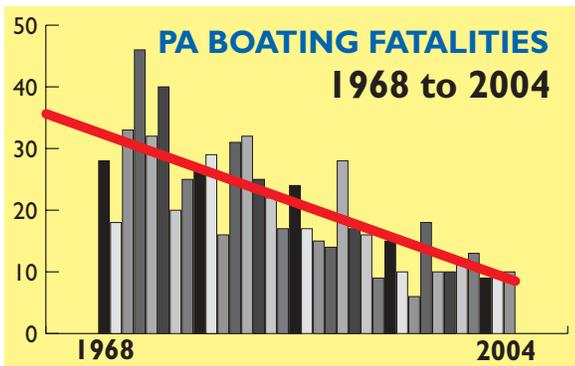
At the end of 2004, there were 25 fishing tackle loaner sites. These sites, most of which are located at state parks, offer fishing rods and reels and terminal tackle for loan. The loans are made to individual park visitors and to groups conducting fishing programs.

The Education Media Services Section completed over 430 work orders in an efficient, timely and cost-effective manner. Intertwined with this on-demand production is constant inventory replenishment of the



The Bureau of Boating & Education received more than 700 requests for the Commission to present educational programming.





Commission’s suite of publications. These mainstay products include the *Summary of Fishing Regulations and Laws*, the *Boating Handbook*, fishing and boating maps, region guides, water-trail guides and the Commission’s flagship publication, *Pennsylvania Angler & Boater* magazine. Supporting product development for the Commission’s online store, *The Outdoor Shop* is also an important revenue lead.

The best measure of the success of a state boating safety program is the number of recreational boaters injured or killed in boating accidents. In 2004, the number of fatal boating accidents remained constant at the low number of 11 fatal accidents with 11 total fatalities. Also in 2004, only

50 injuries were reported, the least reported since 1988. The total number of reported accidents decreased to the low number of 60, the least reported since record-keeping for boating accidents began. Because of the importance of weather and other factors impossible or difficult to control, the trend in boating accident fatalities is the most valid statistic, and the trend in Pennsylvania is downward (*see chart*).

The Commission certified 12,355 students in approved boating courses in 2004, of which nearly 11,000 took Commission-generated courses. Not everyone who completes a course applies for a Boating Safety Education Certificate (some take a course for enrichment), so it is safe to say that an even larger number of individuals received formal boat safety training in 2004. The agency and its volunteers taught 122 PA Basic Boating Courses certifying 2,344 students who successfully completed the course. Volunteers and staff also taught 32 Commission Boating and Water Safety Awareness Courses, certifying an additional 1,552 students. Even more successful was the Commission’s Boat Pennsylvania Internet and correspondence courses. In 2004, 9,722 individuals took one of these fine long-distance-learning courses.

The Commission’s unique and highly successful water rescue program had another banner year in 2004. The Commission certified 916 students through 73 courses in the Water Rescue Program in 2004. The Commission has a trained volunteer instructor corps of 131 individuals who provided more than 3,000 hours of training this past year.

In 2004, two Clean Vessel Act Program grants totaling \$22,000 were awarded for the construction or replacement of boat pumpout facilities. Since program inception in 1994, almost \$350,000 in grants have been awarded to marinas for facilities to handle sewage from recreational boat holding tanks. While not large in scope, this program has helped keep our waters clean.



Organizational Unit Report:

Bureau of Law Enforcement

The Bureau of Law Enforcement directs the enforcement of Commonwealth fish laws, boating laws and certain water pollution laws. Its corps of waterways conservation officers also provides conservation education programs, reviews permits for mine drainage and stream encroachments, administers the Commission’s special activities permits, and participates in fish stocking operations. The bureau also operates the Commission’s most active volunteer program, utilizing a force of more than 200 deputy waterways conservation officers.

The bureau operated during most of the year with 10 vacant districts as a result of retirements and resignations. Several officers were also acti-

vated for military obligations. Neighboring officers, deputies and regional office staff performed additional work to provide coverage in areas without an assigned district officer.

During Hurricane Ivan's flooding in September, conservation officers were activated to perform rescue operations using agency patrol boats and monitor rising water levels at Commission-owned dams. In December, officers responded to and provided assistance in the investigation and recovery effort involving a major oil spill from a commercial tanker on the Delaware River.

By December 31, 2004, conservation officers issued and the courts adjudicated 4,256 summary citations for fishing violations and 3,179 summary citations for boating violations. An additional 2,784 summary fish and boat violation citations were filed with district courts in 2004 and are awaiting final resolution. Officers also issued 32,947 warnings for fishing and boating violations and conducted safety boardings on 28,050 recreational boats.

The bureau issued 2,382 special activities permits for fishing tournaments and regattas.

Total boating-under-the-influence (BUI) arrests for 2004 were 78 (down slightly from the 2003 total of 83) with the earliest made May 1 and the latest, September 5. The Southwest Region led the state in BUI arrests with a total of 34 (44 percent of the total). Two of those arrests involved controlled substances, and one involved a juvenile. A total of 32 special 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 pools of the Susquehanna River. Some officers participated in Operation Nighthawk joint DUI/BUI enforcement details, coordinated by the state police.

The Northwest Region conducted a specialized enforcement effort involving the return of steelhead to the Lake Erie tributaries during the final three months of 2004 utilizing 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 (68 incidents), littering (22), fishing in nursery waters or other prohibited areas (22) and the use of illegal devices (10). In addition to individual violators, the special patrols also dealt with organized groups of poachers. The largest prosecution involved poachers on Twentymile Creek who were using large nets and weighted snag hooks. A total of 63 violations with more than \$7,000 in fines were noted in that case.

The bureau continued to replace aging patrol vehicles and boats within the limits of available funding. The bureau was able to replace the soft body armor for all of the officers with new and improved soft body armor at no cost to the agency. The six regions received video cameras and digital cameras for use in investigations and evidence collection.

The agency's deputy force continues to decline in numbers as attrition continues to take its toll and successful recruitment of new volunteers becomes increasingly difficult. At the end of 2004, our deputy force included 206 members, four of which are on military leave, two of which are on personal leave and 13 of which are in trainee status. However, the Bureau of Law Enforcement was able to hold a 2004 Basic Deputy Waterways Conservation Officer Class at



During Hurricane Ivan's flooding, conservation officers were activated to perform rescue operations using agency patrol boats and monitor rising water levels at Commission-owned dams.





Stackhouse Training School. The course was spread out over a four-segment period that was interrupted by Hurricane Ivan's impact on the training facility. Eleven students successfully completed the extensive training and now serve at various locations statewide.

Training is an integral part of operating a professional workforce, and the Bureau of

Law Enforcement presented in-service update training to all salaried officers during 2004 by splitting the workforce into two parts and assigning each to attend identical three-day training sessions at one of two Commonwealth locations. 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), the major overhaul to driving-under-the-influence statutes, case law, policy changes, fisheries management issues, legislative issues, boat accident investigation/reporting review and procedures, PA State Police Criminal Intelligence Center and standard field sobriety testing.

Annual recertification update training at regional levels continued throughout the year at each region to all WCOs and DWCOs regarding CPR, first aid, firearms dayfire, and tactical and dimlight qualifications. Bureau firearms instructors convened for a training and skills assessment workshop in June. The instructors developed an introductory non-lethal firearms training course and relevant policies.

Twelve applicants were selected for employment for the 17th WCO Class, which convened on July 15, 2004. Military activations and resignations reduced the class size to eight members by the time they had completed the first portion of the 52-week training program, which includes successful completion of the 21-week Municipal Police Officer Course to which they were assigned at the PA State Police Northwest Training Center. The class was placed on leave without pay from mid-December 2004 until mid-February 2005, when they will return to complete the remainder of the technical WCO training at the Commission's H.R. Stackhouse School of Fisheries Conservation and Watercraft Safety. Class graduation is set for September 2005.



Organizational Unit Report:

Bureau of Engineering & Development

The Bureau of Engineering & Development directs the planning, survey, design, construction and maintenance of fishing and boating facilities and property; plans and designs site-engineered structures including roadways and bridges, ponds, raceways and impoundments, wells and pumps, fishways, shoring, piling, docks, wharfs and boat launch ramps; plans and designs buildings for Commission use; plans, designs and inspects the construction, renovation and major maintenance of dams and impoundments; directs the acquisition, leasing and management of 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 Commission facilities.

Work crews installed a sludge storage tank at the Bellefonte State Fish



Hatchery in Centre County and drilled test wells at Os-wayo and Corry State Fish hatcheries. The “B series” raceways at the Huntsdale State Fish Hatchery were sealed. Engineers completed designs and transmitted for Department of General Services review for major hatchery effluent upgrades at the Tylersville State Fish Hatchery, Clinton County, and the Pleasant Gap State Fish Hatchery, Centre County.

Engineers conducted 40 dam safety inspections as part of the state’s Dam Safety Program. Currently there are 17 Commission dams on the DEP unsafe dam list. Three of these dams are drawn down awaiting repairs—Leaser, Colyer and Upper Hereford Manor. Because of damage from Hurricane Ivan, Dutch Fork Lake, Washington County, became the fourth dam drained to await repairs. Currently there are 10 emergency action plans complete with all approvals, and the remaining plans are in the draft approval process.

Construction crews at the Walnut Creek Marina, Erie County, removed materials from the mouth of Walnut Creek to ensure passage for boaters entering Lake Erie. At the North East Marina in northern Erie County, crews transferred some 12,620 cubic yards of sand for beach replenishment.

Through the Commission’s Technical Assistance Program, the bureau provided engineering and design guidance to 22 municipalities working on public access and boat launches.



The Bureau of Engineering & Development provided engineering and design guidance to 22 municipalities working on public access and boat launches.

Fiscal 2003-2004 Year Report:

Expenditures July 1, 2003 - June 30, 2004 ²

Fish Fund

Personnel	\$19,671,824.18	70%
Operating	\$6,470,330.03	23%
Fixed Assets	\$1,427,141.02	5%
Grants	\$387,355.17	1%
Fish Total	\$27,956,650.40	100%

Boat Fund

Personnel	\$5,997,322.83	67%
Operating	\$2,181,830.09	24%
Fixed Assets	\$495,998.59	6%
Grants	\$265,158.62	3%
Boat Total	\$8,940,310.13	100%

Fish/Boat Total

Personnel	\$25,669,147.01	70%
Operating	\$8,652,160.12	23%
Fixed Assets	\$1,923,139.61	5%
Grants	\$652,513.79	2%
Fish/Boat Total	\$36,896,960.53	100%

Fiscal 2003-2004 Year Report:

Revenue July 1, 2003 - June 30, 2004 ³

Fish Fund

Licenses & Fees	\$18,835,709.00	68%
Fines and Penalties	\$361,444.00	1%
Miscellaneous	\$2,474,436.00	9%
Augmentations	\$6,121,330.00	22%
Fish Total	\$27,792,919.00	100%

Boat Fund

Licenses & Fees	\$5,453,642.00	51%
Fines and Penalties	\$202,053.00	2%
Miscellaneous	\$3,204,039.00	30%
Augmentations	\$1,878,776.00	17%
Boat Total	\$10,738,510.00	100%

Fish/Boat Total

Licenses & Fees	\$24,289,351.00	63%
Fines and Penalties	\$563,497.00	1%
Miscellaneous	\$5,678,475.00	15%
Augmentations	\$8,000,106.00	21%
Fish/Boat Total	\$38,531,429.00	100%

² These numbers are preliminary. They represent unaudited figures generated December 31, 2004.

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& Boat Commission
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