



Conserving the fish, wildlife, and plants and their habitats for the people of Vermont.



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Vermonters' roots are in the land and most citizens recognize that the fish, wildlife and plant resources of the state are a tremendous asset and contribute to their quality of life. In 2006, when asked, 97% of Vermonters said that wildlife habitats and lands were important to them.

The Fish and Wildlife Department is responsible for the conservation of wildlife in its broadest sense: 40 species of reptiles and amphibians, 91 species of fish, 256 species of birds, 58 species of mammals, more than 20,000 invertebrates, along with important wildlife habitats for present and future generations of Vermonters. To that end, native wildlife such as the beaver, moose, fisher, wild turkey, common loon, bald eagle, osprey, and peregrine falcon have been successfully restored through department efforts.

The department has conserved and manages 89 Wildlife Management Areas totaling over 133,000 acres of land for public use and as important habitat. In addition, the department provides safe, high quality hunting, fishing, trapping, and wildlife viewing opportunities.

Vermont currently ranks 2nd only to Alaska in participation in wildlife-associated recreation (combination of hunting, fishing, and wildlife watching) with 62% of Vermonters participating. These activities generate significant revenues for the state. In 2011, Vermonters and visitors spent more than \$700 million dollars in fishing, hunting, and wildlife viewing activities.

Mission and Background





Administration

The Administration Division provides policy, legal, planning, personnel, and financial management leadership for the department. It is responsible for the oversight, production, distribution, and sales of all hunting and fishing licenses and over fifteen types of other permits related to resource protection. The Administration manages \$7+ million in federal grant dollars, ensuring funds are spent appropriately and all reporting requirements are met. This aspect of the department provides critical leadership and maintains compliance with business practices and procedures as follows:

- ☑ Oversees the sale of 200,000 hunting, fishing and trapping licenses through 309+ agents statewide and operates an on-line license sales system 24/7. The licensing group handles sales totaling more than \$6 million dollars annually.
- ☑ Administers the sale of more than 55 types of state licenses and permits.
- ☑ Administers more than 40 federal grants for the department to receive over \$7 million dollars in federal funds annually.
- ☑ Operates two lotteries and an auction awarding over 10,000–21,000 permits to the public generating over \$250,000 annually in department revenues.
- ☑ Awards approximately \$1 million dollars of “grants out” to municipalities, conservation organizations and colleges and universities.
- ☑ Administers payroll and the VTNR program for 180 state employees. Tracks the work effort of 400 volunteers and donated services totaling an estimated \$400,000 in in-kind donations.
- ☑ Coordinates the work of three state Committees or Boards (Fish and Wildlife Regulatory Board, Endangered Species Advisory Committee, Waterfowl Advisory Committee).
- ☑ Promulgates rules and regulations via Commissioner’s Rule, Fish and Wildlife Board Rules, Endangered Species Listings and works with the legislature on Fish and Wildlife related legislation.
- ☑ Coordinates fish and wildlife policy and program issues with other state and federal agencies.





Law Enforcement

The Law Enforcement Division provides an essential component of fish and wildlife conservation and management—enforcement of Vermont's fish and wildlife laws and regulations related to the protection of these resources for the benefit of all Vermonters. The current force of 29 district game wardens is the sole law enforcement entity monitoring the 200,000+ licensed people participating in hunting, fishing, and trapping activities. They respond to requests involving conflicts with fish and wildlife resources, search and rescue operations, as well as offer many additional forms of law enforcement assistance to citizens and other law enforcement agencies. They provide a visible and important interface between the department and the public.

- ☑ Game wardens answer approximately 8,000 complaints a year related to fish and wildlife violations and public service requests.
- ☑ As certified law enforcement officers, game wardens often provide assistance to other police agencies.
- ☑ Incidental to core duties, game wardens provide law enforcement for boating, snowmobile, and ATV regulations.
- ☑ Game wardens play an essential role in supporting all other divisions of the department by participating in education programs, collecting biological data, and stocking fish.
- ☑ Game wardens also respond to human/wildlife conflicts, animal damage intervention, removal of big game animals from roadsides, and rabid animal calls all to protect human health and safety.





Wildlife

The Wildlife Division provides the science and action to protect and manage all wildlife, plants, and their habitats throughout Vermont. Division staff engage in three main areas of work: wildlife management and conservation of species that are hunted or trapped; public and private lands habitat management and protection; and maintaining wildlife diversity which includes the conservation of all native species including plants, natural communities, and rare, threatened, and endangered species. The diversity of job duties is immense and accomplished with 26 permanent wildlife scientists and 10 seasonal employees.

- ☑ Conducts research in support of management actions and decisions.
- ☑ Protects (includes monitors) 618 and 217 plant and animal species respectively that are rare, threatened or endangered.
- ☑ Prepares harvest recommendations for hunting on four biggame species, six small game species, three species of geese and up to 25 species of ducks, along with trapping and hunting of 14 different furbearers.
- ☑ Participates in the protection of critical wildlife habitat through regulatory processes such as Act 250 and Act 248 (Public Service Board).
- ☑ Participates in land acquisition and management of 133,000 acres on the department's 89 Wildlife Management Areas (WMAs).
- ☑ Monitors wildlife diseases and the importation of wildlife into Vermont.
- ☑ Provides technical assistance, data, information, planning and outreach to towns, hunters, landowners, school children, the general public, and natural resources professionals to ensure the conservation of all wildlife in Vermont for future generations.





Outreach

The primary duty of the Outreach Division is providing quality information and education about Vermont's fish and wildlife resources. The Outreach Division is the primary voice of the department in supporting its mission and accomplishments, as well as the recruitment and retention tool for anglers, hunters, and trappers.

- ☑ Provides conservation education to more than 1,000 children per year in two Conservation Camps and the Kehoe Events Series. Certifies approximately 5,000 students per year through 380 active volunteer hunter safety instructors in more than 230 classes per year as required by statute since 1975.
- ☑ Reaches nearly 6,000 Vermonters annually with the Let's Go Fishing Program through individual clinics, Green Mountain Conservation Camps, and outreach events. Volunteer instructors, through individual clinics, teach nearly 3,500 kids. The program is expanding into the State Parks, and clinics will be offered throughout the state by trained State Park Interpreters throughout the summer.
- ☑ Develops and manages special events and training seminars open to the public throughout the year.
- ☑ Provides communications planning and media assistance to biological staff and administration on key department initiatives.
- ☑ Maintains website and Facebook pages, produces annual law digest and F&W calendar, and provides critical information to the department's core constituents and the general public.
- ☑ Conducts a week-long course for Vermont teachers related to wildlife and fisheries management and conservation.
- ☑ Provides Project WILD certification and its associated programs throughout the year to formal educators, non-formal educators, and pre-service educators throughout Vermont.





Fish Management

In a 2011 national survey, Vermont had 207,000 anglers who fished a total of 2.22 million days. The economic impact of sport fishing in Vermont was estimated to be \$147.1 million in retail sales. Fishing provided Vermont with over 2,420 jobs that generated \$73.2 million in salaries and wages, \$16.0 million in state and local tax revenues, and \$17.1 million in federal tax revenues. The primary duty of the Fisheries Division is the conservation and management of all fish and fish habitats throughout Vermont. Staff members are engaged in a wide variety of activities, such as research, management, restoration, regulation, and education in the following ways:

- ☑ Conserves and restores fish habitat including protecting water quality, restoring stream buffers, and removing barriers to fish passage.
- ☑ Provides a variety of regulated and sustainable fishing opportunities.
- ☑ Provides angler access at over 180 fishing access areas statewide.
- ☑ Participates in sea lamprey control on Lake Champlain.
- ☑ Controls the introduction and spread of nuisance aquatic species and fish pathogens.
- ☑ Develops and implements restoration plans for species such as walleye, lake trout, salmon, and lake sturgeon.
- ☑ Monitors populations of sport fish species and their habitats.
- ☑ Collects information from anglers regarding their fishing success, recreational preferences, and factors affecting their satisfaction levels.
- ☑ Cooperates in the research, management, and restoration of fish communities in the Lake Champlain and Connecticut River Basin.
- ☑ Evaluates current and prepares new fishing harvest regulation.
- ☑ Participates in the protection of critical aquatic habitat through regulatory processes such as Act 250.





Fish Hatcheries

As indicated above, fishing has an enormous economic impact in Vermont, and Fish Hatcheries play an important role in supporting this activity. In 2011 the annual economic effect of the five state fish hatcheries was conservatively estimated at over \$31.6 million per year. The hatchery program stocks over 2 million fish annually in public waters for angling and fish restoration and in 2011 cost \$2.9 million. This is a bargain for Vermont when sixty percent of the costs of the hatchery program are from federal funds and forty percent license sales.

- ☑ The hatcheries support the Children's Fishing Program, which partners with over 80 organizations statewide annually to provide over 9,000 children, as well as elderly and challenged individuals an opportunity to experience and learn about fishing.
- ☑ The hatcheries are a destination site for visitors. There are 15,000 to 20,000 visitors annually visiting the hatcheries.
- ☑ The hatchery program also supports the fish health program and its laboratory. The role of this program is to prevent the introduction of exotic fish species and pathogens, and control and limit the distribution of existing pathogens to the waters of the state through actual fish diagnostic work and numerous permitting programs (e.g., importation, propagation, etc.).
- ☑ The hatchery program is part of the Cooperative Nursery Program. This program involves sports groups directly by providing fish to enhance department fishing programs while promoting mutual understanding and they provide 192,500 fish weighing 1,894 pounds. Currently there are five groups participating.



Measuring Success

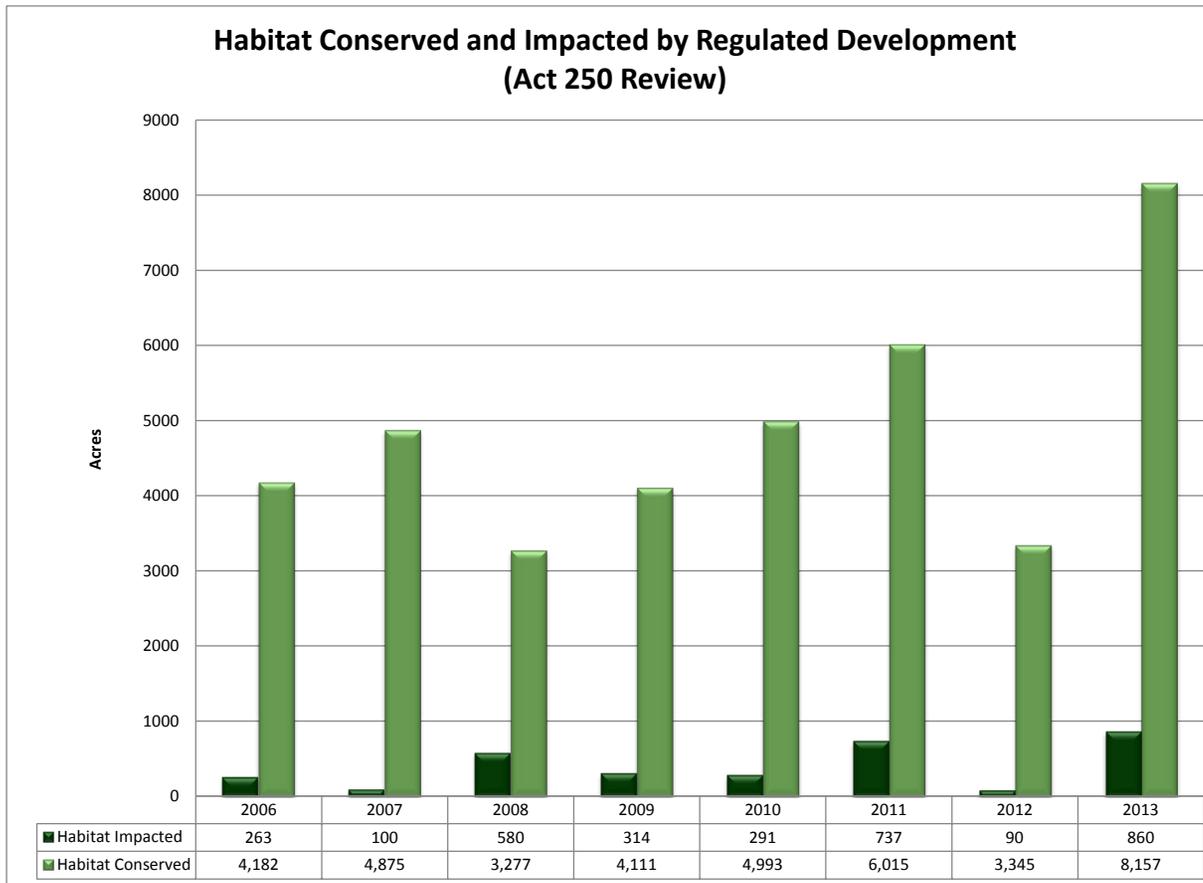
Performance Based Budgeting



RESOURCE CONSERVATION: NATURAL COMMUNITIES AND HABITATS PROGRAM

OUTCOME: Conserve, restore and enhance natural communities and habitats.

- **PERFORMANCE MEASURE:** Increase in the number of acres of habitat and shoreline protected through the regulatory process.

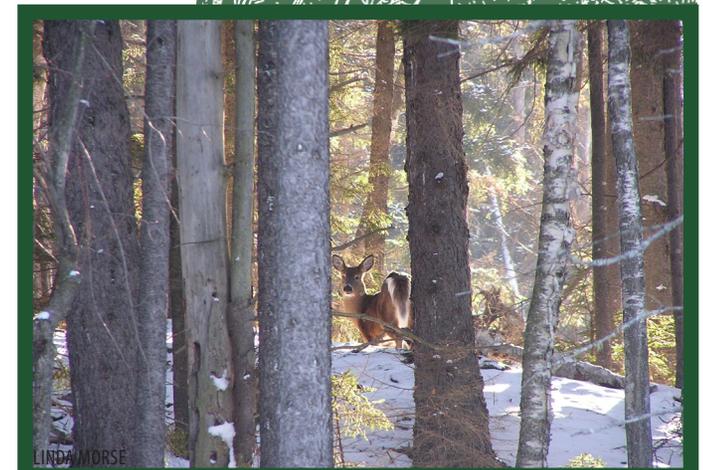


On average, more than 400 acres of habitat are lost annually to development projects that come under regulatory review. Although the review of such projects helps to protect critical habitat for wildlife, it is estimated that only one percent of the subdivisions in Vermont are regulated by Act 250. Many of the projects that do not require permits or regulatory review threaten Vermont's uplands, forest, streams and wetlands.

The department reviews development projects that require federal, state or local permits for potential impacts to fish, wildlife, plants and related habitats.

In 2013 these efforts included:

- 238 projects were reviewed.
- 8,157 acres of habitat were conserved or positively influenced.
- 860 acres of habitat were impacted by regulated development.



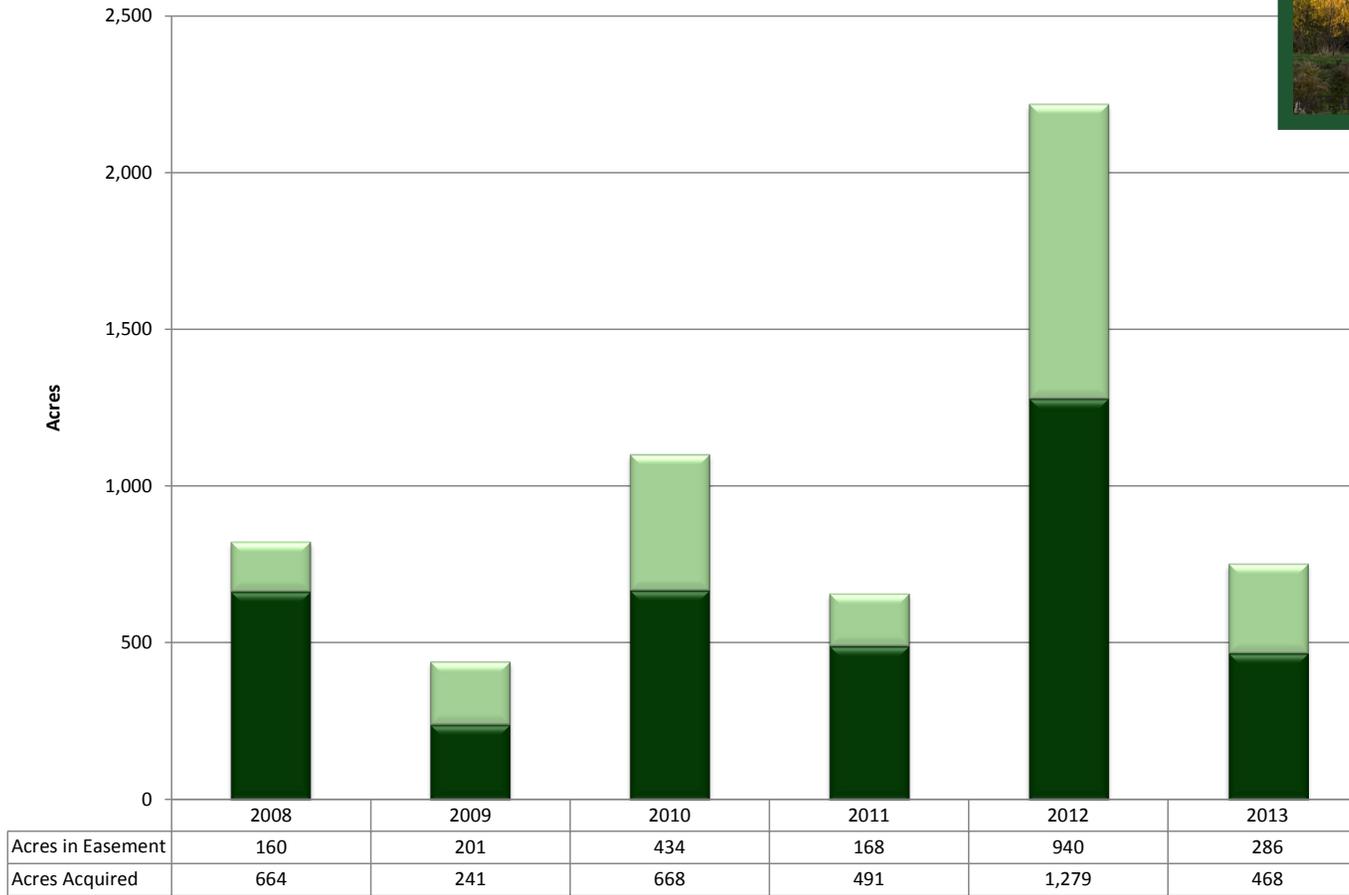
RESOURCE CONSERVATION: NATURAL COMMUNITIES AND HABITATS PROGRAM

OUTCOME: Conserve, restore and enhance natural communities and habitats.

- **PERFORMANCE MEASURE:** An increase in the cumulative number of acres of high-value habitats and natural communities conserved through acquisition or easements.



Land Acquisition and Conservation Easement Effort



■ Acres Acquired ■ Acres in Easement

Regulatory review is one tool to protect important habitat for fish and wildlife. The department also works with many partners to conserve important fish and wildlife habitat through acquisitions, easements and management agreements.

In 2013 the department conserved:

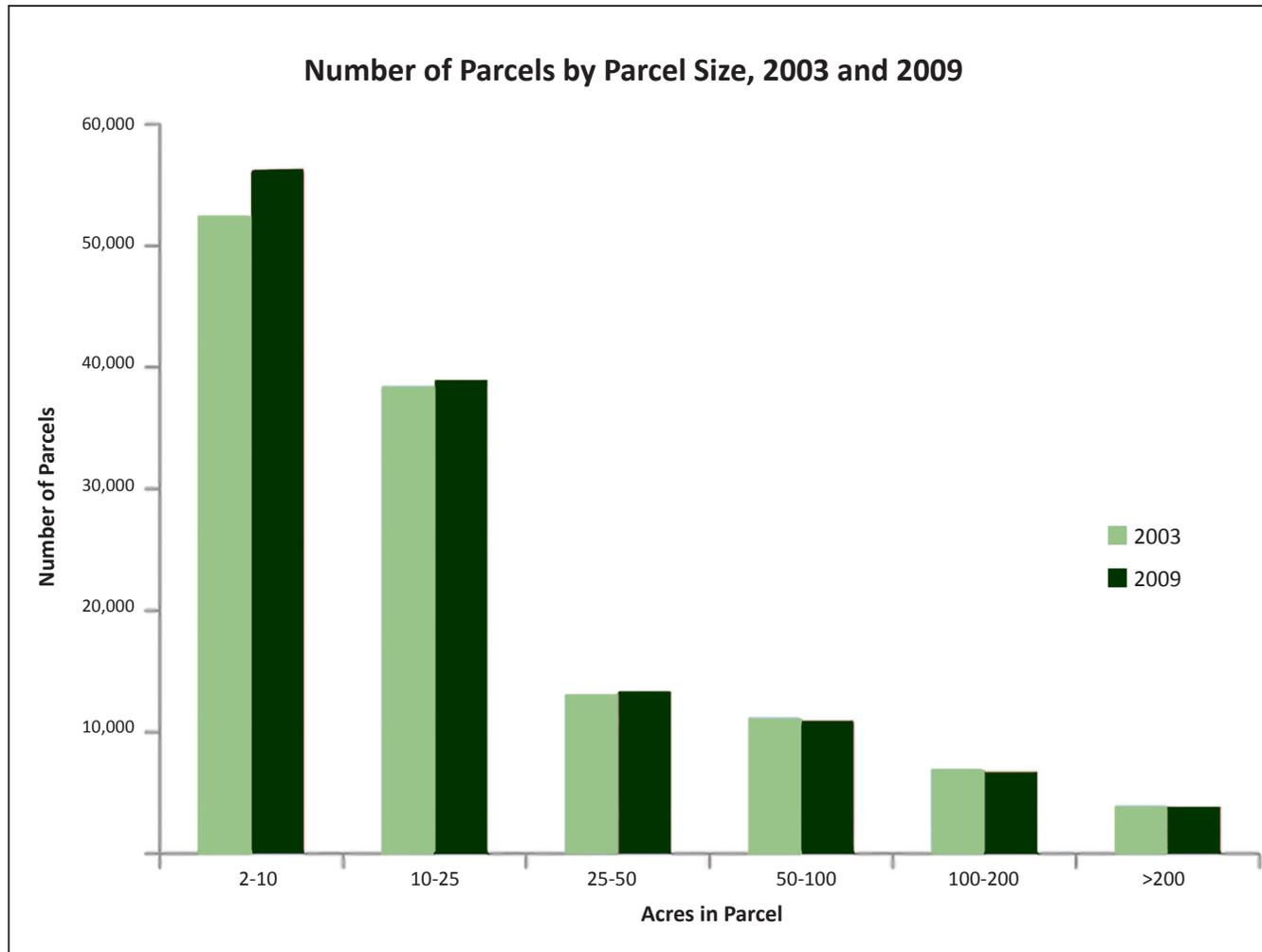
- 468 acres through acquisitions.
- 286 acres through easements.



RESOURCE CONSERVATION: NATURAL COMMUNITIES AND HABITATS PROGRAM

OUTCOME: Conserve, restore and enhance natural communities and habitats.

➤ **PERFORMANCE MEASURE:** Maintain the number of acres of contiguous forest.



SOURCE: Brighton, Deb et.al. 2010. Informing Land Use Planning and Forestland Conservation Through Subdivision and Parcelization Trend Information, p.10.

Fragmentation and parcelization of large forested blocks of habitat into smaller parcels can degrade habitat quality and affect long-term sustainability of some wildlife populations. Since 86 percent of Vermont's 4.6 million acres of forested habitat is privately owned, the department's ability to monitor landscape and habitat fragmentation is strongly tied to the decisions of private landowners. The following indicators serve as benchmarks to understanding the trends in land use and habitat fragmentation:

- 4,065 habitat blocks were identified in Vermont, based on a 2012 GIS analysis.
- 71 percent of Vermont is privately owned in parcels that are 50 acres or larger in size.
- Between 1983 and 2008, the number of land parcels in Vermont increased from 61,900 to 88,000.
- Approximately 5,666 acres of forestland are converted to another use each year.



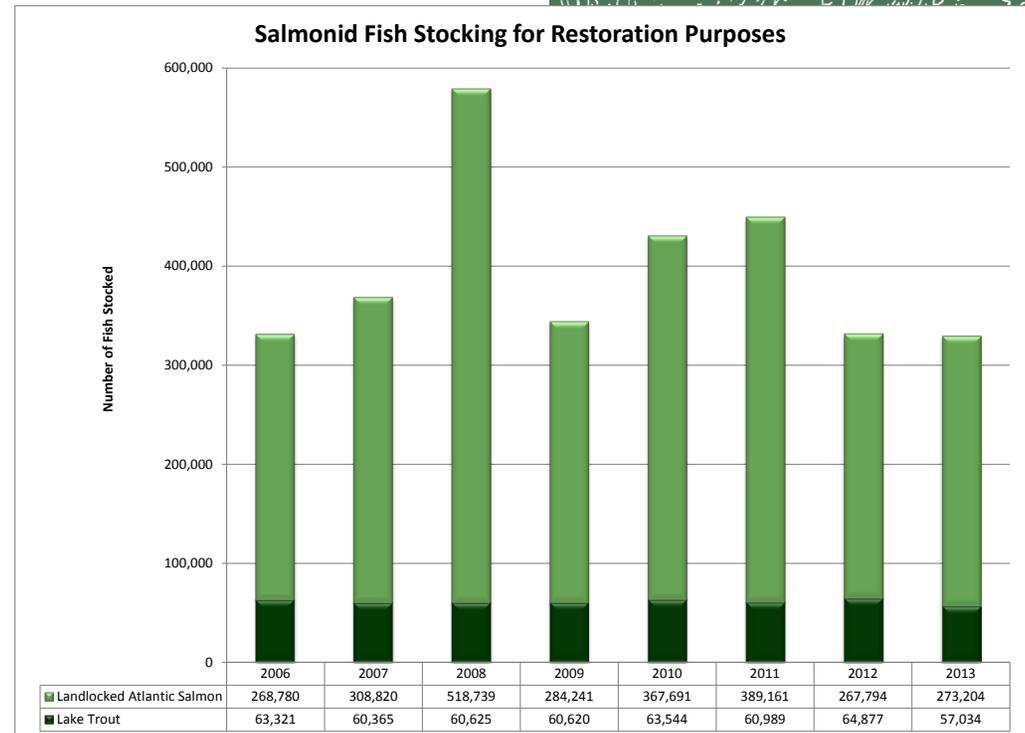
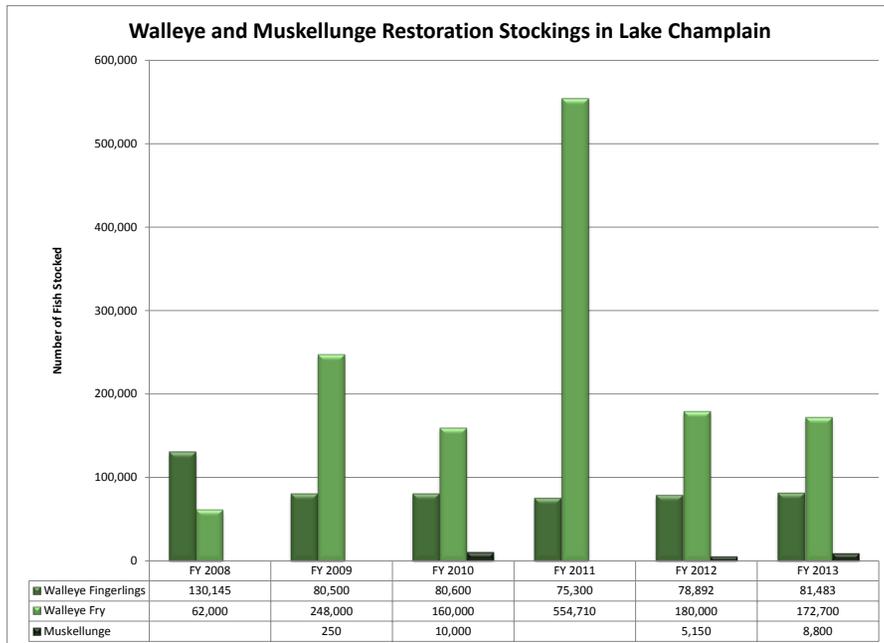
RESOURCE CONSERVATION: FISH AND WILDLIFE SPECIES PROGRAM

OUTCOME: Conserve and restore fish, wildlife and plants species to maintain ecosystem integrity for the benefit of the public.

➤ **PERFORMANCE MEASURE:** Maintain or restore fish and wildlife populations at healthy and sustainable levels as defined in species management plans.

The department implements management actions to keep fish populations healthy, balanced and productive, and to improve and enhance aquatic communities and fishing in Vermont. Fishing regulations, fish stocking, nuisance species control and habitat improvements are examples of management actions.

Approximately 45 percent of the fish stocked in Vermont are part of an effort to reestablish wild populations in a given water body. The fish species include lake trout, land-locked Atlantic salmon, walleye and muskellunge.



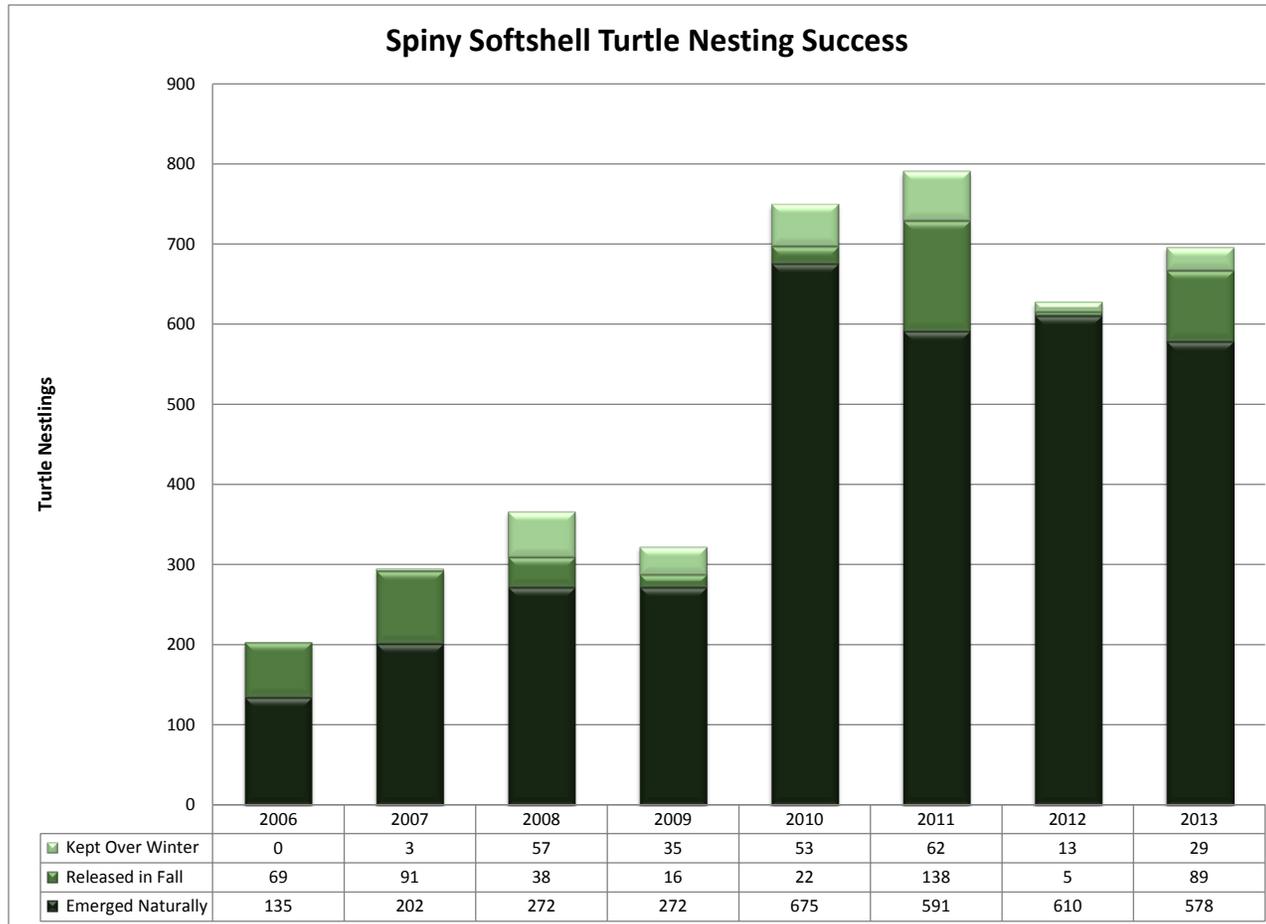
- Walleye fry and fingerlings are annually stocked into Lake Champlain as part of a lake-wide restoration program to enhance the lake's population and provide increased recreational fishing opportunities.
- Surplus muskellunge fingerlings, provided by NYSDEC, are stocked into Missisquoi Bay and Missisquoi River to restore a naturally reproducing population of muskellunge and create a sustainable sport fishery for the species.



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Today, due to efforts to boost nesting success in the sand and shale pebble beaches of northern Lake Champlain, spiny softshelled turtles are beginning to recover. The number of live hatchlings has increased substantially in the past four years, but has still struggled due to flooding events in 2011 and 2013 and due to depredation.

Spiny softshell turtles are a state threatened species. The main threats to spiny softshell nests are loss of habitat from development or vegetative growth, depredation by raccoons, foxes, and skunks, and flooding of nesting sites.

The department is working to minimize these threats by:

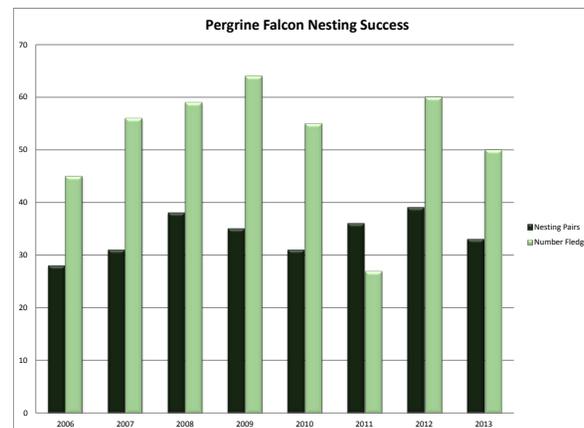
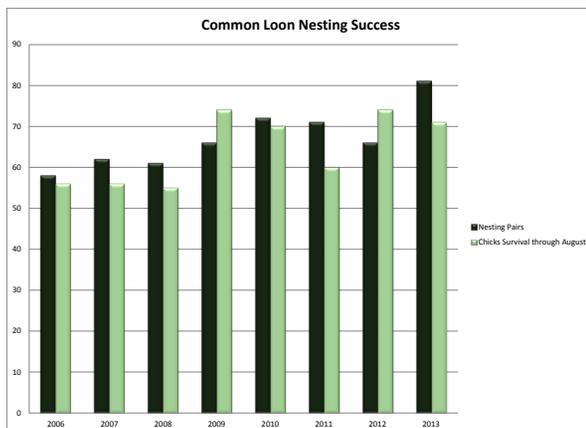
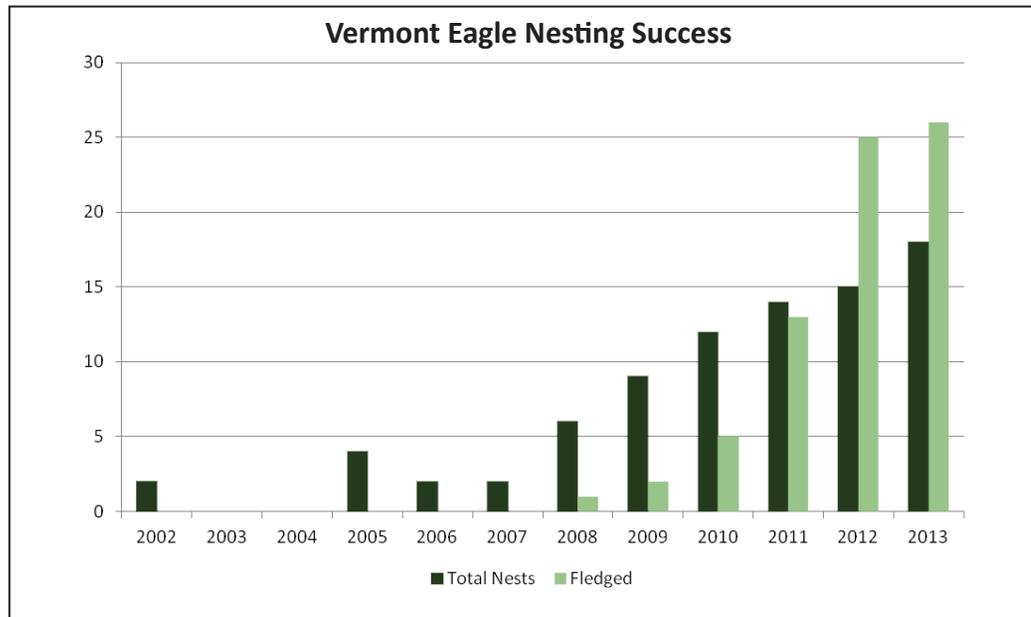
- Covering known nesting sites with wire mesh after females have laid their eggs to prevent animals from digging them up.
- Removing live eggs from any nests we find, incubating the eggs and raising hatchlings in captivity for release back into Lake Champlain in the spring.
- Partnering with the ECHO Lake Aquarium and Science Center to increase the number of turtles raised in captivity.
- Increasing public awareness and participation in wildlife conservation by conducting turtle beach cleanup day, where more than 50 people help prepare beaches for the spring nesting season.



RESOURCE CONSERVATION: FISH AND WILDLIFE SPECIES PROGRAM

OUTCOME: Conserve and restore fish, wildlife and plants species to maintain ecosystem integrity for the benefit of the public.

➤ **PERFORMANCE MEASURE:** Maintain or restore fish and wildlife populations at healthy and sustainable levels as defined in species management plans.



Bald eagles are on the state's threatened and endangered species list but Vermont's eagle population continues to increase.

- 35 eaglets were fledged from 26 nest in 2013.

The peregrine falcon and common loon were removed from the state's threatened and endangered species list in 2005. The department, with assistance from conservation partners and volunteers, continues to monitor these species to ensure the populations remain healthy.

- 38 peregrine falcon nests were monitored in 2013 with 32 producing a total of 50 fledglings.

- 81 common loon nesting attempts in 2013 resulted in 61 successful nests, producing 91 loon chicks with 77 surviving through August.

As recovered species continue to do well, the department will assess ways to keep effectively monitoring those species while looking to extend management activities to other species of greatest conservation need.



RESOURCE CONSERVATION: FISH AND WILDLIFE SPECIES PROGRAM

OUTCOME: Conserve and restore fish, wildlife and plants species to maintain ecosystem integrity for the benefit of the public.

- **PERFORMANCE MEASURE:** Prevent the introduction of any new invasive exotic species (including pathogens) and reduce, or at least contain, the geographic distribution of existing invasive exotics.

POST IRENE KNOTWEED INITIATIVE

Knotweed is an invasive plant that contributes to greater rates of erosion along rivers and streams and increases the threat from floods. One of the primary ways it spreads occurs when pieces of stems and roots break off from a parent plant, float downstream, and re-establish themselves along streambanks. Damaging floods such as those experienced during Tropical Storm Irene contribute significantly to the spread of this invasive.

Once the plant is established, it often requires five years of intensive management to remove. However, if newly established plants are located, they can be effectively removed with minimal effort.

The post Irene **Japanese Knotweed Initiative** was established to help communities determine the best strategies to stop the spread of knotweed.



Japanese Knotweed has lacy white flowers trailing down stems and rounded, heart-shaped leaves.

Japanese Knotweed Program Accomplishments:

- 25 educational workshops
- Two volunteer workdays
- Four road crew presentations
- Two weeks VYCC labor
- Six rivers surveyed
- 3,100 – 5,000 plants removed
- 30+ acres in six towns encompassing five watersheds impacted by plant removal

This picture was taken from the Perkinsville Bridge on Rte 106, north of Springfield. Note the bank instability just behind the knotweed patch indicated by the red arrows.

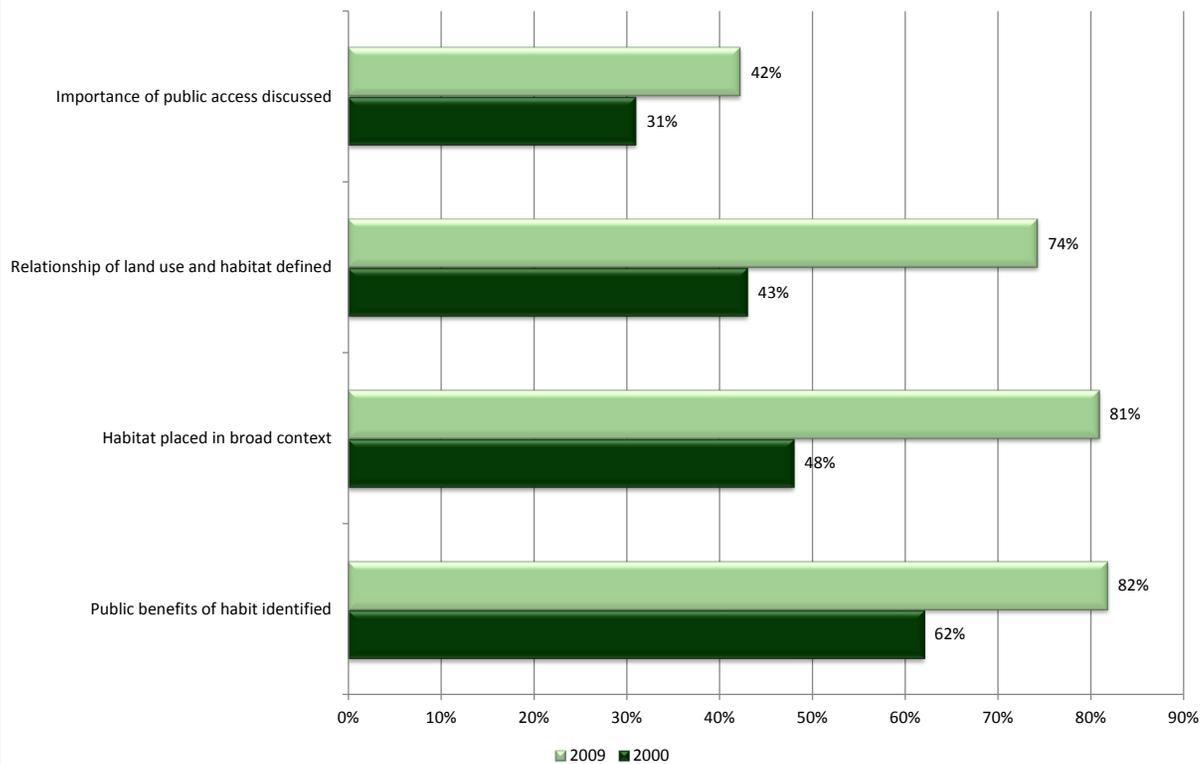


RESOURCE CONSERVATION: PUBLIC SUPPORT FOR LAND CONSERVATION PROGRAM

OUTCOME: Increase public support and understanding of land conservation issues, and promote and facilitate a land stewardship ethic in Vermont.

➤ **PERFORMANCE MEASURE:** Increase in the number of town plans that promote protection of local fish and wildlife resources.

Comparison of the Percentage of Town Plans that Include Habitat Concerns for 2000 and 2009



A review of 223 municipal plans covering 265 Vermont municipalities was conducted in 2000 and again in 2009 to compare how municipalities address fish and wildlife issues and resources through local plans and bylaws. The surveys showed a marked improvement in the incorporation of fish and wildlife interests into town plans between 2000 and 2009.

Community Wildlife Program

The Community Wildlife Program (CWP) provides technical assistance to municipalities, regional planning commissions and NGOs on issues relating to conservation planning for fish and wildlife resources.

The department believes the increase in municipalities addressing fish and wildlife issues and resources through local plans and bylaws can be attributed to CWP. Some of the program's accomplishments for 2013:

- Provided 15 towns with technical assistance and the most up-to-date scientific information to towns and regional planning commissions.
- Worked with 35 partners to enhance regional and collaborative partnerships for more effective conservation planning.
- Reprinted 1,000 copies of *Conserving Vermont's Natural Heritage*, an important conservation planning document. Currently over 4,000 copies have been distributed.

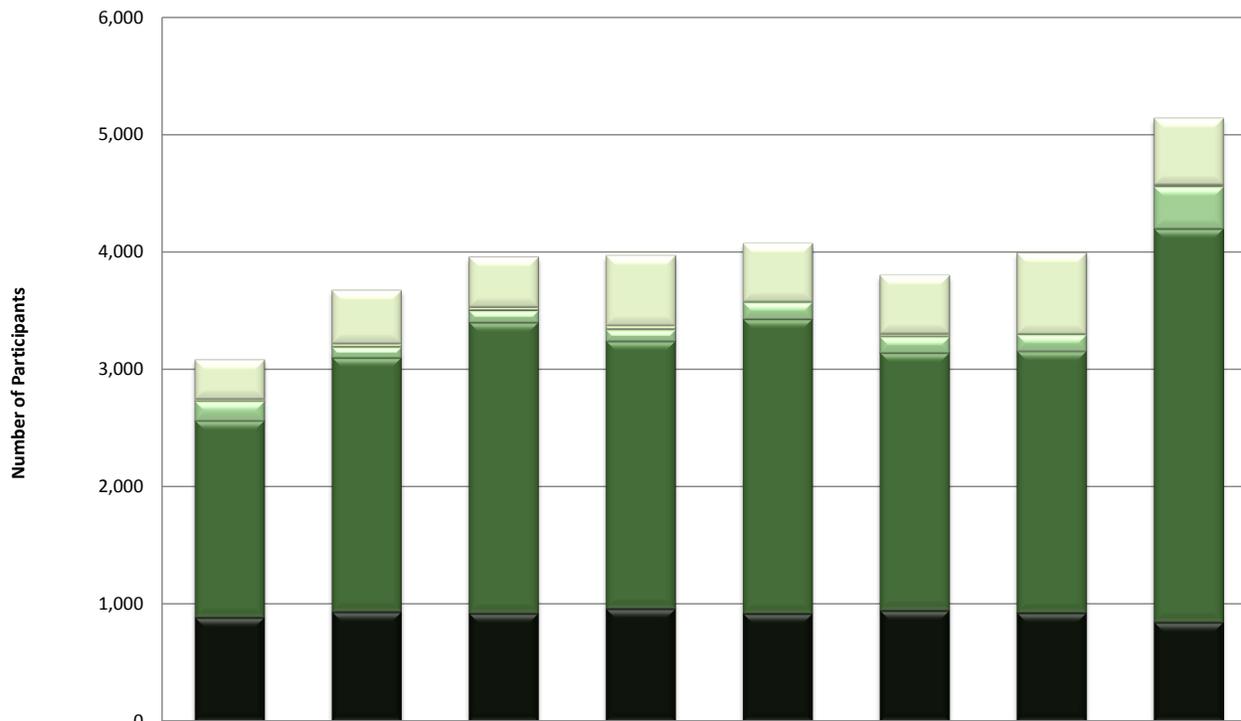


RESOURCE CONSERVATION: PUBLIC SUPPORT FOR LAND CONSERVATION PROGRAM

OUTCOME: Increase public support and understanding of land conservation issues, and promote and facilitate a land stewardship ethic in Vermont.

➤ **PERFORMANCE MEASURE:** Maintain or increase the public's support for and knowledge of fish and wildlife conservation and land stewardship.

Participation in Fish & Wildlife Education and Outreach Programs



	2006	2007	2008	2009	2010	2011	2012	2013
Family Fishing Festival	338	456	429	600	500	500	695	570
Teacher's Course	14	27	28	33		23		12
Project WILD	171	95	105	100	150	142	146	361
Let's Go Fishing	1,679	2,167	2,479	2,281	2,508	2,195	2,230	3,350
Conservation Camps	889	936	923	963	922	949	928	849

The Vermont Fish & Wildlife Department provides several excellent educational opportunities for both children and teachers. Each program provides children and/or teachers with hands-on outdoor learning skills that connect them to Vermont's fish and wildlife. Below are the highlights for 2013:

- 849 youths attended Green Mountain Conservation Camp.
- 3,350 youths and adults participated in a Let's Go Fishing event.
- 570 youths and adults took part in our Family Fishing Festival.
- 361 participants attended a Project WILD program.
- 12 teachers attended Wildlife Management for Educators.

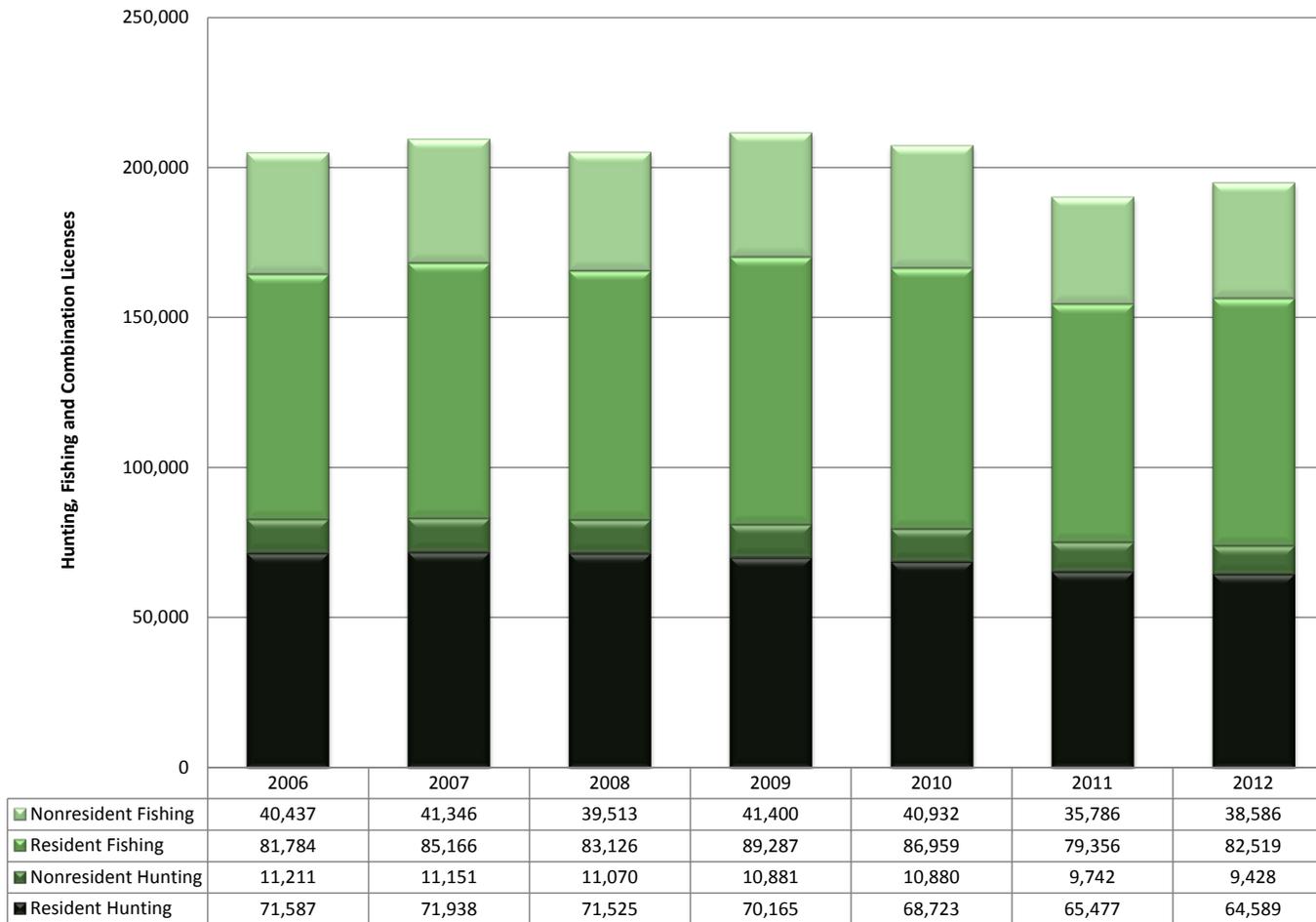


RECREATION: FISH AND WILDLIFE-BASED RECREATIONAL OPPORTUNITIES PROGRAM

OUTCOME: Provide hunting, fishing and trapping opportunities consistent with resource management goals and within ecological limits.

➤ **PERFORMANCE MEASURE:** Maintain the number of adults and youths participating in hunting, trapping and fishing in Vermont as measured by license sales.

Resident and Nonresident Hunting and Fishing Participation



Hunting, fishing, and trapping are rich traditions and an integral part of Vermont's culture and heritage. In 2012 fishing license sales increased 5 percent, while hunting and trapping license sales declined slightly.

License sales for 2012 indicate:

- 121,105 licensed resident and nonresidents participated in angling opportunities.
- 74,017 licensed resident and nonresident hunters and trappers participated in regulated wildlife harvest opportunities.
- 2.5 percent increase in participation in hunting, trapping and fishing in Vermont from 2011.

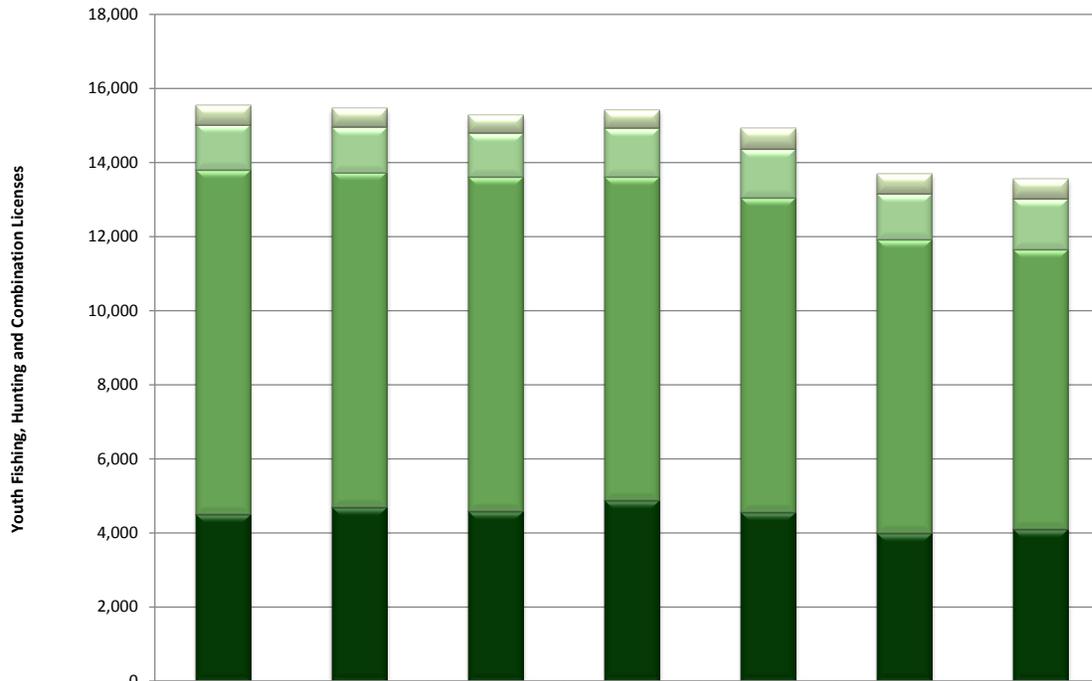


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Resident and Nonresident Hunting and Fishing Participation by Youths



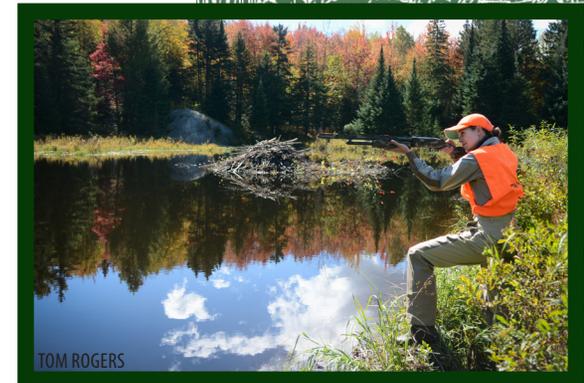
	2006	2007	2008	2009	2010	2011	2012
Nonresident Youth Hunting	532	489	484	487	559	550	529
Nonresident Youth Fishing	1,222	1,228	1,190	1,324	1,331	1,233	1,380
Resident Youth Hunting	9,299	9,033	9,014	8,741	8,480	7,929	7,549
Resident Youth Fishing	4,509	4,707	4,600	4,875	4,563	3,999	4,100

Wildlife-based activities contribute to young Vermonters' understanding and appreciation of and commitment to the state's fish and wildlife species, their habitats and the environment. In 2012 youth participation in regulated hunting and fishing declined slightly (1%) from the previous year.

License sales for 2012 indicate:

- 5,480 licensed resident and nonresident youths participated in angling opportunities.
- 8,078 licensed resident and nonresident youth hunters and trappers participated in regulated wildlife harvest opportunities.

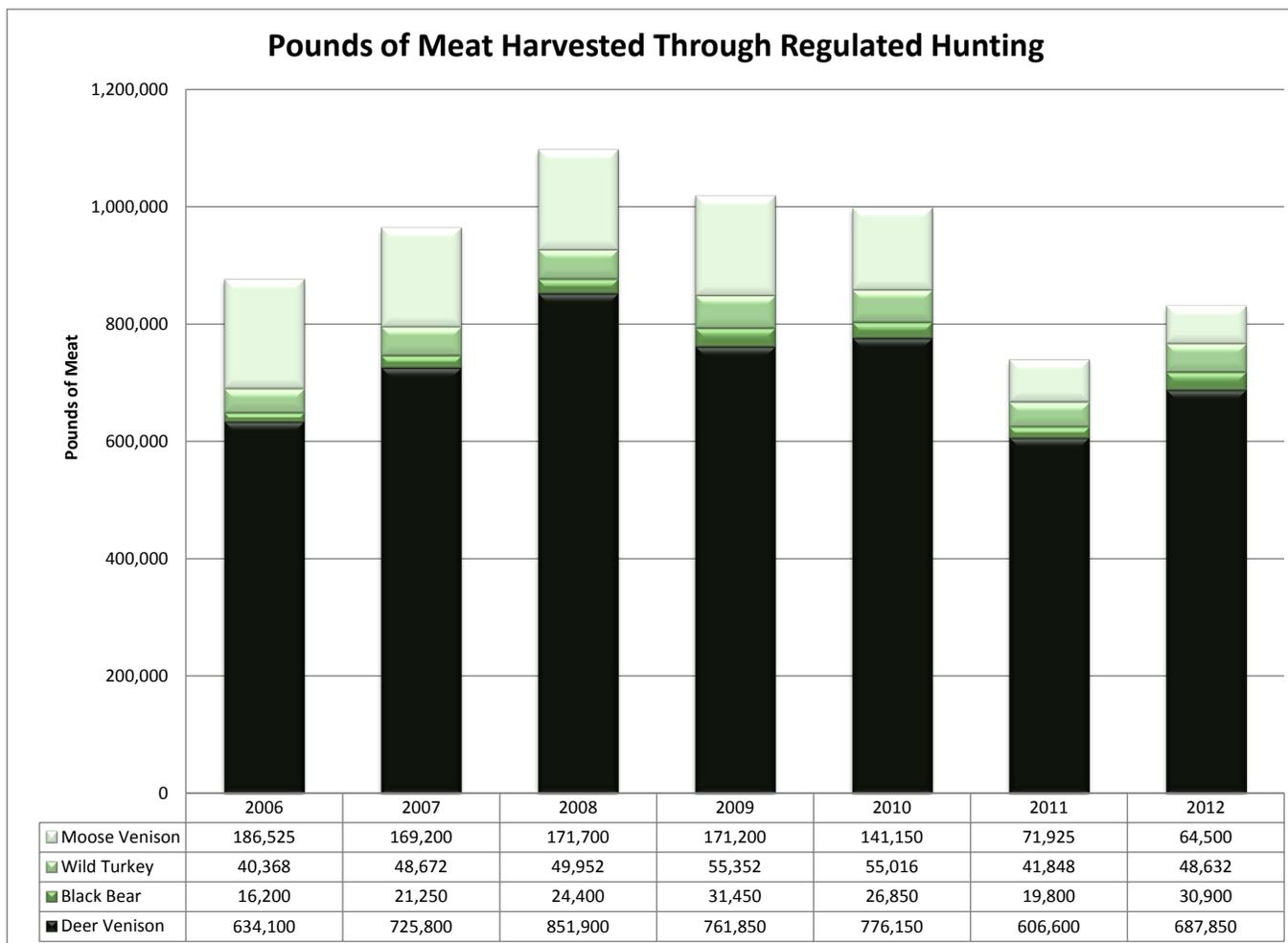
Ten percent of licenses sold in 2012 were purchased by women compared to seven percent in 1998.



RECREATION: FISH AND WILDLIFE-BASED RECREATIONAL OPPORTUNITIES PROGRAM

OUTCOME: Provide hunting, fishing and trapping opportunities consistent with resource management goals and within ecological limits.

- **PERFORMANCE MEASURE:** The amount of wild meat, fish and other provisions from wildlife resources annually harvested under regulated seasons shall be maintained at sustainable levels.



The regulated harvest of Vermont's big game species provides a way to maintain species population numbers within the limits of their habitat while allowing people to celebrate the state's rich hunting tradition and culture.

Hunters harvested more bear, turkey and white-tailed deer in 2012 compared to 2011:

- 13 percent increase in white-tailed deer harvest
- 56 percent increase in black bear harvest
- 16 percent increase in wild turkey harvest.

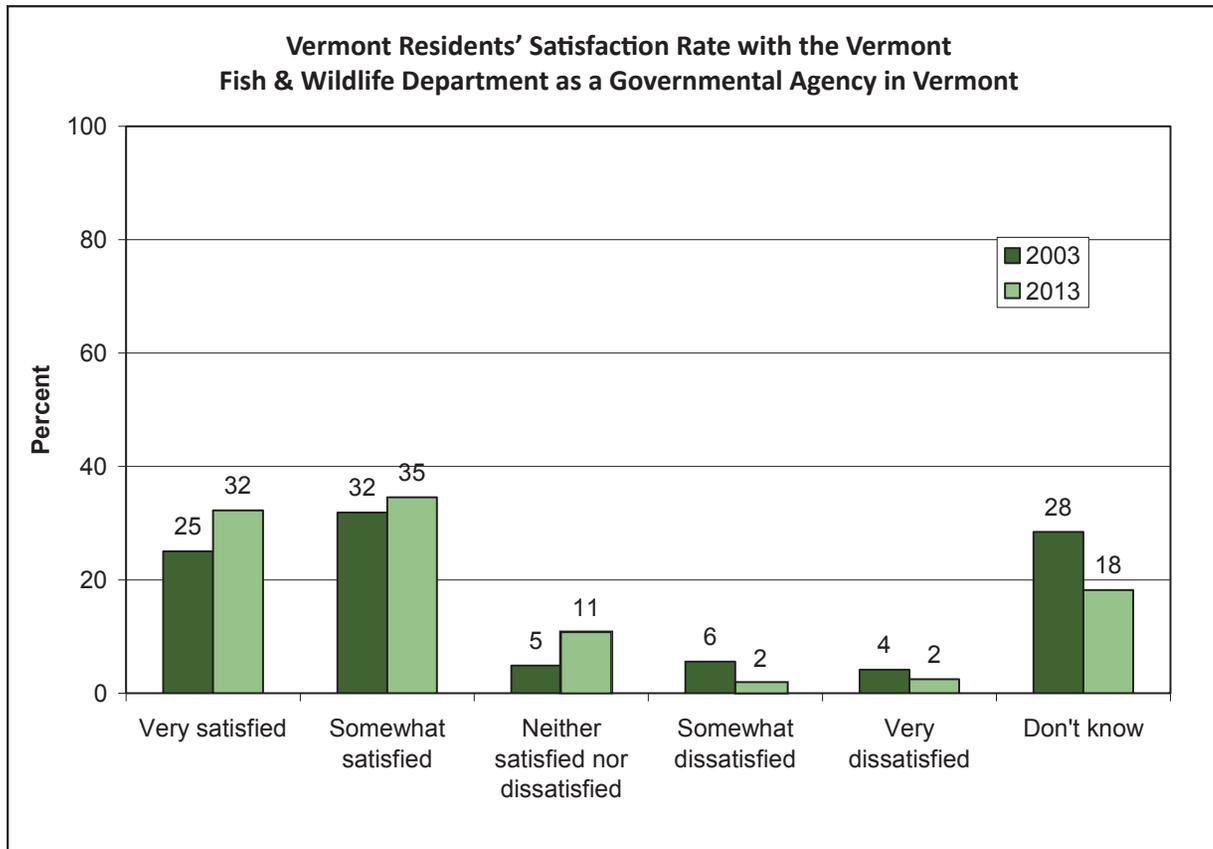
While moose permits have been reduced, the department increased muzzleloader season antlerless permits by 30 percent above 2011 levels in response to an estimated increase in deer population in 2012.



RECREATION: FISH AND WILDLIFE-BASED RECREATIONAL OPPORTUNITIES PROGRAM

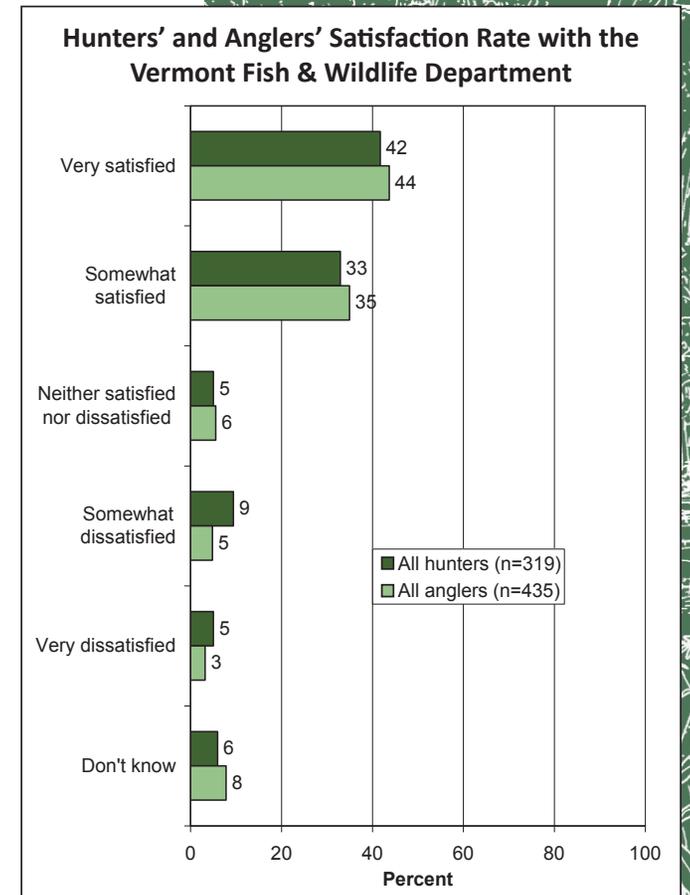
OUTCOME: Provide hunting, fishing and trapping opportunities consistent with resource management goals and within ecological limits.

➤ **PERFORMANCE MEASURE:** Improve trapper, hunter and angler satisfaction and knowledge levels.



Hunters and anglers were also included in this survey. Among hunters (n=319), 75 percent were either “very” or “somewhat satisfied” with Vermont Department of Fish & Wildlife. Among anglers (n=435), the numbers were slightly higher with 79 percent “very” or “somewhat satisfied.” Likewise, 14 percent of hunters and 8 percent of anglers were dissatisfied.

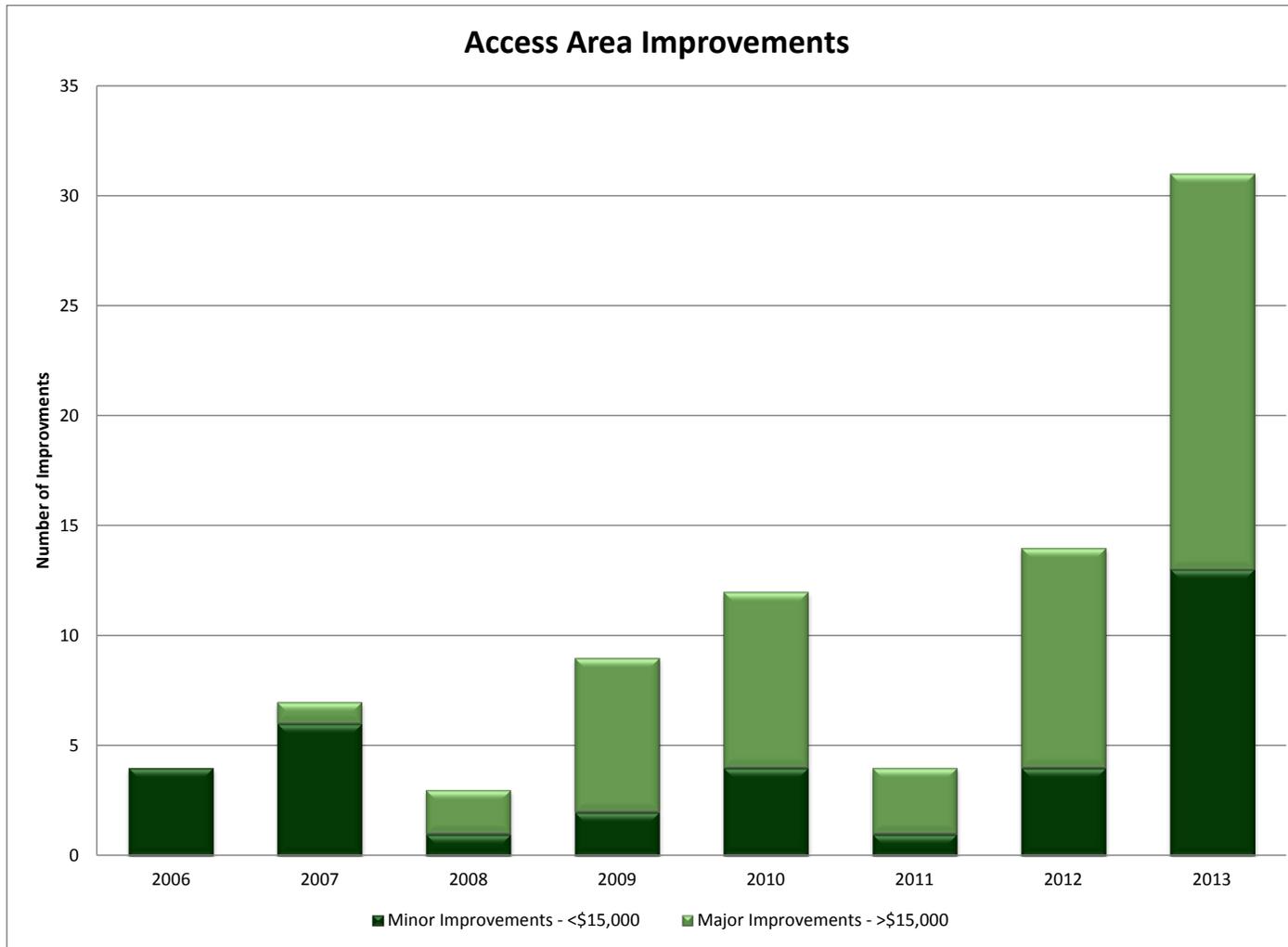
A statewide survey of satisfaction with the department among residents was conducted in 2003 and then repeated in 2013. Satisfaction among residents (n=505) increased significantly from 57 percent in 2003 to 67 percent in 2013. Dissatisfaction also dropped with only 4 percent dissatisfied in 2013 versus 10 percent in 2003.



RECREATION: FISH AND WILDLIFE-BASED RECREATIONAL OPPORTUNITIES PROGRAM

OUTCOME: Provide hunting, fishing and trapping opportunities consistent with resource management goals and within ecological limits.

➤ **PERFORMANCE MEASURE:** Provide public access to Vermont waters.



The department's fishing access areas provide public access to waters in Vermont for a growing number of shore anglers, and boaters launching watercraft and fishing. The access area program is funded by motorboat registration fees, capital funding and matching federal funds.

Through the department's access area program the following was accomplished:

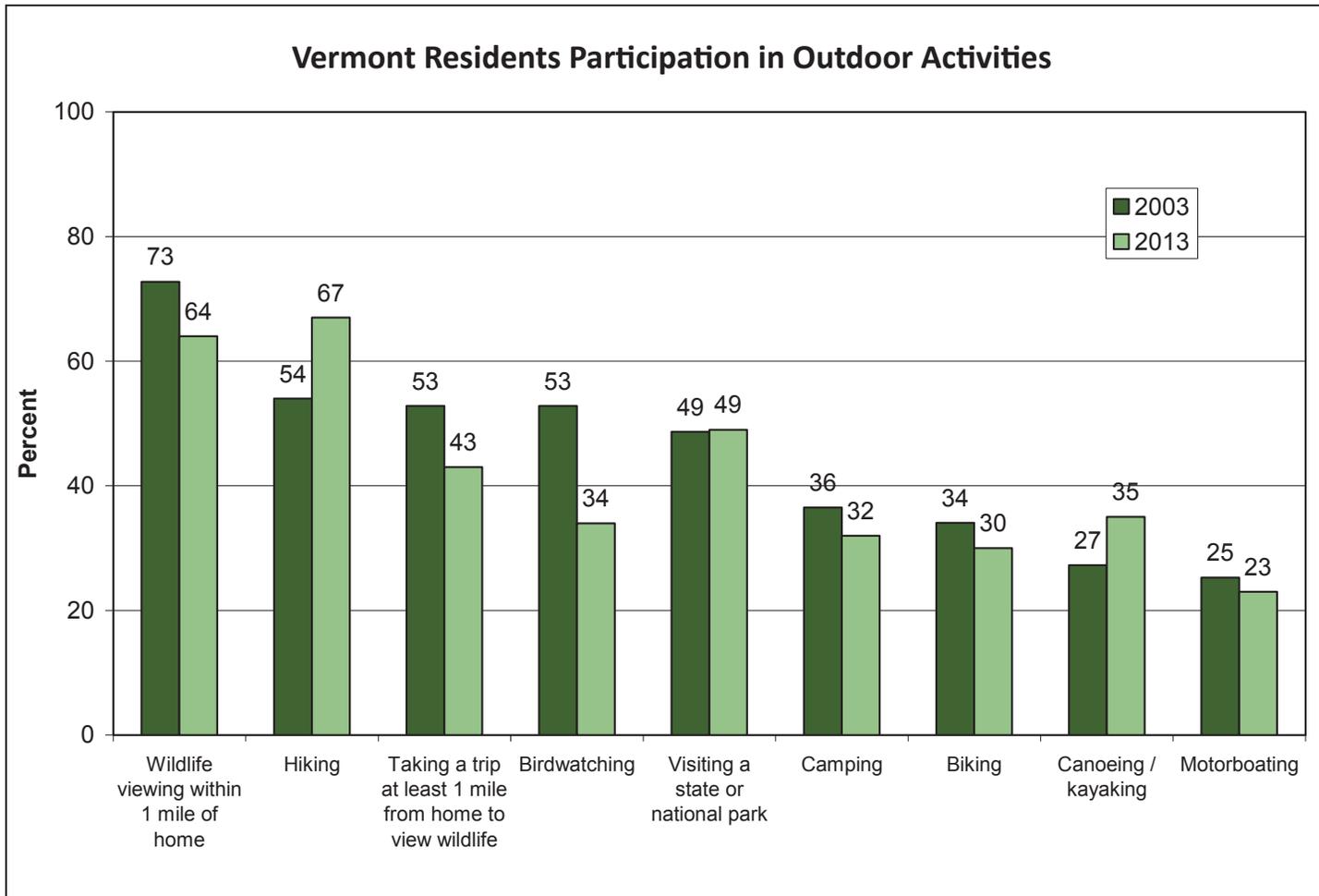
- 181 developed fishing access areas were maintained—an increase of five sites from 2011.
- \$1,244,500 was spent on basic maintenance, capital improvement projects, new carry-on sites, and major infrastructure improvements.
- Expenditures ranged from \$440 for leasing land for access to Lewis Creek to over \$255,000 for upgrading and developing small access areas around the state.



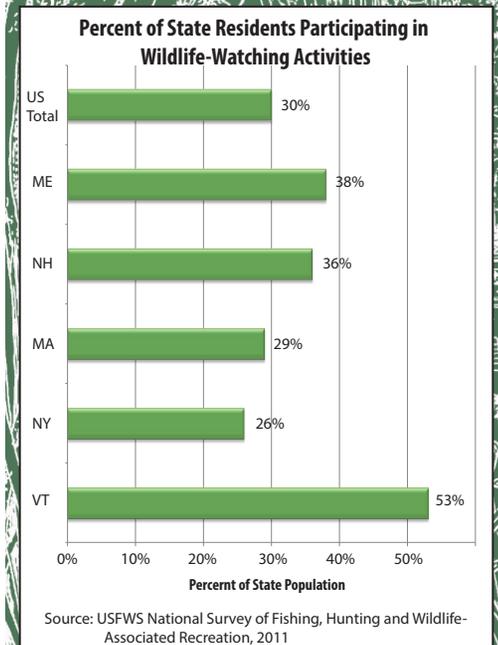
RECREATION: FISH AND WILDLIFE-BASED RECREATIONAL OPPORTUNITIES PROGRAM

OUTCOME: Provide viewing and photography opportunities of fish and wildlife consistent with resource management goals while ensuring the protection of the observed species.

➤ **PERFORMANCE MEASURE:** The number of adults participating in wildlife-watching activities in Vermont.



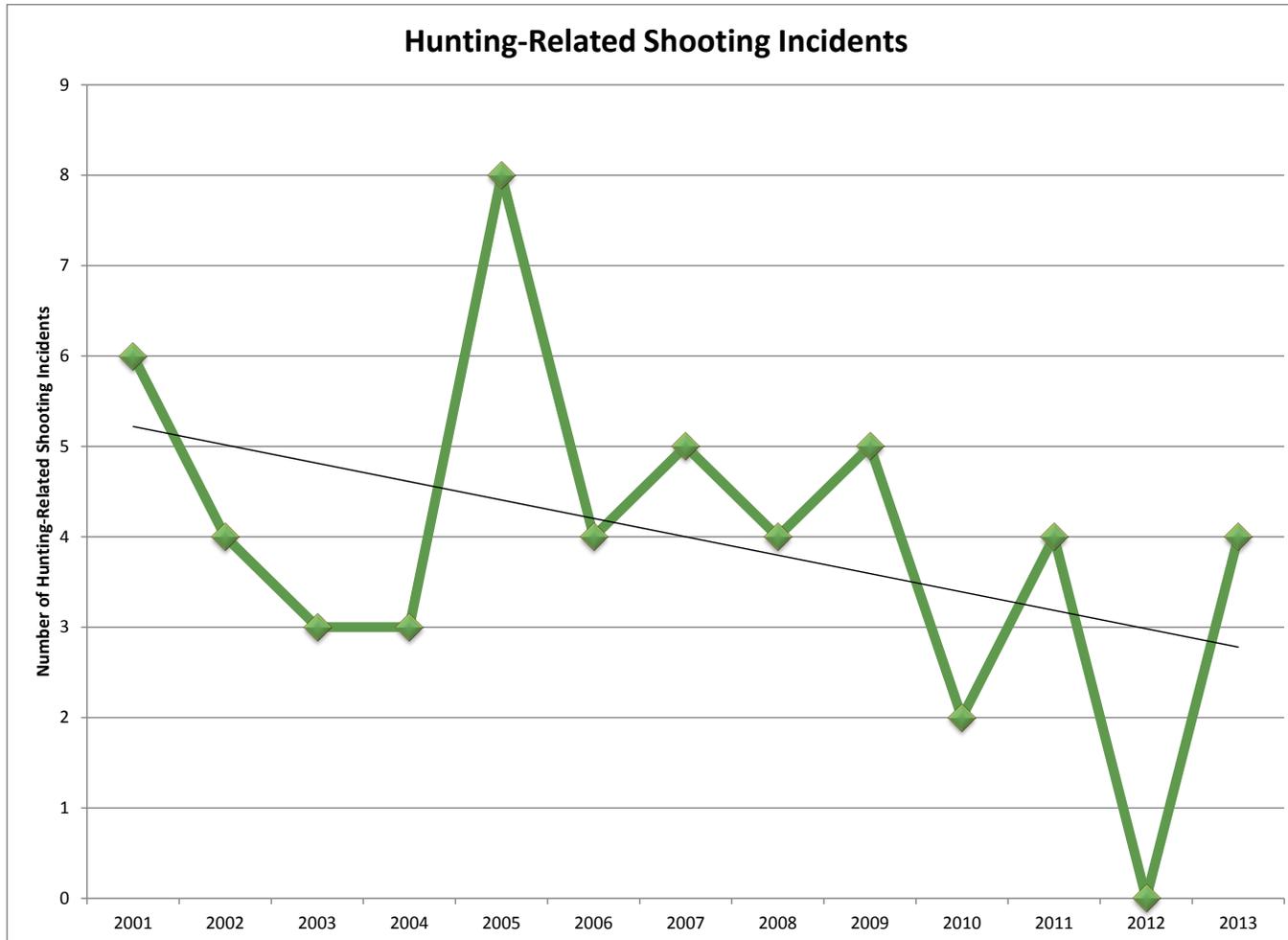
Vermont residents continue to be enthusiastic wildlife watchers but they are also becoming more avid hikers, state park visitors, and canoe/kayakers. A survey of outdoor participation among Vermont residents was conducted in 2003 and again in 2013. Wildlife watching has dropped from 73 to 64 percent, but still ranks as the second-highest outdoor activity from the previous decade. Additionally, Vermont remains highest in the nation in percentage of residents who watch wildlife.



SAFETY: HUMAN SAFETY WITH WILDLIFE PROGRAM

OUTCOME: Limit the number of human conflicts, injuries and fatalities that result from encounters with wildlife or participation in fish and wildlife recreational activities.

➤ **PERFORMANCE MEASURE:** The number of hunting-related incidents.



Although there was an increase in hunting-related shooting incidents in 2013, the downward trend for hunting-related accidents continues.

Results of the 2013 hunting season include:

- Four minor hunting-related shootings were reported. Because of the nature of the incidents, all four incidents are still under investigation and two may be determined to be not hunting related.
- Three of the four reported hunting-related shootings were self-inflicted.
- Since 2001, the average incident rate equals four injuries per year.

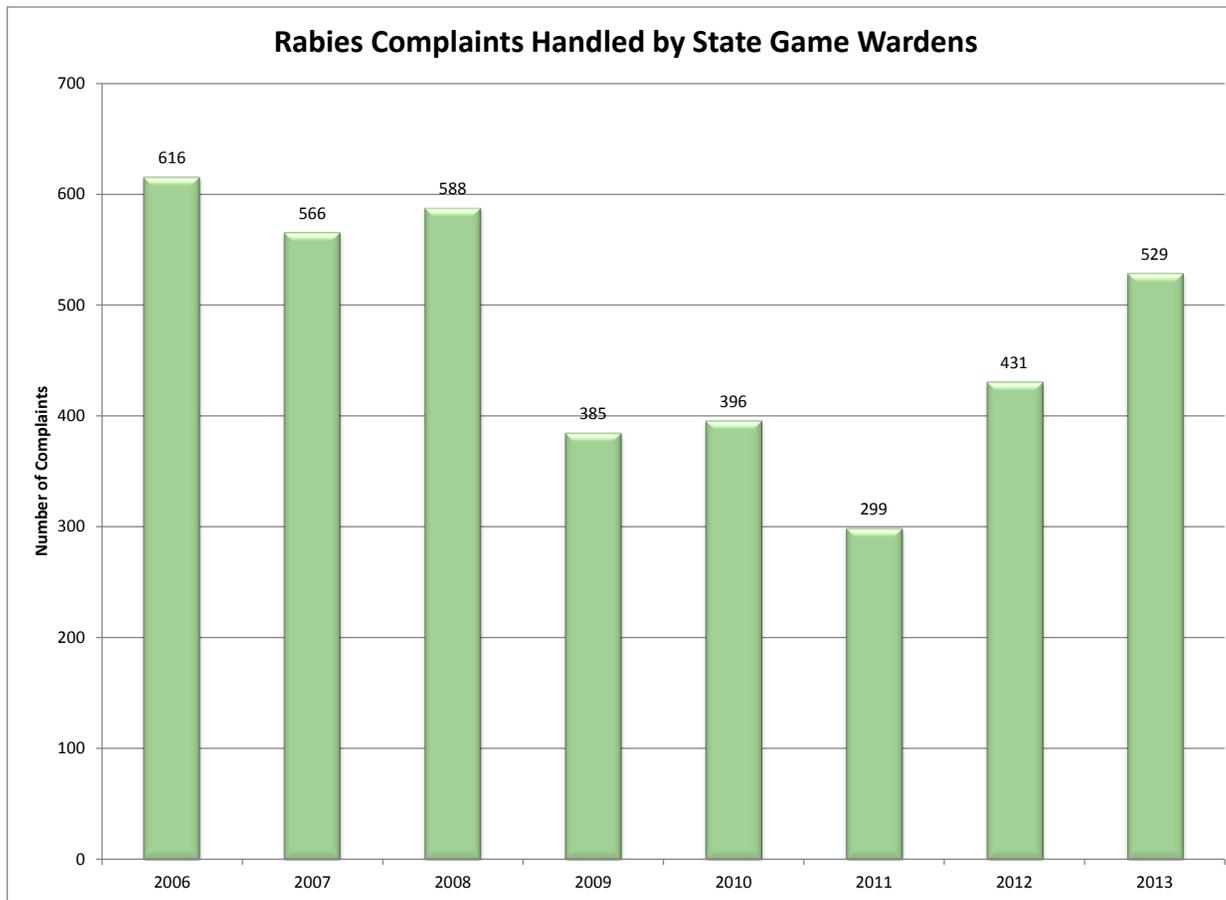
Increased wearing of hunter orange, mandatory bow hunter education, and an increasing percentage of well-trained firearms hunters should continue to keep the number of hunting accidents low.



SAFETY: HUMAN SAFETY WITH WILDLIFE PROGRAM

OUTCOME: Limit the number of human conflicts, injuries and fatalities that result from encounters with wildlife or participation in fish and wildlife recreational activities.

➤ **PERFORMANCE MEASURE:** The number of human exposures to transmittable diseases from fish and wildlife species.



Number of Calls Received by APHIS Pertaining to Specific Disease Threats - 2005 to 2013							
Rabies	White Nose Syndrome	West Nile Virus	Avian Influenza	Raccoon Roundworm	Hanta virus	Lyme Disease	Giardiasis
5,853	210	112	31	7	5	3	2

Source: USDA APHIS

Vermont Fish & Wildlife staff play a critical role in the success of the Vermont rabies management program.

In 2013 the activities included:

- 529 site visits by a game warden to help resolve a rabies-related problem.
- Informing the public about the rabies threat by responding to questions.
- Providing information during hunter/trapper education classes or furbearer presentations.
- Collecting and submitting suspected rabid animals for testing to the Vermont Department of Health.

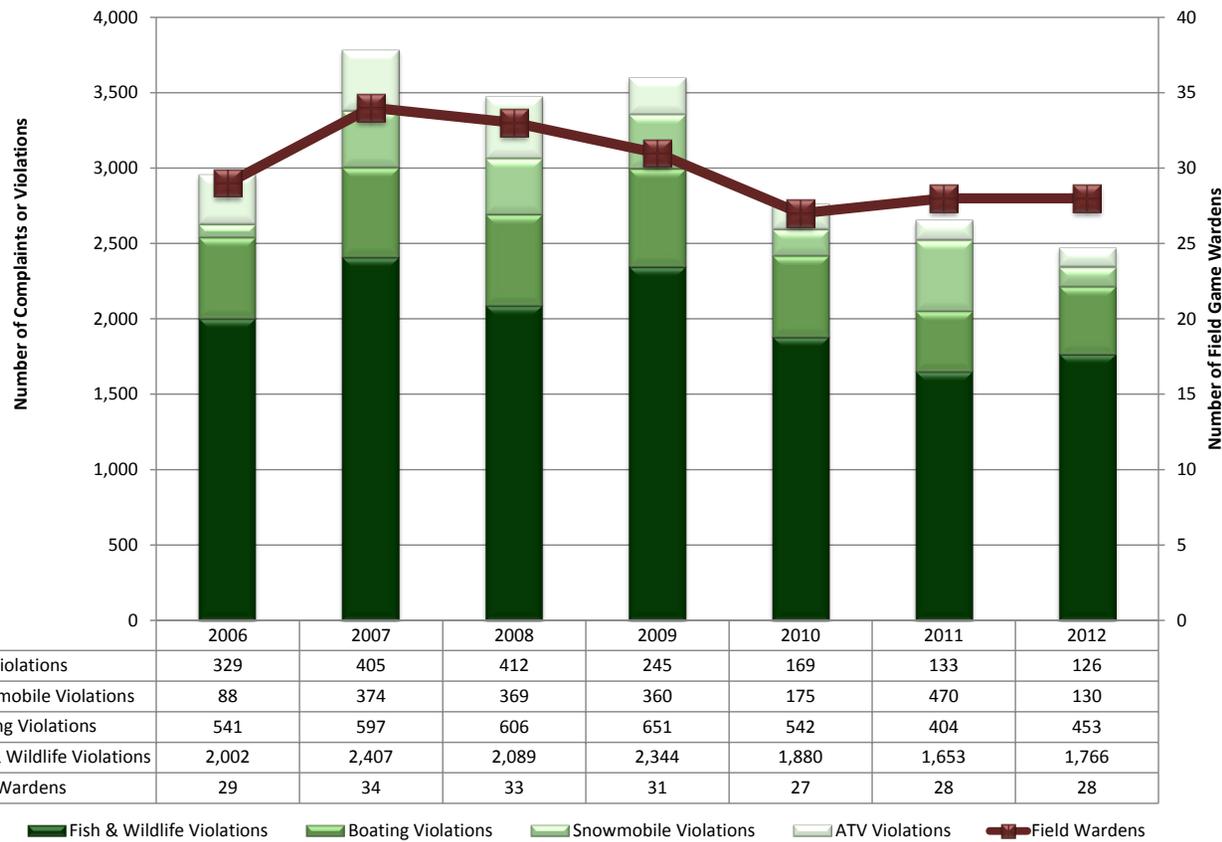


SAFETY: HUMAN SAFETY WITH WILDLIFE PROGRAM

OUTCOME: Limit the number of human conflicts, injuries and fatalities that result from encounters with wildlife or participation in fish and wildlife recreational activities.

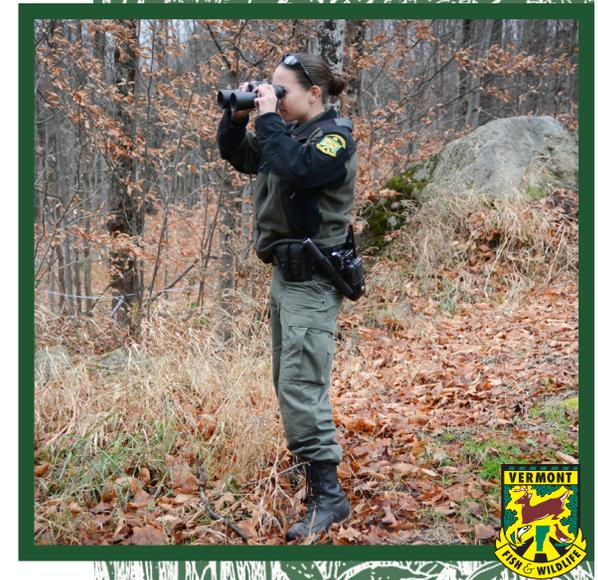
➤ **PERFORMANCE MEASURE:** The number of responses to assist in emergency situations and violations of other regulations and statutes per year.

Violations Detected by Game Wardens Based on Type Relative to the Number of Field Game Wardens



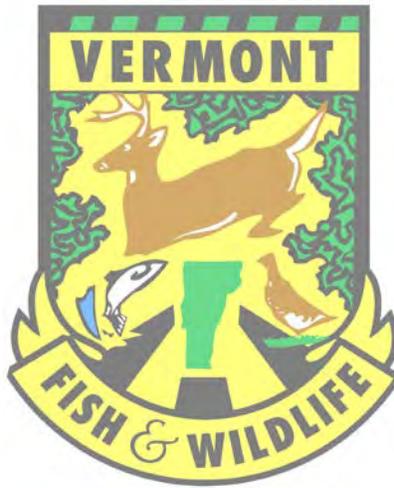
The Fish & Wildlife Law Enforcement Division has many responsibilities that are incidental to their core fish and wildlife duties including:

- Helping to protect human health and ensure safety by responding to emergencies and search and rescue operations.
- Enforcing laws pertaining to snowmobiling and boating.
- Assisting in limiting habitat destruction and pollution by investigating and reporting on such occurrences.



Funding from the Vermont Association of Snow-travelers (VAST) supports enforcement work on the VAST Trail System. A grant from the Vermont State Police offsets time spent on marine enforcement.

Revenues and Expenditures



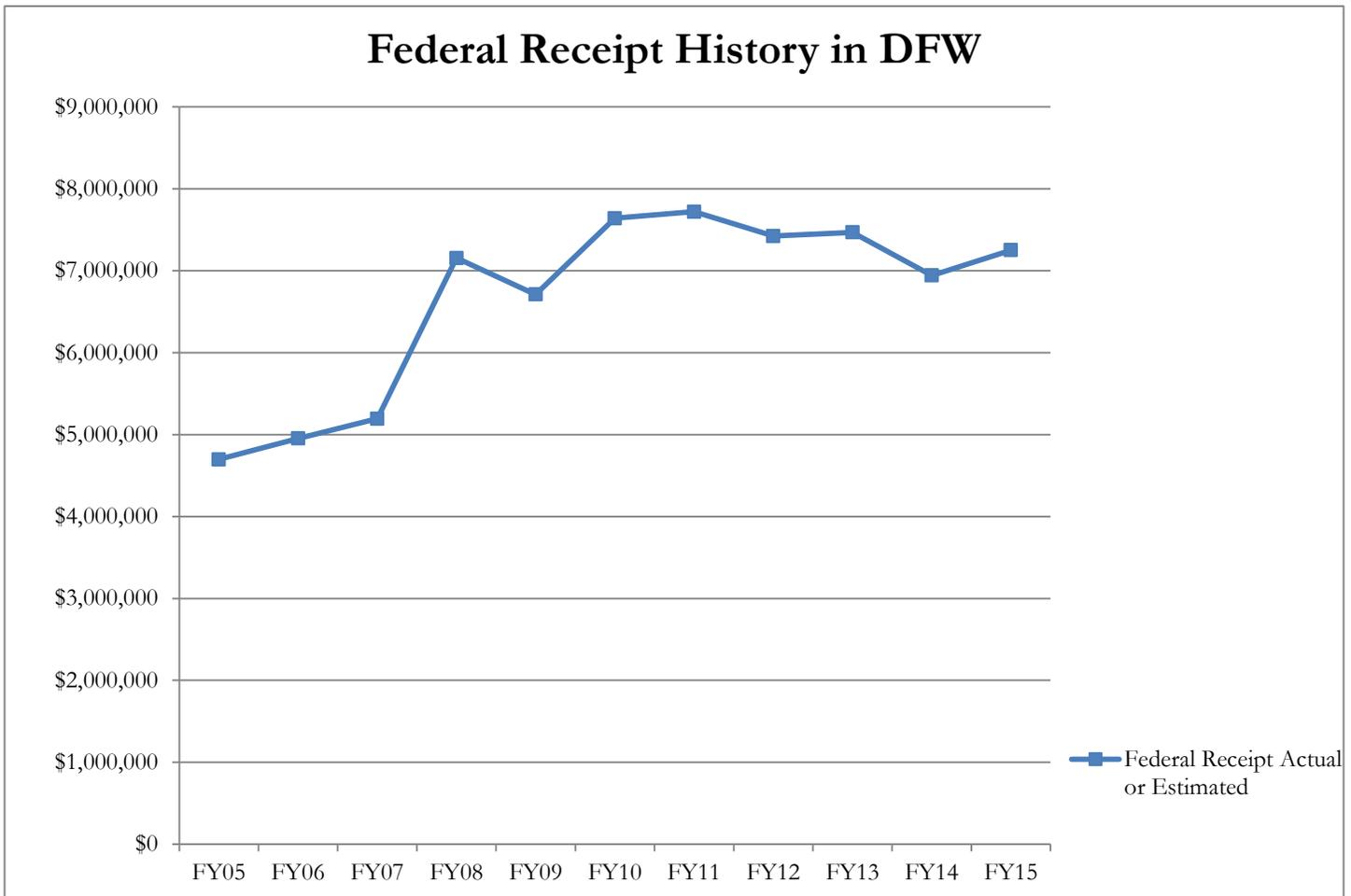


Graph #1

Federal Receipt History in the Department of Fish & Wildlife



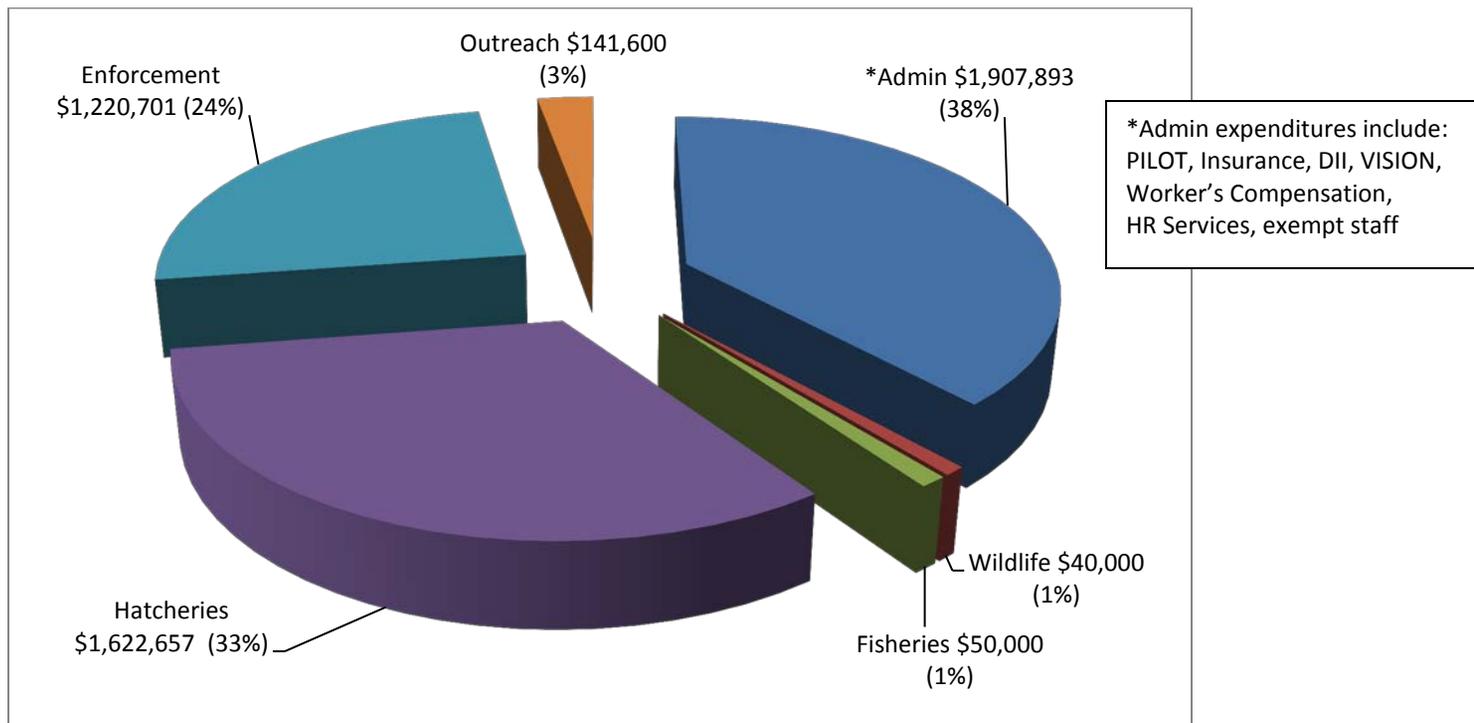
Federal Receipt History in DFW		
FY05	\$4,696,900	
FY06	\$4,952,594	
FY07	\$5,194,451	
FY08	\$7,154,539	
FY09	\$6,711,480	
FY10	\$7,640,866	
FY11	\$7,719,879	
FY12	\$7,423,314	
FY13	\$7,468,101	
FY14	\$6,942,250	As passed
FY15	\$7,251,045	Estimated



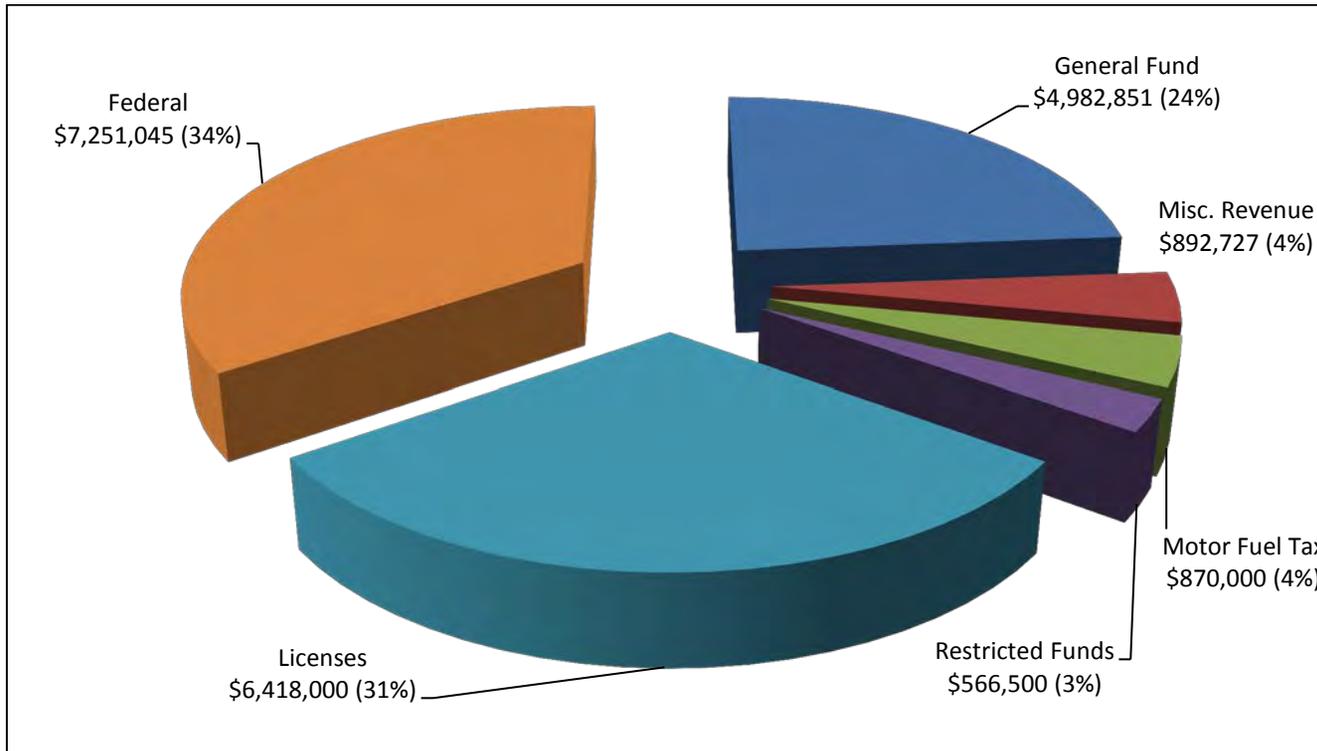


Fish & Wildlife Department FY 15 Revenues and Expenditures

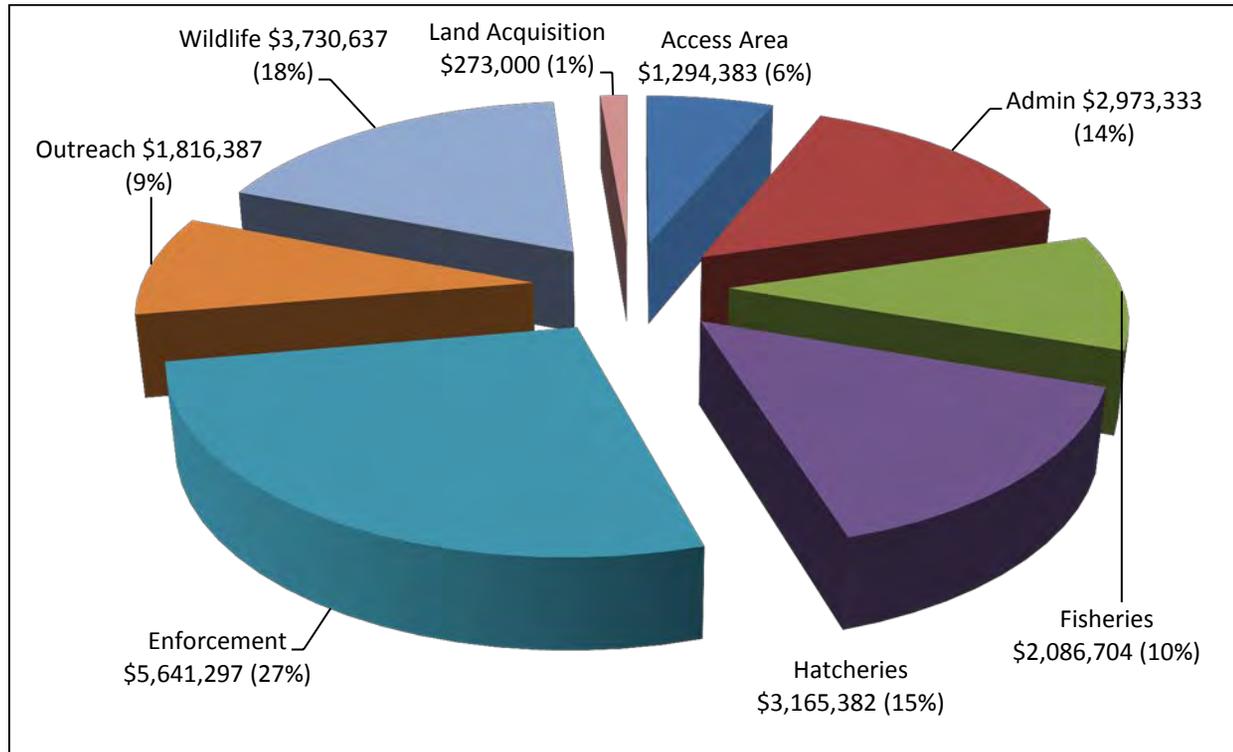
FY15 Proposed Use of General Funds



FY15 Estimated Revenues



FY15 Proposed Expenditures



Public Benefits





Activities that affect all Vermonters through Broad Land Conservation and Technical Assistance Activities

FISHERIES DIVISION
Act 250 and other permit review (including some hydro review)
Aquatic nuisance species management
Aquatic habitat protection and restoration
Public outreach and education about fish and other aquatic issues
Fish health testing and disease diagnostics for all state fish culture stations as well as Vermont's private and commercial aquaculture operations to ensure clean, healthy fish are being transferred into Vermont's waterbodies
Access Areas – provide safe and convenient public access to public waters
Importation Permits and Breeder Licenses – ensures no unwanted species are introduced into Vermont waters and approves suitable private aquaculture facilities to maintain healthy, non-invasive waters in Vermont
Scientific Collection Permits – enables scientific data to be taken to assess water quality, population sizes, biological indices of Vermont waters
Natural Fish Health Survey – analyzes the health of natural fish populations in Vermont to maintain clean healthy Vermont waters
Watershed Grants program – provides grants to towns, nonprofit organization and community groups to fund localized efforts to protect water resources
<i>Fisheries Total \$430,604</i>



WILDLIFE DIVISION

Wildlife Habitat Land Acquisition: In 2013, the Department completed 4 state land acquisitions totaling 579 acres of additions to existing WMAs.

Technical Assistance to State Forests & Parks lands: conducted ecological inventories, assessments and assisted with development of management plans and management activities on 18,630 acres of state forests and state parks that benefit wildlife and habitat.

Technical Assistance to Towns/ land use planning: In 2013 the Department worked with 20 towns and all Regional Planning Commissions in Vermont on conservation planning initiatives

Technical Assistance: In 2013 to more than 127 Private Landowners (NRCS-WHIP, habitat info., beaver issues) influencing approximately 130,000 acres of wildlife habitat..

Land Use Permits (250, 248, wind projects, habitat mapping) The Department reviews an average of 30 to 500 permits each year to address impacts to important wildlife habitat. In 2013, the Department reviewed 841 permit applications for issues and impacts associated with significant fish and wildlife habitat.

Management/planning of 133,000 acres of F&W land for all to enjoy (habitat, infrastructure)

Technical assistance to public on human/wildlife conflicts including:

1. Black bear conflicts at birdfeeders, damage to agriculture, campgrounds, and garbage
2. Beaver conflicts with landowners/towns. Technical assistance and the installation of beaver baffles to control water levels
3. Bats in houses for citizens needing assistance for removing bats or safely excluding the animals from homes. Includes training for Vermont wildlife control agents.
4. Advice on snakes inside and near home, including removal of state listed snakes at or near homes of concerned residents

Conservation of uncommon, rare, threatened or endangered species: Protect turtle nests, monitor bats and WNS, rare reptiles, birds, mussels, plants, etc.

Climate changing planning

Natural community inventories across the state: Identify significant natural communities and rare species on cooperating landowners' properties and provide management recommendations; these inventories also help set statewide conservation priorities. Ongoing oak-pine forest project.

Review of private lands enrolled in Use Value Appraisal for significant natural communities, rare species, vernal pools, and wildlife habitat (part of Interagency TA).



Lead statewide planning efforts that influence town-level land and water conservation planning (e.g. Habitat Block project and Natural Resources Mapping Project): BioFinder completed this past year to provide a new tool for understanding Vermont's natural heritage and provide guidance and direction to conservation organizations. BioFinder has become an integral part of the Department's conservation planning and management programs, particularly in efforts related to town and regional planning.

Landowner Incentive Program inventory and conservation of rare plants on private lands: The Department completed the LIP program in 2012. As a result, the Department now holds 8 LIP easements on 1595 acres of private land for the conservation of rare species and unique habitats and natural communities.

Invasive Species: Work with partners to provide workshops and identification and management information to land managers and owners. Early detection and response to Japanese knotweed invasions following Irene.

Mapping critical wildlife, rare species, and natural community for planning and conservation

Outreach at Dead Creek WMA (20,000 visitors annually) and many speaking/television engagements

Provide technical assistance on critical wildlife habitat, rare species, and significant natural communities to towns, government agencies, and private citizens

Wildlife Total \$1,742,129



LAW ENFORCEMENT DIVISION	
Recreational enforcement (boating, snowmobile, and ATV enforcement activities)	
Search and Rescue operations	
State emergency response operations/training (i.e., Radiological, etc.)	
Rabid animal responses – This is a public safety not F&W issue although we are best equipped to handle it	
Assisting other law enforcement agencies (backing them up – handling violations encountered beyond F&W law enforcement, etc.)	
Staff time for providing trainers at the Police Academy (to include time spent as the training assistants at the basic Police Academy class, K-9 instructors, etc.)	
Dispatch and maintenance of mountain top repeaters	
Animal damage intervention and removal of big game animals from road sides	
	<i>Law Enforcement Total \$605,899</i>
EDUCATION	
Green Mountain Conservation Camps (1000 campers/year)	
	<i>Education Total \$480,738</i>
GRAND TOTAL \$3,259,370	

