

Wyoming Game and Fish Department FY 19 Annual Report

Department:	Game and Fish
Director:	Brian Nesvik
Agency Contact:	John Kennedy, Deputy Director
Phone:	(307) 777-4501
Address:	5400 Bishop Blvd Cheyenne, WY 82006
Website:	https://wgfd.wyo.gov
Other Locations:	Headquarters office is in Cheyenne. Regional offices are in Jackson, Pinedale, Cody, Sheridan, Green River, Laramie, and Casper

Statutory References:

The Wyoming Game and Fish Commission (Commission) was created and is empowered in Title 23 of Wyoming Statutes. The Wyoming Game and Fish Department (Department) was created and placed under the direction and supervision of the Commission in W.S. § 23-1-401. The responsibilities of the Commission and the Department are defined in W.S. § 23-1-103. The Department is charged with providing “an adequate and flexible system for the control, propagation, management, protection, and regulation of all Wyoming wildlife.”

Basic Information:

Number of Employees:

403 (Authorized), 375 Full-time employees as of July 2019.

* Includes permanent, contract, and temporary positions authorized in the FY 19 budget. Any positions added during the budget cycle require Commission authorization or must be funded from supplemental grants.

Clients Served:

The Department’s clients include, but are not limited to, Wyoming resident and nonresident hunters, anglers, and wildlife enthusiasts.

Commission:

The Department operates under the direction of the Commission. Seven members are appointed by the Governor for six-year terms with Senate confirmation. The Commission meets six times annually.

Budget Information/Expenditures for FY 19:

The Department budget for FY 19 was \$84,113,167*.

*Includes Wildlife Trust, Access Funds, State Wildlife Grants, competitive grants, and nonrecurring projects.

Core Business/Primary Functions:

We conserve wildlife by providing wildlife and wildlife habitat management, including scientific data collection, law enforcement, wildlife/human conflict management, research, habitat conservation, and wildlife health services.

We serve people by managing wildlife populations, providing access for wildlife-associated recreation, and providing information and education about wildlife and wildlife-related issues.

Performance Highlights/Major Accomplishments of FY 19:

Big Game Management:

The Department monitors and works to maintain the abundance and diversity of over 800 wildlife species. Managing big game hunting is a major management activity that creates revenue from the sale of big game licenses. In the absence of management, many big game populations would be subject to overexploitation from unregulated take or they may exceed predetermined population objectives and cause damage damages to agricultural crops or cause of other human conflicts.

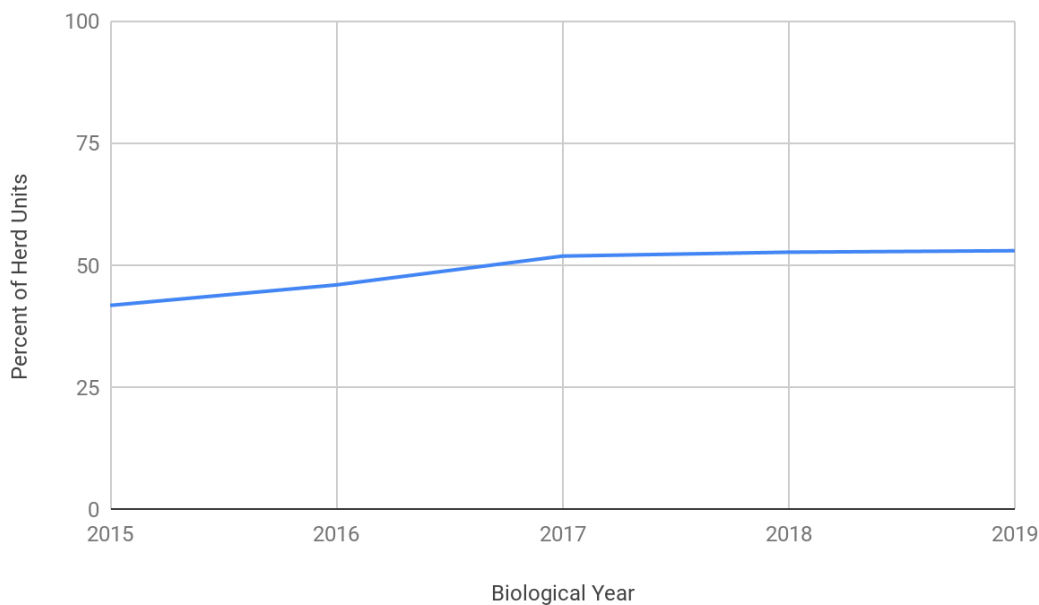
Regional terrestrial wildlife biologists, regional game wardens, and regional terrestrial wildlife administration manage big game species using hunting. Hunting season and harvest quotas are the primary tools for managing big game species and maintains herds at or toward their established objectives. Data reported below are from post-season population estimates reported in the final big game Job Completion Reports (2015-2019)

Performance Measure: Percentage of big game herds within 20 percent of population objective.

Target:

Manage > 30 percent of big game herds are within 20 percent of the population objective.

Trend Line:



Of the 136 herds with complete data, 72 herds (52.9 percent) were at objective (+/- 20 percent for population or trend objectives), 24 (17.6 percent) were above objective, and 40 (29.4 percent) were below objective. Of the total 140 herds tracked for this report, four herds (2.8 percent) had incomplete data including two herds with no established objective.

Table 1. Breakdown of herd units “At”, “Below”, or “Above” objective by species and objective category

Population Objective				
	At Objective	Below Objective	Above Objective	Incomplete Data
Bighorn Sheep	2	0	0	1
Elk	1	0	6	0
Moose	0	1	0	0
White-tailed Deer	0	0	1	0
Mule Deer	13	21	0	0
Pronghorn	23	4	6	0
TOTAL	39	26	13	1
Trend Count Objective				
Bighorn Sheep	3	0	0	0
Bison	1	0	0	0
Elk	11	1	8	1
Mountain Goat	1	0	1	0
Moose	2	1	2	0
Pronghorn	1	0	0	0
TOTAL	19	2	11	1
Landowner/ Hunter Satisfaction Objective				
Pronghorn	4	2	0	0
Elk	4	3	0	0
Mule Deer	0	3	0	0
White-tailed Deer	1	1	0	0
TOTAL	9	9	0	0
Limited Opportunity Objective				
Moose	2	2	0	0
Bighorn Sheep	3	1	0	0
TOTAL	5	3	0	0
Grand Totals				
Bighorn Sheep	8	1	0	1
Elk	16	4	14	1
Bison	1	0	0	0
Mountain Goat	1	0	1	0

Moose	4	4	2	0
White-tailed Deer	1	1	1	2
Mule Deer	13	24	0	0
Pronghorn	28	6	6	0
TOTALS	72	40	24	4
PERCENT	52.9	29.4	17.6	

¹ There are 136 herds with complete data. Percentages presented for herds “At”, “Below”, and “Above” objective are based on herds with complete data.

Many elk populations remain above objective primarily because of limited access to harvest cows on private lands or on areas that serve as a refuge for elk populations. A substantial percentage of mule deer herds remain below objective. All regions now have at least one mule deer herd in the Mule Deer Initiative, a collaborative process to provide public participation in future management. Moose and bighorn sheep populations have different impacts from disease and habitat conditions. The Department manages some herds below objective (in some years) because of drought, invasive species, or other impacts that decreased available habitat. Several years of normal to above normal precipitation have helped habitat conditions in many parts of the state, improving pronghorn productivity and helped improve fawn numbers in many herds.

Major Accomplishments:

A total of 35 herd objectives were reviewed by local wildlife biologists and wardens in 2018. One herd objective was changed, and the remaining 34 were reviewed internally with no proposed changes. Herd objective reviews were noted in annual reports, and proposed changes forwarded to regional and statewide Wildlife Division administrators for approval. The Commission subsequently approved the final objective during their July meeting. Since 2015, the overall number of “at objective herds” increased. These improvements were the result of fitting an objective category (trend count, landowner/hunter satisfaction, and limited opportunity in addition to the traditional post-hunt population objective) that best matches the various herd demographics and geographic location (small scattered herds, private land herds, etc.) Over the past several years, all population objectives have been reviewed and in many cases modified to better match current habitat capacities.

Moose

One herd had objective reviewed and changed.
Lander (620) changed from 225 to 150 trend count objective.

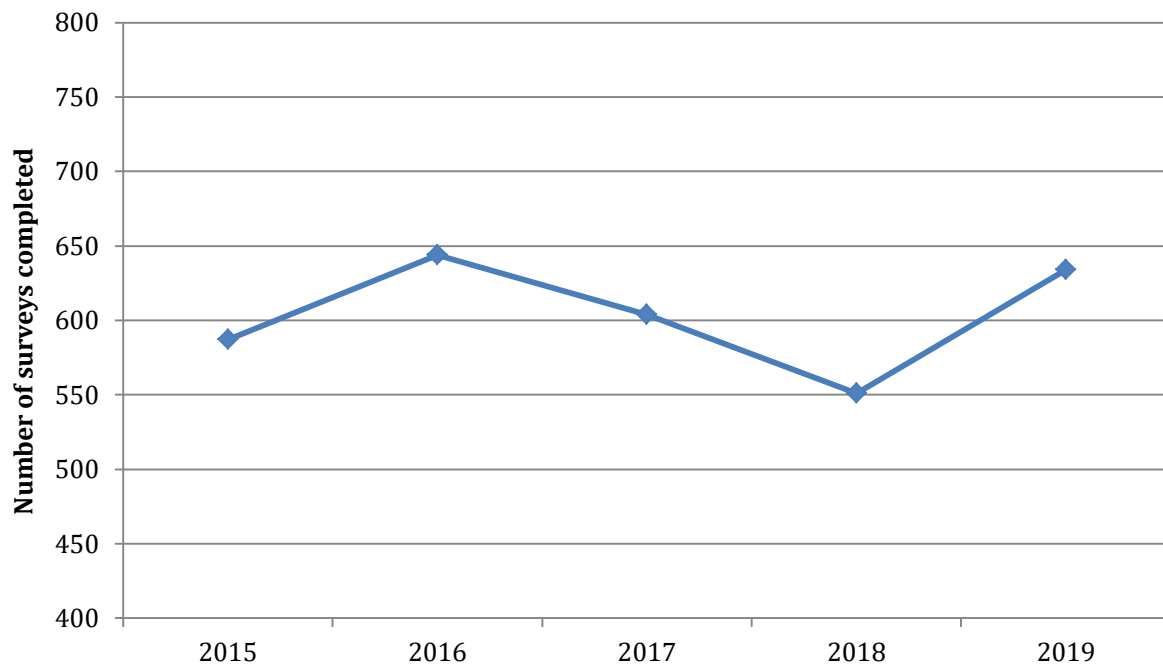
Aquatic Management:

The quality of Wyoming’s fisheries is a direct reflection of the quality of Wyoming’s lakes, rivers, and streams. Stream and lake surveys are conducted to determine the general condition of fisheries.

Performance Measure: Number of stream and lake surveys completed.

Target: Work to complete at least 540 stream and lake surveys per year.

Trend Line:



In FY 19, a total of 634 stream and lake surveys were completed (446 stream surveys and 188 lake surveys). The number of surveys has exceeded the target of 540 for five consecutive years, averaging 604 per year since 2015. Approximately twice as many stream surveys are conducted each year when compared to lake surveys. In FY19, 43% of stream surveys (n=192) were associated with a roundtail chub project in the Blacks Fork River drainage and an effort to describe the assemblage of small bodied fish in the North Platte River utilizing a benthic trawl and backpack electrofishing in wadeable portions of backwaters, side channels and river margins.

Major Accomplishments:

Work continued on a project to assess the distribution and relative abundance of roundtail chub (RTC), describe RTC movements and assess the distribution and predation impact of burbot (BBT) on native fishes in the Blacks Fork drainage. One hundred and eight reaches were surveyed in 2018 via electrofishing in conjunction with seining. Seventy-two reaches contained RTC and 32 contained BBT. A total of 1,491 RTC and 176 BBT were sampled and 560 RTC greater than 4 inches were PIT tagged. Roundtail Chub were located throughout all three drainages, with the highest catch rates in the Blacks Fork. Burbot were common throughout the Blacks Fork, Smiths Fork, and lower Hams Fork, but in the Hams Fork drainage, the data suggest they may be restricted from further colonization by a water diversion 14 miles upstream of the confluence. A detailed administrative report will be available in 2019.

Biologists continued working to develop an effective sampling strategy for sampling small bodied nongame fish in Wyoming’s large, non-wadeable rivers. A modified-Missouri benthic trawl and backpack electrofishing were used in 2018 to sample 94 sites at multiple reaches of the North Platte River from the river upstream of Treasure Island to sites near the Nebraska state line. A total of 7,344 fish and 29 species were sampled, including five SGCN. No SGCN were captured above Seminoe Reservoir. The lower river, near the Nebraska border supports the greatest diversity of species, including most of the SGCN sampled to date.

Biologists also continued efforts to describe the distribution of species of greatest conservation (SGCN) need in the Snake River basin. Sixteen sites were sampled in Spread and Buffalo creeks with traditional sampling gears to attempt to identify bluehead sucker (BHS) spawning sites. No (BHS) were found in

either creek; however, Blackrock Creek is known to contain 1-year-old BHS and adults have been documented in the drainage. Therefore, biologists also collected two environmental DNA (eDNA) samples from each stream to test for the presence of BHS DNA. This emerging technique may be able to detect the presence of rare species that have not been captured with traditional techniques such as electrofishing, netting and trapping. Spawning locations for this rare native nongame species remain unknown in the Snake River drainage.

Environmental DNA sampling was also used to attempt to better describe the distribution of leatherside chub (LSC) and BHS in the Gros Ventre River and Fish Creek basins. In 2018, 81 locations were sampled and combined with samples collected in 2017 to determine that LSC inhabit portions of Fish, Cottonwood, Bacon, Breakneck, and Squaw creeks. Samples were also collected from the Salt River after a single adult LSC was captured while conducting a trout population estimate in the “Narrows” section of the Salt River in 2018. This species is known to inhabit Jackknife Creek, an Idaho tributary that enters the river a short distance upstream of Palisades Reservoir. The 11 samples were taken at mainstem sites above the Jackknife Creek confluence. All samples tested negative for LSC DNA, suggesting that this species is probably extremely rare in the Salt River. As this new sampling technique is refined, it is likely to prove valuable for describing distributions of animals that are likely to be missed when sampling with traditional sampling methods.

Additional field work was completed in 2018 to better understand the early life history of shovelnose sturgeon (SNS) in the Bighorn River. Larval drift sampling took place during the last week in June just after the optimal peak daily spawning water temperature of 68°F was reached. No larval sturgeon were captured during drift sampling. Biologists will continue to attempt to determine when and where SNS spawn in the Bighorn River. Once spawning timing and locations are identified, additional larval sampling will be conducted in order to determine whether or not spawning was successful.

Biologists continued to conduct nighttime shoreline electrofishing and overnight gill netting at Buffalo Bill Reservoir in April and May to remove WAE, in an effort to maintain a low abundance of WAE and reduce predation on trout in this unique wild trout fishery. A total of 2,867 WAE have been removed from the reservoir (304 removed in 2018) since they were first captured in 2008. A formal effort to assess the effectiveness of WAE suppression in Buffalo Bill Reservoir is underway.

The rainbow trout density in Pathfinder Reservoir remains low since falling precipitously between 2013 and 2016 due to WAE predation. However, 2018 sampling data suggest that 32% of WAE between 15 and 20 inches were harvested by anglers. This level of harvest should result in a reduction in the WAE population in the next few years and an improved trout fishery.

Trout abundance has also declined in the Miracle Mile section of the North Platte River (44% decline since 2016). However, the average size of trout has increased so significantly that the biomass estimate (lbs of trout per mile) has actually increased by 34% during the same period.

Trout population estimates in the North Platte River at Grey Reef and Bessemer Bend have also continued to decline. The waning trout populations can be attributed to poor natural reproduction in the river since 2013. Ongoing issues that negatively impact trout habitat (i.e., high summer water temperatures, variable discharges in late-spring, and increased turbidity) continue to contribute to the trend of low natural recruitment. Despite declining trout abundance, data suggest that angler catch rates have not yet been negatively impacted.

The WAE population in Glendo Reservoir has increased annually since 2014 and reached its highest level since 2005. Gizzard shad continue to overwinter in the reservoir, providing critical forage for the abundant WAE population. An abundant population of 7.5-9.0 inch yellow perch should result in improved perch fishing for large fish at Glendo Reservoir over the next several years.

Tiger muskie (TIM) have been stocked annually since 2015 in Upper North Crow Reservoir in Curt Gowdy State Park in an attempt to reduce the abundance of longnose sucker and white sucker (WHS). Fifty-seven TIM were sampled in 2018, ranging in size from 9.3 to 20.0 inches. Small WHS were a common food item in the stomach contents of TIM.

Seven sites in the Beaver Creek (tributary to Wind River) drainage were assessed in 2018 to better understand the native fish communities. This is a portion of the state where little historic survey work had been previously completed. A total of 12 fish species (7 native and 5 nonnative) were captured in 2017 and 2018, including flathead chub (SGCN).

Thirteen burbot (BBT) were implanted with radio transmitters in the Green River as part of an ongoing research project into the ecology and behavior of this illegally introduced predator. Fish ranged in length from 17.4 to 24.1 inches. These fish were actively tracked through most of the ice-covered season. Movement data will be integrated into a graduate project that is being conducted by the University of Idaho Cooperative Fish Research Unit.

Monitoring in 2018 revealed that the population of grayling in Meadow Lake (the wild brood population for taking eggs for WGFD hatcheries) remains well above the target population. As a result, the average size of GRL remains more than an inch short of the management objective of 14 inches. If the population continues to remain above objective, biologists will remove 5,000 fish from the population of approximately 13,000 and utilize those fish for transplants to other waters in the state.

The population objective for lake trout (LAT) smaller than 28 inches in Flaming Gorge Reservoir continues to exceed the management objective. A more liberal regulation of 12 LAT per day and 24 in possession with only one allowed over 28 inches was put into effect January 1, 2019 and the public campaign to encourage angler harvest that started in 2018 continues.

Habitat Conservation

The abundance and diversity of Wyoming's wildlife is dependent upon the amount and quality of available habitat. Habitat work includes habitat protection efforts, habitat assessments and inventories, the development and designing of on-the-ground enhancements, maintenance of existing habitats, and the monitoring of completed projects.

Performance Measures¹

Acres of habitat conserved, enhanced and restored annually.

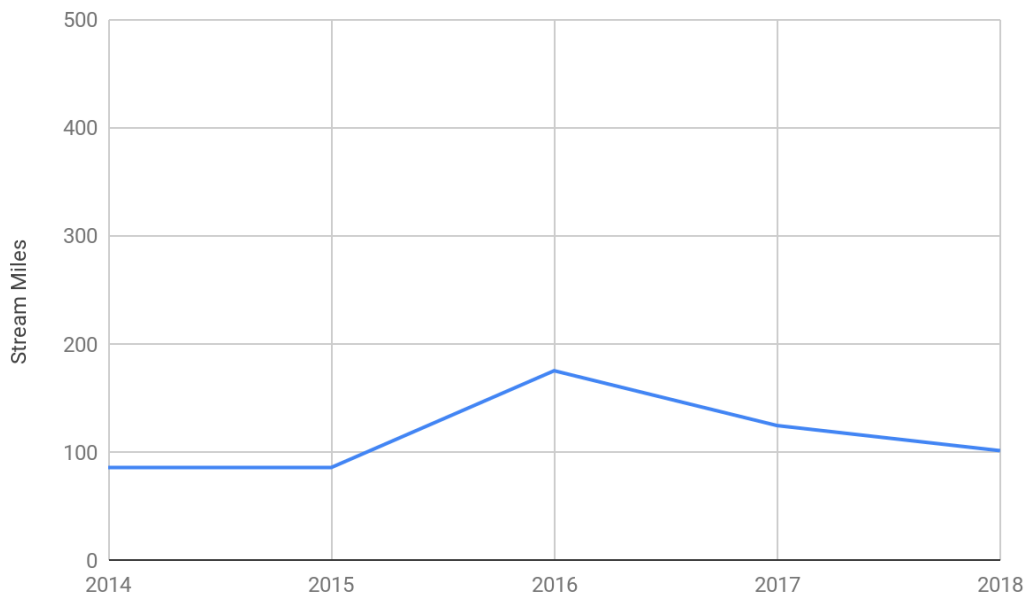
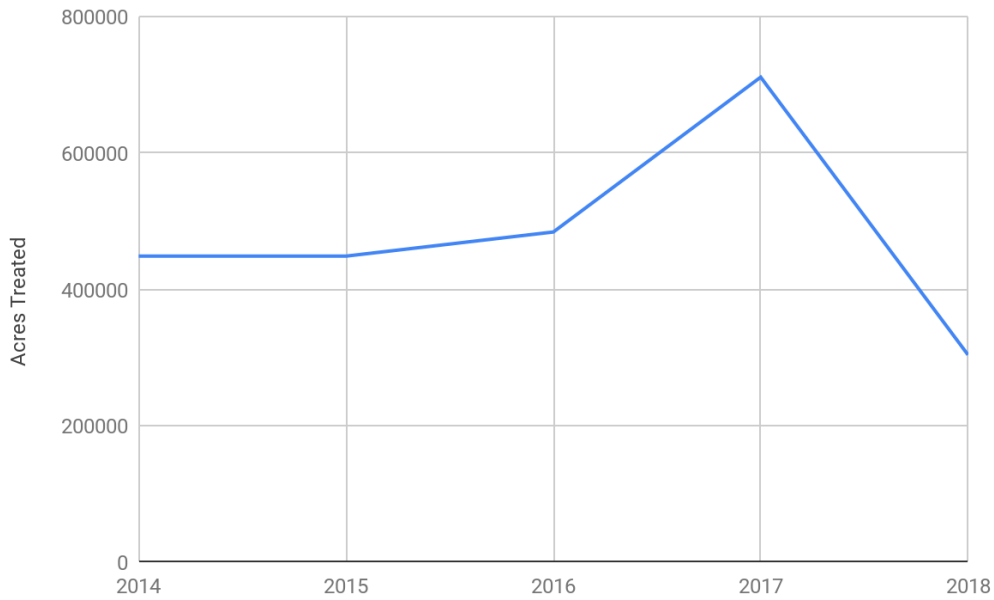
Stream miles restored, enhanced, or protected annually.

Targets

Personnel in this program strive to achieve 500,000 acres of habitat conserved, enhanced, and restored annually.

Personnel in this program strive to achieve 100 miles of stream protection, enhancement, or restoration annually.

Trend Line



Major Accomplishments

- Fish passage was improved in the LaBarge Creek watershed by replacing three undersized road culverts with two larger passable culverts and a bridge.
- Stream restoration and fish passage was completed on Medicine Lodge Creek. Bank erosion was reduced by approximately 2,300 tons of sediment per year, eliminating non-point source sediment pollution from entering the creek.

- McNeel Fish Passage and Irrigation Improvement, on the Hoback River, provided a fish and stream friendly alternative to the two gravel push up dams while satisfying irrigation needs.
- The Ryan Ranch Restoration re-established stable channel pattern and dimensions on over 2,150 feet of the North Platte River seven miles southeast of Saratoga.
- A fish barrier was removed from Littlefield Creek. Littlefield Creek is located on the Grizzly WHMA, and considered one of the stronghold stream reaches supporting the Colorado River Cutthroat population.
- Coal Creek Bank Stabilization and Sediment Reduction restored riparian vegetation and enhanced stream banks that were adversely impacted by the road within the floodplain. Coal Creek is a primary perennial tributary to the Thomas Fork River, and the watershed contains a conservation population of Bonneville Cutthroat.
- Rehabilitation to Meade Coffeen Crossover Diversion Dam on South Piney Creek was completed. The dam is the primary water supply for the Story Hatchery. The final structure maintains flows to the hatchery, irrigators, and improves passage for adult trout.

In addition:

- 9 stream restorations or bank enhancements on 4.5 stream miles
- 13,306 trees or shrubs planted
- 40 stream structures installed
- 2,763 acres of mowing, chopping, or Lawson aeration
- 2 watershed stream assessments on 15.3 stream miles
- 1,147 acres of prescribed burns
- 48.6 stream miles made accessible via fish passage
- 63,394 upland acres inventoried
- 5,090 acres of Department managed lands irrigated

The Department's 2018 Annual Report on Strategic Habitat Plan (SHP) accomplishments provides details on many of these habitat projects.

[1] For measurement and tracking consistency, acres and miles are calculated annually during compilation of the annual SHP report. All biologists contribute project information related to accomplishments that can include assessments, implementation, and monitoring. Habitat program managers compile and report the summary data in the SHP report.

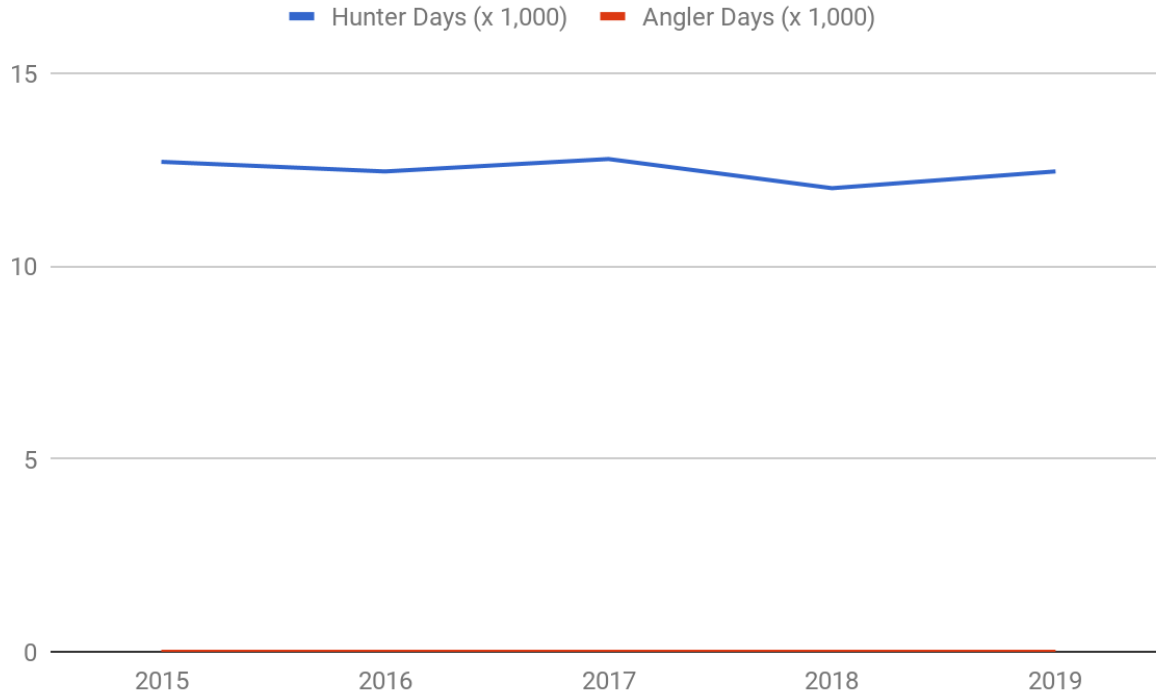
Wildlife Recreation:

The Department works to provide high quality outdoor recreational opportunities, through hunting and fishing, for Wyoming residents and visitors. Hunting and fishing financially support the Department's operations through license sales and helps to maintain game populations within the carrying capacity of their habitat and at levels to minimize agricultural damage and other types of human conflict. Hunting and fishing are a central part of Wyoming's outdoor culture and provides important revenue to the state through tourism.

Performance Measure: Number of days in the field by hunters and anglers.

Target:

Provide at least 1.1 million hunter days and 2.3 million angler days per year.



For the period FY 15 - FY 19, Wyoming residents and nonresidents expended an average of 1,248,068 hunter days and 2,527,082 angler days. In FY 19, 1,245,434 hunter recreation days and 2,695,080 angler recreation days were provided. Values reflect lifetime license holders included in the estimate of hunter and angler recreation days. Hunter days in FY 19 were 13.2 percent above the target of 1.1 million hunter days. Angling days in FY 16 were 14.7 percent above the target of 2.3 million angler days.

Hunter days increased approximately 3.6 percent between FY 18 and FY 19. Almost all categories of hunted animals had increases in recreation days: big game (+13,761), trophy game (+4,197), small game (+2,016), upland game (+33,370) and migratory game bird (+1,581) days increased while only furbearer (-6,307) days decreased. This reflects the general trend in interest in hunting in Wyoming based on license sales recently.

The number of angler days is trending upwards over the last five years. Good fishing conditions and improved regional economic conditions likely account for this trend. The increase in fishing in 2016 was due largely to increasing numbers of nonresident anglers, with increases in the number of annual and daily fishing licenses sold. In terms of license sales, the number of all license types sold increased by 1 percent overall. The Department is encouraged that this high level of revenue continued to be sustained.

Major Accomplishments:

The Access Yes Program, formerly known as the Private Lands Public Wildlife (PLPW) Access Program, enhances and/or maintains public hunting and fishing access onto Wyoming's private and landlocked public lands. This is accomplished by enrolling private landowners into one of the three access programs: Hunter Management Area (HMA), Walk-in Hunting Area (WIHA), and/or Walk-in Fishing Area (WIFA). The landowner and Department personnel negotiate the terms of an agreement including: agreement length (one to five years), the species that can be harvested, the geographic location, dates access will be allowed, and any other specific rules or stipulations. In return for access, landowners benefit in several ways including:

- A modest monetary payment based on the number of acres or stream length enrolled;
- Increased law enforcement presence;
- Increased wildlife management (population control and damage prevention); and,
- Assistance in managing sportsmen such as alleviating phone calls and other disruptions to landowners (access maps, hunter instruction on ranch rules, etc.).

The Access Yes Program assists landowners through the management of hunters and anglers, providing sportsmen and sportswomen places to hunt and fish and reducing agricultural damage through hunter harvest. The Department benefits through increased wildlife management opportunities, increased license sales, reduced agricultural damage, and providing quality hunting and fishing access to the public.

The Access Yes Program experienced many successes (from 2018 Access YES Annual Report):

- Providing access to 2,670,173 acres (1,693,921 acres of enrolled private and state lands, and 976,252 of public lands) for hunting within the boundaries of the WIHA and Hunter Management Area (HMA) programs. This included land in every county within Wyoming.
- Providing additional access to 178,448 acres of public lands located outside the boundaries of the WIHa and HMA, which would not have been accessible without the Access Yes program.
- Providing fishing access to 4,006 lake acres and 86 stream miles throughout the Walk-In Fishing Area (WIFA) program.
- Continued to work with the Department IT personnel to ensure the online permission slip process continues to be user friendly for sportsmen and problems associated with obtaining permission slips for the HMAs and the National Elk Refuge (NER) are reduced.
- An additional Cheyenne Game Warden whose duties include assisting the Laramie Region Access Coordinator with the Access Yes Program.
- Issued 27,655 online permission slips to 16,077 individual hunters for access to the HMA program and the NER.
- Provided free hunting and fishing access on Walk-In Areas to anyone with the proper licenses. Many of the participants are families, contributing to the maintenance and enhancement of hunting and fishing traditions.
- Responded to 110 e-mails received through the Access Yes program website regarding hunting, fishing, or the Access Yes Program. The majority of these emails (99%) were responded to within one day of receipt.
- Successfully implemented the third year of the Voluntary Public Access and Habitat Incentive Program (VPA-HIP) grant. The Department was awarded \$1,198,122 over three years to be used for contract personnel time, supplies, promotion of the Access Yes program, Access Yes easements, and long-term easements.
- Hunters surveyed during the 2017 hunting season for harvest results indicated 22% of antelope hunters (24% nonresident, 19% resident), 17% of deer hunters (16% nonresident, 17% resident), and 14% of elk hunters (11% nonresident, 15% resident) used either a WIHA or HMA to hunt on. This would equate to an estimated 10,875 antelope, 10,433 deer, and 8,935 elk hunters having hunted on either a WIHA or HMA.
- Began the Access Yes Patrol Enhancement (AYPE) plan. Regional Access Coordinators provided patrol assistance to each other during busy times on Access Yes areas.
- A 12% funding increase in FY18
- Hunters surveyed during the 2017 hunting season who indicated they were satisfied or very satisfied with the opportunity provided through the WIHA or HMA programs were 86% for antelope, 77% for deer, and 74% for elk. This is a 3% increase for antelope, while satisfaction for deer and elk stayed the same from 2016.

The Access Yes Program is funded by Department funds and Access Yes donations. Department funds, primarily from license sales, fund the daily operations of the program including personnel. Revenue for the Access Yes Program is generated from the sale of lifetime and annual conservation stamps, donations from organizations and individual hunters and anglers, state restitution fees from court-imposed fines from wildlife violations, and interest. Besides for a few exemptions, every hunter and angler must purchase an annual conservation stamp, unless a lifetime conservation stamp has been purchased previously. A portion of the sale of these stamps is deposited into the Access Yes account (\$2.50 per annual stamp and half of each lifetime stamp). These two sources generate the majority of the funds each year, and in FY 19 they generated \$650,352.

Donations to Access Yes provide another valuable source of funds. During FY 19, direct donations from conservation groups and organizations totaled \$15,177, indicating the importance these groups place on access. Hunters and anglers can also make donations to Access Yes when applying for or purchasing licenses, either in person at a license selling agent, or when purchasing a license through the internet. These sportsmen contributed a total of \$161,916 in FY 19. Additionally, several private individuals made personal contributions. Overall, during FY 19, the Access Yes Program received \$975,880.

Easement payments made to landowners are funded through the Access Yes Program. Authorized by state statute, funds collected through Access Yes donations may only be utilized for acquiring easements from landowners. In 2018, every dollar spent provided approximately 3.1 acres of access.