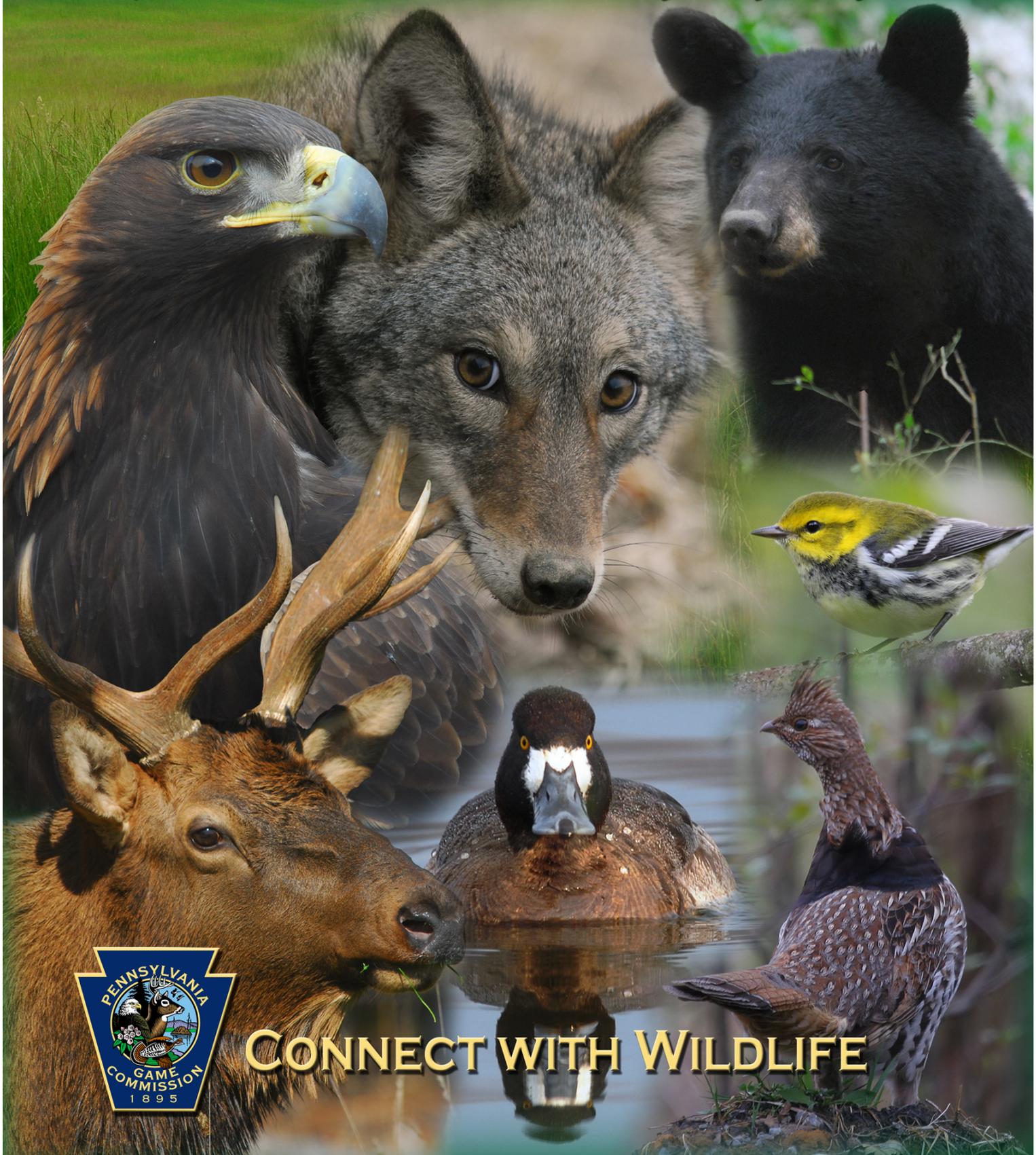


PENNSYLVANIA GAME COMMISSION 2010 ANNUAL REPORT



CONNECT WITH WILDLIFE

COMMONWEALTH OF PENNSYLVANIA
PENNSYLVANIA GAME COMMISSION
HARRISBURG, PENNSYLVANIA
January 31, 2011

SUBJECT: Annual Report and Growing Greener II Update

TO: All Senate Game and Fisheries Committee Members
All Senate Appropriations Committee Members
All House Game and Fisheries Committee Members
All House Appropriations Committee Members

FROM: Carl G. Roe
Executive Director

Pursuant with Title 34, Section 328 (e), enacted by Act 166 of 1998, it is my pleasure to present to the Committee Members of the General Assembly the Pennsylvania Game Commission's 2010 Annual Report.

The economy has made it a very challenging year for all. At the Game Commission, we have once again held spending down. To achieve that, the agency has left many positions go vacant, which has had a significant effect on the ability to provide needed services to the public. The agency continues to fund core programs, but that will be more difficult in the future, as costs are increasing, without a commensurate increase in revenues. The General Assembly has not approved a license fee increase since 1998. At that time, it was anticipated that the 1998-approved license fee increase would need to be revisited in 2004. Without an increase in funding in 2004, the agency was forced to make many cuts in programs, some resulting in the elimination of services.

Complicating matters is that the availability of increased federal funds through the Pittman-Robertson Program requires the Game Commission to fully-fund any federally-approved wildlife conservation projects up front and then be reimbursed for up to 75 percent of the eligible costs. Without being able to provide the upfront costs, the Game Commission will be unable to draw down all federal funds for eligible wildlife enhancement projects and programs. It is time to provide the support necessary for the wildlife resources of the Commonwealth.

As an appendix to this Annual Report, I also am pleased to provide, pursuant to Title 27, Section 4, Subsection 6116 (C) (6), enacted by Act 45 of 2005, the report required of the Game Commission regarding the agency's use of its portion of the \$625 million bond issue, which was approved by voters on May 17, 2005. The report provides an allocation plan detailing the projects to be funded during this round, including the amount of each project and the anticipated environmental benefit.

Title 34: Section 328
Accountability

- (A) **Relationship with Public:** The Commission shall implement policies and programs to improve its relationship with the general public and with its licensees in accordance with its strategic plan.

Public Accountability

The Pennsylvania Game Commission's Strategic Plan states that the agency's mission is "to manage all wild birds, mammals and their habitats for current and future generations." This mission flows from Article 1, Section 27, of the Pennsylvania Constitution, which states: "The people have a right to clean air, pure water, and the preservation of the natural, scenic, historic and esthetic values of the environment. Pennsylvania's public natural resources are the common property of all the people, including generations yet to come. As trustee of these resources the Commonwealth shall conserve and maintain them for the benefit of all people."

Also, Title 34 (Game and Wildlife Code), Section 103, grants the Pennsylvania Game Commission responsibility for all wild birds and mammals of the Commonwealth, and states that hunting and trapping "as methods of effecting necessary management of game, furbearer and wildlife populations."

Entrusted with this responsibility, the Game Commission strives to serve all Pennsylvanians, and to manage all wild birds and mammals, not just those listed as game species. In carrying out this mission, the agency recognizes that effective communication of knowledge and information is essential for a public conservation agency.

Over the years, the Game Commission has developed many programs to inform people about the value of wildlife and agency activities, and to seek public input prior to developing management plans. Increasing this knowledge and appreciation for wildlife can be accomplished only through effective education and communications efforts. By continuing to do this work, the agency will improve its relationship with the general public.

PUBLIC INPUT AND OUTREACH

Due to limited staff and financial resources, few surveys have been conducted to assess stakeholders' knowledge and opinions about the value of wildlife. This baseline data is crucial to establish benchmarks and assess the gains associated with education efforts. However, a Human Dimensions Specialist position was created in 2010, and filled in late 2010. Working in the new Research and Education Division, housed in the Bureau of Information and Education, the Human Dimensions Specialist will conduct scientifically-sound and statistically-valid surveys to aid the Board of Game Commissioners and staff in its decision-making process. The Human Dimensions Specialist also will assist with other agency survey projects, such as the annual Game-Take and Furtaker surveys, to ensure neutral questions for a more unbiased response.

In November, the Human Dimensions Specialist produced and mailed a survey of license buyers regarding the annual digest that is printed and provided to each license buyer. The responses are being analyzed and will be reviewed by the Bureau of Information and Education in early 2011.

The deer management program continued to engage citizens directly in deer management discussions using Citizen Advisory Committees (CACs). In 2010, three CACs were completed (WMUs 2B, 3D and 5D) to assess the level of deer-human conflicts and desire of citizens for more, fewer or the same number of deer. Various stakeholder groups representing the interests of hunters, farmers, foresters, homeowners, public landowners, motorists and others participated in these committees. In addition to CACs, seminars were given to organizations interested in learning more about deer management and the Game Commission's deer management program and assistance programs and a guide to deer management in developed areas was completed.

Also in 2010, CACs were created in WMUs 2D, 2F, 2G and 3C to provide input into deer management decisions for the 2011-12 seasons.

In 2010, the Game Commission continued to seek public input on a variety of draft management plans, including deer. Draft management plans on bald eagles and beaver will be released for public comment in early 2011.

Additionally, the agency held a fourth round of open houses on the agency's deer management program.

Pennsylvania Game News continues to be the primary voice of the Game Commission, and the hunting stories, natural history content and, as always, Field Notes, remain popular with many readers, not just in Pennsylvania, but throughout the country and to our servicemen and women throughout the world. *Game News* also features articles about Game Commission research and management projects, law enforcement accounts by our WCOs, and agency news.

We're in our third year of posting entire *Game News* issues online. The online version allows users to conduct searches, go directly to particular features and, by using a zoom feature, make the type larger and easier to read. Broadband Internet works best.

In addition to *Game News*, a host of other brochures and publications, including the Connect with Wildlife calendar, the annual Digest, the Guide to Migratory Bird Hunting and an updated edition of the hardcopy record book of Pennsylvania big game trophies, are produced by *Game News* staff.

The Game Commission continues to offer a wide variety of news releases and features about wildlife, hunting and trapping to the news media and public.

The Game Commission also published a booklet of its big game records.

The primary responsibility of regional wildlife diversity biologists is the habitat-based Private Landowner Assistance Program (PLAP). During the year, the six regional diversity biologists wrote 165 plans for nearly 20,000 acres and contributed to comprehensive planning for the SGLs. Since program inception in 2004, more than 840

plans have been produced for more than 128,000 privately owned acres. Regional diversity biologist's duties include hosting annual management workshops for landowners, providing public presentations about species of conservation concern, and serving as ambassadors through participation in conservation organizations.

The agency's Howard Nursery produced and distributed 2,159,400 tree and shrub seedlings for wildlife food and cover plantings, and 781,575 (507,025 for mined land reclamation) of the seedlings distributed were sold for \$142,459.

The wood shop at the nursery produced and shipped 5,524 bluebird boxes; 12,921 bluebird box kits; 699 wood duck boxes and kits; 249 bat houses; 491 other nesting boxes; 131 custom signs; 61 boundary line signs; eight welcome signs; and 6,647 bulletin boards and backboards for use on Game Lands and cooperative access properties. Wood products are available for purchase on the agency's website.

Considerable wildlife habitat was improved on private lands via Farm Bill Programs including 231 CREP plans. This year's 3,406 acres brings the PA CREP total, since 2000, to 205,560 acres, making Pennsylvania a leader in the program. An additional 220 landowners offered to enroll 6,810 acres in conservation cover through the Wildlife Habitat Incentives Program (WHIP).

This year 9,141 PGC items were sold over the Internet and 21,527 over the counter. Total sales were \$316,682. Sales at the Eastern Sports and Outdoors Show amounted to \$23,039.

Donations to the agency, during the fiscal year, amounted to 337, totaling \$2,018. Starting in February 2011, orders will be taken for the fifth and final year of the 5-year Time Collectible wild turkey heritage turkey call series and upland game bird knife series, with patches and prints. Previous years' sales of these items were a huge success. Other new items brought out during the fiscal year included: 2010 Calendar, 2010 Working Together for Wildlife patch (Great Horned Owl) and print ("The Night Watchman"), 2010 Elk Hunt Patch and Field Note Patch, 2010 Waterfowl Management Stamp (Canvasbacks) and print ("Return of the King"), 2010 Wild Turkey Heritage Patch (Jake), and 2010 Upland Game Bird Patch (Quail).

The Game Commission and the Lancaster Barnstormer's pro baseball team hosted a Youth Hunter Appreciation night at the Lancaster Barnstormer's Clipper Magazine stadium. This special event was a huge success and the Game Commission received tremendous public relations, education and outreach benefits. The proceeds (\$3,649) from the Internet ticket sales and silent auction of the game jerseys went to the Lancaster County Federated Youth Group for its Field Day and conservation camp.

HUNTER-TRAPPER EDUCATION

Four Hunter-Trapper Education curricula are in place. A basic HTE curriculum is being taught to all first-time hunters and trappers, as required by law. A Cable Restraint

Certification curriculum is in place to meet the regulatory mandate for furtakers desiring to use cable restraint devices. Certain persons whose license privileges have been revoked must complete a Remedial Hunter Education curriculum before their license privileges are restored. Finally, "Successful Bowhunting" is offered on a voluntary basis to individuals seeking to improve their skills and knowledge about bowhunting. A "Successful Furtaking" curriculum was developed during this reporting period and introduced in 2010, along with a pilot program for "Successful Turkey Hunting." During this year, 684 basic HTE classes were held, a five percent decrease from the previous year, with fewer certified instructors being part of the reason for the decrease.

An initiative is needed to establish a formal instructor recruitment program to increase the instructor ranks by as many as 1,200. This swell of volunteers then needs to be empowered to schedule and conduct new classes at new venues, to provide an overall increase in the number of class opportunities to meet established objectives.

In addition to the basic curricula, 21 Successful Bowhunting classes were conducted, the same number conducted last year; 21 Cable Restraint Certification classes were conducted, a nine percent decline; and seven Remedial Hunter Education classes were held, a 133 percent increase. Generally, two or three classes per year meet the demand for this specialized training, but during this reporting period, circumstances resulted in the need to increase the number of classes. Remedial Hunter Education retrained 69 students during the reporting period.

Statewide, this fiscal year 30,916 students successfully completed basic HTE training, with 958 of those students completing the program via independent study, marking a less than one percent increase over previous reporting year levels.

The Bowhunter Education program successfully trained 590 students, a 19.4 percent increase over the prior year, though the same number of classes were held.

The Cable Restraint Certification program certified 677 students, a 15 percent decrease from the previous year. Since inception of the training, the initial "bubble" of enthusiasm has been followed by a rapid decline in participation, as the bulk of furtakers interested in this trapping method have already been trained and certified.

A formal volunteer recruitment plan was developed and implemented by the HTE Division to prioritize the importance of getting new volunteers to train new hunters. The plan requires the development and distribution of a suite of recruitment tools focused on attracting new volunteer hunter education instructors. A theme title, *Pass It On*, was selected to emphasize the importance of continuing our hunting and trapping heritage.

The recruitment tools include:

- DVD — A 6-minute video that features the role and importance of volunteer instructors and how to apply. This DVD is shown at the conclusion of all hunter education classes, at sportsmen's clubs, county fairs, sport shows and other public venues.

- Banner Displays — Fourteen attractive, full-color displays are now in use at shows and fairs statewide. They include the capability to loop the above video.
- Brochure — A full-color, tri-fold design highlighting the duties, expectations and rewards of being a hunter education instructor. It also includes application information. More than 2,500 copies have been printed and distributed since January 2010.
- Internet Content — Both the DVD and a modified brochure appear on the agency’s website under the navigation title, “Becoming an Instructor.” The site is linked to an online application request form.

During the reporting year, 42 hunting-related shooting incidents occurred, a rate of 4.45 incidents/100,000 license buyers. This marks a 27.3 percent increase over the previous year. The previous year’s number of 33 incidents was the all-time low since records began in the early 1900s. Part of the increase was a rise in the number of spring turkey hunting incidents, 10, as compared to eight the previous year. Another increase was noted with 15 deer hunting incidents compared to 12 the previous year. However, the total number of incidents recorded this year is below the current 10-year average of 51.1 incidents per year, with a rate of 5.15 incidents/100,000 license buyers.

WILDLIFE CONSERVATION EDUCATION

Once again, this has been a very busy year for conservation education. Nearly 2,100 educators participated in one- or two-day workshops sponsored by the Game Commission. Eighty-one workshops were offered throughout the state and included Project WILD, Advanced WILD, and PA Songbird educator workshop. Advanced WILD workshops are special topic workshops. During the 2009-10 fiscal year, advanced workshops were held on elk, bear, owls, endangered species, peregrine falcons, biodiversity and waterfowl.

During WILD about Waterfowl educators actually were able to participate in the annual waterfowl banding at Middle Creek Wildlife Management Area. New this year was “Growing Up WILD,” an early childhood environmental education guide which uses indoor and outdoor, hands-on activities, allowing young children to learn about wildlife of Pennsylvania while exploring their local environment.

The Game Commission also continued to coordinate the wildlife station for the Envirothon and to be a member of the Environment and Ecology Advisory Council and the K-12 committee of the Association of Fish and Wildlife Agencies. The Commission also participated in the Department of Education’s committee for Standards Alignment System for environment and ecology.

The Game Commission and Harrisburg Area Community College established a Wildlife Conservationist Certificate Program “Connect with Wildlife,” which will be offered in 2011. The partnership between the Game Commission and HACC also offered several instructional courses: “Photographing Fall on State Game Lands,” “Wildlife Forensics,” “Focusing on the Snow Geese,” “Walking Tour of State Game Land 211,” “Walking

Tour of the Studio & Art Gallery of Gerald Putt,” and “Introduction to Wildlife Habitat Management.”

In partnership with the Wildlife for Everyone Endowment Foundation and Waste Management, the “Seedling for Schools” program distributed 169,200 free seedlings to 870 schools in the commonwealth. The agency donated the seedlings, along with teacher resource packets and student activity pages, and the foundation covered shipping and handling costs for this increasingly popular program.

One major accomplishment was preparation of text and state range maps for new, comprehensive species accounts for all of Pennsylvania’s endangered and threatened birds and mammals posted on the agency website. Annual reports are also available online, as are articles on the Pennsylvania eBird website and opportunities for the public to participate in bird population surveys via online reporting.

A demonstration area at the agency’s Harrisburg headquarters was developed to showcase wildlife habitat management. The area features food plot designs, tree and shrub plantings, a small wetland, brush piles, nesting structures, and practices to create and enhance wildlife food, water and cover in backyard settings.

RECRUITMENT AND RETENTION

Another goal of the agency is to increase hunter and trapper recruitment, with a focus on youth, women and minorities.

In 2006, the Game Commission implemented the Mentored Youth Hunting Program (MYHP), as a means of introducing and encouraging those younger than 12 years of age to take part in hunting. Under the program, a mentor is defined as a properly licensed individual at least 21 years of age, who will serve as a guide to a youth while engaged in hunting or related activities, such as scouting, learning firearm or hunter safety and wildlife identification. A mentored youth would be defined as an unlicensed individual less than 12 years of age who is accompanied by a mentor while engaged in hunting or related activities.

The regulations require that the mentor-to-mentored youth ratio be one-to-one, and that the pair possesses only one sporting arm when hunting. While moving, the sporting arm must be carried by the mentor. When the pair reaches a stationary hunting location, the mentor may turn over possession of the sporting arm to the youth and must keep the youth within arm’s length at all times.

The species identified as legal game for the 2006-07 license year – the first year of the MYHP – were squirrels, woodchucks (groundhogs) and spring gobbler. The Board approved adding antlered deer in the 2007-08 seasons. The Board noted that those youths participating in the MYHP would be required to follow the same antler restrictions as a junior license holder, which is one antler of three or more inches in

length or one antler with at least two points. In 2008, the Board approved adding coyotes to the list of legal quarry for mentored youth.

The program also requires that both the mentor and the youth must abide by any fluorescent orange regulations, and that the mentored youth must tag and report any wild turkey taken by making and attaching a tag that contains their name, address, date, WMU, township, and county where it was taken. Also, the youth must submit a harvest report card, which is available on page 33 of the 2008-09 Digest, within five days for any gobbler he or she takes.

To better gauge participation levels, the Game Commission required parent or guardians of mentored youth to secure a special MYHP permit, which cost \$2.70. This permit includes a field harvest tag for one antlered deer and one spring gobbler, which are part of the legal quarry for MYHP youth participants.

By gathering the data from this permit, the agency will be better prepared to plan and schedule the appropriate number of basic Hunter-Trapper Education courses in areas where the youth reside.

Despite the agency continuing with its reduced pheasant production of 100,000, which was made necessary in 2005, due to limited financial resources, 1,800 pheasants again were set aside for those clubs hosting special junior pheasant hunts. A few days prior to the opening day of this junior pheasant season, Game Commission employees released 15,000 pheasants on lands open to public hunting. For 2010, 24 clubs signed up with the Game Commission to receive pheasants for junior hunting events.

The Game Commission also donated 4,296 day-old pheasant chicks to sportsmen's organizations to raise and release on lands opened to public hunting. Nearly 14,500 hens and 1,070 males were released in May after egg collection was completed. In recognition of women being the fastest growing group of hunters, a beneficial new partnership between the Pennsylvania Game Commission and the National Wild Turkey Federation (NWTf) will help provide more outdoor opportunities to women in the Keystone State.

Thanks in large part to funding provided by the Game Commission and a full-time coordinator for the NWTf's Women in the Outdoors program was hired to serve Pennsylvania. Currently, Pennsylvania is the only state with its own Women in the Outdoors coordinator.

Jeff Souders was hired to create new Women in the Outdoors events, re-energize existing NWTf chapters and events and reach out to women who have never participated in the program. The NWTf formed the Women in the Outdoors outreach program to provide opportunities for women to enjoy the outdoors in a stress-free environment. Knowledgeable and friendly instructors help participants learn new activities quickly and gain confidence in their abilities.

This partnership complements the Game Commission's efforts, which included the creation of a Recruitment and Retention Coordinator. Julie Imes was hired to fill this slot, thanks to federal Pittman-Robertson dollars. One of Imes primary roles is to serve as the agency's statewide coordinator for the National Archery in the Schools program, which is a gateway to encourage those youth who enjoy the challenge of target archery shooting to consider the transition into 3-D target archery shooting and then to hunting.

With the wide array of youth and junior hunting and trapping opportunities offered by the Game Commission, Imes also developed an overall manual for sportsmen's clubs, outdoors organizations and individual hunters to host or serve as mentors for young people interested in getting involved in hunting and trapping. This new manual is a companion to the agency's manual used by clubs to conduct special junior pheasant hunting events, which Imes updated.

Game Commission employees also continue to participate and coordinate Youth Field Day activities hosted by numerous sportsmen's clubs around the state. These events continue to offer youth hands-on opportunities to learn to safely handle and use firearms and bows, as well as how to fish, make a campfire and other outdoor-related activities.

As part of the annual National Hunting and Fishing Day celebration, the Game Commission held its regular event at its Middle Creek Wildlife Management Area, with the support of local sportsmen's clubs, and joined together with other respected statewide organizations for the annual lobbying day in the state Capitol.

WILDLIFE PROTECTION

The Bureau of Wildlife Protection continues to work toward its mission of protecting Pennsylvania's wildlife through law enforcement, seeking effective legislation and developing regulations.

Thanks to the passage of House Bill 1859, penalties for poaching were substantially increased. Under the new law, poaching big game and threatened and endangered species have been graded as misdemeanor and felony offenses, similar to the grading of theft offenses in the Crimes Code. This equity is important, because now the theft of wildlife by poaching will be treated similarly to the theft of any other property.

Senate Bill 1200, which also passed, allows Pennsylvania to become a member of the Interstate Wildlife Violators Compact, along with now 38 other states, and facilitate reciprocal license revocation for major offenses.

We are pleased to also report the courts have been applying the enhanced restitution costs that took effect last year. In three cases, courts assessed trophy class restitution of \$5,000. One for a 707-pound bear killed over bait, another for an antlered deer that scored more than 140 Boone and Crockett Club points killed at night, and another for a 16-point buck that was the 14th largest ever scored in Pennsylvania, all stolen from law abiding hunters

by poachers. In addition, several courts assessed \$800 restitution for non-trophy class deer, and various restitutions for other species of wildlife.

Other regulation revisions include: prohibiting the use or possession of drug paraphernalia on State Game Lands; removing the one-way travel limitations and replacing it with an open travel allowance; allowing persons who previously hunted a controlled goose hunting area to apply for an unclaimed blind; and authorizing the Executive Director to bid on real estate, oil, gas or mineral rights at auction or tax sales. Amendments were made to exempt menagerie permit holders who possess a USDA Class C Exhibitor permit from possession and importation prohibitions. Small game regulations were restructured to promote consistency and clarity and to permit the use of crossbows to expand opportunity and increase participation in small game hunting. Amendments were made to remove the two body-gripping traps per trapper limitation in WMU 1B, and to establish a December 26 date as the opening date for using cable restraints.

Other revisions authorize county treasurers to begin selling antlerless licenses over the counter on the first Monday in October; clearly define the permitting process for persons interested in guiding other hunters or trappers for designated species; authorize political subdivisions to apply for an agricultural deer control permit; met the new federal falconry standards and simplified, reorganized and enhanced current state falconry regulations; updated and implemented the restructured permitting process for bobcats and fishers; defined and implemented the special elk conservation license auction and license issuance process, and defined important geographical terms, and authorized the use of unfilled elk licenses to be used to harvest elk anywhere within the commonwealth outside of the elk management area during any extended elk season following the regular elk season.

A 29 percent increase in the number of deputy applicants occurred this fiscal year, and all passed their exams and were sworn in before the 2010 hunting seasons. To reduce their out-of-pocket costs, the agency continues to supply deputies with surplus equipment when possible.

In addition to enhancing the existing deputy program, the deputy application process was streamlined and is being monitored to increase efficiency. Changes include distributing deputy information packets and following up with a survey to identify needs for improvement.

During the fiscal year, 460 calls and emails were received via the Turn-In-A-Poacher (TIP) Hotline and relayed to the appropriate region. Several prosecutions were made as a result of TIP information provided by concerned citizens.

The Game Commission mandates that its officers receive annual training in Legal Updates, Communication Skills, Firearms, Defense and Control Tactics, First Aid and CPR, and Hazardous Materials First Responder training. Deputies receive additional training by attending a minimum of four of the six district training meetings. Additional

training modules were developed this year by the Training Division, and more than 30 are available on the agency's intranet site.

That the investment in training increases the professionalism and technical competence of Game Commission officers can be seen in our enforcement statistics. Officers encountered 18,684 violations during this fiscal year through high visibility patrol, selective enforcement operations, overt and covert investigations, surveillance operations and complaint response. The enforcement actions taken by officers encountering those violations resulted in 12,129 warnings and 6,555 citations being issued — a rate of almost two to one — indicating our officers' discretion in balancing enforcements effort to focus on the violations with the most impact to the wildlife resource. Of the violations cited, the conviction rate was 96 percent, further attesting to the discretion, technical competence and professionalism of Game Commission officers. The ratio of appeals of initial convictions was a mere 0.7 percent.

The final measurement of the training investment is the low citizen complaint to enforcement contact ratio. Only six complaints were received against officers this year, none of which proved to be founded.

The top 10 violations prosecuted this year were:

1. Unlawful taking or possession of game or wildlife – 704 prosecutions.
2. Operating vehicles on Game Lands in areas closed to travel, primarily ATV violations – 388 prosecutions.
3. Possession of a loaded firearm in a stationary vehicle – 324 prosecutions.
4. Hunting or taking wildlife through the use of bait or enticement – 316 prosecutions.
5. Safety zone violations – 224 prosecutions.
6. Big game tagging violations – 221 prosecutions.
7. Unlawful use of lights while hunting – 199 prosecutions.
8. Casting a light after 11 p.m. – 190 prosecutions.
9. Possession of a loaded firearm in a moving motor vehicle – 173 prosecutions.
10. Hunting or taking wildlife through use of a motor vehicle – 166 prosecutions.

Title 34: Section 328

Accountability

(B) Program Accountability: The Commission shall require program accountability of its various functions through program performance measurement in accordance with its strategic plan.

PROGRAM ACCOUNTABILITY

In 2003, the Game Commission adopted its first comprehensive strategic plan to guide the agency through fiscal year 2008. The Commission has completed an update of the plan, and the new Strategic Plan, to cover the years of 2009 to 2014, was published and is available on the website. The following is an update where the agency stands in relation to achieving the goals and objectives in the plan at the end of fiscal year 2009-2010. During the life of the current plan, several objectives were not accomplished, or were partially accomplished, due to a lack of resources.

Mission: To manage all wild birds and mammals and their habitats for current and future generations.

GOALS AND STRATEGIC OBJECTIVES

GOAL 1: Conserve, protect and restore wildlife populations for their many public values.

Strategic Objective 1.1: Manage sustainable wildlife populations.

As stated in Article 1, Section 27 of Pennsylvania's Constitution, the Commonwealth has the responsibility to conserve and maintain its natural resources for the benefit of all the people, including generations yet to come. As the Commonwealth's wildlife management agency, the Pennsylvania Game Commission (PGC) is responsible for sustainably managing all of Pennsylvania's wild birds and wild mammals. Of the 468 species of wild birds and wild mammals in Pennsylvania (PA), primary attention is necessarily limited to select game species and our most imperiled species due to funding sources and limitations.

The 2009-10 Game Take and Furtaker surveys were completed in the spring of 2010. These annual hunter and trapper surveys estimate small game and furbearer harvests, numbers of hunters and trappers and days of effort. We have been conducting these surveys for nearly 3 decades, so important long term trend information is available. As an example of the type of information available, in 2009-10 hunting seasons there were 25,870 duck hunters and 69,407 woodchuck hunters. They hunted 170,544 and 800,482 days, respectively, and harvested 137,974 ducks and 710,411 woodchucks. In 1990, there were 28,443 duck hunters and 123,204 woodchuck hunters, who hunted 141,441 and 1,228,548 days, respectively, and harvested 98,026 ducks and 1,299,647 woodchucks. For those interested in additional participation and harvest information, you can view a detailed annual report on the agency's website (www.pgc.state.pa.us).

Through the Game Take Survey, we also measure participation in youth hunts. In 2009 hunting seasons, 7,029 junior hunting license buyers participated in youth hunts. Participation by youth hunt was 417 in the youth waterfowl season, 4,713 in the youth

squirrel season, 2,003 in the youth pheasant season and 1,981 in the youth spring turkey season. Youth hunt participants harvested 1,335 ducks, 17,453 squirrels, 3,671 pheasants and 2,293 spring turkeys.

During the last year, white-tailed deer research activities focused on deer survival and harvest rates in Wildlife Management Units (WMUs) 2D, 2G, 3C, and 4B. In these four WMUs, we are investigating the effect of shortening the concurrent antlered and antlerless firearms season from 12 days to 7 days. From July 2009 to April 2010, we recorded 89 mortalities of radio-collared deer. Hunting accounted for 60percent of mortalities. Other mortality factors included deer-vehicle collisions, poaching, natural causes, and capture-related deaths. An additional 724 deer in these four WMUs were captured and ear-tagged from January to April 2010. Some of these deer also were fitted with radio-collars. At the end of 2010 trapping season, over 225 radio-collared deer were being monitored on the four study areas. This research is being conducted in cooperation with the Pennsylvania Cooperative Fish and Wildlife Research Unit (PCFWRU) at Penn State.

During the 2009-10 season, 33 PGC deer aging teams were deployed for 7 days to collect sex, age, and kill (SAK) data from a sample of harvested deer. SAK data were used to estimate deer harvests from the 2009-10 hunting seasons. Based on hunter harvest reports and SAK data, hunters harvested 308,920 deer. The antlered harvest was 108,330, a decrease of 12percent from the 2008-09 harvest of 122,410. The antlerless harvest was 200,590, a decrease of 6percent compared to the harvest of 213,440 in 2008-09. Harvest estimates for 2009-10 seasons are based on 105,192 usable harvest report cards and online reports (41,251 antlered; 63,941 antlerless) returned to the Commission and 28,566 deer (8,443 antlered; 20,123 antlerless) examined by Game Commission personnel in the field and at processors. Yearling bucks comprised 49 percent of the antlered harvest, which is less than the 52 percent in 2008-09. Button bucks and doe fawns were 22 percent and 18 percent, respectively, of the antlerless harvest which is the same as the 2008-09 season rates. Statewide hunter reporting rates remained below 40 percent.

The Deer Management Assistance Program (DMAP) was developed to provide both public and private landowners a tool to better control deer numbers on their properties through hunting. For 2009-10, the Commission approved 920 applications, which was higher than the 841 in 2008. Enrolled acres increased to 1,650,783 from 1,502,896 in 2008. Number of coupons requested and approved increased 10 percent from 30,476 in 2008 to 33,642. Hunters redeemed 26,877 DMAP coupons. While all DMAP harvest permit holders are required to submit a report card, only 54 percent reported. DMAP harvest was 4,305 antlerless deer.

A number of deer-related hunter surveys were completed during the fiscal year. We sent daily hunting diaries to hunters in WMUs 2D, 2G, 3C, and 4B prior to the 2009 firearms season. These hunting diaries are being used to monitor hunter activities, success, and satisfaction in these four WMUs. In these four WMUs, the firearms season was changed from a 12-day antlered and antlerless concurrent season to a 5-day antlered only season

followed by a seven-day antlered and antlerless concurrent season beginning in 2008. The agency also surveyed hunters from WMUs 5C and 5D to assess their use of bait in Bucks, Chester, Delaware, Montgomery, and Philadelphia counties.

An updated deer management plan for 2009-2018 was completed and posted on the agency's website.

More than 100 elk were radio tracked throughout the year to evaluate survival, distribution, and movements across the range in northcentral Pennsylvania. Game Commission researchers captured and radio-instrumented additional elk between January and March 2010 to improve the distribution of marked animals across elk subpopulations and to replace faulty transmitters.

An annual population survey was conducted in the winter of 2010 to determine a minimum count of the elk population. Elk (*Cervus elaphus*) marked with radio-collars were used to complete a Minimum Number Alive (MNA) count and to monitor elk movements, reproduction, survival and habitat use. A total of 636 elk were counted during the MNA count which included 350 adult cows, 125 calves, 110 branched bulls, and 51 spikes. In our continuing efforts to assess elk recruitment, 29 newborn calves were captured in the spring of 2010. Records were compiled on 37 known elk mortalities (excluding legal harvest) in 2009. Elk-vehicle collisions (eight) were the leading causes of known elk mortality.

Elk hunting seasons were held from September to November 2009 with a total of 60 elk licenses (21 antlered, 39 antlerless) issued. Successful hunters were required to have their elk checked within 24 hours of harvest. All elk were examined, a tooth and select tissues were collected, and a harvest report was completed. Samples were collected from hunter-killed elk to allow surveillance for brucellosis, tuberculosis and CWD. No evidence of these diseases was detected. Liver samples were also collected for the last year of the nutritional mineral study with the Animal Health and Diagnostics Commission. One hunter participated in the hunt as the successful bidder for the first Conservation Tag; he harvested a 6x6 bull. In total, 60 hunters participated in the elk seasons, resulting in 44 harvested elk (20 antlered and 24 antlerless).

Game Take Survey estimates indicated that 104,228 hunters took 75,997 ruffed grouse in Pennsylvania during the 2009-10 season. The estimated number of hunters increased 2percent from 2008-09, but the estimated harvest was down 30percent. Number of days per hunter decreased 12percent and the harvest per hunter day decreased 22percent.

The 2009-10 grouse cooperator survey showed the statewide flushing rate was 1.40 flushes per hour, similar to both the 2008-09 rate (1.42) and the 1965-2008 average (1.41). Grouse flush rates were generally similar to or higher than 2008-09 and long-term averages (LTA) in the three northern-tier Game Commission regions, and below 2008-09 and LTA levels in the three southern-tier regions.

Spring flushing surveys were conducted at the Barrens grouse habitat management study area (SGL 176, Centre County) between 26 March and 16 April, 2010. There were 0.36 flushes per mile in the treated area (increase from 0.29 flushes per mile in 2009) and 0.10 flushes per mile in the control area (decrease from 0.35 flushes per mile in 2009). The 2010 surveys followed the second year that the study area was open to grouse hunting, following 18 years of closure. Although a population response either to hunting or the lack of hunting cannot be shown, grouse abundance indices for the treated area compared to the control area have shown no consistent trends during periods in which grouse hunting was open (1980-1989 and 2008-2009), whereas all grouse population indices were consistently higher on the treated area during the period of the grouse hunting closure (1990-2007).

Work continued on a statewide management plan for ruffed grouse. As the fiscal year ended, a draft plan was undergoing internal agency reviews.

The U.S. Fish and Wildlife Service (USFWS) Harvest Information Program (HIP) estimated that 7,000 woodcock hunters in Pennsylvania (the most of any eastern state and fourth nationally behind Michigan, Wisconsin, and Minnesota) harvested 7,400 woodcock during the 2009 season. Compared to 2008, the number of hunters decreased 22 percent and harvest decreased 61 percent.

Participants in Pennsylvania's woodcock cooperator survey recorded a statewide flushing rate of 1.01 flushes per hour, down from the 2008 rate (1.10) and well below the long-term average (1.45). The low flush rates and harvests in the 2009 season likely reflected peak migration of woodcock through Pennsylvania occurring after the season. Poor reproduction may also have played a role as the 2009 recruitment index for the U.S. portion of the Eastern Region (1.5 immatures per adult female) was 8.6percent lower than the 2008 index and 11.5percent below the long-term regional average.

Game Commission staff biologists contributed to completion of two national projects for woodcock: an interim harvest strategy, and a list (with funding strategies) of research and management priorities. These documents will provide scientifically sound, transparent frameworks to guide future woodcock management on the continent.

Increasing the amount of young forest habitat on Pennsylvania's landscape is a central objective of the 2008-2017 statewide woodcock management plan. Much of the activity in support of this objective is being accomplished as part of the cooperative Appalachian Mountain Woodcock Initiative (AMWI). During the fiscal year, new habitat demonstration areas were established at SGL 39, SGL 252, Forbes State Forest, Nescopeck State Park, and on Army Corps of Engineers property near Raystown Lake. Extensive information on the AMWI, including a full-color document detailing best management practices for woodcock habitat, is available at the website www.timberdoodle.org. Additional efforts to increase woodcock habitat continued as the year drew to a close with collaboration with Pennsylvania Department of Conservation and Natural Resources (DCNR) Bureau of State Parks staff regarding

current and potential habitat in state parks, and working to incorporate young forest management into comprehensive management plans for individual State Game Lands.

The 2010 woodcock Singing Ground Survey was conducted in cooperation with the USFWS between mid-April and early May. There were small increases (statistically non-significant) from 2009 in the number of singing males per route in both Pennsylvania and the 17-state Eastern Region. Although woodcock populations have declined significantly over the long term (1968-2010), shorter-term (10-year) trends have been stable.

The USFWS HIP estimated that 18,100 mourning dove hunters in Pennsylvania took 188,000 doves during the 2009-10 season. This was a 41 percent decline in the number of hunters and a 45 percent decrease in doves bagged.

Dove banding is a cooperative effort by state and federal agencies to annually obtain demographic data needed for effective dove harvest management. Banding quotas are in place for adult and juvenile doves in each of three Bird Conservation Regions (BCRs) in Pennsylvania. During July and August 2009, 21 employees banded 918 doves in 16 of the 22 WMUs throughout Pennsylvania. Quotas were met for each age class in all three BCRs.

The 2010 mourning dove Call Count Survey (CCS) was conducted in cooperation with the USFWS in late May. There were increases (statistically non-significant) from 2009 in both the number of doves heard and the number of doves seen per route. The number of doves heard per CCS route has not changed significantly in Pennsylvania since 1966. However, both the number of doves seen per CCS route, and the number of doves recorded in the separate Breeding Bird Survey, show an increasing trend.

The Ring-necked Pheasant Management Plan for Pennsylvania 2008-2017 was approved by the PGC early in 2009. The Plan is being used to guide future pheasant recovery efforts in Pennsylvania. The Plan has a goal of establishing at least 4 Wild Pheasant Recovery Areas (WPRAs) with at least 10 hens per square mile in the spring through habitat improvement and the release and temporary protection of wild trapped and transferred ring-necked pheasants. The PGC Board of Commissioners approved the establishment of three WPRAs in 2009: Pike Run WPRAs, Central Susquehanna WPRAs, and Somerset WPRAs. In 2010, the Hegins-Gratz Valley WPRAs in Schuylkill and Dauphin counties was approved and regulations were established to prohibit the release of pen-raised pheasants, dog training from early February through 31 July, and the hunting and harvesting of pheasants in any WPRAs. Work continues on a WPRAs Manual to provide standards for preparation, review and approval of new WPRAs, and a cover mapping project plan, to evaluate the accuracy of the pheasant habitat model being used to select WPRAs.

In the Pike Run WPRAs, translocated wild ring-necked pheasants from South Dakota were released in 2005, 2006, 2007 and 2008. During the four years, a total of 591 birds were released at Pike Run. Crowing counts, landowner brood surveys, and flushing

surveys are being used to monitor pheasant populations from 2009-11. No additional wild birds will be stocked on this area.

In the Somerset WPRAs, wild ring-necked pheasants trapped in Montana, in 2009, and South Dakota, in 2010, were released. In 2009, 346 pheasants (69 males, 277 hens) were released. In 2010, 318 pheasants were released (36 males, 282 females) on this WPRAs. Radio transmitters were attached to 34 hens and 22 roosters to monitor survival, dispersal and crowing detection rate. This was the second year of wild pheasant releases on this WPRAs, with 2011 being the final year of releases. Pheasants will be monitored using radio telemetry, crowing counts, flushing surveys and brood surveys for an additional three years after trap and transfer is completed, 2012-14.

In the Central Susquehanna WPRAs, wild ring-necked pheasants trapped in South Dakota (2007) and Montana (2007, 2008 and 2009) were released. In 2009, 298 pheasants (63 males, 235 females) were released. A total of 993 pheasants were released during the three years of the project. Pheasants were monitored using radio telemetry, crowing counts, brood surveys, and flushing surveys. Population monitoring will continue for three years post trap and transfer, 2010-12. No additional wild pheasants will be released on this area.

Study areas and cover types have been delineated in a Hegins-Gratz Valley WPRAs with a goal of releasing 300 each year for three years. Pheasants will be monitored using radio telemetry, crowing counts, flushing surveys and brood surveys during the transfer period and for an additional three years after trap and transfer is completed, 2011-16.

We met with Pheasants Forever and Letterkenny Army Depot staff to determine the feasibility of establishing an additional WPRAs in Franklin County. Habitat conditions suggest that southern and western Franklin County would be a high priority for the next WPRAs. Additional habitat work and expansion of the CREP program will be necessary to meet habitat objectives in southeastern and south-central WPRAs.

The primary measure of success for WPRAs is hen pheasant density; the goal is at least 10 hens per square mile. In 2010, spring hen densities were 15 hens per square mile in the core area of the Turbotville-PPL study area portion of the Central Susquehanna WPRAs, and nine hens per square mile in the Turbotville-PPL study area overall. In both the core area and overall study area of the Greenwood Valley portion of the Central Susquehanna WPRAs, spring hen densities were two hens per square mile. Densities in the Pike Run WPRAs were two hens per square mile in the core area and three hens per square mile overall. Densities in the Somerset WPRAs were 1 hen per square mile both overall and in the core area.

Additional monitoring efforts being conducted and evaluated at WPRAs include flushing surveys to determine pre-nesting season sex ratios, crowing count surveys to determine male pheasant densities, radio-tracking to determine survival and movements, and collection of nest success data. Information is also obtained from brood survey data forms, project flyers, and "Wanted Posters" distributed to landowners in the WPRAs.

Populations of Northern bobwhite quail have declined by 75 to nearly 100 percent over the last 40 years across most of their historic range; they have declined by 97 percent in Pennsylvania. A preliminary draft 2010-2019 Pennsylvania Bobwhite Quail Recovery Plan was completed in June 2010. The plan outlines proposed goals and strategies for the recovery of bobwhites, along with supporting documentation concerning bobwhite quail taxonomy, range and distribution, the history of bobwhites in Pennsylvania, bobwhite ecology, population trends, harvest, habitat trends and hunting. The plan is now under internal agency review. Game Commission staff also is actively involved in cooperative efforts (National Bobwhite Conservation Initiative and the National Bobwhite Quail Recovery Plan) to develop and deliver effective range-wide conservation for Northern bobwhite quail.

Staff biologists attended the annual meetings of the Atlantic Flyway Council (AFC) to participate in discussions of migratory bird hunting season frameworks and development of recommendations for consideration by the USFWS. Changes for the 2009-10 waterfowl seasons included reopening of the season on canvasbacks with a one bird daily bag for the entire duck season, increasing the daily bag limit on scaup to two for the full 60 day duck season, and reducing the season length and bag limits for Atlantic brant to 50 days with a daily bag limit of two. The annual waterfowl symposium was held 7 August at Presque Isle State Park to obtain input from the public and hunting organizations on waterfowl season proposals for 2009-10. Based on this input, waterfowl season selections for Pennsylvania were developed, submitted to the USFWS, and announced to the public via a news release and waterfowl regulations brochure.

Estimates of active duck and goose hunters in Pennsylvania from the federal HIP were 25,200 and 30,500, respectively; these numbers remain the highest in the Atlantic Flyway but were down 15 percent and 21 percent, respectively, from long-term averages. The HIP estimate of total Pennsylvania duck harvest for 2009-10 was 125,900, about 25 percent below the long term average (LTA). The top 5 duck species harvested were mallard (56,300), wood duck (41,800), green-winged teal (6,500), black duck (5,100), and bufflehead (3,400). Harvests were 8percent above average for wood ducks, but below average for most other species. The HIP harvest estimate for Canada goose harvest in Pennsylvania for 2009-10 was 161,900, 14percent below average. Pennsylvania ranked third among all states for total Canada goose harvest after leading the nation in this category the previous 2 years. A snow goose conservation season was again held (February 20 – April 3, 2010, following the close of other waterfowl seasons) in an attempt to increase harvest of this overabundant species. There were 3,107 permits issued, but only 668 individuals who returned the mandatory harvest survey indicated they had hunted, probably due to deep snow cover over much of southeastern Pennsylvania that limited snow goose numbers and hunter access. Total retrieved harvest during the conservation season was 2,985. The additional hunting methods of extended hours and electronic calls accounted for 11 percent and 37 percent, respectively, of the harvest. Overall snow goose harvest in Pennsylvania (regular and conservation seasons combined) was 6,800, eight percent below the LTA.

Representative samples of waterfowl are banded annually in Pennsylvania as part of the cooperative Atlantic Flyway banding program. Banding data is essential for determining the timing and distribution of the waterfowl harvest, overall harvest and survival rates, and migration patterns; and allows for evaluation of changes in hunting regulations. Fiscal year banding efforts included preseason duck banding, winter black duck banding, spring diving duck banding as part of a scaup research project, and June resident Canada goose banding.

Preseason (August and September 2009) duck banding was conducted at 16 locations statewide with 2,806 ducks banded overall. This total was down 22 percent from 2008, and was 30 percent below the 1999-2008 average. As usual, mallards made up the largest proportion of the total with 1,713 individuals banded, but mallard bandings were 39 percent below the previous 10-year average. Mallard productivity declined from a record high in 2008, but the 2009 juvenile to adult female age ratio of 5.51 remained 31 percent above the LTA of 4.21. Wood duck bandings were down 30 percent from average with 755 banded in 2009. The wood duck age ratio of 4.63 juveniles per adult female was similar to the average of 4.44. Only 34 American black ducks were banded. This was 47 percent below average. The number of black ducks banded pre-season in Pennsylvania has been declining since the mid-1990s and the current level is well below flyway quotas. In 2009, the Game Commission was again awarded a grant from the Black Duck Joint Venture Northeast States Black Duck Banding Project Fund to maintain preseason-banding efforts targeting black ducks in northeastern Pennsylvania. These efforts did not directly result in increased black duck bandings, but they helped maintain trapping efforts in this important waterfowl production area.

Because preseason bandings of black ducks have been consistently falling short of flyway goals, a four-year pilot study was initiated in 2010 by the Black Duck Joint Venture to determine the feasibility of banding wintering black ducks in the northeastern states. Wintering populations of black ducks are relatively more concentrated than during the preseason period. During winter 2010, black duck banding was conducted in northwestern, southcentral, and southeastern Pennsylvania, and 168 black ducks were banded despite difficult trapping conditions. During the winter banding efforts, seven additional species were also captured and banded including: 235 mallards, 31 mallard-black duck hybrids, 12 ring-necked ducks, seven wood ducks, two gadwalls, one green-winged teal and one redhead. Winter black duck banding will continue through 2013.

A new waterfowl research project, *Determining Migratory and Breeding Locations of Scaup Staging at Presque Isle, Pennsylvania* was initiated on 15 March 2010. The objective is to capture 10 lesser scaup and surgically implant satellite transmitters to track movements and survival through December 2011. Scaup migration was approximately 10 days later than average. Past peak numbers of diving ducks on Presque Isle Bay ranged from 50,000 to 75,000 but peak numbers observed in 2010 never exceeded 8,000, including approximately 1,000 scaup. The relatively late thaw of ice from Presque Isle Bay and the southern portion of Lake Erie may have contributed to the relatively low abundance and late timing of waterfowl migration. Despite the relatively low numbers observed, 46 scaup (38 males, 8 females) were captured. Because none of the female

scaup captured exceeded the 700 gram capture weight threshold for implanting transmitters, only males were implanted. Other species captured and banded as part of this scaup study included: 710 ring-necked ducks, 40 buffleheads, 32 redheads, three canvasbacks, one wood duck and one American wigeon.

As of 4 June, three of the satellite-tracked scaup had died from unknown causes. Two of these deaths occurred at Presque Isle State Park about 12 and 33 days after being implanted and released. The third bird died after migrating approximately 1,760 km to the western shore of James Bay in the Cree community of Fort Albany, Ontario. Of the remaining seven scaup, two were still present at Presque Isle State Park and the other 5 had migrated north to Ontario and Quebec. Locations of the radio-marked birds are updated weekly on the Scaup Tracker website: (<http://www.bsc-eoc.org/research/lpwwrf/index.jsp?lang=EN&targetpg=lpwscauperie>).

During June 2010, 2,790 resident Canada geese were banded at 45 locations in 21 counties. This total was the same as in 2009, and down nine percent, from the 2002-09 average of 3,072, reflecting the recent downward trend in Canada goose population estimates statewide. Banding quotas are set for each of six physiographic strata and multiple banding crews are used to achieve a good geographic distribution of the banded sample. The individual stratum quotas were met or exceeded in four of the six strata in 2010, and the aggregate statewide quota (2,562) was exceeded by 9 percent. Juvenile geese comprised 47.4 percent of the banded sample, above the 1988-2008 average proportion of 44.7 percent. The number of juveniles per adult female banded (2.09) was 30 percent above the 1988-2009 average of 1.61. This indicates above average gosling production, and recruitment rates in 2010.

From July through December 2009, there were 1,745 waterfowl band recoveries in Pennsylvania, representing 14 different species originating from 30 different states, provinces and territories. Of all recoveries, 79 percent were banded in Pennsylvania, 5percent in Quebec, 3.7 percent in Ontario, 2.8 percent in New York and 2.6 percent in Ohio. Among major species, 79percent of mallard, 40 percent of American black duck, 79 percent of wood duck and 80 percent of Canada goose recoveries were Pennsylvania banded. Band recovery distribution and derivation tables and maps as well as recovery and survival rates of Pennsylvania banded waterfowl are continually monitored to ensure hunting seasons are consistent with population status. As one example, an updated assessment of the impacts September hunting seasons have upon Canada goose band recovery rates and distributions was prepared and distributed.

Additional activities related to banding program management included obtaining a three-year reauthorization (through August 2012) of the Game Commission banding permit from the Bird Banding Laboratory (BBL), adding all current agency banders onto the agency permit as subpermittees in anticipation of upcoming changes to BBL banding permit procedures and classifications, and participation by three Game Commission banders in a workshop and exam to obtain North American Banding Council "Trainer" certification for waterfowl.

The Atlantic Flyway Midwinter Waterfowl Survey (MWS) provides information about waterfowl populations and distribution, and is an important component of management programs at the state, flyway, and even continental levels. Although breeding ground surveys have become the primary source of population status information used in setting most waterfowl hunting regulations, MWS results still guide harvest management for some species, including tundra swans and Atlantic brant. MWS data is also important in assessing progress towards species population goals set forth in the North American Waterfowl Management Plan, and is useful for documenting long-term shifts in the spatial distribution of wintering waterfowl, assessing the locations and status of key wintering habitats, and various other applications.

The Pennsylvania portion of the 2010 MWS was conducted between January 5-14. Survey methods were similar to those used in past years, with fixed-wing aerial surveys supplemented by ground surveys at Middle Creek Wildlife Management Area, and a few other impoundments in northwestern and southeastern Pennsylvania. Those waterfowl present were generally concentrated on the available open water, making them relatively easy to locate and count. However, the cold and snowy conditions that predominated in the weeks leading up to the survey likely caused a net reduction in Pennsylvania MWS totals by pushing birds into more southerly portions of their wintering ranges.

A total of 54,809 waterfowl were observed in Pennsylvania during the 2010 MWS. This total included 2,234 dabbling ducks (mostly mallards and black ducks), 118 diving ducks, 453 mergansers, 51,732 geese (99 percent of which were Canada geese), and 146 swans (61 percent tundra swans, 33 percent mute swans, and six percent unidentified species).

The total number of waterfowl observed was 25 percent lower than both the 2009 total, and the 2000-2009 average. All six major wintering species (Canada geese, mallards, black ducks, mergansers, snow geese, and tundra swans) decreased from 2009, with snow geese and tundra swans exhibiting the steepest declines. Canada geese were within 1 percent of their 2000-09 average, but the other five major species and most of the less common species were well below their respective 10-year averages. Declines occurred statewide with northwestern Pennsylvania totals down 12 percent from 2009, and 34 percent below the 10-year average; Susquehanna River totals down 31 percent from 2009, and 57 percent below the 10-year average; and southeastern Pennsylvania totals down 27 percent from 2009, and 21 percent below the 10-year average.

Short-term, single-state MWS trends should always be interpreted with caution, because counts are affected by waterfowl distribution, as influenced by weather conditions and other factors, as well as by total population size. Determinations about changes in the overall abundance of a given species are best made from long-term, flyway-level data.

The Pennsylvania portion of the 2010 cooperative Atlantic Flyway Breeding Waterfowl Survey was completed between 15 April and 5 May 2010. The objective of the survey, which has been conducted since 1989, is to provide breeding waterfowl population estimates for the portion of the Atlantic Flyway from Virginia to New Hampshire.

Population estimates are utilized in the Atlantic Flyway Adaptive Harvest Management process to determine waterfowl hunting season frameworks.

Habitat and weather conditions were slightly drier than average across most of Pennsylvania during spring 2010. Temperatures during the survey were above average. First hatches of Canada goose and mallard broods were slightly earlier than normal. Average to slightly above average production is expected in 2010 from the birds that attempted to nest.

The number of mallard breeding pairs (78,677) was statistically similar to the average of 95,462 pairs although numerically 18 percent below average. There is some evidence of declining trends in other indices of statewide mallard abundance (e.g., the North American Breeding Bird Survey and the number of pre-season-banded mallards). A decline in mallard abundance was expected following liberalized hunting frameworks adopted in 1996 through Adaptive Harvest Management; however, managers expect this population to stabilize. Southeastern Pennsylvania had the highest density of breeding mallards (1.24 pairs per square kilometer), while northeastern and central Pennsylvania had the next highest densities (0.85 and 0.76 pairs per square kilometer, respectively). American black ducks were observed on one survey plot in southeastern Pennsylvania resulting in a statewide estimate of 269 pairs. Black ducks have been observed at very low densities since this survey was initiated. There were 56,265 wood duck breeding pairs, which was 10 percent above the average of 51,398 pairs. This difference was not statistically significant and could be a result of normal sampling variation, but long-term trends from this survey do indicate stable to slightly increasing wood duck populations. Wood duck densities were highest in northwestern, southwestern and northeastern Pennsylvania with 1.0, 0.8 and 0.75 pairs/km², respectively. The estimates of total blue-winged teal (4,186) and American green-winged teal (2,063) were slightly below average in 2010. Abundance of these species in this survey can vary dramatically from year to year due to weather related impacts on teal migration and the estimates are not believed to be indicative of actual breeding populations of teal in Pennsylvania. Estimates of hooded mergansers (2,620) and common mergansers (14,053) were near average in the 2010 survey. The trends for both breeding merganser species appear stable since 1993.

The 2010 estimate for breeding pairs of Canada geese in Pennsylvania was 88,845, which is similar to average (91,918). Pairs were most abundant in the southeast (1.65 pairs per square kilometer) and northwest (1.4 pairs per square kilometer). The 2010 total population estimate of 231,780 was statistically similar to the recent seven-year average of 280,371 geese. As expected, the highest densities of total geese were observed in southeastern (5.69 geese per square kilometer) and northwestern (3.97 geese per square kilometer) portions of Pennsylvania. The commonwealth's resident Canada goose spring breeding population appears to have stabilized around 250,000 birds following the rapid growth observed during the 1990s. This is a result of significant expansion of hunting seasons and other lethal and non-lethal programs implemented to control Canada goose numbers. Although this population no longer appears to be increasing, it remains well above the Resident Population management plan goal of 150,000 birds in the spring population.

We completed the fourth successful year of the 10-year (2006–2015) wild turkey management plan. We have completed 2 of the 47 strategies within the 6 objectives as an agency-wide cooperative effort. Additionally, 33 strategies are in progress, the majority of which (23) are annually ongoing. Partnerships (monetary and personnel) have become an important aspect of accomplishing the plan on schedule, particularly via support from the Pennsylvania Chapter of the National Wild Turkey Federation (PANWTF), the National Wild Turkey Federation (NWTF) and Pittman-Robertson funding.

There were three changes to fall 2009 turkey hunting seasons. The Board of Game Commissioners approved decreasing the fall season lengths in WMU 2D (from three weeks to two weeks) and WMUs 5C and 5D (from six days to four days). The closed seasons in WMUs 5A and 5B, and the shortened (two-week) fall seasons in WMUs 1A, 2A, 2C, 2E, 2F, 4A and 4B, were maintained to reverse downward population trends. Three-week fall seasons were maintained in WMUs 3A, 3B, 3C, 3D, 4C, 4D and 4E. The Board set May 31 as the closing day of the 2010 spring season; this provided additional hunting recreation without impacting the resource because with most hens in the later stages of nest incubation, disturbance of hens would be minimal. In 2009, this extra day accounted for between one and four percent of the spring turkey harvests in each WMU, and two percent of the total statewide harvest.

In 2009, Pennsylvania hunters realized excellent turkey harvests as turkeys continued to be the second most popular game species. There were 228,903 hunters for the spring 2009 season, which was similar to the 10-year average of 228,561. Hunters also experienced one of the most successful spring seasons with a 19 percent success rate. Hunter success has exceeded this level during only two other years (2000 and 2001, with 20 and 21 percent success, respectively). The final 2009 spring harvest of 42,478 bearded birds (not including second birds harvested with the special turkey license) was five percent above spring 2008 (40,483), and eight percent above the previous 10-year average.

The spring 2009 hunting season marked the fourth year a special turkey license could be purchased to allow harvest of a second bearded bird. Special license sales for spring 2009 increased to 10,720, 32 percent above the previous average of 8,140. Reporting rate for this mandatory reporting (postage-paid post card) license was 52 percent. We mailed reminder letters to 1,000 randomly selected nonrespondents, of which 95 percent did not harvest a second turkey. The estimated special license harvest was 2,161 (1,954 in 2008) with a success rate of 20 percent, similar to the previous three-year average. This special harvest comprised five percent of the overall spring harvest.

Fall turkey-hunting season length continues to be our primary means of managing turkey populations; season lengths vary from a closed season to three weeks, depending on WMU. Fall hunting participation increased from 2008 with 156,752 fall turkey hunters (152,294 in 2008) and 529,427 days fall turkey hunting (486,592 in 2008). Even so, participation remains over 20 percent below the previous 10-year average. The fall 2009 harvest of 20,934 (24,288 in 2008) was 37 percent below the previous 10-year average,

due to a combination of shorter seasons in almost half of the WMUs since 2004, poor recruitment, and the decline in participation. Hunter success (13 percent) also declined, mainly due to below average recruitment due to the cool, wet spring, and an abundant mast crop which dispersed the small flocks, making them more difficult for hunters to locate. Fall hunter success has been as high as 21 percent (2001, a year with excellent recruitment), and as low as four percent (1979).

Turkey surveys include the annual statewide Wildlife Conservation Officer (WCO) turkey summer sighting survey, Michaux State Forest weekly turkey survey, and the eastern oak mast survey being coordinated by the Virginia Department of Game and Inland Fisheries.

Data analysis and report preparation continued during this fiscal year for the 2006-09 cooperative research study with New York and Ohio to determine spring harvest rates and annual survival rates of male wild turkeys. These population parameters are critical factors in evaluating the effect of hunting on turkey populations. Results are being analyzed by state, WMU, landscape characteristics and land ownership, and will be used in the wild turkey population model to estimate population size. This research is being conducted in cooperation with the PCFWRU, the NWTF, and the PANWTF.

A hen turkey harvest and survival rate study was designed and initiated. The project proposal was redesigned to incorporate changes to the 2010 fall turkey seasons. Knowledge of fall harvest rates and annual survival rates will help us develop a more systematic and transparent process for determining fall turkey hunting season recommendations, which will allow for more explicit incorporation of uncertainty (spring weather, reproduction) into decision making and help us address the competing objectives of optimizing hunting recreation and turkey abundance. During winter 2010, 300 female and 40 male turkeys were leg-banded as part of this research, including 31 hens marked with satellite transmitters.

Pennsylvania's bear populations were monitored during 2009-10 using several sources of data. They included a statewide capture and tagging program; mandatory check stations during the hunting season, aging of teeth collected from road-killed, captured, or harvested bears, assessment of reproduction during visits to dens of hibernating bears fitted with radio-collars, and a statewide wildlife food survey.

A total of 843 bears from 49 counties were captured and ear-tagged during 2009 in advance of the fall hunting seasons. Based on the ratio of tagged-to-untagged bears observed in the harvest, the 2009 statewide bear population was estimated at 17,800 bears. The 2009 estimate was almost identical to the previous year's estimate. A record 147,728 bear licenses were sold, which resulted in the harvest of 3,513 bears: 116 during the archery bear season, 3,052 in the statewide three-day season, and 345 in the WMU-specific extended season. WMUs with extended hunting had harvest rates that ranged between 25 percent and 43 percent, which were sufficient to reduce black bear populations if sustained.

In February, 3,598 teeth collected from bears during 2009 were shipped to a contracted lab for processing and aging. Results were returned in August and posted on the agency's webpage so successful hunters could learn the age of their bear. The average age of harvested bear was 2.2 years for males and 3.5 years for females.

Data were available to estimate bear abundance in 12 WMUs; 7 (2C, 2F, 2G, 3A, 3B, 3D, and 4A) have a slightly increasing trend in their bear populations, whereas 5 (2D, 3C, 4C, 4D, and 4E) have primarily stable bear populations.

Cub production and survival was monitored by visiting the dens of 41 radio-collared bears during January, February and March. In all, 39 adults, 54 cubs, and 16 yearlings were handled and tagged in six counties. The average number of cubs per litter was 2.8 and the sex ratio of cubs was 42 percent females.

There were 1,009 entries in the statewide human-bear conflict database during 2009. Conservation officers relocated 416 bears that had been trapped at sites with reported human-bear conflicts; 35 bear damage claims totaling \$8,688.95 were approved for payment, and 35 bears were euthanized because of crop damage or repeated nuisance behavior.

A research study investigating the movements, home range, and habitat use of bears living in suburban environments was initiated in the spring of 2010. Fifty GPS-enabled radio-collars, which can track a bear's movements on an hourly basis for up to two years, were purchased. Trapping began in late May to fit these collars to bears captured in residential areas of Scranton, Wilkes-Barre, State College, and Johnstown. As of 1 July, 28 bears were radio-collared, and over 2,800 locations from these collars were recorded. The project is expected to continue until April 2012.

Game Commission staff continued efforts to monitor geographic distribution and numeric changes in important furbearer populations with the most intensive work focused on fisher, bobcat, and river otter. The agency continues to use a suite of independent methods to track these populations including reports of vehicle-caused mortalities, incidental captures, and various measures of reported sightings. The Game Take Survey, Furtaker Survey, and WCO furbearer questionnaire continue to be important instruments to monitor furbearer populations across the commonwealth.

Fisher populations continue to expand throughout the commonwealth. During this past fiscal year, we estimated that licensed fur trappers captured and released 1,171 fisher in traps legally set for fox, coyote, and raccoon. WCOs received 106 reports of fishers that were captured and released by licensed trappers and 615 reports of fisher observations. The geographic distribution of these reports suggests that fisher populations are rapidly expanding from the reintroduction areas in northern regions and naturally expanding from Maryland and West Virginia into regions of southwestern and southcentral Pennsylvania. In addition, 82 percent of WCOs surveyed during 2009 reported fisher populations existing within their districts

River otter populations have expanded throughout the commonwealth. Numbers of incidental otter captures, primarily by beaver trappers, have increased during recent years with greater than 25 incidental captures reported annually since 1996. The majority of these captures occur in the Northeast Region, but recent reports indicate continued population expansion throughout the Susquehanna River drainage. During 2009, otters occupied 88 percent of WCO districts.

All of the tools used to monitor Pennsylvania's bobcat population indicate increased bobcat abundance and continued geographic expansion. The number of incidental bobcat captures, as estimated from the annual Furtaker Survey, has been steadily increasing since 1990. We estimate that 2,295 bobcats were captured and released by trappers who did not possess bobcat harvest permits. Annual numbers of statewide vehicle-caused bobcat mortalities (i.e., roadkills) have also increased during recent years.

The PGC provided 1,783 bobcat harvest permits by a random drawing and by guaranteed permits to applicants with maximum preference points during September 2009. Each permit allowed for the harvest of one bobcat from within wildlife management units 2A, 2C, 2E, 2F, 2G, 3A, 3B, 3C, 3D, 4D and 4E (combined). Hunters and trappers reported 506 bobcat harvests from within all WMUs that were open to harvest. Harvest density (bobcats taken per 100 square miles) increased from the previous season within all WMUs in which harvest was allowed.

The fisher management plan is being implemented to achieve five goals related to population monitoring, habitat assessment, population enhancement, and development and implementation of a harvest management program. A conservative six-day fisher harvest season was approved for four WMUs during December 2010.

Work continued during the year to develop a management plan for beavers to provide stable beaver populations in balance with their habitat for the benefit of wetland wildlife species and human users. The plan provides a summary of beaver biology, habitat, past and present population management, damage management, recreational and economic values, and recommendations and research needs. The agency identified five goals supported by 14 objectives dealing with population monitoring, harvest management, and damage control. The plan was undergoing internal reviews at the close of the fiscal year.

A wildlife food survey was distributed in September to field staff of the Game Commission and DCNR, with 298 people responding. During 2009, 86 percent of respondents rated overall food conditions as average or better. The most noticeable change from 2008 was an increase in fall hard mast, particularly red oak, but also white oak and hickory to a lesser degree. However, two prominent fall soft mast foods, apples and black cherry, noticeably declined. Survey respondents suggested that these declines were the result of late spring frosts, whereas increase in hard mast was aided by a collapse in gypsy moth populations.

A proposal was developed and subsequently approved to include the Game Commission Wildlife Health Program in federal Pittman-Robertson funded programs. Pennsylvania

State University (PSU) Institutional Animal Care and Use Committee training was completed.

The staff wildlife veterinarian prepared and delivered an update on Chronic Wasting Disease (CWD) for the Board of Game Commissioners in October 2009. A coordination meeting was held with U.S. Department of Agriculture (USDA) Veterinary Service's new Pennsylvania CWD Veterinary Medical Officer.

CWD samples (4,036) and two Bovine Tuberculosis-suspect lymph nodes were taken from hunter-killed deer as part of annual surveillance activities. Assistance was received from the Pennsylvania Department of Agriculture (PDA) and USDA at all region sampling locations. A total of 4,029 samples were found to be testable and all were negative for evidence of CWD. Bar coding CWD samples was successfully implemented in the annual hunter-killed deer sampling for the first time. CWD samples were collected from heads brought into the state in violation of the CWD Parts Ban; additional confiscated material was incinerated. CWD samples were also taken from escaped cervids when they could be recovered and numerous discussions were held over the course of the year with PDA to try to better address this risk factor.

CWD background and sampling strategy training was provided to the new deer health bio aides in the Southcentral Region who were charged with collecting CWD samples from road-killed deer in the region closest to the nearest positive case in West Virginia.

As it is each year, the Commonwealth's Interagency CWD Response Plan was updated. The Game Commission CWD Operational Plan was reviewed by an internal working group and approved as a living document to be revised annually. The Wildlife Services Division Chief attended a CWD interstate meeting in Romney, West Virginia, with West Virginia, Virginia and Maryland, to discuss current status of CWD in West Virginia and Virginia, and cooperative surveillance efforts.

During the year employee training focused wildlife disease surveillance procedures, with emphasis on CWD surveillance, was completed for the entire agency's field staff and many of their supervisors. In addition, specific directions were provided to regional personnel engaged in disease sampling throughout the year.

In an effort to mitigate all possible CWD risk factors, revisions to the CWD Parts Ban enforcement standard operating procedures were developed and subsequently approved. A *Game News* article discussing CWD risk factors in Pennsylvania was written for fall distribution. A program emphasizing opportunities to work together to mitigate CWD risk factors was presented to veterinary practitioners. An article was submitted for the Pennsylvania Taxidermists Association newsletter emphasizing the reasons to cooperate in obtaining disease surveillance samples.

The final 150 samples from the black bear mange study were sent to Sweden for mange analysis.

Blood samples from feral swine killed in the Northwest, Southeast, Northeast and Southcentral Regions were processed and interpretation of the results provided to the field.

In coordination with the Pennsylvania Department of Health (PDH), guidance was provided to the field for seizure and sampling of a Giant Gambian Rat described as possibly suffering from Monkey Pox infection. While the rat was not located the coordinating process now in place will serve in future situations.

During the year the wildlife veterinarian performed 78 necropsies on a variety of species to include: bears, deer, ducks, elk, grouse, a hummingbird, otter, songbirds, squirrels, and turkey. Necropsy reports were interpreted for submitters from bureaus and regions.

Rabies prophylaxis protocol for field personnel was reviewed with PDH. Heartworm and tick prevention medication was distributed to agency working dogs.

Orders for immobilization drugs and equipment were provided to bureau species projects and regions as requested. Mandatory annual training was provided for those using Carfentanil and their supervisors. Additional training in the safe use of Carfentanil was provided to individuals in the field. Immobilization training was given to the deer trapping teams, and additional training was given in blood collection techniques utilizing deer from the Pennsylvania State University captive deer pens. Bear immobilization drug regimes and emergency procedures were evaluated in the field, resulting in several modifications. Barcode labels were provided to regions in anticipation of the launch of a web-based pharmaceutical accounting system. Work on this pharmaceutical accounting system continued in collaboration with the Bureau of Automated Technology Services as the fiscal year ended.

The Resident Directors of the Pennsylvania Diagnostic Laboratory System labs (PADLS) responded to dire economic conditions by initiating fees for wildlife disease surveillance samples submitted by the Game Commission for the first time. The Game Commission has entered into a contract with the Southeast Cooperative Disease Study to augment pathological services.

Strategic Objective 1.2: Develop and enforce laws and regulations to protect wildlife populations and habitat.

One statutory amendment to the Game and Wildlife Code (Title 34) was accomplished this fiscal year, which amended Section 2709. The legislation authorized the Game Commission to assess a transaction fee to license purchases that is limited to actual costs and may not exceed \$1 per transaction. The agency continues to work with the general assembly to streamline the Game and Wildlife Code by providing recommended language and statutory construction in numerous legislative initiatives.

An extensive amount of staff time and effort was expended this year to achieve enactment of House Game and Fisheries Committee Chairman Edward Staback's House

Bill 1859, which substantially increased penalties for poaching. Under the new law, poaching big game and threatened and endangered species are graded as misdemeanor and felony offenses, similar to the grading theft offenses in the Crimes Code. This equity is important, as for the first time, the theft of wildlife by poaching will be treated the same as the theft of any other property. As anticipated the bill passed and became law in early fall 2010. Senate Bill 1200 sponsored by Senate Game and Fisheries Committee Chairman Richard Alloway II also was enacted in early fall 2010. This new law allowed Pennsylvania to become a member of the Interstate Wildlife Violators Compact along with 35 other states and facilitate reciprocal license revocation for major offenses.

In addition, the Game Commission is pleased to report the courts have been applying the enhanced restitution costs that the Game Commission promulgated regulations for last year. In three cases, the courts assessed trophy class restitution of \$5,000. One was for a 707-pound bear killed over bait, another for an antlered deer that scored more than 140 Boone and Crockett points that killed at night and yet another for a 16-point antlered deer that was the 13th largest ever scored in Pennsylvania, all stolen from law-abiding hunters by the poachers who took them illegally. Also, several courts assessed \$800 restitution for non-trophy class deer, and various restitutions for other species of wildlife.

A total of 49 sections and 15 subchapters of the regulations were revised and became effective this fiscal year through 17 amendments in an effort to eliminate regulatory contradictions and inconsistencies, or initiate new programs of the Game Commission. Revisions include prohibiting the use or possession of drug paraphernalia on State Game Lands, removing the one-way travel limitation and replacing it with an open travel allowance, allowing persons who previously hunted a controlled goose hunting area to make application for an unclaimed blind, and authorizing the Executive Director to bid on real estate, oil, gas or mineral rights at auction or tax sales. Amendments were made to exempt menagerie permit holders who possess a USDA Class C Exhibitor permit from possession and importation prohibitions. Restructuring of the Small Game regulations were made to promote consistency and clarity in the regulations and to permit the use of crossbows to expand opportunity and increase participation in small game hunting. The sunrise/sunset table was replaced by two tables to accurately reflect the dates and hours of legal hunting for the 2009-2010 license year. Amendments were made to remove the applicability of the two body-gripping traps per trapper limitation to WMU 1B, and to establish a December 26th date as the opening date for the usage of cable restraints. Other revisions include authorizing county treasurers to begin selling antlerless licenses over the counter on the first Monday in October; clearly defining the permitting process for persons interested in guiding other hunters or trappers for certain designated species; authorizing political subdivisions to apply for an agricultural deer control permit; meet the new Federal standards as well as simplifying, reorganizing and enhancing current state regulations pertaining to falconry; updating and implementing the restructured permitting process for bobcats and fishers; defining and implementing the special elk conservation license auction and license issuance process, and defining important geographical terms and authorizing the use of unfilled elk licenses to be used to harvest elk anywhere within this Commonwealth outside of the elk management area during any extended elk season following the regular elk season.

The Game Commission has recognized the need for a comprehensive overhaul of Title 58 Pa. Code that stems from the plethora of regulations promulgated since the last Game and Wildlife Recodification in 1987. The Bureau of Wildlife Protection has met with the Executive Office and began the preliminary planning process to initiate a project to reform the patchwork of regulations promulgated over the last 2 decades into a more comprehensible model. A draft framework has been established but the effort is hindered by a lack of a clerical position dedicated to the assistant counsel, negatively impacting efficient operations, as well as the high volume of revised priorities that were necessary this fiscal year in relation to legal staff needing to assist with case prosecutions and other unforeseen priority projects. However, the Bureau has begun incorporating all new regulatory efforts into the planned general framework of the rewrite and is making headway in updating entire sections of the regulations through this process.

The Bureau worked to reduce various uniform items from a winter and summer issue to year-round apparel. We have successfully converted to an all-season boot, dress trousers, a new black ball cap, and most recently a winter coat/jacket.

Enhancements were made to the current Deputy WCO program in an attempt to boost the number of applicants each year. The Enforcement Division continues to supply Deputies as much surplus equipment as possible to reduce their out-of-pocket costs. We had a 29 percent increase in the number of Deputy Applicants this fiscal year, and 100 percent of those applicants passed their Certification Exams and were sworn in before the 2010 fall hunting seasons.

In addition to enhancing the existing Deputy Program, the Deputy Applicant process was also streamlined and is being monitored to increase efficiency. A few changes include distributing Deputy Informational Packets from the Training School and following up with a survey which is meant to help us understand how well the current system is working, and to locate areas that may need improvement.

The Turn-In-A-Poacher (TIP) Hotline program was relocated to the Harrisburg Headquarters in November 2007. The program was placed online around March 2008. Last fiscal year, 460 calls and emails were relayed to the appropriate region. Several successful prosecutions have been made as a result of the TIP information provided by concerned citizens.

In addition, the Game Commission mandates annual training in Legal Updates, Communication Skills, Firearms, Defense and Control Tactics, First Aid and CPR, and Hazardous Materials first Responder training. Deputy WCOs receive additional training by attending a minimum of four of the six district training meetings required by policy. Additional structured training modules were developed this year by the Training Division, and more than 30 structured training modules are available for use on the agency's intranet site. Wildlife Conservation Officers also voluntarily expand their skills by attending various in-service and out-service training initiatives on a routine basis.

Regional training has also been provided in current issues such as deer management training.

The investment in training pays direct dividends to the professionalism and technical competence of Game Commission Officers as measured by our enforcement statistics. Officers encountered a total of 18,684 violations during this fiscal year through high visibility patrol, selective enforcement operations, overt and covert investigations, surveillance operations and complaint response. The enforcement action taken by officers encountering those violations resulted in 12,129 warnings and 6,555 citations being issued; a rate of almost two to one. It should be noted that the officers issued more warnings than citations, indicating officer discretion in a balanced enforcement effort to focus efforts on the violations with the most impact to the wildlife resource. Of the violations cited, the conviction rate was 96 percent and attests not only to the discretion, but also the technical competence and professionalism of Game Commission Officers. The ratio of appeals of initial convictions was only less than 1 percent, actually .7 percent to be exact. The final measurement indicator of the dividends of the training investment was the significantly low citizen complaint to enforcement contact ratio that has been consistently maintained since the inception of the complaint tracking system, with less than 1/1000 percent of enforcement contacts filing complaints against officers. Only six complaints were received against officers this year, none of which were sustained.

The Senior Executive Staff has provided on-going direction to the field force in focusing efforts on the violations with the most significant impact to the resource and our officers have responded to that direction and supervision. Total enforcement contacts including field checks, investigation of complaints, on scene violations in progress, target surveillance and enforcement operations are estimated at 187,000 enforcement contacts. As an additional effort in the prevention of violations to protect wildlife, significant emphasis was placed on increasing the HVI, or high visibility index of conservation officers in the field to provide increased deterrence and protect wildlife through task forces. The Bureau continues to request, monitor and assist regions with a number of enforcement details designed to combat violations that have the most negative impact on wildlife and habitat resources. Bureau staff has assisted region staff with identifying violations and situations where enforcement details will focus on these areas. Bureau staff assists regions with manpower when available and monitors the results of each detail. Each region is required to complete at least one detail per year. Some regions have elected to hold several details during various times of the year. Types of details have ranged from focusing efforts on night time poaching incidents to waterfowl hunting details along the Susquehanna River. Enforcement details have not only had the benefit of detecting numerous violations but also have resulted in much public support for the agencies law enforcement program in areas where details have been held.

The top ten violations prosecuted this year also indicate that officers are focusing their efforts on violations with the most impact to the wildlife resource. They are as follows:

1. Unlawful taking or possession of Game or Wildlife – 704 prosecutions.
2. Operating vehicles on State Game Lands in areas closed to travel, primarily ATV

- violations – 388 prosecutions.
3. Possession of a loaded firearm in a stationary vehicle – 324 prosecutions.
 4. Hunt or take wildlife through the use of bait or enticement – 316 prosecutions.
 5. Safety zone violations – 224 prosecutions.
 6. Big Game Tagging violations – 221 prosecutions
 7. Unlawful use of lights while hunting – 199 prosecutions
 8. Cast a light after 11pm – 190 prosecutions
 9. Possession of a loaded firearm in a moving motor vehicle – 173 prosecutions
 10. Hunt or take wildlife through use of a motor vehicle – 166 prosecutions

In all, 1,656 prosecutions directly related to the unlawful taking of wildlife.

The Executive Director and staff attended meetings and training sessions to update the field. They met with the Regional Law Enforcement Supervisors quarterly to share relevant information as well as attended Regional meetings and District Deputy meetings yearly. All Bureau staff members spent time in the field working directly with WCOs in enforcement operations and communicated directly with the officers both in management vision as well as hearing officer concerns and suggestions. The staff developed or revised 12 Standard Operating Procedures (SOPs) this year to update or create new direction for our officers in a variety of operations. The increase in providing clear direction through utilization of SOPs and memorandums, for topics that do not warrant the development of an SOP, has resulted in increased consistency in legal interpretation and enforcement throughout the Commonwealth. WCOs forward any unanswered questions from district training meetings to the Bureau of Wildlife Protection, the Bureau then responds to the questions in a timely manner, and distributes the answer to all regions for dissemination to all officers. The Bureau continues to ensure direction through memorandum rather than SOP, which is readily available on the intranet in a specific section under Wildlife Protection for ease of access. This use of technology has not only provided ease of access for all officers, it also serves as an institutional memory file to ensure previous direction is recorded from a historical perspective.

Six formal complaints were filed in 2009-2010, less than one percent complaint to enforcement contact ratio. None were sustained.

An estimated 187,000 enforcement contacts were made, including more than 90,000 estimated administrative inspections of hunters in the field.

Approximately 70 mandatory in-service training sessions plus 660 Deputy meetings were held.

In order to further protect the locations and distribution of threatened and endangered species, the Game Commission amended 58 Pa. Code to include §131.9 Disclosure of certain records denying under certain conditions full disclosure of actual threatened and endangered bird and mammal species locations. Additionally, there were five Special Use Permits issued by the Real Estate Division's ROW Section which allowed for third party surface use of the State Game Lands while simultaneously protecting area wildlife populations and affiliated habitat.

Strategic Objective 1.3: Assess public values and uses of wildlife.

This past year, a position was created and one human dimensions specialist was offered the position of Chief of Research and Education. This offer was accepted with a start date of July 2010. This individual is responsible for supervising the Outreach and Education Specialists, in addition to conducting relevant and timely studies, surveys and focus groups while reviewing, monitoring and evaluating, existing research and studies.

Strategic Objective 1.4: Improve the population trends of endangered, threatened and wildlife species of greatest conservation need.

The Pennsylvania Natural Heritage Partnership and Department of Conservation and Natural Resources, Pennsylvania Fish and Boat Commission, and Western Pennsylvania Conservancy has continued to develop the Heritage Geographic Information System that includes the Environmental Review tool for threatened & endangered species and the Conservation Planning tool. Staff has attended five meetings concerning the further refinement of the Environmental Review tool and Conservation Planning. A considerable amount of time has been spent reviewing Conservation Planning Specifications and data that will be used within the system. Efforts have resulted in an approved review efficiency benefiting wildlife conservation while simultaneously supporting industrial development projects throughout Pennsylvania. In order to further the progress of this critical need, and on behalf of the entire Commonwealth's wildlife resources, the Game Commission has appropriated grant funding towards the development of similar type project initiative. The project proposal design will result in the identification of all plant and animal species of special concern and their related habitats throughout all State Game Lands, as well as Public Access cooperator lands. Additionally, a site specific management plan will be created for each indentified species on game lands through the direct coordination of each jurisdictional agency which has oversight of that particular species. This coordinated effort will ultimately result in achieving all future game lands habitat planning and management goals, as well as provide a much needed data base for all future Commonwealth environmental permit reviews from industry related projects.

Since the creation of the Game Commission's Wind Energy Voluntary Cooperative Agreement, 29 wind development companies have become cooperators thus agreeing to avoid, minimize and potentially mitigate any adverse impacts the development of wind energy on private lands may have on the state's wildlife resources. Game Commission staff attended 33 meetings with wind developers, 21 joint agency wind meetings including meetings of the PA Wind & Wildlife Collaborative, and five other wind energy related meetings. In total, 38 wind energy development projects were reviewed for potential impacts to special concern species, natural resources and State Game Lands.

Monitoring of listed species is the foundation for population recovery. Bald eagle surveys documented nests in 50 of Pennsylvania's 67 counties during spring 2010. The 193 known nests eclipsed 2009's record of 174, sustaining an increase of greater than 10 percent per year for the past 20 years. Leading counties were Crawford, with 22 nests;

followed by Lancaster and Pike, with 16 each. As this national symbol moves ever closer to urban settings, including Philadelphia and Pittsburgh, an increasing portion of the state's human population has the opportunity to appreciate the bald eagle's comeback. Citizens seeking information about eagles and eagle-viewing etiquette can find it at www.pgc.state.pa.us, under Endangered Species. Residents aware of bald eagle nests are asked to report them through pgccomments@state.pa.us using "Eagle Nest Information" in the subject field. Counties from which nests have not yet been reported are: Beaver, Bedford, Blair, Cambria, Cameron, Fulton, Franklin, Greene, Lackawanna, Lebanon, Lehigh, Potter, Schuylkill, Snyder, Susquehanna, Union and Washington. Unoccupied or sparsely-used suitable habitat for nesting eagles can be found in the Susquehanna River's West Branch, the Beaver, Monongahela and Youghiogheny rivers, and the Lake Erie shoreline. Despite delisting on the federal level, bald eagles still are on the state's threatened species list. An updated management plan for bald eagles in Pennsylvania is going through agency review.

The peregrine falcon is gradually recovering from its state endangered status. In 2010, 29 active nesting sites, including four on natural cliffs, were monitored with assistance from more than 100 volunteers. Twenty-three nests were successful, producing 62 young of which 54 were banded. Of successful nests, three were newly discovered. All banded nestlings receive a brief health exam. Minor issues are treated at the nest, but birds with major health issues are taken to wildlife rehabilitators for treatment. Public-venue bandings were held at the Rachel Carson State Office Building, Harrisburg, and Gulf Tower and the Cathedral of Learning, Pittsburgh.

As recently as 1986, only one osprey nest could be found in Pennsylvania, but citizen-science surveys for the 2nd PA Breeding Bird Atlas indicated nesting pairs in more than 20 counties. In 2010, an osprey nest survey was initiated that reported more than 50 nests reported by mid-year.

The 2nd Breeding Bird Atlas effort completed fieldwork in 2009, resulting in extraordinary coverage totaling 855,145 data submissions, derived from 141,100 hours, now reporting data from all blocks, by more than 3,000 volunteers. The focus for the past year of this more than seven-year project is in analysis of the massive data sets and preparation of a published Atlas.

Yellow-crowned night-herons, black-crowned night-herons, and great egrets are protected as endangered species in the Pennsylvania. The state's only known yellow-crowned night-heron colony is in a residential community within Harrisburg city limits, where six to eight nests were observed in 2010. Five black-crowned night-heron colonies are known, all in southeastern counties. Some colonies experienced an increase in number of nesting pairs while others declined. Better survey techniques are being developed for the long season used by black-crowned night-herons for nesting. Great egrets nested in two colonies. A few pairs nested at Kiwanis Lake, York County, while the largest egret colony is on Wade Island, in the Susquehanna River, with black-crowned night-herons and double-crested cormorants.

Each year the Game Commission, agency partners and volunteers survey the largest known great blue heron colonies, with the goal of determining nest counts for all those with 40 nests or larger the previous year. Smaller colony data is compiled if reported. In 2010, results for 47 colonies were reported, about one-third of all known rookeries in the state. Of those, 27 were active, three were new to us, three were deemed to be abandoned, and 14 were not active. With 237 nests, the Barrows rookery in Mercer County retained its standing as largest, even though a bald eagle family moved into that rookery this spring, causing the herons to shift their location.

The Game Commission initiated training of DCNR staff and Audubon Pennsylvania volunteer to monitor for federally endangered piping plovers in 2010 at Presque Isle. No piping plovers were observed on Pennsylvania's Lake Erie shoreline this spring. However, new or historic nesting sites were colonized on Lakes Michigan and Huron, spurring continued hope for recolonization at Presque Isle State Park in the future. To encourage restoration to Pennsylvania's sole historic site, the Game Commission, DCNR, Western PA Conservancy, and Pennsylvania Audubon were awarded a USFWS Great Lakes Restoration Initiative grant to remove invasive plant species at the historic nesting site on Gull Point to restore and enhance habitat for piping plovers and other shorebirds. This work will be completed in fiscal year 2010-11.

State-owned lands are increasingly important to many grassland-breeding bird species of conservation concern, including Henslow's sparrow (Wildlife Action Plan (WAP) high-level concern) and grasshopper sparrow (WAP maintenance concern), upland sandpiper (state threatened), and short-eared owl (state endangered). State Game Land (SGL) 330, a grassland bird haven in a Clarion County, was the subject of an Audubon habitat management project supported by federal State Wildlife Grant (SWG) Program funds. Another grassland effort by the PCFWRU is designed to provide guidance for SGL that includes reclaimed surface mines. Surveys at two Co-op Unit research sites found almost 90 nests of grasshopper, Henslow's and savannah sparrows and banded more than 300 adult and nestling sparrows. Several thousand sightings of color-banded birds will be used to estimate survival and site fidelity.

The Game Commission is a key partner in the conservation and management of the golden-winged warbler, a species in steep population decline that is under review for the federal Endangered Species List. Ten of these warblers were found on a Pike County game land and two territories were found in the Delaware State Forest. The Nongame/Endangered Bird Section works with state forests and SGLs to manage habitat, provides information to the Cornell Lab of Ornithology and Appalachian Mountain Joint Venture, and is cooperating with the American Bird Conservancy and Indiana University of Pennsylvania on development of Best Management Practices.

Surveys for birds of Pennsylvania's relic boreal swamps also demonstrate the importance of state-owned lands to some of the state's most vulnerable species. The yellow-bellied flycatcher, a state endangered species, is found regularly only on game lands in Wyoming and Luzerne counties and a Sullivan County state forest. State endangered blackpoll warblers were heard on a Wyoming County State Game Land.

Other state-listed species observed during the summer of 2010 include loggerhead shrikes in western Cumberland County, sedge wrens and dickcissels in agricultural areas of Franklin County, and dickcissel, American bittern, and upland sandpipers on SGLs in Crawford County.

Regional wildlife diversity biologists conduct a conservation initiative for the barn owl, a species of conservation concern that has great management and recovery potential in Pennsylvania. Found in agricultural fields, grasslands and other open areas, these owls often nest in barns, silos and man-made nest boxes because large, dead trees are increasingly difficult to find. In 2005, regional diversity biologists launched an effort to assess foraging, nesting and roosting habitats where barn owls exist or existed in the past, erect nest boxes in suitable habitat, and document productivity. During calendar year 2009, regional biologists banded 243 owlets from 56 nests. (Bird banding records are compiled and analyzed on a calendar year basis.) Through December 2009, 24 banded barn owls had been recovered. Of these, 21 were banded in Pennsylvania. Dispersal distances from natal sites ranged from one to 325 miles, with an average of 73 miles. For 13 owls with known dates of death, average lifespan was 15 months. The owl with the greatest longevity was banded in New Jersey and recovered five years and ten months later in Dauphin County, Pennsylvania. In addition to working with landowners who host owls, regional diversity biologists have enlisted professors and students at several regional colleges and universities to evaluate the diet of barn owls through dissection of owl pellets. They also collaborate with York College on genetic research and a pilot study using telemetry to define of the home range of adult barn owls during breeding season.

White Nose Syndrome (WNS) is a disease associated with a newly described fungus that grows on the exposed skin (face, wings and tail) of hibernating bats, causing them to awaken during hibernation, exhaust their fat reserves, and emerge in search of insects when that food source is not available. The result is high death rates among our primary predators of night-flying insects, including agricultural and forest pests, potentially destabilizing ecosystems and increasing reliance on chemical alternatives.

In four years following its discovery in upstate New York in February 2006, WNS has spread to 14 U.S. states and two Canadian provinces. In many New England states, hibernating bat populations were reduced to one percent of their former numbers. WNS was first detected in Pennsylvania during the winter of 2008-09. By the end of the 2009-2010 hibernation season 28 infected sites had been confirmed in 12 counties scattered across eastern two-thirds of the state and one southwestern county.

The Game Commission is making significant contributions to regional and national research attempting to address the cause of mortality, improve field diagnostic techniques, test immunological capabilities of infected bats, and investigate the affect of environmental conditions on survivorship. The Game Commission led a coalition of 11 New England and Mid-Atlantic states to develop a regional response that was awarded \$940,000. Members of the Nongame/Endangered Mammal Section staff serve on the

National WNS Response Plan writing team, produce maps that track the rate and route of the disease's spread, and developed communication materials to inform various stakeholders groups.

In 2009, the regional Appalachian Bat Count was launched in the northeastern U.S. to help determine whether WNS persists in summer habitats and to annually measure impacts of WNS on bat populations. The count is modeled on a 20-year Game Commission bat maternity colony survey largely conducted by volunteers. In Pennsylvania, 32 volunteer crews, 10 DCNR crews and 12 Game Commission crews tallied 65,679 bats during surveys conducted at 92 sites in 2009, nearly 30 more sites than in 2008. Ten building roosts located by tracking female little brown bats from a WNS-infected Mifflin County cave were among the sites monitored by staff in 2009. Counts conducted at those same roosts during early summer 2010 found decreased numbers, ranging from eight to 56 percent of the previous year's counts.

In response to agency news releases asking the public to report unusual bat behavior, roughly 425 reports were received during fiscal 2009. Reports of sick bats were referred to relevant Game Commission regions for follow-up and specimen collection when necessary. Observers who reported missing or reduced summer bat colonies were contacted to determine whether formal counts had been conducted in previous years and encouraged to participate in the Appalachian Bat Count.

In light of questions regarding the transmission of WNS, as well as the efficacy of equipment and clothing decontamination protocols, routine in-mine and in-cave bat counts were curtailed by agency staff. Hibernacula were entered only to conduct WNS research with site-specific gear or to gain knowledge about certain aspects of the disease. Local mortality of over 99 percent was observed at five of the 12 sites known to be infected. Surveys outside the entrances to known WNS sites often found bats roosting or in flight near the entrance, or dead bats on the ground outside the hibernaculum. A late-season interior survey in a Bedford County hibernaculum used by federally endangered Indiana bats found 132 of that species, of which 15 were previously banded. The count at that site was comparable to earlier years and WNS was not observed. Two Indiana bats banded in hibernacula in Blair and Somerset counties and one banded at a southwestern PA maternity colony were found hibernating in Hellhole Cave, West Virginia .

Other WNS studies include fall live-trapping at selected sites for comparison with previous years' surveys, collection of blood and DNA samples, collection of data on environmental conditions within hibernacula using dataloggers, use of acoustic sensors to monitor selected Indiana bat hibernacula for early emergence activity, testing use of ultraviolet light for detection of the WNS fungus in hibernacula and its persistence in the skin of bats after leaving hibernation, and antifungal treatment trials.

Since 2000, USFWS Section VI funds have supported Game Commission research into the ecology of Pennsylvania's Indiana bats, the state's only federally endangered mammal. We have discovered summer foraging habits and habitat, studied fall pre-hibernation behavior, and linked known winter hibernacula to summer maternity sites. In

April 2010, six female Indiana bats that emerged from a limestone mine in western Pennsylvania were radio-tagged and tracked by a plane and ground units. Stopover roost locations were found for five of the six bats, all within 20 miles of the hibernaculum. Two were tracked 60 miles from the mine to roost trees five miles apart in wooded hollows near the border between Washington County, Pennsylvania and Ohio County, West Virginia. One bat shared its roost with 58 other bats, indicating a probable maternity site. The other bat used two roost trees, one in Pennsylvania and one in West Virginia. All three destination roosts were large, dead trees with exfoliating bark.

Contractor biologists conducting telemetry on behalf of developers identified eight Indiana bat summer roosts in southwestern Pennsylvania and 18 (state threatened) small-footed bat summer roosts in northeastern and north-central counties. During mist-netting and live-trapping surveys at various locations statewide, contractors captured and released eight Indiana bats, four small-footed bats, 23 silver-haired bats, 255 red bats and 1,047 northern long-eared bats. The USFWS State College field office and Game Commission developed improved bat netting standards and effort requirements for Pennsylvania and distributed them to the list of contractors qualified to conduct surveys in the state.

Contractors also reported Allegheny woodrat sign at sites in two southwestern counties. The reclusive Allegheny woodrat, once found in rocky sections of states from Connecticut to Alabama, is declining or extirpated over 65 percent of its range. Now a state-threatened species, its future in Pennsylvania may well depend on the priority given to its management on publicly owned lands that contain the rare, cavernous, rocky habitat where this eastern packrat persist.

Three two-day workshops conducted in fall 2009 instructed 92 participants in the conservation and adaptive management of the Allegheny woodrat. More than half of those attending the workshops were Game Commission biologists, foresters, and land managers. The majority of others were from DCNR's Bureau of Forestry or Bureau of State Parks. Instructors represented the Pennsylvania Fish and Wildlife Cooperative Unit at Penn State, Indiana University of Pennsylvania, Union College (New York), The College of New Jersey, Pennsylvania Fish and Boat Commission, and Game Commission. In accordance with adaptive-management goals, Diversity Division staff will support managers initiating management practices by resurveying and mapping woodrat habitat sites. A database records management opportunities, implementation of management practices, and results. These activities implemented approximately 25 percent of the draft management plan for this species.

Four Allegheny woodrats from high-quality habitat in southwestern Pennsylvania were contributed to a Purdue University captive breeding program. Cooperating states are Indiana, West Virginia, Kentucky, Tennessee and Pennsylvania. The agency will receive four breeding-program woodrats that will be released on State Game Lands with the best woodrat habitat in order to increase genetic diversity of existing populations. Nine woodrats were captured and released on two separate Huntingdon County State Game Lands on the same mountain ridge. DNA samples were taken for a genetic diversity

study, also conducted by Purdue University. Four woodrat activity centers were found on state forest land on that same ridge. Staff failed to find recent woodrat sign in six formerly occupied areas on an extensive Dauphin/Lebanon county State Game Land; however, regional staff found fresh sign in another part of the SGL. A regional diversity biologist later distributed acorns there for supplemental feeding.

In an expansion of the program monitoring the state endangered northern flying squirrel, 50 nest boxes were installed on a Warren County State Game Land, sections of the Allegheny National Forest (ANF), and a state park. A training session on the ecology of northern flying squirrels, long-term monitoring, live-trapping and handling/marketing techniques was provided for six ANF wildlife biologists, two DCNR state park employees, and three Game Commission regional staff members. A habitat management plan in development for a northern flying squirrel site on a northeastern SGL will provide a base for expansion into a northern flying squirrel management plan.

The primary responsibility of regional wildlife diversity biologists is the habitat-based Private Landowner Assistance Program (PLAP). During the period from July 1, 2009 to June 30, 2010, the six regional diversity biologists wrote 165 plans for nearly 20,000 acres and contributed to comprehensive planning for the SGLs. Since program inception in 2004, more than 840 plans have been produced for a total of more than 128,000 privately owned acres. Regional diversity biologist's duties include hosting annual management workshops for landowners, providing public presentations about species of conservation concern, and serving as ambassadors through participation in conservation organizations.

Wildlife diversity biologists participate in many forms of outreach in both public and professional settings. One major accomplishment was preparation of text and state range maps for new, comprehensive species accounts for all of Pennsylvania's endangered and threatened birds and mammals posted on the agency website. Annual project reports are also available online, as are informational articles on the Pennsylvania eBird website and opportunities for the public to participate in bird population surveys through online reporting. Live presentations are provided for state parks, organizations, schools, colleges and universities, and conservation special events. Interviews are provided for newspaper, radio and television coverage. Our biologists regularly present information on Pennsylvania's research and management of species of concern at professional conference and symposia on conservation issues and co-author papers published in peer-reviewed journals.

Strategic Objective 1.4: Improve the population trends of endangered, threatened and wildlife species of greatest conservation need.

The Pennsylvania Natural Heritage Partnership and Department of Conservation and Natural Resources, Pennsylvania Fish & Boat Commission, and Western Pennsylvania Conservancy continue to develop the Heritage Geographic Information System that includes the Environmental Review tool for threatened & endangered species and the Conservation Planning tool. Staff has attended five meetings concerning the further

refinement of the Environmental Review tool and Conservation Planning. A considerable amount of time has been spent reviewing Conservation Planning Specifications and data that will be used within the system. Efforts have resulted in an approved review efficiency benefiting wildlife conservation while simultaneously supporting industrial development projects throughout Pennsylvania. In order to further the progress of this critical need, and on behalf of the entire Commonwealth's wildlife resources, the Game Commission has appropriated grant funding towards the development of similar type project initiative. The project proposal design will result in the identification of all plant and animal species of special concern and their related habitats throughout all State Game Lands, as well as Public Access cooperator lands. Additionally, a site specific management plan will be created for each indentified species on game lands through the direct coordination of each jurisdictional agency which has oversight of that particular species. This coordinated effort will ultimately result in achieving all future game lands habitat planning and management goals, as well as provide a much needed data base for all future Commonwealth environmental permit reviews from industry related projects.

Since the creation of the Game Commission Wind Energy Voluntary Cooperative Agreement, 29 wind development companies have become cooperators thus agreeing to avoid, minimize, and potentially mitigate any adverse impacts the development of wind energy on private lands may have on the state's wildlife resources. PGC staff attended 33 meetings with wind developers, 21 joint agency wind meetings including meetings of the PA Wind & Wildlife Collaborative, and five other wind energy-related meetings. There were 38 wind energy development projects reviewed for potential impacts to special concern species, natural resources and State Game Lands.

Strategic Objective 1.5: Restore extirpated wildlife species where landscape attributes and public values are favorable.

Game Mammals - Fisher populations have continued to expand geographically and numerically throughout the state.

Wildlife Diversity – Long-term recoveries of three introduced raptors continue to be documented (bald eagle, peregrine falcon, and osprey). These species are approaching population levels in which their status could be upgraded.

Strategic Objective 1.6: Manage nuisance wildlife impacts professionally, effectively and economically.

An increasing portion of the public realizes that bats are beneficial and is willing to provide alternative roosts (bat boxes) when excluding summer colonies from buildings; information was distributed to nuisance wildlife control operators dealing with WNS.

There were no nuisance wild turkey complaints in the metropolitan Pittsburgh study area that warranted transfer. This appears to indicate landowners are satisfied with prior year relocations of turkeys from their properties to public lands.

Agency staff received 506 beaver complaints during this period. There were 1,009 entries in the statewide human-bear conflict database during 2009. Conservation officers relocated 416 bears that had been trapped at sites with reported human-bear conflicts; 35 bear damage claims totaling \$8,688.95 were approved for payment, and 35 bears were euthanized because of crop damage or repeated nuisance behavior.

Goal 2: Improve the public's appreciation of wildlife, and their awareness and understanding of wildlife resource management.

Strategic Objective 2.1: Determine the public's awareness, attitudes, values and knowledge of wildlife and support for wildlife resource management.

This past year a position was created and one human dimensions specialist was offered the position of Chief of Research and Education. This offer was accepted with a start date of July 2010. This individual is responsible for supervising the Outreach and Education Specialists, in addition to conducting relevant and timely studies, surveys and focus groups while reviewing, monitoring and evaluating, existing research and studies.

Strategic Objective 2.2: Enhance the public's knowledge and understanding of the role of hunting and trapping in wildlife management.

During the calendar year 2008, a total of 35 hunting-related shooting incidents (HRSIs) were recorded. This number again marks another low number of total incidents reported for Pennsylvania since recording began in 1915. There were a total of 32 non-fatal incidents and three fatalities. The incident rate (expressed as the number of incidents per 100,000 participants based on general license sales) was 3.79 percent and again marking one of the lowest rates on record. These numbers reflect an ongoing downward trend in the number of HRSIs. Hunting continues to be safe and getting safer thanks to hunter education and training!

Fiscal constraints have prevented the agency from adopting an automated incident tracking system such as the computer aided dispatch centers in use by most police departments. While some basic assumptions can be made from the annual violation statistics, the number of complaints received about hunter behavior from the public is probably a better measure of broader behavioral activity since not all reported violations or complaints are successfully intercepted or investigated. The current inability to upgrade our communications centers with the latest technologies is hampering our ability to accomplish this specific objective.

The final one-third of the state transitioned to the new Hunter-Trapper Education curriculum during this reporting period. This curriculum is designed to meet the International Hunter Education Association's standards for basic hunter education. The

curriculum includes a skills supplement, which enable instructor groups to provide effective hands-on training opportunities as an option. The curriculum also exists in a distance-learning format for adult students. Independent study classes are now being conducted statewide for adult students. Plans to continue the expansion of this format by offering more classes and lowering the minimum age have moved forward.

The standardized bowhunter education curriculum has utilized a distance-learning component for the past four years. However, during this reporting period, the agency chose to step away from an Internet-based version of the independent study portion of the training. The online course copyright holder enacted a student fee for its use, which more than double the current cost to PA students. To ensure the training program does not exceed the market's price breakpoint, the agency returned to a mail-out of print media to accomplish the independent study component of the curriculum.

Additional improvements to the program include an adoption of a new Hunter Education Policy to improve customer service, an expansion of the HERRS system to allow for instructor reporting online eliminating the need and expense of completing and mailing paperwork, the completion of a Hunter-Trapper Education distance learning course for hearing impaired students, the development and implementation of a Crossbow Basics Instructor training series lesson, and completing a formal volunteer instructor recruitment plan.

Existing programs were enhanced with new Audio/Visual and computer equipment supplied for both basic and advanced training programs, new instructors now have the ability to study online, and a new hunter education course review program was created and implemented. Course advertising was improved by airing notices on Pennsylvania's public radio stations during spots focused on hunter education and safety. In addition, a Pennsylvania Hunter Education 50th Anniversary limited-edition art print, and collectable embroidered patch were produced and distributed.

At the present time a total of four curriculums are in place. A basic Hunter-Trapper education curriculum is being taught to all first-time hunters and trappers as required by statutory mandate. A Cable Restraint Certification curriculum is in place to meet the regulatory mandate for those persons desiring to capture canids by using cable restraint devices. Certain persons whose license privileges have been revoked must complete a statutorily mandated Remedial Hunter Education curriculum before their license privileges are restored. Finally, a Bowhunter Education curriculum, titled "Successful Bowhunting!" is offered on a voluntary basis to those individuals seeking to improve their skills and knowledge about bowhunting. One new curriculum, Successful Furtaking, was developed during this reporting period and will be introduced in 2010 along with a pilot program for Successful Turkey Hunting, which was also partially developed during this reporting period.

During this reporting period a total of 684 basic Hunter-Trapper Education classes were held statewide. This number represents a 5percent decrease compared to the previous reporting year. The reported number of classes, however, is suspect. It is believed an unknown quantity of classes have gone unreported. If however, the number is found to

be truly below the previous year, the decline can be attributed to fewer numbers of certified instructors, coupled with a lack of a specific, concerted and empowered effort to increase class opportunities. Repeated attempts to establish targeted class number objectives continue to be rejected. Historic requests to generally add class opportunities, specifically during the months of August, September and October have had little success. An initiative is needed to establish a formal instructor recruitment program to increase the instructor ranks by as many as 1,200 instructors. This swell of volunteers then need to be empowered to schedule and conduct new classes at new venues to provide an overall increase in the number of class opportunities to meet established objectives.

In addition to the basic curriculum, a total of 21 Bowhunter Education classes were conducted across the state. This is equal to the number conducted during the previous reporting period. Again, these class numbers are suspect due to a change in reporting procedures. In addition to the instructor recruitment issues above, this program needs to be revitalized by also requiring agency field support to the program. This has occurred during this reporting year. Field contact, support, and direction are needed to ensure continued program vitality. A total of 21 Cable Restraint Certification classes were conducted, marking a nine percent decline. Finally, seven Remedial Hunter Education classes were held, a 133 percent increase from the previous year. Generally, two to three classes per year meet the current demand for this specialized training; however, during the current reporting period circumstances resulted in the need to increase the number of classes.

Statewide during this reporting, year a total of 30,916 students successfully completed the basic Hunter-Trapper Education training program with 958 of those students having completed the program via independent study, marking a less than one percent (.96 percent) increase over previous reporting year levels. If the number is found to be truly below the previous year it could be directly attributed to the reduction in the potential number of class opportunities as noted above and a decline in the statewide demographics for this age group. The Bowhunter Education program recorded 590 students successfully completing the training, a 19.4 percent increase over the previous year, even though an equal number of classes were conducted. The Cable Restraint Certification program trained and certified a total of 677 students during the reporting period, a 15 percent decrease over the previous year. Since inception of the training program, it was recognized that an initial “bubble” of enthusiasm would be followed by a rapid decline in participation after the bulk of those furtakers interested in this trapping method were trained and certified. Remedial Hunter Education retrained 69 students during the reporting period; a comparison to last year’s number is unavailable.

The Game Commission has issued news releases to emphasize this point. The agency also has worked with Radio PA on daily radio programming that is made available to Radio PA member stations concerning the Game Commission’s efforts, as well as the importance of hunting and trapping.

In this era of limited financial resources, the Game Commission continues to make use of earned media coverage, as well as partnerships that enable the agency to take advantage

of media outlets that would normally cost more than the agency can afford to spend. We have partnered with Radio PA, and have taken advantage of radio broadcasting made available by stations that are seeking financial relief for their right-of-way contracts involving radio towers on State Game Lands.

There have been a number of improvements to agency's website content related to the importance of hunting and trapping in wildlife management.

The Office of Administration announced that it was changing the Commonwealth supported website format to Aqualogic, which required a complete overhaul of the Game Commission's website. During this process, many changes and improvements were made to make navigation flow easier. Additionally, the agency took this time to create new pages and update material, most notably a new Endangered and Threatened Species page with all new profiles reflecting the latest information from the Bureau of Wildlife Management.

With the Office of Administration changing the Commonwealth supported website format to Aqualogic, the agency was unable to capture the number of "hits" on the Game Commission's website. Monthly reports of "visits" now are available by using Google Analytics and Aqualogic Analytics. However, they only became available in May. The biggest news is website usage increased by more than 110 percent from June to July. There were 297,157 individuals who visited the agency's website in July, compared with 138,698 in June and 132,104 in May. The increase surely was sparked by interest in license sales.

The agency continues to produce many products (including, but not limited to, news releases, audio, video, brochures, *Game News* articles, power-point programs, displays) emphasizing the importance of hunting and trapping in wildlife management:

While the video production editor position was vacant, the agency focused its efforts on offering news releases to promote hunting and trapping opportunities, as well as continue its ongoing partnership with Radio PA to provide member stations with daily messages about Pennsylvania's wild birds and mammals, wildlife management efforts, habitat work and hunting and trapping.

In 2009, we have issued 128 news releases; provided 260 radio programs for Radio PA to share with nearly 40 stations across the Commonwealth; finalized four short video programs that were posted on YouTube along with links from the agency's website; and one major display used for the Farm Show and sportsmen's shows.

Strategic Objective 2.3: Expand the availability of wildlife resource information to the public.

The Board of Game Commissioners' meetings are webcast to afford a wider audience the opportunity to view the meetings. The webcasting takes place through the agency's website using "livestream," a for-free service.

The Bureau of Information and Education continues to send representatives to certain meetings to interact with other state wildlife agency representatives. However, the reduction in travel budgets limits this opportunity.

The Game Commission issues news releases via e-mail and PRNewswire, which provides nearly instantaneous distribution of agency announcements. Coupled with the webcasting of Board of Game Commissioner meetings, the public has the greatest access to agency business than ever before.

One of the most notable improvements has been to the information provided on endangered and threatened species, which has taken the form of new individual species profiles. Each new profile follows a consistent format to provide the same information on all listed birds and mammals, including photos of the specific species.

While the video production editor position was vacant, the agency focused its efforts on offering news releases to promote hunting and trapping opportunities, as well as continue its ongoing partnership with Radio PA to provide member stations with daily messages about Pennsylvania's wild birds and mammals, wildlife management efforts, habitat work and hunting and trapping.

The agency provided numerous wildlife resource related presentations to the public during the year and routinely updated the agency website to expand the availability of wildlife information for public use. The following are but examples of the efforts made by Wildlife Management staff to provide information to better inform the public.

Nominations and volunteers for the 2010 deer management Citizen Advisory Committees (CACs) were solicited. CACs were conducted in WMUs 2B, 3D, and 5D.

The agency continued efforts throughout the year to improve deer management outreach efforts to the public and PGC employees. For example:

1. posted answers to 48 "Ask the deer biologist" questions on the website;
2. responded via email to 30 "Ask the deer biologists" questions;
3. wrote and posted issues of the *Deer Chronicle* on the agency website;
4. completed an article on deer management for the Pennsylvania Township Supervisor's magazine;
5. completed and posted on the website a guide to locating information on the Game Commission's deer website section;
6. completed and posted on the website a handout on the first 6 years of antler restrictions in Pennsylvania titled, "Antler Restrictions in Pennsylvania: are they working?";
7. recorded 11 radio spots for Outdoors PA radio programs;
8. updated deer web pages and added "Life and Times of the Whitetail" to the website;
9. wrote scripts for virtual tour of 2009 Deer Management Open Houses;

10. updated and posted the 'Community guide to deer management' on the website; and
11. responded to numerous questions from the general comments email account as well as dozens of phone calls from the public regarding deer management.

Five deer management open houses were completed, a deer aging DVD was reviewed, and a video and script for an urban deer management DVD was drafted.

The agency presented a deer management program at Bald Eagle State Forest, to students at Penn State University, and presented a deer management and wildlife biologist career programs at West Perry High School. It also presented a day-long deer management seminar at the Pennsylvania Land Trust Association's annual conference; and provided a presentation on deer biology to a landowner group in Jefferson County

The agency provided deer management information and instruction for the Pennsylvania Institute for Conservation Education Wildlife Leadership Adventures camp. Topics covered the overall deer program as well as classroom and field instruction on monitoring deer populations.

The agency prepared and sent a letter to the US EPA questioning the accuracy of their rationale and justification for use of GonaCon, a deer fertility control agent. The letter was later modified and submitted by other states and the Association of Fish and Wildlife Agencies to the EPA. Recently, the EPA released a modified GonaCon fact sheet that incorporated many suggested changes and more accurately reflects the capabilities and limitations of GonaCon.

The agency updated the 'Elk in Pennsylvania' brochure for the viewing area and assisted in updating the elk viewing guide. It completed an interview with RMEF on elk hunting opportunities in Pennsylvania. It also presented an elk management program for students at Indiana University of PA, another for students at West Virginia University, and yet another at the Central Pennsylvania Outdoors show. The agency assisted the Bureau of Information & Education (BI&E) with video and photographic work on the elk range and responded to numerous questions from elk hunters and elk guides prior to the elk hunt in November.

The agency responded to numerous inquiries from the public regarding an array of game bird harvest, population and management questions, taped a TV show on the Central Susquehanna WPRAs and recorded more than 10 radio segments on pheasant, woodcock, wild turkey, ruffed grouse, mourning dove, and Canada goose management programs. In cooperation with BI&E prepared fall season news releases for ruffed grouse, wild turkey and pheasant.

The agency also participated in a turkey hunting clinic (27 participants) and updated FAQs on wild turkey web-page, completed annual wild turkey management and research reports for the Northeast Upland Gamebird Technical Committee (NEUGBTC), and a Game Commission report for the quarterly PANWTF board meeting. The agency

responded to surveys from the NWTF on use of crossbows for turkey hunting, winter turkey feeding/nuisance complaints, and the status of Pennsylvania turkey management. The agency collaborated with the NWTF regional biologist to email a survey to state turkey biologists to obtain data on turkey harvests (legal and illegal) associated with all-day spring turkey hunting.

The agency spoke with landowners and the public regarding the proposed hen turkey harvest rate study as well as the proposed changes to the fall turkey hunting season and attended quarterly Pennsylvania National Wild Turkey Federation (PANWTF) board meetings and provided written and oral reports, as well as meeting summaries.

The agency presented an update of the Pheasant Management Plan at the Multi-state Pheasants Forever/Quail Forever 2009 Annual Meeting in St. Marys, PA. Letters were sent to all Conservation Reserve Enhancement Program (CREP) participants whose contract will expire in 2010. The letter thanked them for their support of wildlife habitat programs and provided details about the re-enrollment process for CREP. A WPRA information sheet was included with each CREP letter.

The annual meeting of the pheasant working group was held in January at Bald Eagle State Park with 38 individuals in attendance from the PGC, Pheasants Forever and other partners. Updates on the status of the Somerset, Pike Run and Central Pennsylvania WPRAs and the implementation of the Pheasant Plan were provided. Habitat updates and process for approval of new WPRA proposals were also discussed. The Central Susquehanna WPRA's wild pheasant releases and monitoring activities were featured on *Pennsylvania Outdoor Life*, airing on WNEP Channel 16 Wilkes-Barre and *The Great Outdoors*, Fox 56 TV.

In early October 2009, the annual grouse/woodcock newsletter was mailed to over 500 cooperating hunters along with their 2009-10 hunting survey materials. The newsletter included results of the 2008-09 hunting season as well as the 2009-10 season forecast, information on long-term grouse and woodcock population trends, current PGC research and management efforts, and news items on Ruffed Grouse Society and Woodcock Limited habitat projects. A link to the newsletter is also available on the PGC website.

The agency attended the annual meeting of Woodcock Limited of Pennsylvania and presented an update on woodcock, focusing on implementation status of the strategies in Pennsylvania's woodcock management plan.

The agency provided a duck banding demonstration at the 2009 Pymatuning waterfowl expo and provided waterfowl research presentations to high school advanced biology classes in association with the lesser scaup telemetry research project that reached approximately 70 students.

The agency responded to numerous public questions regarding bobcats, beavers, bears, badgers, wolverines, fisher, mountain lions, coyotes, and squirrels as well as animal track identification. It also provided interviews to outdoor writers for bear, bobcat, and fisher

management programs and recorded 12 radio segments on bears, fisher, bobcat, beaver, and predator prey relationships. The agency prepared a raccoon behavior and ecology narrative for a newspaper editor in Williamsport, a response to an inquiry concerning historical beaver densities and the benefits of beaver dams for the Indianhead Watershed Association, coyote track and track pattern information to a southeastern PA reporter, and beaver population monitoring information to a Penn State researcher investigating beaver impacts on urban forest management in Tennessee.

The agency participated in five interviews with outdoor writers about the 2009 bear hunting seasons; reviewed preseason news releases about bear hunting prospects, and recorded five radio segments for Outdoors PA about black bear ecology and management.

The agency prepared updates on bear, bobcat, beaver, fisher and the Private Landowner Assistance programs for this year's Game Commission's *Hunting Annual*.

The agency met with the Pennsylvania Trappers Association board to discuss trapping regulations and season and bag limit information, attended a District 7 PA Trappers Association meeting and reported on the beaver management plan, bobcat season changes, and the proposed fisher season.

The agency developed, printed and distributed a brochure describing the urban bear study objectives and methods. It also provided a bear management program to a local Lions Club and to Bradford County Trophy Bear and Deer Club.

Presentations on ecology and management of black bears were provided to groups of state legislators and outdoor writers. Field trips to observe and tag cubs at winter bear dens also were provided for groups of volunteers, legislators, and the Governor's Youth Council.

The agency presented an hour-long furbearer management update to the Pennsylvania Trappers Association convention participants covering the status, management, and ongoing research of muskrats, fishers, bobcats, beavers, and river otters. There were approximately 50 attendees. The trappers were provided with information on types and uses for body-gripping traps in Pennsylvania.

The agency updated the fisher wildlife note on the agency website to better reflect current density and distribution of the species, updated the county black bear harvest maps for years 2004 through 2008, and beaver harvest figures for the agency's website, and began reviewing other website materials to identify additional documents that need to be updated. Bear awareness information for distribution to municipalities was reviewed and updated.

The agency completed and submitted a coauthored book chapter on capturing mammals for the upcoming edition of the *Wildlife Techniques Manual*.

Diversity Division biologists provided radio interviews on WNS in bats for WPSU-fm Morning Edition and The Allegheny Front, a regional environment issues program, and three segments for Blue Ridge Cable. Newspaper interviews about WNS were provided for three newspapers in the Southeast Region, one in Williamsport, and a reporter from Pittsburgh participated in field research. Thirty-five Project WILD facilitators who conduct workshops for teachers were updated on WNS. Commercial cave operators received specially prepared written information encouraging them to implement WNS safeguards; a related presentation was provided to a conservation association that included cave owners; one cave operator requested slides to incorporate into an educational program. The PA Wildlife Rehabilitation Council was updated, PA rehabilitators received a WNS guidance letter, and the PA letter was shared with other states for use as a model. Information on the Christmas Bird Count was provided to two newspapers. Regional Wildlife Diversity Biologists in the Northeast, Southeast and Southwest Regions provided radio interviews on PLAP and barn owl topics, and local television segments were recorded in the Southeast Region.

Peregrine falcons were banded before live audiences totaling at least 135 people, including school children, at three venues, in addition to a live web-cast.

The Game Commission public website information pertaining to CWD was completely revised and updated. A description of lactic acidosis was also placed on the web site. A color CWD brochure was produced for the first time. A radio interview describing proper handling of big game in the field was given to Living the Country Life. A talk on wildlife veterinary medicine was given to the pre-veterinary club at PSU. Another talk on wildlife health issues was given to an undergraduate class.

Wildlife disease information was provided in response to requests from bureaus, regions, other state and federal agencies, and directly to citizens. National and international news and information regarding wildlife diseases was forwarded to interested parties and stakeholders.

Lectures and demonstrations of the evolution, anatomy, physiology and aspects of health and disease in white-tailed deer were given to the 20 high school-aged participants in the Pennsylvania Institute for Conservation Education’s Wildlife Leadership Adventure Camp at Juniata College Field Station. Similarly, lectures and demonstrations of the evolution, anatomy, physiology and aspects of health and disease in ruffed grouse were given to the 12 high school-aged participants in the Pennsylvania Institute for Conservation Education’s Wildlife Leadership Adventure Camp at the Carnegie Museum of Natural History Powdermill Nature Reserve.

Strategic Objective 2.4: Promote wildlife conservation education throughout Pennsylvania.

<u>Existing, continuous programs</u>	
Teacher Workshop	
Project WILD	K-12 teachers
Science and Civics	High School teachers

Advanced WILD Workshops	K-12 teachers
PA Songbirds	K-12 teachers
WILD about Owls	k-12 teachers
WILD about Elk	K-12 teachers
PA Biodiversity	Middle- High School Teachers
Flying WILD	K-12 teachers
Conservation Education Workshops for Teachers	K-12 teachers
WILD Action Grants	Schools and non-profit youth groups
WILD Habitats Program	Teachers , youth leaders, students and youth
Envirothon- Wildlife Station	High School Students
School Student programs on a variety of topics	School students and youth groups.

Wildlife Education section on the agency website	
Wildlife Education section-	worked with Joe Kosack on the Endangered Species site
Continue to list of workshops and seedlings for schools on web site	
Educational services and programs are expanded	
Program	Target Audience
PA Biodiversity teacher workshops occurring in the state	Middle School Teachers
	K-12 teachers
Endangered Species workshops expanded to occur at ZooAmerica	K-10 teachers
Project WILD in PA materials expanded	K-10 teachers
Advanced WILD workshops expanded to include Wild about Waterfowl	High School Teachers
	Middle and High School Teachers
Envirothon program- improvement- more in-depth endangered species information	High School teachers and students
Conservation Education Workshops for Teachers- To include Wildlife Forensics, Wetlands, Forestry	k-12 teachers
	Early childhood Educators

Strategic Objective 2.5: Promote the “Connect with Wildlife” program.

The “Connect with Wildlife” theme has been included in a variety of feature news releases, as well as displays, radio programming and video projects.

The “Pennsylvania Wildlife Moments” provides a comprehensive marketing plan on wildlife natural history information, wildlife concerns, safety messages and agency activities to TV stations and Radio stations throughout the state.

The agency is beginning to build its video files of footage of the elk viewing area, Pymatuning Wildlife Management Area and Middle Creek Wildlife Management area with the anticipation of expanding its “Watchable Wildlife” section on the agency’s website.

The agency has promoted bat counts and birding activities to get the public involved in citizen science work. The agency's website also promotes e-Bird.

The agency is selling "Birds of Pennsylvania," by Haas & Burrows, which promotes bird identification specific to Pennsylvania.

The Game Commission, in partnership with the Harrisburg Area Community College, offers instructional courses relating to different aspects of wildlife and the outdoors. The partnership has been a success and offered the following courses: Photographing Fall on State Game Lands, Wildlife Forensics, Walking Tour of State Game Land 211, Walking Tour of the Studio and Art Gallery of Gerald Putt, Wildlife Habitat Management – Introduction, Living and Learning Seminar "Exploring the World of Bats", Focusing on the Snow Geese, Wade Island Heron Colony, Waterfowl Identification for Beginners, Zeroing in on Wildflowers. Other outreach programs include, billboard advertising throughout Pennsylvania, Connect with Wildlife magnets, posters, bumper stickers, orange hat with embroidered Game Commission logo and wildlife supporter, orange draw string bag, Working Together for Wildlife patches, Field Note patches, Elk Hunt patches, Mentored Youth patch with Saf-T plug, 50 years of Hunter Education patch and print, PA Big Game Record book, Waterfowl Management stamp and print, Youth field days and the various special youth hunting season opportunities.

The Game Commission has developed partnerships with several baseball teams in providing discount game nights to hunters with a current hunting license. The agency also hosted a Youth Hunter Appreciation Night baseball game with the Lancaster Barnstormers. The evening provided many opportunities for the children to participate in an archery event, laser shot and beam hit shooting simulators. The children received a special fluorescent orange baseball cap and NASP T-shirt. Proceeds from the event will go to the Lancaster Federated Sportsmen Association's for the club's Youth Field Day and Conservation Camp. The agency also participated in special events at Bass Pro in advertising the sale of the Time Collectible Series.

The Game Commission and the Harrisburg Area Community College will be offering a Wildlife Certificate Program at the PGC headquarters. The certificate program is meaningful to individuals who are seeking employment in positions involving the outdoors and natural wildlife. The Game Commission will host an informational session to introduce the certificate program, which will include several guest speakers.

This year the agency incorporated the "Connect with Wildlife" message into several outreach products: bookmarks, bumper stickers, posters, and magnets.

The "Wildlife Moments" are presented through TV and Radio stations throughout Pennsylvania. The "Wildlife Moments" provide information to the general public relating to wildlife and the Game Commission's role in managing wildlife and its habitat for current and future generations.

The agency uses many sources of informational materials to promote the “Connect with Wildlife” message. The following items are distributed to the general public: bookmarks, bumper stickers, posters, magnets, promotional merchandise, and prints.

Strategic Objective 2.6: Increase the public’s understanding of wildlife and their habitat needs.

PLAP landowner workshops, RWDB site tours for conservation organizations, and Diversity Division support provided for an American woodcock “watch” included sites where PLAP recommendations had been implemented and sites where scrub/shrub habitat management recommendations had been implemented.

RWDBs and the Wildlife Action Plan Coordinator participated in single- and multi-county Envirothons.

PLAP Biologists completed 165 PLAP plans encompassed 19,954 acres and conducted five landowner workshops with total participation of 115.

10 programs including bald eagle nest surveys, bald eagle winter survey, peregrine falcon nest survey (>100 volunteers), osprey nest survey, colonial nesting bird surveys, piping plover observation (>12 volunteers), Appalachian Bat Count (32 volunteer crews in 2009, >40 in 2010), Report-A-Bat (425 reports), Barn Owl Conservation Initiative (includes landowners and college/university professors and students), Boy and Girl Scouts (various nest boxes built and installed).

The Bureau of Wildlife Habitat Management designed and constructed a public interactive demonstration area at the Game Commission’s Harrisburg Headquarters which showcased varied principles of wildlife habitat management. The demonstration areas featured the key principles of cover, food, and water by way of food plot designs, tree and shrub plantings, wetland creation, brush piles and nesting structures, and common habitat management practices designed to create and enhance wildlife habitat in a backyard setting. The interactive demonstration area includes a public walking trail with 16 stations and corresponding related informational hand-outs.

In partnership with the Wildlife for Everyone Endowment Foundation and Waste Management the “Seedling for Schools” program distributed a total of 169,200 free seedlings in 1,010 orders to 870 schools in the Commonwealth. The agency donates the seedlings along with teacher resource packets and student activity pages, and funding through the foundation covers shipping and handling costs for this increasingly popular program.

Last year there were 9000 signs distributed throughout the Commonwealth to be placed on state game lands systems which highlighted varied wildlife habitat techniques recently implemented on local State Game Lands. These signs were placed at key locations on State Game Lands easily accessible to the general public and displayed valuable information and identification of the State Game Lands food plots, prescribed fire

treatments, deer fence enclosures, forest management areas, and the creation of wildlife opening areas.

Six demonstration areas were established on State Game Lands for the Appalachian Mountains Woodcock Initiative. These areas are providing on the ground examples of best management practices for American woodcock, a species of greatest conservation need in our Wildlife Action Plan.

Each year, BWHM participates in workshops for various landowner and conservation groups, and school students. This year, over 150 participants were informed on wildlife habitat management practices and agency habitat programs.

GOAL 3: Promote and perpetuate our hunting and trapping heritage.

Strategic Objective 3.1: Increase hunter and trapper recruitment.

As of the end of fiscal year 2009, a Human Dimensions Specialist was not yet on board to delve in to these issues, however plans were in place to hire one, and that position has since been filled.

The Hunter-Trapper Education Division was responsible for producing and distributing the following printed training guides and materials that promote hunting and trapping:

- Today's Hunter and Trapper in Pennsylvania student guide – 42,000 copies
- IHEA Hunter's Handbook – 36,000 copies
- IHEA Hunter and Shooting Sports Education Journal – 7,800 copies
- Today's Bowhunter student guide - 650
- NBEF's 3-in-1 Responsible Hunting Guide - 650
- Successful Furtaking student guide - 500

These materials are distributed as part of the various hunter education programs and instructor training workshops with numbers paralleling trends in class enrollments.

A total of 827 basic Hunter-Trapper Education course were conducted statewide during this reporting period. The total is comprised of 724 traditional multi-day courses, and 103 two-hour independent study classes. This compares to the total of 736 statewide courses during fiscal year 2008-09; 684 traditional and 52 independent study classes and marks a 12.4 percent increase in the number of courses.

In January 2009, a new, formal hunter education program policy was introduced: HE Policy 3.6 – Customer Service, sets forth guidelines requiring that all basic HTE classes are tentatively scheduled prior to April 1st each year. An internal, online system was developed to enter class schedules. Supervisory staff then review schedules and make recommendations to improve course scheduling in certain locales thereby providing better customer service. Additional classes are being recommended during the higher

demand months of September and October. The policy also requires that all classes are posted on the Internet and include online registration capabilities.

To gain a better measure of public demand for training, the agency has begun to explore using web analytics to measure and track the public's use of the Internet in searching for hunter education classes. By measuring the number of users, the course types in demand, the users' ISP-generated hometowns, time of the year and more; it is hoped a useable measure can be gained. Once demand can be quantified, classes can be scheduled to meet this demand.

Several videos were produced throughout the year featuring the Deer Open House, Hunter Trapper Education, Peregrine Release, Elk Viewing Tips, Trapping Deer with Clover Traps, Pheasant Propagation, PA Deer Management, and the SGL 145 Habitat Tour. Approximately half a dozen advertisements were created for promoting various prints and patches created to commemorate HTE's 50th anniversary, mentored youth hunting, elk hunting, etc; these ads were featured in *Game News*.

A new Youth Hunt Planning Guide was adapted from the Game Commission's Mentored Youth Pheasant Hunt Planning Guide. This guide is intended for groups who would like to take advantage of Pennsylvania's youth hunting opportunities by hosting a special species-specific hunt for interested and eligible junior hunters. The use of this guide will be expanded throughout fiscal year 2010 and beyond.

Youth Hunting opportunities continue to be expanded. The Youth Hunt Planning Guide which has been developed will help to facilitate some added experiences for youngsters. Additionally, a Junior Cottontail Rabbit Season was proposed and approved by the Board of Commissioners to be put in place during the 2010-2011 hunting season.

While it is probably that some Best Management Practices for Hunter and Trapper Recruitment and Retention have been put in to practice unknowingly, there has not been a formal push for this initiative. However, with the recent addition of an Outreach Coordinator whose focus is recruitment and retention, plans are in place to more formally push the regular practice of these BMPs beginning in fiscal year 2010.

A five-year Hunter/Trapper Recruitment and Retention plan will be developed for the timeframe of July 1, 2010 through June 30, 2015.

During the spring of 2010, the PA Game Commission assumed coordination of the National Archery in the Schools Program, which was previously held by a volunteer. With this change, monies will be available through PR funds to help schools who would like to get started with NASP by providing them \$1,500 towards the purchase of a NASP kit (about \$3,071). Additionally, previously Basic Archery Instructor (BAI) classes cost participants a minimum of \$35; there will now be no charge for all physical education teachers, administrators, volunteers, etc. who wish to become BAI certified and conduct NASP in their school or during an after school program.

The Game Commission entered in to a Cooperative Agreement with the National Wild Turkey Federation to promote and provide Women in the Outdoor (WITO) events beginning in the spring of 2010. This agreement calls for the NWTF to undertake the work and activities to develop and implement the Women in the Outdoors program in the Commonwealth of Pennsylvania. Partially using Game Commission PR monies, NWTF hired a WITO PA state coordinator to organize this effort of providing hand-on training events to teach the basics of many outdoor-related activities and include most of the different aspects of the shooting sports and some aspects of hunting. With this partnership, a minimum of 25 WITO events with an enrollment of 1,000 participants is planned for fiscal years 2009-10 and 2010-11.

Although July 1, 2009- June 30, 2010 was the first full year of a point-of-sale license system, we will continue to lack a baseline measure of hunters and trappers until we are several years into a POS approach. In fiscal year 2009-10, a total of 926,892 general hunting licenses were sold and 29,717 furtaker licenses were sold. For fiscal year 2009-10, a total of 948,381 general hunting licenses were sold with an additional 31,122 furtaker licenses sold. These sales figures represent a 2.32 percent increase in licensed hunters and a 4.73 percent increase for trappers/furtakers for the fiscal year.

Data from fiscal year 2008-09 indicates that 92,251 general hunting licenses were sold to juniors, both resident and non-resident. In fiscal year 2009-2010, a total of 89,259 general hunting licenses were sold to youth. This represents a 3.24 percent decrease of licensed youth hunters.

During fiscal year 2009-10, 28,542 Mentored Youth Hunting Program permits were sold. In the future, this data can be compared in subsequent years and used as yet another measure for determining number of youngsters hunting. Additionally, with the point-of-sale system, we will have the ability to establish a conversion rate by tracking Mentored Youth and determining if they purchase a Junior License when they have met the age requirement to do so.

- Amount of materials produced and distributed promoting hunting and trapping

	FY 2008	FY 2009	percent Change
Pennsylvania Game News magazine	825,550	780,000	-5.5percent
Waterfowl Mgmt – Seasons/Bag Limits brochure	81,000	81,000	0.0percent
Pennsylvania Hunting & Trapping Digest	1,300,000	1,300,000	0.0percent
Pennsylvania Hunter-Trapper Education Manual	42,000	42,000	0.0percent
IHEA Hunter’s Handbook	42,000	36,000	-14.3percent
IHEA Hunter & Shooting Sports Education Journal	8,400	7,800	-7.1percent
NBEF Bowhunter Education Manual	600	650	8.3percent
NBEF 3-in-1 Hunting Guide	600	650	8.3percent
Mentored Youth Pheasant Hunt Planning Guide	N/A	N/A	N/A
Youth Hunt Planning Guide	N/A	N/A	N/A
PA-NWTF-Positively Identify Your Target Posters	2,000	0	-100percent

- Number of programs developed and conducted promoting hunting and trapping

Description	Total Events FY 2008	Total Events FY 2009	# of total participants FY 2009	percent Change in # of Events
State Game Lands	N/A	13	486	N/A
HTE Camp	2	3	54	50percent
Youth Shooting Sports Competition	5	6	495	20percent
Firearms Safety	13	24	1120	85percent
Hunting Accident Prevention	2	4	131	100percent
Season/Bag Limits	10	20	1020	100percent
Youth Field Day	48	100	8520	108percent
Hunting	14	13	397	-7percent
Trapping	5	11	682	120percent
Game Law Enforcement	N/A	73	4041	N/A

Certain demographic information about hunting license buyers is not available at the present time in Pennsylvania. As an alternative, demographic information which identifies gender and minorities is collected by the Hunter-Trapper Education Division for all hunter education students. Information for the basic Hunter-Trapper Education course is summarized as follows:

FY2008-09		FY2009-10		CHANGE
RACE	PERCENT	RACE	PERCENT	
White	96.7 percent	White	96.3 percent	-0.4 percent
Black	0.7 percent	Black	0.7 percent	0
Asian	0.3 percent	Asian	0.3 percent	0
Hispanic	0.7 percent	Hispanic	1.1 percent	+0.4 percent
Native American	0.2 percent	Native American	0.2 percent	0
Other	1.3 percent	Other	1.3 percent	0
GENDER				
Male	78.8 percent	Male	78.4 percent	-0.4 percent
Female	21.2 percent	Female	21.6 percent	+0.4 percent

During the reporting year, the following Hunter-Trapper Education classes were conducted either during the school day or after school on nights or weekends within school facilities:

HTE in Schools Summary FY2009-10

REGION	IN-SCHOOL	AFTER SCHOOL	TOTAL
NW	14	5	19
SW	2	1	3
NC	4	2	6
SC	3	1	4
NE	4	3	7
SE	2	2	4
TOTALS	29	14	43

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Strategic Objective 3.2: Promote the safe, responsible and ethical behavior of hunters and trappers.

During the reporting year, a total of 42 HRSIs occurred at a rate of 4.45 incidents/100,000 license buyers. This marks a 27.3 percent increase over the previous year. The previous year's number of 33 total incidents was the all-time low since records began in the early 1900's. Part of the increase was a rise in the number of spring turkey-hunting incidents, which were 10 as compared to the eight the previous year. Another increase was noted with 15 deer-hunting incidents during this reporting period, as compared to 12 the previous year. However, the total number of incidents recorded this year is below the current 10-year average of 51.1 incidents per year with a rate of 5.15 incidents/100,000 license buyers.

The following table is a summary of hunter education student training efforts for this reporting period with a comparison to the previous year:

FY2008-09				FY2009-10				
Curriculum	# Classes	# Students Enrolled	# Students Certified	Curriculum	# Classes	# Students Enrolled	# Students Certified	Percent Change
HTE	684	32,135	29,958	HTE	724	29,675	28,640	+6/-8/-4
HTE IS	52	1,451	958	HTE IS	103	2,418	1,573	+98/+67/+64
HTE TOTAL	736	33,586	30,916		827	32,093	30,213	+12/-4/-2
Bow Ed	22	707	590	Bow Ed	24	489	441	+9/-30/-25
Cable	21	662	677	Cable	27	624	603	+29/-6/-11
Furtaker	0 ¹	-	-	Furtaker	5	108	105	N/A
Remedial	7	69	69	Remedial	6	103	102	-14/+49/+48

During the reporting period, the following improvements were made to the agency's hunter education programs:

- Launching a new online class registration and reporting system, named the Event Manager which has more features, adds more capabilities and provides a greater level of reliability over the previous online registration and management system.
- Development and use of new volunteer instructor recruitment tools with a common theme/slogan – Pass It On. (See S.O. 7.1 for more information about these tools.)
- Developed and implemented an independent study component to the new instructor training curriculum making it easier for volunteers to schedule and attend required training.
- Added more new instructor training workshops across the state on both weeknights and weekends to reduce barriers in meeting this training requirement. There are now workshop opportunities scheduled during each quarter in each region compared to just one weekend workshop per year in each region.
- Refreshed all online hunter education promotional materials to better represent current training programs and opportunities for both students and volunteer instructors.
- Completed the third and final wave of Pennsylvania counties which transitioned to the new Hunter-Trapper Education curriculum.
- Purchase and use of notebook computers with curriculum-specific Microsoft PowerPoint programs for advanced hunter education classes.

¹ New curriculum which began April 1, 2010

- Ongoing transition of basic Hunter-Trapper Education instructor teams using skill-based learning stations.
- Increased volunteer motivation and recognition by providing all instructors with limited edition copies of the Tomorrow's Hunter's print and embroidered, collectable patch commemorating 50 years of hunter education in Pennsylvania.
- Increased volunteer motivation and recognition by featuring Regional Instructor of the Year Award winner cameos in the agency's *Game News* magazine.
- Ongoing updates and refinements to the basic HTE student guide and online study course, *Today's Hunter and Trapper in Pennsylvania*.
- Subscribed to a new online, independent-study course, *Today's Bowhunter* to be used as part of the Successful Bowhunting curriculum.

During the reporting year one new advanced training program was launched statewide, Successful Furtaking. The curriculum is designed to meet national standards for trapper training and is focused on creating the knowledge, skills and ability for students to be successful early in their trapping careers. A second advanced program, Successful Turkey Hunting was developed and piloted as well. Statewide launch is planned for spring of 2011. Current advanced training courses include Successful Bowhunting and Cable Restraint Certification.

A formal peer review of the agency's hunter education programs was conducted by the International Hunter Education Association in March 2008. This process examines all aspects of state hunter education programs and provides a comprehensive list of recommendations for improvement. The agency requests the review in advance of each five-year planning cycle for Federal Assistance Program grants and the agency's hunter education plan. The next scheduled peer review should occur in early 2013.

In October 2009, a Jurisdictional Minimum Hunter Education Standards Evaluation Report was completed by the Hunter-Trapper Education Division and submitted to the IHEA to measure the compliance of the agency's Hunter-Trapper Education program with national standards for basic hunter training.

Last year, there were over 103,000 signs distributed throughout the Commonwealths both on State Game Lands complexes and public

Strategic Objective 3.3: Increase the retention rate of hunters and trappers.

Through the use of a point-of-sale license system, of which fiscal year 2009-10 was the first full year of utilizing this approach, a database of hunters and trappers is continually being developed. This database can then serve to determine the retention rate of hunters and trappers, although some modifications to the questions currently asked of an

individual when purchasing a license may be needed to more accurately define a “new” versus a “lapsed” hunter who had previously bought a license before the POS was in place.

A 2004 project completed by Responsive Management conducted for the Pennsylvania Game Commission cited several reasons for individuals choosing to stop hunting in Pennsylvania. The main reason was found to be personal health/age followed by the choice to devote more time to other activities besides hunting. Other discovered reasons for personal cessation of hunting include having less time - work obligations, places individuals used to hunt are now gone/developed, lack of game animals, having less time – family obligations, too expensive, no one to go with, places individuals used to hunt are now posted, and, rounding out the list, lack of access. Since this research was completed, no further efforts have been done to identify reasons for discontinuing hunting and trapping participation; however, this may be an area that will receive some attention in the near future with the addition of the Human Dimensions Specialist.

Until this time, a concerted effort to develop programs to promote hunting and trapping as recreational activities that increase current levels of involvement have not been in place outside of Hunter-Trapper Education. This is something to be looked at more in depth in the near future now that an Outreach Coordinator has been hired to manage hunter/trapper recruitment and retention.

Strategic Objective 3.4: Provide sustained opportunities for hunters and trappers to take wildlife.

Season and Bag limits were designed for the long term benefit of wildlife species and in return insures hunting opportunity in the future. As you read the habitat section of the plan it also provides information on the development of habitat to insure current and future opportunities. The establishment of Wild Pheasant Restoration Areas is also an initiative to insure future hunting for that particular species.

Strategic Objective 3.5: Promote and expand hunting and trapping access on public and private lands.

The agency’s Public Access programs continue to provide hunting opportunity on private lands. This year, 13,932 Public Access cooperators allowed hunting access to 2,794,356 acres of private land.

Programs and material developed for increased understanding of hunters’ and trappers’ roles in wildlife management.

From *Pennsylvania Game News*:

- Sept. 09 Hunter Education Celebrates 50 by Lori Richardson
- Sept. 09 What is Public Access by Mike Pruss
- Sept. 09 Hurray for DMAP Days by Linda Steiner
- Oct. 09 Just a Farmer, by Harvey Bauer
- Dec. 09 Fewer Deer & Fewer Hunters by Chris Rosenberry

June '09 State Game Lands, by Wes Bower
July 09-Sept. 09 Life and Times of the Whitetail by J. T. Fleegle
Oct. 09-Dec 09
Feb. 10-June 10 Life and Times of the Whitetail Biologist by J.T. Fleegle

The Bureau of Information and Education developed several brochures and studies.

2010 wildlife calendar
Updated Elk in PA (2009) brochure
Digest/Annual 1010-11
HTE instructor brochure
Strategic plan
HTE reminder to purchase first license postcard
Updated seedling brochure, wildlife homes brochure, WTFW 11x17 flyer and deer booklet
Created .ppt slides for wildlife compact .ppt
Created ad for Forestry PA magazine

Studies shared

From *Pennsylvania Game News*:

July 09 Bald Eagles Along the Susquehanna, by Kathy Korber
Nov. 09 Deer Wrestlers by Lori Richardson
Dec. 09 2008-09 Game Take and Furbearer Surveys by Boyd and Weaver
Jan. 10 PGC 2008-09 Annual Report
Feb. 10 Tundra Swans by Lori Richardson
April 10 Early Bear Management by Gary Wakefield
June 10 Are There Any Deer Left by Andrew Norton

From 2010-11 Digest:

White-tailed Deer by Deer section staff
Black Bears by Mark Ternent
Wild Turkeys by Mary Jo Casalena
The Eastern Coyote: Where Did it Come From by Roland Kays
Fishers by Matthew Lovallo
Bobwhite Quail by Scott Klinger
Wild Pheasant Recovery by Colleen DeLong

The agency's Howard Nursery in Centre County produced and distributed 2,159,400 tree and shrub seedlings for wildlife food and cover plantings, and 781,575 (507,025 for mined land reclamation) of the seedlings distributed were sold for \$142,458.82.

The wood shop produced and shipped a total of 31,723 wood products which included: 5,524 bluebird boxes; 12,921 bluebird box kits; 699 wood duck boxes and kits; 249 bat houses; 491 other nesting boxes; 131 custom signs; 61 boundary line signs; eight welcome signs; and 6,647 bulletin boards and backboards for use on game lands and

cooperative access properties. Wood products are available for purchase by the public on the agency's website.

Hunting access was also provided on our 1.4 million acre State Game Lands System via 4,068 miles of roads open for hunter access. These access corridors also facilitate habitat management that improves hunting opportunity.

Last fiscal year the Wildlife Habitat Bureau was able to acquire 2,498 acres of additional State Game Lands for public hunting/trapping access use and for overall Commonwealth benefit to wildlife habitat and species management.

Strategic Objective 3.6: Improve hunter and trapper understanding of their role in wildlife management.

In addition to hunter education, the agency produced and distributed the following articles as part of the monthly *Game News* magazine:

- *Life & Times of the Whitetail* (selected monthly columns)
- *Hunting for a Greater Good*
- *Banding Ducks*
- *Turkey Banding Update*
- *Hunter-killed Elk Test Negative for CWD*
- *PGC Annual Report*
- *Game & Furbearer Harvests*
- *The History of State Game Lands Acquisition*
- *What is Public Access*
- *Fewer Deer & Fewer Hunters: Are They Related*

This publication has a monthly circulation of 68,000 copies.

During the reporting year, seven public open-house events were conducted on deer management in Pennsylvania. Colorful displays and a detailed brochure series distributed by agency staff were featured. One brochure, "Hunters: Customers, Partners, Stakeholders" specifically focused on hunting's role in deer management. In addition, an agency-produced DVD on deer management was featured. During the reporting year, 3,000 copies of the DVD and the brochure series were distributed to agency staff for use in programs throughout the state.

In addition to these sources, the agency's website contains the following information, which addresses this operational objective:

- *Wildlife Conservation History*
- *About Pennsylvania Deer Management Brochure Series*

The popular website is visited by over 300,000 people monthly.

Strategic Objective 3.7: Provide enhanced pheasant hunting opportunity through a put-and-take operation and a reintroduction program.

The Game Commission's four game farms continue to operate with a reduced production quota of 100,000 due to fiscal cutbacks. Propagated birds remain popular with sportsmen and provide many hours of hunting recreation.

Commission staff released 111,929 birds for hunting in fiscal year 2009-10. Shipments for the youth pheasant hunt consisted of 15,000 birds, which were released at designated advertized sites throughout the commonwealth in early October. Also, 27 clubs received 1,931 birds to hold mentored youth hunts for 868 participants. For the regular fall season 88,662 birds (57,427 males and 31,235 hens) were stocked in October and November during a preseason and two in season releases. An additional 6,336 were released prior to the start of the late small game season before the Christmas holiday season. The Game Take survey indicated that 2,003 resident junior hunters harvested 3,671 pheasants during the 2009 youth hunt. During all pheasant seasons, 91,549 hunters harvested 151,737 pheasants.

In addition to pheasants released for hunting, 1,900 eggs and 4,950 surplus hen chicks were sold. The Game Commission donated 4,296 day-old pheasant chicks to sportsmen's organizations to raise and release on lands opened to public hunting. Also, 14,475 hens and 1,069 males were released in May after egg collection was completed.

Game Farm Superintendents from each of our farms met with the Department of Agriculture's Odor & Nutrient Management personnel to review our production levels and manure handling procedures and it was determined we fell well below the guidelines for regulation so no nutrient management plans are necessary. All game farms conducted voluntary avian influenza testing of their breeder flocks with no positives reported.

Ground was broken for new brooder house construction on the Western Game Farm (WGF). Also at the WGF a new carpenter shop was built and the hatchery was remodeled. The Loyalsock GF completed the second phase of the main water line replacement project and started new winter holding pen construction. The Northcentral GF returned to half production utilizing the newly constructed brooder houses. They replaced netting on holding and brooder pens, and finalized waterline installation at the new brooder houses. At the Southwest GF construction of two holding pens was completed and two others were dismantled, and a new paint shop was constructed. Also, an old corn crib was dismantled and construction for a new corn crib and storage area was started.

As noted in the Goal 1 section of this report the Ring-necked Pheasant Management Plan is being used to guide pheasant recovery efforts. Wild Pheasant Recovery Areas (WPRAs) are being designated in suitable areas within the commonwealth with the goal of establishing populations with at least 10 hens per square mile in the spring through habitat improvement and the release and temporary protection of wild trapped and transferred ring-necked pheasants.

The Board of Commissioners approved the establishment of three WPRAs in 2009: Pike Run WPRAs, Central Susquehanna WPRAs, and Somerset WPRAs. In 2010, a fourth WPRAs in the Hegins-Gratz Valley of Schuylkill and Dauphin counties was approved. The Board of Game Commissioners also approved regulations to prohibit the release of pen-raised pheasants, dog training from early February through 31 July, and the hunting and harvesting of pheasants in any WPRAs.

In the Pike Run WPRAs, translocated wild ring-necked pheasants from South Dakota were released in 2005, 2006, 2007, and 2008. During the four years, a total of 591 birds were released at Pike Run. Crowing counts, landowner brood surveys, and flushing surveys are being used to monitor pheasant populations from 2009 through 2011. Densities in the Pike Run WPRAs were two hens per square mile in the core area and three hens per square mile overall this year. No additional wild birds will be stocked on this area.

In the Somerset WPRAs, wild ring-necked pheasants trapped in Montana in 2009 and South Dakota in 2010 were released. In 2009, 346 pheasants (69 males, 277 hens) were released. In 2010, 318 pheasants were released (36 males, 282 females) on this WPRAs. This was the second year of wild pheasant releases on this WPRAs, with 2011 being the final year of releases. Densities in the Somerset WPRAs were one hen per square mile both overall and in the core area. Pheasants will be monitored for an additional three years after trap and transfer is completed, i.e., 2012 through 2014.

In the Central Susquehanna WPRAs, wild ring-necked pheasants trapped in South Dakota (2007) and Montana (2007, 2008 and 2009) were released. In 2009, 298 pheasants (63 males, 235 females) were released. A total of 993 pheasants were released during the 3 years of the project. In 2010, spring hen densities were 15 hens per square mile in the core area of the Turbotville-PPL study area portion of the Central Susquehanna WPRAs, and nine hens per square mile in the Turbotville-PPL study area overall. In both the core area and overall study area of the Greenwood Valley portion of the Central Susquehanna WPRAs, spring hen densities were two hens per square mile. Population monitoring will continue for three years post trap and transfer, that is, from 2010 through 2012. No additional wild pheasants will be released on this area.

Study areas and cover types have been delineated in a Hegins-Gratz Valley WPRAs with a goal of releasing 300 each year for three years. Pheasants will be monitored during the transfer/release period and for an additional three years after trap and transfer is completed, from 2011 through 2016.

GOAL 4: Manage and protect a network of public and private lands and waters to provide habitat for wildlife.

Strategic Objective 4.1: Provide planning and technical habitat management guidance to landowners.

From *Pennsylvania Game News*:

- July 09 The History of SGL Acquisitions, by Jackie Dattisman
- July 09 Grasses Wear Robes, Marcia Bonta
- Aug. 09 August Native, Marcia Bonta
- Sept. 09 A Fruitful Year, Marcia Bonta
- Oct. 09 Woodcock demo area created, "News"
- Dec. 09 The Kelly Estate by Lori Richardson
- Dec. 09 Aliens and Invasives by Marcia Bonta
- Jan. 10 Tree of Peach by Marcia Bonta
- March 10 Hunters Connect with the Chesapeake Bay by Cindy Ross

From 2010-11 Digest:

Help for Landowners by Richard Fritsky

**Game News*: 65,000 per month, plus 3,000 newsstand sales

*Digest/Annual 1.3 million

Note: Much of this published material also was posted on the Game Commission's website.

Clearly define habitat educational goals	Target Audience	Goals developed
Program		
WILD Habitats program	Teachers and schools	Yes
WILD Action Grants program	Schools and youth organizations	Yes

Number of habitat educational programs conducted and different persons attending			
Program	Number	Target Audience	Number of participants
Importance of wildlife habitat	1	Girl scouts	27
WILD about Wetlands	1	Teachers	17
6 Wild Action grants were awarded to schools in the amount of \$1000.00 each			

Number of specific species programs to specific habitat*			
Program	Number	Target Audience	Numbers
WILD about Peregrines	2	Teachers	32(already counted above)
WILD about Elk	1	Teachers	24(already counted above)
WILD about Owls	1	Teachers	18 (already counted above)
WILD About Bear	2	Teachers	45 (already counted above in workshop)

*Note: All workshops refer to species and specific habitat, especially PA Songbirds, PA Biodiversity and Endangered Species. In each of these workshops educators are introduced to specific species and their needs through in-depth hands-on activities.

Considerable wildlife habitat was improved on private lands via Farm Bill Programs. This included 231 CREP plans that were written and became contracts, and 100 percent of these contracts began implementation. This year's 3,406 acres brings the PA CREP total, since 2000, to 205,560 acres, making Pennsylvania a leader in the program.

An additional 220 landowners offered to enroll 6,810 acres in conservation cover through the Wildlife Habitat Incentives Program (WHIP).

Strategic Objective 4.2: Increase State Game Lands acreage with an emphasis on access, indentures, in-holdings and critical or unique habitats.

The Bureau of Wildlife Habitat Management was able to acquire two acres of indentures, ninety four acres of critical and unique wildlife habitat comprised of seven acres riparian habitat associated with 5,853 feet of Aquashicola Creek, and 87 acres of wetlands. Acquiring interior holdings, indentures and access into existing State Game Lands is always a high priority for the Game Commission. In fiscal year 2009-10, the Game Commission acquired two indentures and ten new access routes into existing State Game Lands. Two of the new access routes are located in Rush Township, Dauphin County through property owned by The Harrisburg Authority. These two easements totaling more than five acres in size and 4,600 feet long will provide vital access for the public and the Game Commission into portions of SGL 211 previously inaccessible due to physical terrain and lack of legal access.

There were 1,306 acres acquired for State Game Lands which provide habitat conducive to one or more species of conservation need as identified in the Wildlife Action Plan. These acres consisted of more than a mile of Aquashicola Creek and acreage which protects the Blue Mountain migratory corridor identified as an Important Bird Area in (Kings Manor), 300 acres grassland acquired to protect grassland species such as grasshopper sparrows, bobolinks and meadowlarks (New Shawmut Timber Co.), and 115 acres grassland acquired to protect Upland Sandpiper and Henslow sparrow habitat (Berwind II).

In fiscal year 2009, the Commission acquired 2,498 acres, bringing the agency's total State Game Land acreage to 1,448,742. The State Game Land System includes 305 separate State Game Land tracts in 65 of Pennsylvania's 67 counties. The 2,498 acres were acquired through a variety of means including lease/land exchanges, timber/land exchanges, partnerships with conservation partners, a cooperative interagency agreement and as the result of a long protracted Natural Resources Damage Assessment (NRDA) settlement.

The single largest tract acquired was approximately 1,306 acres in Ross and Eldred Townships, Monroe County and added to State Game Land (SGL) Number 168. The 1,306-acre tract was part of a NRDA settlement associated with a case filed against

current owner CBS for the Palmerton Zinc Superfund Site in Carbon, Northampton and Monroe Counties. The Game Commission was a participating Trustee along with other state and federal agencies in the case. The transfer of the 1,306 acres compensates the Game Commission for damages incurred to wildlife habitat and SGL within the area of the former zinc smelting facility which discharged hazardous substances into the environment resulting in the contamination and defoliation of thousands of acres of land, including SGL.

The Game Commission also acquired two properties consisting of 149.9 acres established as SGL banks which were transferred from the Pennsylvania Department of Transportation (PennDOT). In May 2008, the Game Commission entered into a Cooperative Interagency Agreement for Interdepartmental Land Transfer and Establishment of State Game Land Banks with the Pennsylvania Department of Transportation and the Federal Highway Administration. The purpose of the agreement was to streamline highway transportation projects impacting less than five acres of SGL. Once established, these land banks will allow PennDOT to expedite the mitigation process of finding replacing lands for SGL affected by highway construction projects by debiting acres from these existing tracts instead of being replaced on a case-by case basis.

Through efforts of the Real Estate Division there were 0.2 acres of boundary lines disputes resolved and 5,127 acres of State Game Lands boundary surveys completed. The Surveying Section continues to be understaffed because we have not been able to replace individuals as they retire. The agency's goal is to have a two-person survey crew in each of the six regions; however, due to a statewide hiring freeze this goal has not been realized. The Survey Section was able to survey 906 acres and 32 miles of State Game Land boundary lines, while simultaneously performing other important survey work such as assisting regional personnel with surveying issues, encroachments and working closely with adjoining landowners to settle boundary line disputes.

The Lineal distance of boundary lines surveyed was 105 miles of which 20 miles were in support of boundary conflict resolution. This involved 2,945 hours spent researching, investing, and handling questions concerning titles, surveys, boundaries, rights-of-ways and land litigation and 950 hours involving legal reviews and 120 hours of research by ROW Section.

The Mapping Section did not update any old SGL maps from pen and ink to digital format during fiscal year 2009-10. The sole person previously working in the Mapping Section left employment with the agency during fiscal year 2008-09 and has not been replaced leaving a huge backlog of mapping assignments.

Maintaining identifiable boundary line is among priority tasks for game lands Food & Cover crews. This year, 1,168 miles of boundary line were cleared, inspected, and marked.

Strategic Objective 4.3: Complete all comprehensive State Game Lands plans.

Comprehensive State Game Lands planning is necessary to ensure sound, sustainable, and efficient habitat management. This includes updating infrastructure records, habitat cover, forest types, access roads, parking lots and all aspects of State Game Lands management. Plans were completed for 50,029 SGL acres in 28 separate plans.

The Forest Inventory and Analysis Program, which was established in 2005, is now in its fifth season of data collection. This program is critical for accurate assessment of the forested areas of the State Game Lands. As of August 11, 2010, 783 permanent assessment plots have been established. With the goal of 875 permanent plots established after a five-year cycle, the section is on pace to achieve its goal. These plots will be re-assessed on a five-year cycle to determine changes in growth, health, and species composition of State Game Lands forest habitats and will provide valuable habitat planning information. The FIA Section has also developed a sampling system for monitoring habitat conditions before and after the use of prescribed fire. Initial data gathering and analysis has been done on State Game Land 176 in Centre County, the Scotia Barrens, for the 2010 prescribed fire season and pre-burn data has been gathered for the 2011 prescribed fire season.

Last Fiscal year, there were 103 records updated from the Bureau's Real Estate legal team including 57 oil/gas and mineral abstracts and another 159 records update from the ROW Section. This effort constituted 120 hours involving compiling and developing records information and GIS data for entry and updates, 449 hours responding to questions, including litigation participation relevant to agency deeded ownership. Unfortunately, there were no State Game Lands maps updated as the sole person working in the Mapping Section left employment with the agency during fiscal year 2008-09 and has not been replaced leaving a huge backlog of mapping assignments.

Strategic Objective 4.4: Promote wildlife habitat planning and management on non-Game Commission public lands.

Last fiscal year, there were 29 real estate land exams completed identifying core and connecting wildlife habitats having high values worthy recommended for acquisition.

Strategic Objective 4.5: Avoid, minimize and mitigate adverse impacts on wildlife habitats.

During fiscal year 2009-10, the Game Commission issued 38 new right-of-way (ROW) licenses which included 15 pipelines, three electric lines, seven fiber optics, seven seismic surveys, three communication tower sites and three road-use ROWs with provisions protecting Game Commission interests. The total revenues received from the Commission's right-of-way licensing program which includes annual payments for pipelines, utility lines, tower sites, road use and other incidental uses of SGL were \$2,314,562.

The regional breakdown of new ROW for the year was 14 in the Southwest; 10 in the Northcentral; five in the Northeast; and three each in the Southeast, Southcentral and

Northwest. There were 13.2 miles of new pipeline ROW, 0.8 miles electric lines, 8.6 miles fiber optic line and 43 miles of seismic survey lines.

In addition to the 38 new ROW licenses, 121 ROW licenses had fees increased through amendments and assignments.

Three amendments to existing ROW licenses were prepared; one provided exchange of use of tower sites for the Game Commission's radio system and reduced license fees, the other two were exchanges of in-kind-service through radio advertising/educational programming provided to Game Commission in exchange for reduced license fees to help to alleviate financial hardships to existing licensees as a result of the current business environment while at the same time provide the sportsman and wildlife with suitable compensation and benefit for secondary uses of the State Game Lands.

A total of 138.52 acres (65.95 acres being temporary) of ROW impact was mitigated through comprehensive re-vegetation plans and payment of \$72,967.06 for habitat damages in addition to monies received for damage to marketable timber.

Several ROW requests were either denied or rescinded due to unacceptable potential adverse impacts to the wildlife resources, the SGL or as a result of viable alternatives being available to the applicant.

Coordination on non-agency public lands provides additional hunting and habitat management opportunity. There are 78,523 acres of Army Corps of Engineers land managed by Game Commission through cooperative agreements.

An additional 37,000 acres of state forest and state park habitats are managed by Game Commission crews across the state.

The Game Commission also worked closely with DCNR to incorporate the State Wildlife Action Plan into DCNR's 2010 Forest Assessment.

One of the most significant habitat developments of the past several years was passage of the Prescribed Burning Practices Act. The Game Commission is working closely with the Bureau of Forestry, Bureau of State Parks, DMVA, and the U.S. Forest Service to train personnel and develop landscape scale prescribed fire plans.

Through participation in the Environmental Review Committee (ERC) staff were able to review and comment on potential wildlife habitat impacts, and ultimately recommend approval for the net creation, restoration and/or enhancement of over 18 acres of wetlands associated with projects proposed by the US Fish and Wildlife Service's Partners for Wildlife program and the Department of Environmental Protection's Pennsylvania Wetland Replacement Project.

Agency staff attended 17 field views and 54 meetings involving wind energy development on private lands in regards to potential impacts to wildlife resources.

Recommendations were provided to help avoid and minimize impacts to wildlife resources and unique wildlife habitat.

Game Commission Staff reviewed and commented on 227 transportation projects (PennDOT, Turnpike, airports, rail) concerning species of special concern with 60 potential impacts. Habitat or presence/absence surveys were conducted for three projects. Avoidance measures were required or recommended on 49 projects to avoid adverse impacts to species of special concern and their habitat. The surveys were conducted for bald eagle, Allegheny woodrat, and bats. The survey results were used to avoid, minimize, or mitigate for unavoidable impacts.

A total of 477 Pennsylvania Natural Diversity Inventory (PNDI) reviews were completed for oil and gas projects throughout the state, 296 of which were related to Marcellus shale development. The reviews involved over 702 oil/gas wells, 310 of which were Marcellus wells, over 1,486 miles of oil/gas pipeline, and 17 seismic surveys totaling over 1,545 square miles of survey. The projects that were reviewed were at least partially located on the Allegheny National Forest (52), State Forests or State Parks (40), State Game Lands (72), and private property (300). Avoidance measures were recommended or required for 81 projects to avoid or minimize adverse impacts to various species of grassland nesting birds, marshland nesting birds, bat species, bald eagles, Swainson's thrushes, and great blue herons. Habitat or species surveys were completed for 23 projects to avoid or minimize adverse impacts to Allegheny woodrats, eastern small-footed myotis, northern myotis, great blue herons, and their associated habitats.

As a result of the PNDI reviews, over 891 miles of proposed oil and/or gas pipelines and 1,956 square miles of proposed or completed seismic surveys were digitized and added to our GIS database for consideration of cumulative impacts during future PNDI reviews and to monitor the ever-expanding oil and gas development on and adjacent to State Game Lands.

Field surveys were completed at four active great blue heron rookery locations on private property to update the status of the rookeries, and at one potential rookery on State Game Land 30.

A total of 841 Pennsylvania Natural Diversity Inventory reviews were completed for construction and development projects throughout the state. These reviews identified a total of 498 potential impacts to species of special concern were reviewed and commented. Surveys were conducted on ten projects to avoid adverse impacts to Allegheny woodrat, bald eagles, ospreys, great blue herons and short-eared owls or their habitats. Avoidance measures were required or recommended on 100 projects to avoid adverse impacts to federally- and state-listed endangered or threatened species and species of special concern and their habitats.

Staff reviewed and commented on one National Environmental Policy Act project proposal, attended 12 field views and 26 meetings involving various transportation (rail, highway and airports), Natural Resource Damage Assessment, and private development

projects. Staff reviewed and commented on five Community Development Block Grant projects, 15 ACOE stream or wetland permits, 16 projects located on Game Commission property, four on Pennsylvania Fish and Boat Commission projects, 14 military projects and 49 projects located on DCNR property. Comments were provided that helped avoid and minimize impacts to streams, wetlands, and unique wildlife habitat.

A total of 223 reviews were completed on proposed mining or abandoned mine reclamation projects with a total acreage of over 29,956 acres. In addition to site visits held during these reviews, staff attended six field meetings to offer preliminary comments to the operators and DEP to avoid and minimize impacts to wildlife and wildlife habitat associated with potential future mining operations that are currently in the planning stages. The Game Commission also provided expertise in the investigation of wetland encroachment violations and the development of a restoration plan that resulted in the removal of unpermitted fill and the restoration of more than 1.5 acres of forested wetlands at a large non-coal processing facility.

Game Commission staff reviewed 38 wind energy projects on private lands for potential wildlife/habitat impacts, specifically for special concern species and their habitat.

There was one Standard Operating Procedure and new Guidance document revised to further protect and minimize wildlife impacts resulting from pipeline and geophysical seismic ROW license applications.

Strategic Objective 4.6: Provide and maintain adequate infrastructure to support wildlife habitat management and hunting.

During the past fiscal year, the Oil/Gas and Mineral Development Section reviewed and coordinated with Regional field personnel and industry a total of 159 oil or gas well locations and their affiliated access ways on state game lands. These reviews entailed required parking lot road base and access improvements and detailed maintenance on related State Game Lands' infrastructure, culverts, bridges, gates, and enhanced erosion and sedimentation control structures at the expense of the developer. Additional access was also provided by new construction including 11 miles of road, eight new bridges, and 36 new culverts.

Commercial and non-commercial forestry treatments provided a road network sufficient to carry heavy equipment and comply with the Clean Streams Act and other environmental protection regulations was designed and supervised by our regional forestry staff. Logging contractors completed 39 contracts during the year, improved 60.4 miles of haul roads, constructed 7.7 miles of new roads (which became wildlife food strips after seeding), and placed 66 culverts. The value of these on-site infrastructure improvements exceeded \$572,768 and was cost borne by the timber operator and thus deducted from the totals of the timber bids. Additionally there were \$281,515 worth of improvements completed through timber sale contracts, including landing and skid road seeding with wildlife mixes, parking lot construction, gate installation, and deer enclosure fencing.

Providing hunting and furtraking opportunity are among State Game Lands mandates. During last year's hunting seasons, 4,068 miles of roads were open for hunter and habitat management access. Keeping roads open requires considerable maintenance annually. The following represent the magnitude of the task: 6,233 culvert pipes maintained; 73 bridges maintained or improved; and 764 miles of road maintenance.

Shooting ranges are provided on State Game Lands for hunters to gain proficiency in their hunting arms. Food and Cover Corps staff, who also conduct habitat management projects, conducted 1,890 range visits with major safety upgrade projects completed on two ranges.

To facilitate future efficiency, all buildings and other infrastructure have been input in the agency GIS.

Within the last Fiscal year, the Engineering and Contract Management Division inspected six high hazard dams for annual DEP-Dam safety requirements, and coordinated efforts of ten PCC crews in facility maintenance projects with a budget of \$89,500.00. The Engineering and Contract Management Division also completed eight bridge replacement projects, repair projects on two dams, the renovation of the HVAC system at the agency headquarters, 19 repair/renovation projects on agency buildings, and demolished six structures that were no longer in use or were a public safety hazard

Strategic Objective 4.7: Enhance wildlife habitat on State Game Lands through the recovery of natural resources.

Three buried limestone channels were installed on State Game Land 75 as a result of surface coal mining leases executed by the Game Commission in 2004 and 2009. The new limestone channels are intended to increase alkalinity and pH in over 3.5 miles of streams to continue to improve instream productivity, and in turn, improve wildlife habitat on the game lands. An abandoned mine discharge treatment system was also constructed on the game lands by the mine operator to reduce acidity and metals loading in Otter Run. In June, electrofishing surveys, completed in cooperation with the Pennsylvania Fish and Boat Commission, revealed continued improvements in the streams around the surface coal mines on State Game Land 75 as result of the re-mining and water quality improvement projects made possible by the surface coal mining leases that Game Commission has executed on State Game Land 75. About seven acres of coal refuse removal and floodplain reclamation were completed on State Game Land 60 as a result of a 2009 coal refuse reclamation lease. More than 110 acres of abandoned mine lands and 7,300-linear feet of abandoned high walls were reclaimed on State Game Land 321 in partnership with the Rocky Mountain Elk Foundation and the Department of Environmental Protection.

Field inspections, plan reviews and/or meetings were conducted for 16 additional projects funded through Growing Greener or other grant programs aimed at improving water quality and wildlife habitat on 11 different State Game Lands. Three agreements were executed with two local watershed groups and one conservancy to enhance wildlife

habitat and abate abandoned mine drainage on three State Game Lands. Six letters of commitment were written to five additional watershed groups in support of their attempts to obtain funding for additional water quality and habitat improvement projects on State Game Lands.

A Memorandum of Understanding (MOU) between the Game Commission and PennDOT allows PennDOT to create wetland mitigation sites on State Game Lands at no cost to the Game Commission. One field view and two meetings were attended in regards to wetland mitigation sites that are currently being reviewed and considered under the MOU.

Early successional habitats are in decline across the state, causing them to be listed as key habitats in the Wildlife Action Plan. In addition to habitat improvements via the forestry program, 1,670 acres of forest and shrub land were treated through third party contracts. Many of these acres will be maintained through the agency's prescribed fire program.

Grasslands are another key habitat, and many of the state's largest grasslands occur on strip mined sites. The Game Commission embarked on a grassland conservation initiative late in the year. Thus far, 853 acres of strip mines were reclaimed to native herbaceous habitat.

Invasive plants present an ongoing problem on State Game Lands. Invasive species that negatively impact wildlife habitat were detected and addressed on 2,686 acres of State Game Lands.

Tree and shrub seedlings totaling 225,164 were planted to improve habitat diversity on State Game Lands.

The Board of Game Commissioners approved a total of five oil/gas and mineral recovery lease actions during 2009-10, which includes one oil/gas development lease, one non-surface use oil/gas lease; two surface mining leases and one coal refuse removal and reclamation lease. The approved bonus cash value to the Game Commission for these actions is \$1,961,915. These approvals also provide for the acquisition of 2,456.8 acres of land to the agency with a land value of \$2,181,300.

A total of 2,652 acres were leased for oil and gas, and the mining leases encompass a total of 187 acres. The surface mining and refuse removal leases will result in the reclamation of about 11.5 acres of abandoned mine spoils and an additional 8,500 linear feet of abandoned highwall.

The Oil/Gas & Mineral Development Section reviewed and coordinated with Regional field personnel and industry on a total of 159 permitted oil/gas well locations on State Game Lands during 2009-10. Total revenues generated from oil/gas and mineral recovery operations were \$2,590,720, which includes oil/gas and coal royalties, rental and lease bonus payments.

The Oil/Gas and Mineral Recovery Section currently manages 54 different companies operating a total of 102 lease agreements on 61 State Game Lands.

Oil/gas and mineral ownership continues to be researched and updated in response to Marcellus shale drilling activity. OGM ownership research was conducted on a total of 131 parcels (more than 127,076 acres), distributed among 21 different State Game Lands complexes and results were input into the Game Commission's GIS database. A total of five mineral lease boundaries were added GIS database. All new oil/gas drilling permit information, including the associated well attribute data, were also added to or updated in the GIS database.

The agency continues to research adverse claims of oil/gas/mineral rights which have potential to impact state game lands surface acreage. Defending against these claims has caused an increased burden in staff time and resources in order to adequately protect the inherent game lands recreational values and future surface uses.

There were 21 inspections conducted of nine existing oil, gas or mineral development leases on State Game Lands to ensure compliance with the lease conditions and additional field reviews were conducted for eight potential future leasing actions on State Game Lands. Also, 10 inspections were conducted at 12 oil, gas and/or mineral development projects where the surface support and/or mineral rights are not under Game Commission ownership.

Maintaining optimum habitat diversity on game lands is an important goal of our Forest Habitat Management Program. There were 45 forest habitat management projects, containing 5,843 acres, offered for bid to commercial timber harvest operators during the past fiscal year. These projects contained approximately 18 million board feet for which bidders offered \$6,132,447. Although this represents an increase in total acres, volume and value from the previous year, it still represents a significant decrease from average bid values experienced three to five years ago, which shows the continuation of depressed timber markets in the economy.

There were 1,674 acres treated with selective herbicides to remove ferns, striped maple, spicebush, low quality beech brush, and other non-native and invasive plant species that impede establishment of more beneficial tree species.

Timber contractors harvested 6,273 acres that yielded more than 20.6 million board feet of logs and 138,255 tons of pulpwood. These operations generated \$6,122,906. This was a significant increase of 1,188 acres over the previous fiscal year. However, these additional acres only yielded an additional \$349,654 in revenue. The increase in harvesting activity seems to indicate a stability returning to the timber markets, but the dollar values attached to the timber will likely not increase much over the next few years as the industry recovers from the economic slump.

Additional forest non-commercial habitat improvement projects including regeneration treatments, crop tree releases, and pre-commercial thinnings resulted in 1,800 additional

acres of improved habitat. Also, the forestry staff provided support to the ever-growing mineral recovery and right-of-way operations on 330 acres of State Game Lands, more than double last year's total. This brings the total for acres treated this year from the forest habitat management program to 8,403 acres.

After three consecutive years of experiencing Gypsy Moth defoliation events, the forest habitats on State Game Lands have gotten a reprieve. No Gypsy Moth spraying was needed this year, and currently, none is anticipated for next year, resulting in considerable game fund savings, as well as needed relief for the critical oak resource. Gypsy Moth will be back, however, and we will continue to monitor these impacts and conduct habitat improvements to mitigate the future impacts of this destructive pest.

With the stabilization of more balanced deer populations, positive impacts are being noted in forest habitats. The Game Commission is actively removing deer enclosure fencing in areas where habitats have successfully regenerated. In fiscal year 2009-10, 269 acres of fencing were removed. There still remain some areas in need of deer enclosure projects to protect regenerating habitats from excessive browsing, and in 2009 contractors erected eight-foot-high woven wire fences around 340 acres of recently harvested habitat areas.

There were 268.42 acres of land acquired through contracts, and/or secondary uses of State Game Lands due to long term habitat replacement obligations and anticipated game lands surface impacts. In addition, The Board of Commissioners approved a total of five oil/gas and mineral recovery lease actions during 2009-10 which includes one oil/gas development lease, one non-surface use oil/gas lease; two surface mining leases and one coal refuse removal and reclamation lease. The approved bonus cash value to the Commission for these lease actions is \$1,961,915. These approvals also provide for the acquisition of 2,456.8 acres of land in order to immediately replace recreational and habitat losses from these lease actions to the Game Lands benefiting both sportsmen and wildlife alike, having a land value of \$2,181,300. Within the Real Estate ROW license program, there were seven seismic reviews, 14 pipelines, compressor stations, access roads and power lines reviewed three access roads; three electric power lines, and 64 legal reviews for oil/gas and mineral ownership on State Game Lands.

Strategic Objective 4.8: Identify and manage critical habitats identified in the Wildlife Action Plan.

All comprehensive management plans submitted this year (28 plans for more than 50,000 acres) listed key habitats per the Wildlife Action Plan and developed implementation strategies for management. Specific habitat types that were targeted included native grasslands, barrens, wetlands, oak forests, riparian areas, and shrublands. Improving these habitats will benefit species of greatest conservation need as well as game animals.

One of the strategies utilized in managing key habitats is prescribed fire. The agency has been ramping up prescribed fire capacity since passage of the Prescribed burning Practices Act in July 2009. This year, the Game Commission has taken the following

steps to facilitate use of prescribed fire in habitat management: agency Standard Operating Procedures reviewed and updated; active voting membership maintained on the prescribed fire Council; cooperative agreements signed with The Nature Conservancy and DMVA; 28 burn plans submitted and reviewed to treat nearly 900 acres; and 221 personnel trained in advanced prescribed fire courses.

GOAL 5: Enhance the public's understanding of the Pennsylvania Game Commission's mission and its responsibilities.

Strategic Objective 5.1: Determine the public's knowledge and understanding of the Pennsylvania Game Commission, its legal mandates, responsibilities and funding.

A Human Dimensions Specialist was hired to start determining the public's baseline knowledge.

Programs and materials were increased and expanded:

While the video production editor position was vacant, the agency focused its efforts on offering news releases to promote hunting and trapping opportunities, as well as continue its ongoing partnership with Radio PA to provide member stations with daily messages about Pennsylvania's wild birds and mammals, wildlife management efforts, habitat work and hunting and trapping. Also, the Office of Administration announced that it was changing the Commonwealth supported website format to Aqualogic, which required a complete overhaul of the Game Commission's website. During this process, many changes and improvements were made to make navigation flow easier. Additionally, the agency took this time to create new pages and update material, most notably a new Endangered and Threatened Species page with all new profiles reflecting the latest information from the Bureau of Wildlife Management.

Strategic Objective 5.2: Use a stakeholder process to gather public input in developing programs and plans.

The deer management program continued to engage citizens directly in deer management discussions during the year using Citizen Advisory Committees (CACs). We completed 3 CACs in WMUs 2B, 3D, and 5D to assess the level of deer-human conflicts and desire of citizens for more, fewer, or the same number of deer. Various stakeholder groups representing the interests of hunters, farmers, foresters, homeowners, public landowners, motorists, and others participated in these committees. In addition to CACs, seminars were given to organizations interested in learning more about deer management and the PGC's deer management program and assistance programs and a guide to deer management in developed areas was completed.

In addition, the 2009-18 deer management plan was available for public comment from February to March 2010, and more than 200 comments.

The annual waterfowl symposium was held in August at Presque Isle State Park to obtain input from the public and hunting organizations on waterfowl and migratory game bird

season proposals for 2009-10. Based on this input, waterfowl season selections for Pennsylvania were developed, submitted to the USFWS, and announced to the public via a news release and waterfowl regulations brochure.

The annual meeting of the pheasant working group was held in January at Bald Eagle State Park with 38 individuals representing the Game Commission, Pheasants Forever and other partners. Agency staff provided updates on the status of the various WPRA projects and input was received on the implementation of the Pheasant Plan and the process for approval of new WPRA proposals.

We met the leadership of Woodcock Limited of Pennsylvania and received input on implementing the strategies in Pennsylvania's woodcock management plan.

Information on game bird research and management efforts was provided through various outlets, including the agency's website and videos, radio and television programs, newspaper and magazine articles, informational fliers and public presentations. Audiences reached included civic and sporting groups, schools and landowners. These contacts provided opportunities for stakeholder input.

In May 2010 the agency met with leaders from the Mammal and Ornithological Technical Committees of the Pennsylvania Biological Survey to discuss species of greatest conservation need and reviewed the status of current and candidate endangered and threatened bird and mammal species.

Strategic Objective 5.3: Promote a league of partnerships to achieve mutual goals for wildlife and habitat.

The Bureau of Wildlife Management worked closely with the NWTF's regional biologist, who provides technical guidance in all aspects of wild turkey management. The Bureau's Assistant Director and wild turkey biologist continued to act as technical representatives to the NWTF. As such, we reviewed and provided comments on 13 NWTF Grant-in-aid wild turkey research proposals from across the country and Mexico. The recently completed tri-state gobbler study was a cooperative effort with state wildlife agencies in New York and Ohio, PCFWRU, NWTF, PANWTF and National Band and Tag Inc. and was partially funded by the NWTF, and the new fall hen harvest and survival rate study is being conducted in cooperation with the NWTF, PANWTF and USFWS.

The WMU 5A Wild Turkey Task Force, formed in 1997, is comprised of staff from Game Commission, Department of Conservation and Natural Resources' Bureau of Forestry, NWTF, PANWTF and Local NWTF Chapters. The task force meets once annually to review progress of the existing turkey management recommendations for WMU 5A. Implementation of these recommendations has resulted in an increased turkey population in WMU 5A and the task force supported the Bureau of Wildlife Management recommendation to re-open open the fall turkey season in 2010 under a conservative three-day format.

A new project was initiated using satellite telemetry technology to monitor lesser scaup staging at Presque Isle Bay and Lake Erie. The agency received funding from the Northwestern Pennsylvania Duck Hunters Association, PA Waterfowl Heritage Society, Susquehanna River Waterfowl Association, and Wildlife for Everyone Foundation and has matched these funds with a grant from the USFWS Great Lakes Fish and Wildlife Restoration Act. The agency is collaborating with Dr. Scott Petrie and Dr. Shannon Badzinski from Long Point Waterfowl who have completed similar work at Long Point, Ontario. This entailed capturing 10 female lesser scaup and surgically implanting 10 satellite transmitters that will be used to track movements and survival of the scaup through December 2011. The agency also collaborated with Dr. Glenn Olsen from United States Geologic Survey – Patuxent Wildlife Research Station, DCNR, Presque Isle State Park, the Regional Science Consortium at the Tom Ridge Education Center, the Northwest Pennsylvania Collegiate Academy, United States Coast Guard and Glennwood Veterinary Hospital.

Game Commission staff participated in Atlantic Flyway Council Technical Section and Council meetings to discuss and develop recommendations on migratory game bird hunting seasons, nongame migratory bird conservation initiatives and habitat conservation programs.

Three Game Commission employees attended a waterfowl banding workshop hosted by Ontario Ministry of Natural Resources in Haliburton, Ontario, in July 2009, and received North American Banding Council certification as waterfowl trainers. This workshop was attended by personnel from three state agencies (the Pennsylvania Game Commission, New York State Department of Environmental Conservation, and Delaware Division of Fish & Wildlife), Ontario Ministry of Natural Resources (MNR), and Canadian Wildlife Service.

One Game Commission biologist participated with Atlantic Population Canada geese pre-season banding in the Ungava Peninsula, Quebec from Aug. 3-15, 2009. Other participating agencies included the Canadian Wildlife Service, Ontario MNR and the Virginia Department of Game and Inland Fisheries.

The member states of the Atlantic and Mississippi Flyway Councils and the USFWS are working together to conduct a four-year pilot effort (starting January 2010) to evaluate a two season (pre- and post-hunting season) banding program for black ducks in eastern North America. This program is intended to yield seasonal survival estimates for black ducks that will help identify limiting factors that can be mitigated through habitat conservation and which are needed for development of an adaptive harvest management strategy for black ducks.

The agency also continued its participation in the federal band reporting rate study to assess reporting rates for recovered bands. This is the 7th consecutive year of our participation in this important study.

The agency continued to provide financial support for the National Bobwhite Conservation Initiative Coordinator position based at the Univ. of Tennessee to facilitate implementation of the national bobwhite recovery plan in the region and serves on the national management board and the technical steering committee for this initiative.

Bird and mammal monitoring and recovery is accomplished through the cooperation of at least 85 partner organization (notably Audubon Pennsylvania and the Pennsylvania Society for Ornithology) contributing their expertise and personnel including hundreds of volunteers, resulting in thousands of volunteer hours per year. The Pennsylvania Biological Survey serves an official advisory role to the Game Commission through its Ornithological and Mammal technical committees and the Steering Committee. Involvement of the Pennsylvania Natural Heritage Partnership facilitates intra-state data management benefits.

Regionally, monitoring and research by the bird, mammal, and grants/planning sections are coordinated for greater efficiency and effectiveness through regional (interstate) committees such as the Northeast Fish and Wildlife Diversity Technical Committee, the Atlantic Coast Joint Venture, the Appalachian Mountain Joint Venture, the North American Bird Conservation Initiative, the Federal Aide Coordinators, and Indiana Bat recovery team. This coordination assures improved (10 percent) match rates for work on federally endangered species (Indiana bat and piping plover). National guidance and coordination occurs through the regional Wildlife Action Plan committees.

The Non-game/Endangered mammal section staff participated in more than 80 meetings during the past fiscal year involving both stakeholder and state or federal agency partners. About half were conducted by telephone or video conferencing, reducing travel expenses and time demands. Conventional meetings ranged from small-group discussion about specific research projects, management issues or habitat sites, includes one to three-day statewide or regional meetings to coordinate regional initiatives and integrate the state's Wildlife Action Plan into DCNR Bureau of Forest planning, and national meetings (i.e. Wildlife Action Plan Coordinators; WNS National Response Plan). Topics included, but were not limited to: coordination and research for development of regional and national WNS plans; conservation and management of endangered or threatened species, potential affects and mitigation of wind development and mining operations on wildlife species of conservation concern, structured decision making, and selection of project proposals for funding.

The Non-game/Endangered bird section participated in more than 60 meetings with conservation partners during the past fiscal year. Conference calls are increasingly being used to coordinate work involving multiple partners, such as the 2nd PA Breeding Bird Atlas analysis team and the Conservation Planning Polygon project. A thorough review of the state's listed birds is being conducted by a sub-committee of the Ornithological Technical Committee, which will provide recommendations for status changes. Regional response to federal bird regulations is compiled by twice-annual meetings of the Atlantic Flyway Council, including regulations on non-game species. Regional bird conservation strategies are being developed through technical and quarterly management board

meetings of the Atlantic Coast Joint Venture and the Appalachian Mountain Joint Venture, in coordination with newly developed Landscape Conservation Cooperatives initiated by the USFWS for all-species coordination.

The Game Commission's State Wildlife Grant (SWG) Program coordinator provided USFWS federal aide staff a tour of four projects conducted by conservation partners.

In addition to meeting with private landowners to evaluate habitat and learn the owners' particular interests, regional diversity biologists met with Natural Resources Conservation Service personnel who administer Wildlife Habitat Improvement Program (WHIP) and Environmental Quality Incentive Program (EQIP) funds that may help implement habitat management plans. In fiscal year 2009, at least 28 projects were approved through WHIP and EQIP, leveraging more than \$257,000 to establish habitat for species of greatest conservation need on over 250 acres of private lands. Regional diversity biologists also participate in meetings of county conservation districts, watershed and stewardship associations, woodland owners groups, conservancies, and local special-interest working groups.

GOAL 6: Develop sustainable funding sources that support the agency's mission and identity.

Strategic Objective 6.1: Partner with the *Wildlife for Everyone Endowment Foundation*, other foundations and Non-Governmental Organizations to financially support wildlife conservation programs and projects.

The Real Estate Division was able to facilitate \$137,000 for the funding of two separate partnership projects. Through partnerships the Game Commission was able to increase the size of two existing State Game Lands and add several hundred acres to the State Game Lands system. During fiscal year 2009, The Conservation Fund continued their commitment to recently created SGL 93 when they assisted with acquiring 217 acres in Shade Township, Somerset County. In fiscal year 2006 the Game Commission acquired our first tract of land in Somerset County north of the proposed site of the Flight 93 National Memorial creating SGL 93 named in honor of Flight 93's crew and passengers who heroically sacrificed their lives on September 11, 2001. (SGL 93 originally located in Clearfield County was renumbered SGL 331.) The 217 acres were acquired with funding from The Conservation Fund and third party commitments for compensation of habitat and recreational losses from previously approved projects affecting State Game Lands and wildlife. The 217-acre tract joined two previously acquired detached parcels and increased the size of SGL 93 to 582 acres.

The Game Commission was also able to increase the size of SGL 168 by 107 acres and acquire vital access into portions of existing SGL 168 which did not have legal access for the public. Through partnering with Wildlands Conservancy, The Department of Conservation and Natural Resources and Northampton County we were able to acquire the 107-acre property worth more than half a million dollars for \$15,000.

Strategic Objective 6.2: Increase the use of grants, mitigation and reimbursements.

During the reporting year, two Federal Assistance Program grant proposals were developed and submitted by the Hunter-Trapper Education Division. The first is the Pennsylvania Hunter and Trapper Education Grant (PA-W-76-E), an on-going grant since the year 2000. This proposal was awarded a grant in the amount of \$924,450. The second was a new grant, the Pennsylvania Hunter/Trapper Recruitment and Retention Grant (PA-W-80-E). This proposal was awarded a grant in the amount of \$240,000.

The wild turkey hen harvest and survival rate study was awarded a federal Pittman-Robertson program research grant covering 75percent of the total project costs, or \$1,239,825 (\$268,000 in fiscal year 2009). A grant proposal was submitted to The National Wild Turkey Federation (NWTF) requesting \$56,060 for the last 4 fiscal years of the study. The PA Chapter NWTF has committed to funding \$35,000.

Grant funding from the U.S. Fish and Wildlife Service was instrumental in implementation of the scaup satellite telemetry project (\$48,500) and banding efforts targeting black ducks (\$3,755).

USDA Veterinary Services provided a grant of \$70,000 for statewide CWD surveillance.

Strategic Objective 6.3: Seek legislative action to provide alternative funding sources.

During the annual report and subsequent meetings various alternative funding sources were discussed with legislators. Those funding sources included a state excise tax similar to Pittman Robertson at the federal level; a percentage of the approximately \$220 million of state and local tax generated by hunting activities; and the Board of Game Commissioners supported Marcellus Shale Tax initiative that would provide revenue to the Game Commission.

Strategic Objective 6.4: Create a *Friends of Wildlife* donation program.

This has not been developed as a formal program. The Game Commission has received donations from a variety of sources from hunters when they purchase their license, donations from estates in the form of land and cash, and the Wildlife for Everyone Endowment Foundation has donated land.

GOAL 7: Promote a diverse, professional and efficient organization.

Strategic Objective 7.1: Ensure that agency employment and volunteer recruitment information is widely distributed to the public.

A formal volunteer recruitment plan was developed and implemented by the Hunter-Trapper Education Division to prioritize the importance of volunteers needed to train new

hunters. A part of the plan required the development and distribution of a suite of recruitment tools focused on attracting new volunteer hunter education instructors. A theme title, *Pass It On* was selected to emphasize the importance of continuing our hunting and trapping heritage. The tools include the following:

Recruitment DVD – This is a six-minute video which cameos the role and importance of volunteer instructors and how to apply. It is being played at the conclusion of all hunter education classes, at sportsmen’s clubs, county fairs, sport shows, and other public venues.

Banner Displays – Fourteen attractive, full-color displays are now in use at shows and fairs statewide. They include the capability to loop the above video.

Recruitment Brochure – This is a full-color, tri-fold design highlighting the duties, expectations and rewards of being a hunter education instructor. It also includes application information. Over 2,500 copies of the brochure have been printed and distributed since January 2010.

Internet Content – The above recruitment DVD together with a modified brochure also appears on the agency’s website under the navigation title, “Becoming an Instructor.” The site is linked to an online application request form.

Last fiscal year the Commission publically recognized and honored three of its partners who donated land to the Commission for sportsmen use and wildlife resource management.

Strategic Objective 7.2: Promote and increase professional development opportunities for employees

The wildlife veterinarian filled orders from bureau species projects and regions as requested for immobilization drugs and equipment. Mandatory annual training was provided for those using Carfentanil and their supervisors. Additional training in the safe use of Carfentanil was provided to individuals in the field. Regional field personnel received training focused on disease surveillance, with emphasis on CWD. Specific directions were provided to regional personnel engaged in disease sampling. The agency checked titers and updated rabies vaccinations for all at-risk employees. Immobilization training was given to the deer trapping teams, and additional training was given in blood collection techniques utilizing deer from the Penn State University captive deer pens. Bear immobilization drug regimes and emergency procedures were evaluated in the field, resulting in several modifications. Barcode labels were provided to regions in anticipation of the launch of a web-based pharmaceutical accounting system.

Several Wildlife Management staff acted as peer-reviewers for articles submitted to the *Journal of Wildlife Management* and *Journal of Mammalogy*.

All Region Wildlife Diversity Biologists participated in an Allegheny woodrat conservation/management workshop. Individuals participated in SILVAH oak training and web seminars on protecting water resources, forest management and regeneration,

the impacts of deer on forests, and firewood utilization. A Wildlife Diversity staff biologist completed advanced Access database training, and had a desktop computer replaced with a higher-capacity processor that will facilitate more efficient GIS processing, file storage and retrieval.

Strategic Objective 7.3: Increase employee knowledge and understanding of the Pennsylvania Game Commission.

Deer biologists provided deer management training program to all Game Commission employees during 13 meetings in the regions and Harrisburg. BWM staff also provided deer management training for Deputy Wildlife Conservation Officers. All agency staff completed annual deer management training.

Wildlife Diversity staff provided an informational program on WNS in bats for approximately 70 members of the Southeast Region staff. A presentation on CWD was given for the Northeast Region.

The Bureau of Wildlife Management staff prepared and presented several wildlife management programs for the week-long new employee orientation program in September 2009.

The Bureau of Wildlife Management and region biologists developed and presented instruction to WCO cadets on elk, deer, grouse, pheasant, bobwhite quail, wild turkey, woodcock, dove, waterfowl, furbearer, black bear, rabbit, squirrel, and snowshoe hare management programs, the Game Take and Furtaker surveys, radio-telemetry techniques, wetland ecology and management, endangered, threatened, and non-game bird and mammal identification and ecology, as well as emerging issues in conservation of imperiled species.

Strategic Objective 7.4: Analyze workloads to determine organizational structure and requirements.

The Bureau of Wildlife Habitat Management conducted a major workload analysis of Food and Cover Corps complement. The analysis led to personnel re-allocation including a new land management group in the southwest region. The adjustments will improve habitat management capability by improving efficiency.

New equipment was purchased to support the agency prescribed fire program, including 12 ATVs and 12 UTVs with water pumps to facilitate safe application of prescribed fire.

On private lands, one position was allowed to lapse to allow for reduced workload in CREP outreach, that position should be filled when new CREP acres are allocated by USDA.

The Bureau was involved in one Legislative Budget & Finance Committee audit and several workload analyses, which were conducted by the Bureau in order to determine the

overall impact and resourcing need as relates to forest management & Marcellus Shale gas development throughout the Commonwealth and the impact it is having on state game lands uses and Agency Staff. The report’s findings were made part of *the Legislative Budget & Finance Committee Report, dated January 2010, Page, 177, Section 6.2 “Overall Recommendations” and the Commission’s Marcellus Shale Oil/Gas Revenue & Workload Analysis dated September 28th 2010. Page 11.*

Strategic Objective 7.5: Promote recognition for employees and volunteers.

Deputy Recognition

Agency policy establishes guidelines, standards and qualifications for awarding volunteer hunter education instructors and others. S.O.P. 30.5 – *Education and Outreach Awards and Recognition* provides for the following:

- Outstanding Hunter Education Instructor Award
 - Regional Instructor of the Year
 - State Instructor of the Year
- Hunter Education Service Award
- Conservation Ethics Award
- Senior Wildlife Conservation Award
- Junior Wildlife Conservation Award
- Certificate of Appreciation
- Certificate of Participation

Each year the agency strives to recognize volunteer hunter education instructors and others for their contribution to Pennsylvania’s rich hunting heritage. Below is a summary of the awards established by agency policy and the number of recipients during this reporting period.

AWARD CATEGORY	# VOLUNTEERS RECOGNIZED
Outstanding Hunter Education Instructor	126
Regional Instructor of the Year	6
State Instructor of the Year	1
Hunter Education Service	338

The Bureau presented six recognition awards for Employee retirements. Additionally, there were three landowners publically recognized for the donations of land to the Pennsylvania Game Commission.

Strategic Objective 7.6: Modernize the administrative infrastructure.

GIS technology is essential to improve efficiency and maximize habitat programs. Currently, 30percent of game lands information is updated in GIS format. Regarding GIS use, approximately 54 days of training have been provided to agency staff including Biologists, Foresters, Land Managers, Law Enforcement, and Harrisburg Staff members. Training included use of software, hardware, and data collection.

Strategic Objective 7.7: Analyze processes to insure continued improvement of programs.

Four new SOPs were developed last year to comply with federal audits and continue federal funding through the USFWS.

Title 34: Section 328
Accountability

- (C) **Financial Accountability:** The Commission shall improve the financial accountability of its various functions through performance measurement in accordance with its strategic plan.

FINANCIAL ACCOUNTABILITY

For fiscal year 2009-10, the Game Commission implemented a “zero-base” budget approach for the Bureaus, Regional Offices and Executive Office. Zero-base budgeting requires all expenses to be justified in accomplishing the goal and mission of the agency. This method is instrumental in controlling spending and expenses because the budget is built from zero rather than building the budget on top of what was spent during the previous fiscal year. The Game Fund balance as of June 30, 2010, was \$39,940,307, which is an increase of \$694,570 from June 30, 2009.

The total spending plan increased by \$6,917,257, while the projected revenue for the same period also increased by \$588,769 from the previous year. The increase in revenues was a result of two significant areas, those being investment income on securities and deposits and increase in available Federal funds. The investment income increase was due to the current economic market conditions being more favorable than the previous fiscal year, and the federal funds increase was due to the increase in expenditures by the general public for firearms and ammunition.

The increase in spending over the previous fiscal year was primarily due to the additional habitat improvement projects implemented across the state, made possible by the increase in federal funds. In addition, during fiscal year 2009-10, the Game Commission received approval to replace vehicles that have become a safety concern. In April, 2010 the agency began a new Wildlife Conservation Officer class at the Ross Leffler School of Conservation. The anticipated cost of the year long class is approximately \$2 million. Again this year, the agency began selling hunting and furbearer licenses and permits through our Automated Licensing Sales (PALS). During fiscal year 2009-10, a total of \$1,823,649 was paid in transaction fees and harvest reporting fees to the vendor for the functionality of the PALS system.

Continuing into the current fiscal year, 2010-11, the Game Commission has been notified by the U.S. Department of Fish and Wildlife Services that additional federal monies from excise tax could become available as a result of increased sales of hunting equipment and ammunition. In order to draw down these additional federal dollars, it is necessary for the Game Fund to incur the initial expense and then request reimbursement. As such, it is necessary to request a higher spending authority from the Game Fund.

In the face of fiscal challenging times, the agency is committed to finding solutions to ensure the agency’s mission is accomplished. Cost-saving measures continue to be reviewed and implemented where possible throughout our headquarters and region offices. In addition to the cost saving measures already in place, the Game Commission has continued the procedures for approval of overtime and compensatory time. Prior approval will be required at the Bureau Director level, as well as monthly reporting to the Executive Office. The executive committee continues to review all personnel actions prior to approval, to ensure availability of funds. All vacant positions are being analyzed

in detail and approval to fill those vacancies is being granted only for mission-critical positions.

In order to more efficiently capture habitat improvement work being conducted on State Game Lands, the agency continues to capture “in-kind” services, which ultimately could result in other financial resources becoming available.

The monthly financial reports continue to be prepared and distributed to Executive staff, Region and Bureau Directors and the Board of Game Commissioners’ Executive Committee. The monthly reports reflect: revenues collected to date as compared to the estimated revenues projections; a monthly financial status report for the Executive Office, each Bureau and Region Office; and a Personnel Projection report that provides expenditure information to date and the projection through the end of the fiscal year. Quarterly, the Budget Analyst meets with each Bureau and Region Office to review the fiscal details of programs and make necessary budgetary adjustments. These monthly reports have proven to be a more effective way to monitor program activity and ensure fiscal accountability.

Escrow Account:

The Pennsylvania Game Commission requires mitigation for surface uses related to natural resource recovery. This typically takes the form of more land being transferred to the Game Commission. In addition, the agency often agrees to complicated real estate exchanges with entities. In both of these cases, there typically are many steps in terms of permitting, subdivision, title work on the property to be acquired by the Game Commission for mitigation, and other similar issues involved in land development and acquisition. The agency requires some form of security for this mitigation or exchange. Often this security is in the form of escrow accounts, a common real estate settlement tool. Persons wishing to exchange with the Game Commission will put aside money in an account which can be drawn upon under certain circumstances. Often, the Board of Game Commissioners needs to approve the purchase of a certain property through a public meeting or title work. Sometimes federal approval of an exchange is necessary. In all cases, the escrow accounts are held by a third party, chosen by the person contracting with the Game Commission, to guarantee the transfer of land to the Game Commission. Once all necessary steps for the transfer have taken place, the escrow agent will release funds to consummate the intended transfer.

Although there are restrictions, the Game Commission may look at properties for acquisition anywhere in the Commonwealth, as long as it meets certain criteria. If the Game Commission finds suitable land meeting the criteria, the agency must first receive approval from the U.S. Fish and Wildlife Services before moving forward.

The land must be suitable for wildlife management and hunting access, as was the case on the original lands. The land currently may be in a forested, wooded or agricultural condition. The following table provides an overview of the three escrow accounts.

	PSU	First Commonwealth	P&N	First Commonwealth		Community Band & Trust Company
<i>Balance as of:</i>	12/31/2010	\$5,224,081.27	12/31/2010	\$358,533.13	12/31/2010	\$1,566,945.23
<i>Pending Acquisitions</i>	Rockview (PR)	(\$723,600.00)	Flight 93 (SGL 93)	(\$25,966.00)	Rockview (Non-PR)	(\$367,938.00)
	Rockview Survey	(\$40,000.00)				
	Mantle 102 acres	(\$325,000.00)				
	Mantle 12.7 acres	(\$70,000.00)				
<i>Subtotal</i>		<u>\$4,065,481.27</u>		<u>\$322,567.13</u>		<u>\$1,199,007.23</u>
<i>Actual Balance</i>		\$5,224,081.27		\$358,533.13		\$1,566,945.23

Title 34: Section 328

Accountability

- (D) Law Enforcement Accountability:** The Commission shall maintain a system to respond to citizen complaints against wildlife conservation officers and deputy wildlife conservation officers. The Commission shall release information relating to the number and nature of complaints received on at least an annual basis. The Commission may release further information related to the nature of complaints, provided that the release of such information is not prohibited or restricted by any contract, regulation, order of court or statute to the contrary.

Complaint Tracking System & Internal Affairs:

Title 34 requires a system that will track citizen complaints against Wildlife Conservation Officers and Deputy Wildlife Conservation Officers. However, in the interest of providing the best service possible, the Game Commission established an Internal Affairs policy to respond to citizen complaints against any Game Commission employee or volunteer.

Due to the timing of this report it is not uncommon for a few complaints to be filed late in the calendar year. In such cases the investigation and final determination are not yet known when this report is written. For this reason the report will list both the completed year-end numbers from the previous year as well as the numbers generated preliminarily in the reporting year.

The Professional Responsibility Coordinator responded to seven formal complaints during 2010, five in 2009, seven in 2008, ten in 2007 and nine in 2006. A “formal complaint” infers an allegation made via a formal *Complaint Verification Form* of misconduct or unprofessional behavior by an employee or volunteer. All formal complaints are fully investigated.

Of the five complaints filed during 2009, a finding of ‘Exonerated’ was issued in three; ‘Sustained’ in one; and ‘Not Sustained’ in one. Of the five complaints, four alleged unprofessional demeanor, while the remaining complaint alleged harassment or targeted enforcement toward the complainant. Regional breakdown of the complaints is as follows: Northwest Region, three; Southwest Region, one; and Northcentral Region, one.

Of the seven complaints filed during 2010, investigations were completed for five of the complaints. Of the five, a finding of ‘Exonerated’ was issued in three, ‘Sustained’ in one and one complaint consisted of three counts, two of which were not sustained and one of which was exonerated. Regional breakdown of the complaints is as follows: Southwest Region, two; Northcentral Region, two; and Southcentral Region, one.

For purposes of clarity, findings have the following meanings:

Exonerated – The incident occurred, but the employee’s actions were justified, lawful, proper and consistent with policies and directives.

Not Sustained – The allegation is not supported by a preponderance of evidence.

Sustained – The allegation is supported by a preponderance of the evidence to indicate the employee or volunteer did commit one or more of the alleged acts.

GROWING GREENER II
JULY 1, 2009 TO JUNE 30, 2010

Report of Pennsylvania Game Commission Activities
Related to Growing Greener II Funding

In July 2005, the Pennsylvania Game Commission joined the rest of the Commonwealth in hailing the enactment of Growing Greener II, a voter-approved plan that invests \$625 million in environmental programs. Included in this legislation is an allotment of \$20 million for state facilities and lands managed by the Commission. The Commissioners have subsequently approved the use of Growing Greener II funds for proceeding with critical infrastructure upgrades at Commonwealth-owned lands including buildings, roads and dams managed by the Game Commission. These projects are just part of needed renovations, repairs and upgrades at state-owned facilities managed by the Commission. The projects are arranged by region.

These projects have been completed, are under construction or are being designed. The time frame for the projects is from July 1, 2009 to June 30, 2010. These projects total \$4,989,123.26 in funds used for upgrades to building facilities, improvements to infrastructure and cleanup/upgrade of shooting ranges.

NORTHWEST REGION:

Northwest Regional Office: The Northwest Regional Office was constructed back in the 1950s. The existing building is too small to service the public and adequately house the regional work staff. The existing building also has structural and facility deficiencies including a leaky roof, substandard doors and windows, poor insulation and inadequate wiring and data systems. The new building will be an energy efficient structure that will be located on the same parcel of land. The existing building will be demolished after the new building is constructed.

The Game Commission signed a funding agreement with DGS allocating \$2.5 million for the project. DGS has hired Architectural Innovations, LLC, of Pittsburgh, to design the new building. Construction of the new building is expected to begin in early 2011.

Riprap Dike on SGL #214: The existing dike which controls water levels in a waterfowl management area is being eroded by wind and wave action. If the dike fails, an important wetland area will be completely flooded.

The Game Commission repaired the dike with riprap and geotextile at a cost of \$9,000. The project was completed in June 2010.

SOUTHWEST REGION:

Shooting Range on SGL 50 (Somerset County): The existing range was closed for safety concerns several years ago. A lead remediation project was completed and the existing target line and shooting station shelter were removed. Plans were developed for a new range to be located in the central portion of the State Game Land.

S&S Excavating and Construction completed the new range at a cost of \$182,437.50. The project was completed in November 2009.

Southwest Regional office Building: The Southwest Regional Office is located in a former elementary school constructed back in the 1950s. The existing flat membrane roof is the original roof on the building. The roof is deteriorated and leaking.

The Game Commission signed a funding agreement with DGS allocating \$250,000.00 for installation of a new roof on the building. DGS has hired Clark Contractors to install a new roof at a cost of \$186,395.24. The new roof will be completed in May 2011.

NORTHCENTRAL REGION:

Northcentral Game Farm Brooder Houses: The Game Commission raises pheasants for stocking on game lands throughout the state. Nine new brooder houses are being constructed at this game farm capable of raising up to 4,000 birds in each house. The new brooder houses replace the outdated Quonset-hut style houses at the game farm.

Yoder Builders completed construction of the new brooder houses at a cost of \$741,974. The project was completed in August 2009.

SOUTHCENTRAL REGION:

No projects to report on during this time period.

NORTHEAST REGION:

Repair of Swimming Dam (SGL 12): The control structure for the existing earthen dam has deteriorated to the point that it is not operable. This threatens the safety of the dam, loss of the dam would destroy waterfowl habitat. The embankment is also in poor condition would contribute to the unsafe state of the dam.

Plans and specifications are being developed for repair of the dam and control structure. The project should be ready for bidding in 2011 and constructed by mid-Autumn 2011, and \$75,000 has been allocated for this project.

Shooting Range on SGL 127 (Monroe County): The existing shooting range was closed several years ago due to safety concerns and environmental and management concerns. The existing shooting range did not meet NRA recommendations for safety and design. A new shooting range at a different location with safer backstops and sideberms will be constructed along with new target stations. Stone backstop facing will also be installed. The stone backstop facing will improve future lead recovery and cut down on erosion.

N&T Transport and Excavating constructed the new shooting range at a cost of \$123,932.27. The project was completed in May 2010.

SOUTHEAST REGION:

Repair Sunfish Pond (SGL 46): The existing stone spillway has deteriorated to the point that it threatens the safety of the dam and a nearby roadway. The dam is in an area frequented by the public; further loss of the spillway walls is a threat to public safety.

Plans and specifications are being prepared by the Game Commission. Project is expected to be out for bid in 2011, and \$80,000 has been allocated for this project.

Repair Lake Warren & Lake Wildcat (SGL 56): The concrete spillway on Lake Warren dam has severe cracks which threaten the stability of the dam. The corrugated metal outlet conduit on Lake Wildcat has rusted apart causing a slight leak through the embankment. Both dams support prime water and wetland habitats. Loss of the dams would cause loss of the valuable habitats.

NuPump Corporation completed the repairs to the Lake Warren dam at a cost of \$16,732.00. The project was completed in August 2009. Flyway Excavating completed the repairs to the Lake Wildcat dam at a cost of \$44,700. The project was completed in November 2009.

Repair Tour Road at Middle Creek (SGL 46): Portions of the shoulders of the tour road at Middle Creek have eroded. Parking areas along the tour road also need to be resurfaced to provide a safer public area to view the wildlife at Middle Creek. Two drainage pipes and one small bridge on the tour road also need to be replaced.

BR Kreider & Son Inc. constructed the new road at a cost of \$50,755.75. The project was completed in September 2009.

STATEWIDE COMMISSION PROJECTS:

Harrisburg Headquarters Building HVAC: This improvement project replaces a ground water open loop system with a geothermal ground source vertical closed loop system.

Using this new system will return ground water levels to normal. Geothermal systems are the most energy-efficient, environmentally clean and cost effective means to heat and cool office buildings. The project also includes replacement of the old heat pump units in the building.

Phase 1 of the project was completed by Morrison, Inc., in November 2007 at a cost of \$750,196. This phase included drilling 72 wells (440-feet deep), installation of pipes and new system pumps to service the building. Phase 2 of the project includes replacing 82 original heat pump units in the building with new energy efficient models. GR Sponaugle, Inc. installed the new heat pump units at a cost of \$410,438. The new heat pumps were installed in August 2009.

