

NEVADA DEPARTMENT OF WILDLIFE

2013-14
BIENNIAL
REPORT





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2013-2014 BIENNIAL REPORT

July 1, 2013 – June 30, 2014

THE NEVADA DEPARTMENT OF WILDLIFE

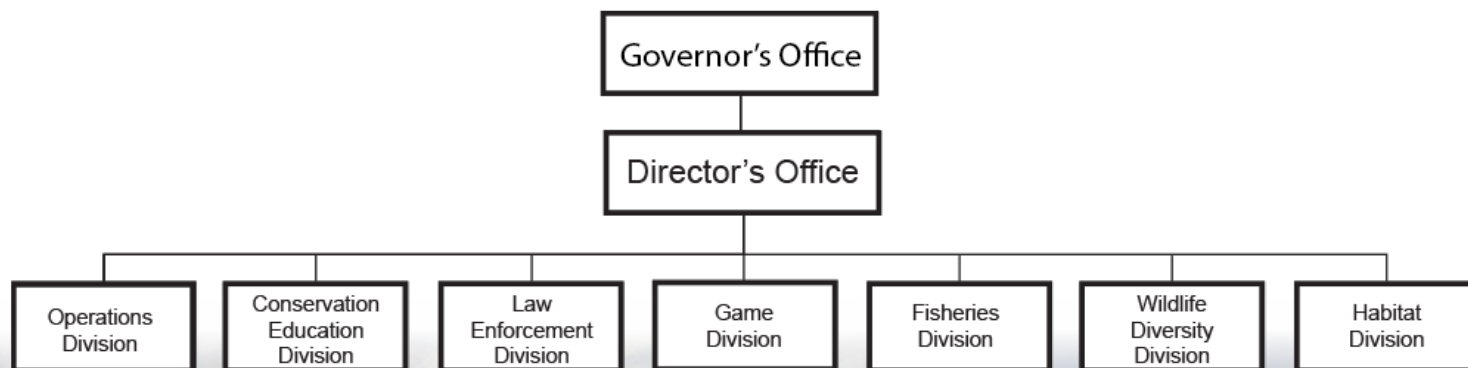
The Nevada Department of Wildlife (NDOW) is the state agency responsible for the restoration and management of fish and wildlife resources, and the promotion of boating safety on Nevada's waters.

NDOW is organized into seven divisions (Conservation Education, Fisheries, Game, Habitat, Law Enforcement, Operations and Wildlife Diversity divisions) that develop and manage programs and projects, and three regions (Eastern, Southern and Western) that implement these programs.

The Nevada Board of Wildlife Commissioners, a nine-member, governor-appointed board, is responsible for establishing broad policy, setting annual and permanent regulations, reviewing budgets, and receiving input on wildlife and boating matters from entities such as the 17 County Advisory Boards to Manage Wildlife.

MISSION

The Nevada Department of Wildlife protects, preserves, manages and restores wildlife and its habitat for its aesthetic, scientific, educational, recreational and economic benefits to citizens of Nevada and the United States, and promotes the safety of persons using vessels on the waters of Nevada.





Dear Citizen of Nevada,

The Nevada Department of Wildlife (NDOW) is committed to serving the state. This 2014-15 biennial report highlights how we continue to combine

highly qualified, passionate professionals with the most up to date technology in assuring the most effective management of Nevada's wildlife and habitat.

Technological advancements are evident in virtually all of NDOW's programs, from habitat restoration, to license buying, to communications and outreach efforts. New technologies have changed the shape of long-established methods for tracking and managing wildlife. Methods such as Global Position System (GPS) location of animals, geolocators, Aerial Infrared (AIR) technology and environmental DNA (eDNA) testing allow staff and biologists to gather time-honored data in a tech savvy world to better understand how best to conserve species while accommodating other land uses.

NDOW is committed to innovative wildlife management which protects the state's natural resources while at the same time providing opportunities for economic growth obtained through development. To plan for land use by both wildlife and industry, a fundamental understanding of animal populations and locations is critical.

Of the thousands of wildlife collars deployed, over 500 have been satellite collars deployed on various species of both game and non-game animals across the entire state. This GPS satellite collar technology has been invaluable to wildlife biologists by more accurately depicting habitat use, water sources, dispersal patterns, and causes of mortality. Satellite collars allow biologists to be more effective and more efficient in managing wildlife in all corners of the state.

Another new technology was recently tested when NDOW initiated a pilot study using Aerial Infrared (AIR) technology, also known as thermography, to locate and study mule deer using their distinctive heat signature. This technology is highly effective and ensures the efficient use of agency resources. The results of these studies are valuable to NDOW, other state and federal agencies, organizations and businesses.

Typically, NDOW fisheries biologists use physical capture methods such as netting or electro-fishing to detect the presence of invasive and nonnative species in Nevada's streams and rivers. New technology called environmental DNA or "eDNA" holds the promise of being able to detect the presence of individual species by analyzing water samples for traces of distinctive genetic markers those species leave in the environment. Biologists are currently working with researchers and the US Forest Service to evaluate this technique for the detection of brook trout and other nonnative species in streams targeted for the conservation and recovery of native Lahontan cutthroat trout.

These are just a few of the ways in which NDOW is using the latest technology to ensure the most effective management available.

In an effort to be both efficient and responsive, NDOW biologists now work at the intersection of tradition and tomorrow where the latest in technology allows for state-of-the-art management of wildlife species. Healthy and well-managed wildlife populations provide enjoyment, recreational and learning opportunities for Nevada's citizens and visitors, helping to create cohesive communities as well as economic opportunities.

Sincerely,

A handwritten signature in blue ink that reads "Tony Wasley". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

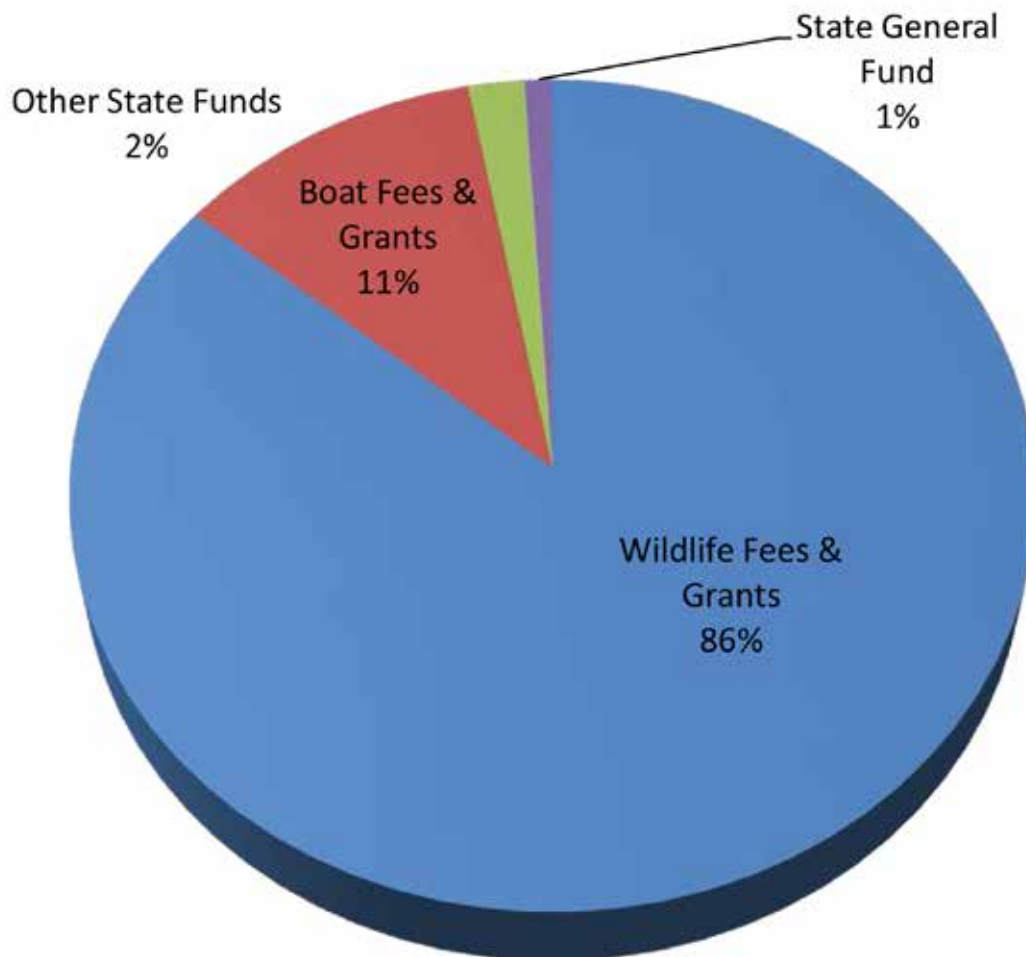
Tony Wasley
Director, NDOW

HOW IS NDOW FUNDED?

Most Nevadans believe that state taxes pay for the management of the state's wildlife resources and boating safety programs, however a little more than 1% comes from State General Fund appropriations. The majority of NDOW's operating funding (86%) is generated by state fishing and hunting licenses, hunting tags, and stamp fees as well as federal grants primarily funded by excise taxes on fishing, hunting, and shooting equipment. Although the State General Fund appropriation is small, it is a critical component of wildlife management funding for state match for non-game species programs. NDOW's boating safety program funding (11%) is funded through state boat registration and titling fees, state motor boat fuel tax, and federal grants funded primarily by federal taxes on motorboat fuel and boating and fishing related sales.

NDOW has seen continuing improvement in

state revenues related to hunting with more of Nevada's citizens and visitors enjoying this activity. Alternatively, participation in fishing and motorized boating has declined slightly, likely due to persistent drought conditions. The largest source of federal funding, the Wildlife Restoration Grant, has grown substantially in the last few years. This provides opportunities for important investments in terrestrial wildlife management for everything from enhanced scientific research to large scale habitat improvement projects. However, providing sufficient state matching funds may become an issue in the future if this higher level of federal funding continues. Thus far, NDOW has been able to leverage sportsmen fee revenue as well as special funding sources such as Question 1 bond sales, to take advantage of all available federal funding.



DIVISION OVERVIEW

OPERATIONS DIVISION



Division Administrator	1
Supervising Prof Engineer	1
Chief Pilot	1
Prof Engineer	1
IT Prof 3	1
Pilot 3	1
Mgt Analyst 3	1
Business Process Analyst 2	1
Conservation Staff Spec 2	1
IT Tech 5	1
Prog Officer 1	2
Maint Repair Spec 2	1
Admin Assistant 4	4
Admin Assistant 3	3
IT Tech 2	1
Admin Assistant 2	14.26
Admin Assistant Aid	1
Total	36.25

DIVISION OVERVIEW

The Operations Division provides for a primary customer service function of the department—interacting with the public regarding hunting, fishing and trapping license sales; boat titling and registration; and dissemination of general agency information. Administrative staff provide such support and service at seven offices throughout the state—Las Vegas, Henderson, Ely, Elko, Winnemucca, Fallon and Reno. Division program managers at the headquarters level oversee two major information systems contracts critical for the public to conduct such business with the department, as well as department staff who rely on these systems in the performance of law enforcement, education and fiscal management activities. Other program oversight provided by Operations Division staff includes engineering, facilities maintenance, information technology, vehicle fleet management and aviation operations.

FUNCTIONS/ACTIVITIES

Program oversight

- License sales and supporting system (the Nevada Wildlife Data System--NWDS)
 - Sales venues via regional offices, consumer sites and statewide license agents
- Boat titling and registration and supporting system (the Nevada Wildlife Data System--NWDS)
 - Service venues via regional offices (full service) and consumer sites (registration renewals only)

- Game tag drawing program and supporting system (the Application Hunt System—AHS)
- Contract administration for NWDS and AHS

Customer service operations

- Clerical staff at seven regional offices (boat titling and registrations, license sales, general information)

Internal agency support

- Engineering
- Boater Access Program
- Facilities and Grounds Maintenance
- Information Technology
- Aviation Operations

ACCOMPLISHMENTS

- Over 161,000 licensing privileges (hunting and fishing licenses, short-term permits, stamps, etc) sold during License Year (LY) 2014--approximately a 3 percent increase over LY2012, with most of this moderate growth associated with hunting licenses.
 - License sales avenues—customers can access our NWDS consumer website, visit one of our seven department customer service locations, or visit any of our 140 license agents statewide (e.g., Walmarts, Bass Pro Shop, Raleys, etc).
- Over 44,000 boat registrations in Nevada in 2014. This is a decline from approximately 50,000 boats registered in 2012.

- Registration decline likely due to the economic conditions of recent years, as well as continuous drought conditions
 - 2014 revenue exceeded \$1,500,000, approximately half of this amount distributed to counties based upon registrations by county
- The Application Hunt System (AHS) is the Department's web-based system for accepting/processing tag applications for various game tag drawings throughout the year. The Division oversees a contracted vendor who conducts seven to nine drawings annually.
 - Over 194,000 applications submitted by more than 61,000 resident and non-resident applicants for the 2014 big game season
 - Total revenue for applications, tags and other related fees exceeded \$6,000,000 in 2014
- Customers conducting business with the department via NWDS and AHS can take an online customer satisfaction survey designed to measure "ease of use" of these two systems. For 2014:
 - 7,000+ AHS users responded during the big game application period--satisfaction rate of 94 percent; up from 93 percent in 2012
 - 1,400+ NWDS users responded--satisfaction rate of 96 percent, up from 94 percent in 2012
- The department owns/operates two aging, but well-maintained Bell Jet Ranger B206 helicopters and a Cessna 206 fixed-wing airplane. Mission support is diverse and critical to meeting the demands of the department. In FY2014:
 - Servicing 21 department biologists and other staff, over 1,100 flight hours were recorded for sage grouse, big game, raptor, chukar, and non-game bird surveys, and other agency needs
 - Water development maintenance assistance—referred to as "guzzlers," almost 1,700 of these water collection systems are scattered throughout the state and require periodic maintenance. Built to benefit big game/upland bird species, guzzlers also provide a valuable source of water for wildlife of all types
- Our Engineering/maintenance team continues to support the needs of the agency, as well as the public.
 - Two new residences for staff located at our Wildlife Management Areas (WMAs) were constructed, and residences at other WMAs or Fish Hatcheries have undergone various degrees of renovation
 - Since the last biennium the boater access program has transitioned from our Law Enforcement Division to the Engineering Team in the Operations Division. Numerous statewide projects have been completed or are underway

CHALLENGES

- The agency plans to pursue acquisition of a third helicopter during the FY18/19 biennium budget cycle with an eye on eventually replacing our older helicopter (1974)
- Boat registrations have decreased over the past few years due to economy and drought conditions



CONSERVATION EDUCATION DIVISION



DIVISION OVERVIEW

The Conservation Education Division is responsible for NDOW's public information and education and outreach programs statewide. The Division oversees public affairs and media relations, hunter/angler education, recruitment and retention, wildlife education, the volunteer program, publications and digital outreach, social media and website administration.

The Conservation Education Division of the Nevada Department of Wildlife has made great progress in creating new opportunities for Nevada's citizens and visitors to connect with and learn from the agency. The Division has engaged in a variety of new activities in the information and education programs to modernize communication and learning opportunities in order to engage new and traditional audiences. The return has been impressive, allowing the NDOW to not only reach citizens and visitors, but to actively engage them in our process.

FUNCTIONS/ACTIVITIES

- Outdoor Education & General Wildlife Education
- Basic & Advanced Hunter Education
- Aquatic Education

Division Administrator	1
Staff Conservation Educator	2
Public Information Officer 2	1
Public Information Officer 1	1
Conservation Educator 4	3
Conservation Educator 3	7
Conservation Educator 1	1
Conservation Aid	2
Admin Assistant 3	1
Admin Assistant 1	1
Total	19

- Archery & Bowhunter Education
- Shooting Range Development
- Public Outreach
- Media Relations
- External & Internal Communications
- Volunteer Coordination

ACCOMPLISHMENTS

Constituent Engagement

Engaging NDOW's new and traditional audiences has been a primary priority for the Conservation Education Division. Modern communication processes, backed by technology, have allowed the Department to not only reach, but to interact, with a multitude of user groups.

- Website – New Content Management System launched in May 2013
 - Visitors are using and interacting with the new site 33% more than the old site
 - 20.77% growth in the number of users to the new site
 - 35.69% growth in the number of page views
 - 4.7% decrease in bounce rates
- Email–Direct to inbox messaging targeted at users based on opt-in criteria provides direct distribution. State of the art, built in analytics provide real-time evaluation tools.
 - 153,817 opt-in subscribers
 - 37.40% average open rate
 - 75,000+ click throughs
 - 75,912 visitors sent to the website of which 24,355 were new users
- Social Media – Facebook and Twitter as the main platforms for social media engagement, over the last biennium:
 - 252% growth in Facebook post reach
 - 37.3% Facebook audience growth

safety and a host of other topics

- The program launch alone brought 1,144 users to NevadaWild.org generating 3,146 page views

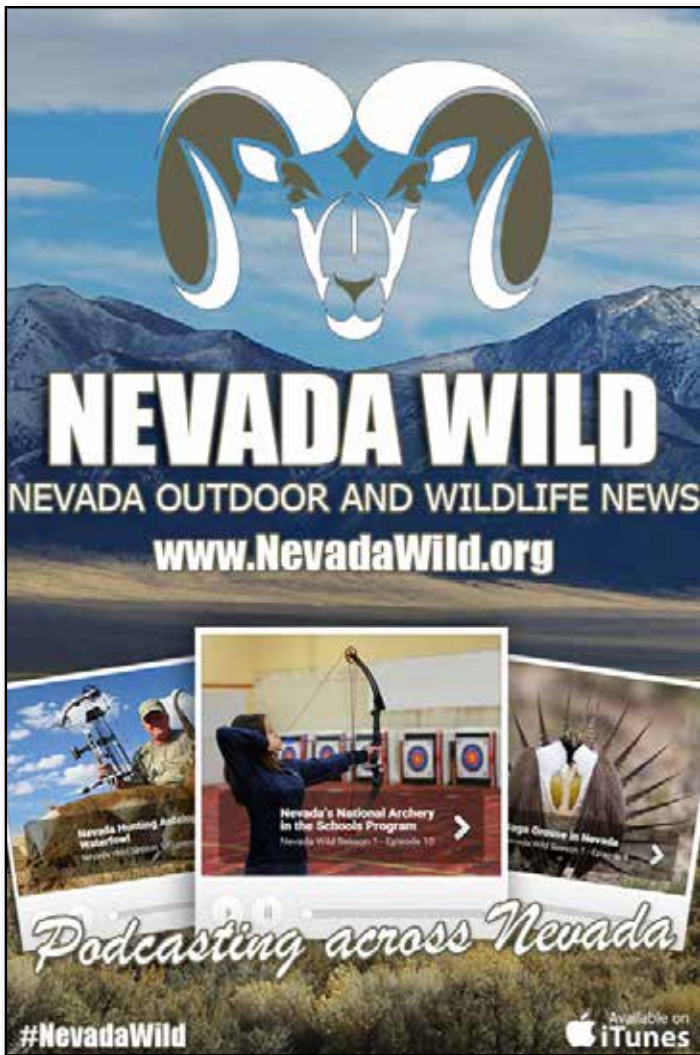
Outdoor Education

The Conservation Education Division has undergone a process to adapt existing education courses and create new educational opportunities to meet the evolving needs of students.

- Basic Hunter Education – Piloted a new course format consisting of online study followed by a four-hour field day to address student demand.
 - Full implementation scheduled for FY 2016
 - Allows for the potential to double the number of basic hunter education graduates
 - Shortened in-class format adapts to today's student's busy lifestyles
- Advanced Hunter Education – Expanded existing opportunities and created new offerings for advanced hunter education including:
 - Increased live fire course offerings for shotgun, muzzleloader and rifle
 - Implemented game and fish cooking classes in partnership with Nothing To It Culinary Center and Le Cordon Bleu Academy
- Archery Education
 - Doubled the number of Nevada schools participating in the Nevada Archery in the Schools Program (NASP)
 - Implemented a voluntary bowhunter education course

CHALLENGES

- Reaching audiences with NDOW's messages in an increasingly crowded marketplace.
- Providing educational opportunities for students that both meet their demands for course content while also fitting into today's busy schedules.
- Adapting to new forms of digital, online and social media as traditional forms of media are shrinking and marginalized.



- 76.5% Twitter audience growth
- Podcast – Created the *Nevada Wild* podcast, a weekly audio program designed to take an in-depth look at issues impacting wildlife.
 - The program features news, information and comprehensive interviews with staff and guests about matters related to hunting, fishing, boating, wildlife watching, species management, outdoor



LAW ENFORCEMENT DIVISION



Division Administrator	1
Game Warden Captain	4
Game Warden Lieutenant	3
Game Warden	31
Seasonal Game Warden	2
Staff Conservation Educator	1
Conservation Educator 3	1
Radio Technician Supervisor	1
Radio Technician	1
Public Safety Dispatch Supervisor	1
Public Safety Dispatch	4
Admin Assistant 3	1
Admin Assistant 2	2
Total	51

DIVISION OVERVIEW

The Division of Law Enforcement is responsible for protecting wildlife resources and enforcement of fishing, hunting, trapping and boating laws. Game wardens are often the only law enforcement presence in thousands of square miles of Nevada's most remote areas. They are also the face of NDOW, interacting with the sporting and non-sporting public every day. More people than ever before are experiencing the outdoors in Nevada. Along with traditional hunters, anglers and boaters, there is also a growing community of other outdoor enthusiasts, including hikers, wildlife watchers and target shooters. Game wardens routinely encounter all of these groups and provide some of the only public safety services available in Nevada's vast outdoors. NDOW can only manage wildlife populations by managing the interaction between people and wildlife. Game wardens also patrol Nevada's waterways, ensuring public safety and investigating every boating accident. The division has an award winning law enforcement and education program, recognized by other states for high quality and commitment. In short, Nevada game wardens are highly trained, highly educated, dedicated to service, technologically advanced and able to respond to changing and uncertain circumstances.

FUNCTIONS/ACTIVITIES

- Enforce statewide hunting, fishing, trapping and boating laws and regulations

- 31 field wardens split between terrestrial and boating enforcement
- Investigate major wildlife crimes
- License master guides and sub guides
- Investigate guide-related wildlife crimes
- Promote and manage Operation Game Thief program
- Enforce all boating laws on Nevada's waterways
- Investigate all boating accidents in Nevada
- Create, maintain and promote boating education program in Nevada
- Maintain and manage statewide radio communication systems
- Draft and administer regulations

ACCOMPLISHMENTS

- In the past year, the LE Division broke up a wildlife poaching ring, netting arrests and crimes resolved
- Successfully promoted the importance of wildlife law compliance through social media and other new methodologies
- Successfully integrated new aquatic invasive species program into overall law enforcement program
- Continued to expand a maturing, major wildlife crimes program for ongoing efforts
- Initiating technical overhaul of biweekly officer reports for better accuracy and analysis of crime and activity data
- Investigated eight fatal boat accidents in Nevada last year

- Implemented new boating accident reporting software to improve efficiency and accuracy in Coast Guard reporting
- Nevada's boating education program received national recognition for innovation and effort in 2014
- 109,894 square miles patrolled / 385,000 surface acres of water patrolled
- Game wardens patrol an average of over 3,500 square miles

CHALLENGES

- Recruitment and retention of field game wardens is a challenge
- This year, the LE Division hired nine new game wardens in one recruitment, almost a third of the workforce
- Declining boating revenues due to lower boating registration and drought conditions
- With additional hunting seasons and openers, game wardens have more than doubled high-demand patrol days
- The changing demographics of Nevada mean an increase in conflicts between wildlife and urban dwellers
- More non-wildlife related issues drain resources from patrol times
- Advances drive new efficiency, but hurdles in budget and training remain for adopting some new technologies



GAME DIVISION



Division Administrator	1
Wildlife Staff Specialist	6
Biologist 4	3
Biologists 3	19
Wildlife Health Specialist	1
Admin Assistant 3	1
Total	31

DIVISION OVERVIEW

The Game Division administers four program areas: avian and terrestrial game species management; landowner programs for game species incentive tags-depredation control-compensation; predation management; and wildlife health and disease monitoring. Game species management involves the recommendation of harvest opportunities, herd and population monitoring, translocations, interstate and occasionally international coordination regarding management activities, and expanding and sharing technical information, knowledge, and expertise.

According to a 2011 report, each year hunting provides over \$21 million dollars in state and local tax revenues in Nevada and an annual retail sales contribution of almost \$220 million. Landowner programs include both compensation for landowners that are influenced by mule deer or pronghorn on their private lands as well as incentives to landowners to work with NDOW on managing elk populations. These efforts include construction of fences and development of innovative new harvest seasons. Predation management is no small component of game management.

Predators are an important and valued component of Nevada's wildlife community, yet this component is managed as any other. The appropriate application of lethal and nonlethal predation management actions can affect increases in pronghorn, resiliency in sage grouse populations, and stability in predator populations just to name a few valuable applications.

Finally, wildlife health provides support for multiple divisions within the agency, although the primary function is to support game management. Historically, this support was in the arena of herd health monitoring during translocations

of big game animals, but health of populations has become an increasingly important component of managing many species including tortoises, waterfowl, and big game.

FUNCTIONS

- Game Management
 - Big Game
 - Upland Game
 - Migratory Birds
- Predation Management
- Wildlife Health and Disease Monitoring
- Wildlife Depredation Control and Compensation

ACCOMPLISHMENTS

Sage Grouse Management

- Scientific expertise vital to avoid Federal listing under Endangered Species Act
- Input and advice to USFWS, BLM, and Governor's Sagebrush Ecosystem Council
- Knowledge and information behind sage grouse habitat mapping

Mule Deer Management

- Continued monitoring of radiomarked mule deer
- Over 800 monitored since initiation, 85 marked in the last two years
- Gaining valuable data on disease exposure, movement corridors and migration, survival, and habitat use
- Identifies habitats where conservation efforts may be focused and generate greatest benefits



Wildlife Health

- Continued monitoring of bighorn sheep herd health and working with national wildlife health experts to continue to identify and develop viable alternatives to maintain wild and domestic sheep in Nevada
- Recent work identifying avian cholera on Walker Lake; cholera outbreaks in other states have sometimes lasted for many months
- Avian influenza recently identified in Nevada in Clark County; highly pathogenic avian influenza has been detected in many neighboring states, including Washington, Oregon, California, Idaho, and Utah; risk to wild species is relatively low, but can be of substantive concern to domestic poultry producers
- NDOW has already alerted licensed falconers and wildlife rehabilitators to alert them to any potential exposures to avian influenza

CHALLENGES

- Continuing drought conditions are severely affecting movements, migrations, forage, and water resources for terrestrial wildlife populations
- Diseases present perplexing challenges for jointly managing domestic animals in proximity to wildlife, especially when available free water limits distribution of both wild and domestic animals
- Increased activities associated with exploitative uses of the landscape, wildfire conversions of habitat, and pinyon-juniper encroachment
- Encouraging users of the landscape to collaborate with NDOW during planning phases so that our knowledge and expertise can reduce or mitigate potential negative effects to wildlife habitat

Translocation and Restoration Efforts

- During the past two fiscal years, Nevada has transplanted 173 desert, 101 California, and 20 Rocky Mountain bighorn sheep (294 total)
- An additional 147 elk, bighorn sheep, and Rocky Mountain goats were captured, marked, and tested for a variety of diseases
- Populations of several ungulate populations continue to increase, including bighorn sheep, pronghorn, and elk
- Initiation of a collaborative project to determine how to reduce vehicle-wildlife collisions to benefit motorists and bighorn sheep; two similar preliminary investigations regarding motorists and mule deer

Landowner Programs

- During 2013–2014, the Eastern Region remained the area in which most landowner relations issues developed regarding mule deer, pronghorn, and elk.
- Construction of fences and features to reduce effects on private operations
- Two hundred and two deer and pronghorn compensation tags were issued in this region in 2014 alone.
 - One hundred sixty-nine for mule deer
 - Thirty-three for pronghorn
- One hundred twelve incentive tags were issued in this region for elk
- The estimated value of the elk tags was \$1,112,000.



FISHERIES DIVISION



Division Administrator	1
Wildlife Staff Specialist	4
Biologist 4	3
Biologist 3	17
Fish Hatchery Supervisor 2	3
Fish Hatchery Technician 3	4
Fish Hatchery Technician 2	8
Wildlife Area Technician 2	2
Admin Assistant 3	1
Admin Assistant 2	1
Total	44

DIVISION OVERVIEW

The Fisheries Management Division has the primary responsibility for the management of Nevada's aquatic wildlife resources through several program areas including: sport fish production and stocking; management of sport fisheries and fishable waters; aquatic invasive species; and the native aquatic species program. The sport fish management program maintains and enhances public sport fishing opportunities for anglers in over 600 waters statewide, supporting over 1,400,000 angler days and \$138M in fishing-related expenditures in a typical year. The Division's three fish production facilities produce around 1,000,000 sport fish annually, primarily rainbow trout, for recreational stocking. The Aquatic Invasive Species program provides critical services including outreach, vessel inspections and decontaminations to assist watercraft users and protect the State's waters and water-delivery infrastructure from invasive species impacts. The Native Aquatic Species program implements conservation of native fish and aquatic wildlife including state-protected fishes, amphibians and mollusks, and recovery implementation for federally listed threatened and endangered aquatic species. The Division has 44 full-time positions including 17 field biologists and 15 fish production staff.

FUNCTIONS/ACTIVITIES

- Fisheries Management and Aquatic Habitat Surveys
- Fish Production and Stocking
- Native Aquatic Species Conservation
- Aquatic Invasive Species Monitoring and Containment
- Wildlife Health and Disease Monitoring

ACCOMPLISHMENTS

- Over 990,000 trout were produced in NDOW facilities and stocked in Nevada waters in 2014 despite ongoing, severe drought conditions
- Approximately 10,000 catfish were purchased and stocked in 2014, most for urban pond fisheries in Clark County
- Three additional urban pond fishing sites have been developed since 2011 in Gardnerville, Carson City and Beatty with a total of 17 urban fishing ponds now available for anglers statewide.
- Extensive upgrades and renovations were completed at State fish production facilities in Elko, White Pine and Lyon counties
- Nevada resident and non-resident anglers spent 1.4M days fishing and generated over \$138M in associated expenditures (2011 – most recent available comprehensive statewide data, from FWS National Survey)
- Habitat improvement programs to increase aquatic habitat for sport fisheries are ongoing in Lake Mohave, Topaz Lake and other locations
- Fisheries Division biologists actively managed and monitored aquatic habitat in over 600 streams, rivers, lakes and reservoirs to protect and enhance public fisheries resources.
- New "First Fish" and "Native Fish Slam" programs have been implemented to increase interest in fishing and enhance angler experiences
- NDOW's Aquatic Invasive Species (AIS) program is now operating three free-of-charge year-round watercraft inspection and decontamination stations on Lake Mead and Lake Mohave to prevent movement of invasive quagga mussels to other Nevada and western waters



- NDOW biologists continue to make substantial progress towards recovery of the ESA listed Lahontan cutthroat trout with the completion in 2014 of several major projects to restore LCT streams in northeastern Nevada and reconnect historic LCT habitats.
- Important conservation milestones have been achieved for several other ESA listed aquatic species including the Moapa dace in Clark County which has increased in number by over 300 percent since 2010
- Native Aquatic Species Program staff continue to work aggressively to implement conservation for State priority endemic species and prevent future ESA listing, with several important projects completed in 2014 for native fishes and amphibians in northern and central Nevada

CHALLENGES

- The AIS program has also implemented seasonal inspection stations at major reservoirs in northern Nevada in cooperation with the Division of State Parks and two “rover” positions provide inspections and outreach at smaller waters around the state throughout the boating season.
- NDOW AIS staff performed several thousand inspections and over 250 decontaminations to watercraft in 2014 despite drought conditions limiting boating activity
- In a recent comparison study of the 19 US states with active watercraft AIS programs, Nevada received the second highest ranking (80%), only Wyoming was rated higher at 85%
- Nineteen waters statewide are being monitored regularly for early detection of quagga mussels and other invasive species; there have been no new confirmed detections of quagga mussels outside the Colorado River system again in 2014.
- Continuing drought conditions are severely impacting fisheries and aquatic habitats, particularly in northern and central Nevada
- Low storage levels at Lake Mead are impacting anglers and watercraft users and preclude reoperation of the Lake Mead Fish Hatchery for trout production
- Aquatic Invasive Species remain a major threat with an ongoing risk of movement from the Colorado River to other waters statewide
- Impacts of the drought on angler access, opportunities, and fishing license sales
- Funding to address infrastructure repair needs for dams and reservoirs supporting sport fisheries
- Limited resources to manage and conserve rare native aquatic species to prevent future ESA listings
- Limited resources to implement species recovery actions and remove species from ESA listing



WILDLIFE DIVERSITY DIVISION



Division Administrator	1
Wildlife Staff Specialist	3
Biologist 1	1
Biologist 3	7
Biologist 4	3
Total	15

DIVISION OVERVIEW

The Wildlife Diversity Division is dedicated to the protection, management and restoration of Nevada's diverse wildlife heritage. Through sound science, data management, innovative partnerships, and implementation of Nevada's Wildlife Action Plan, the Division is working to maintain healthy, diverse populations and habitats. The Wildlife Diversity Division staffs 16 fulltime biologists, wildlife staff specialists, and an administrator that have established multiple programs and initiatives to be proactive in dealing with conservation issues and the management of Nevada's terrestrial, non-game species.

The Wildlife Diversity Division coordinated the development, revision, and ongoing implementation of Nevada's Wildlife Action Plan – a strategic blueprint for achieving comprehensive wildlife conservation across the state. This plan is the result of a collaborative effort by biologists, sportsmen and conservation organizations, and the general public. By targeting species of the greatest conservation need and the habitats upon which they depend it works to avoid additional formal protections for the species.

The Wildlife Diversity program also ensures state involvement in special status species management through species- and habitat-based conservation planning as well as the design of conservation strategies that have broad-based support across the nation. The Division contributes to conservation initiatives designed to keep common species common and off endangered species lists, including the Nevada Partners in Flight, Nevada Bat Conservation Plan, and Partners in Amphibian and Reptile Conservation.

A major component of the Wildlife Diversity Division is the Geographic Information System (GIS) program which

provides a centralized system for long-term storage, analysis, and management of wildlife resource data maintained by the Department. GIS is an essential tool for the modern wildlife resource manager to make well informed management decisions. The GIS group also provides interactive mapping services to Department staff and members of the public.

The Lake Tahoe Environmental Improvement Program (EIP) is a long term plan encompassing hundreds of projects and programs designed to improve the environment at Lake Tahoe. The Nevada-Tahoe Resource Team (NTRT) includes staff from the Wildlife Diversity Division and is charged with leading EIP projects such as aspen rejuvenation and natural riparian enhancement within the Nevada portion of the Lake Tahoe Basin.

FUNCTIONS/ACTIVITIES

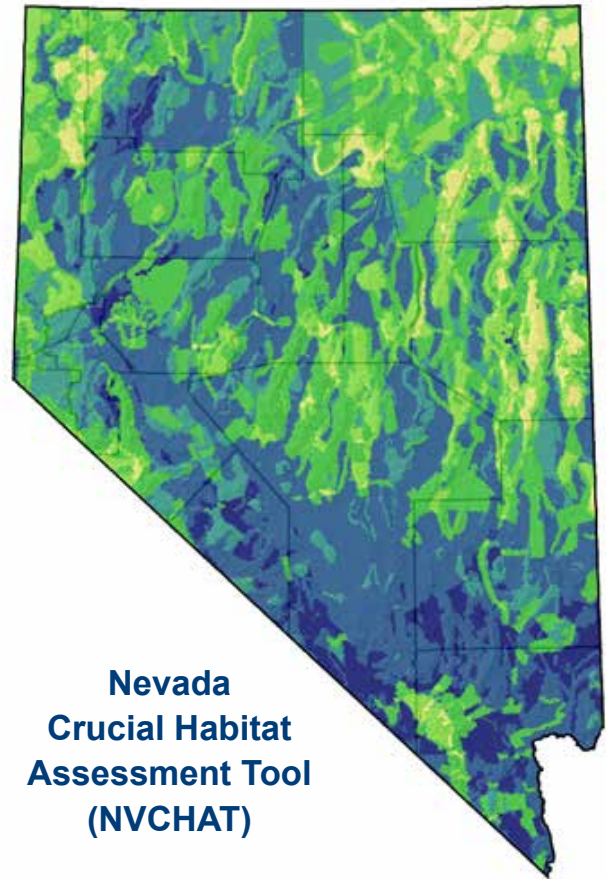
- Terrestrial, Non-Game Species Management and Conservation
- State Wildlife Action Plan Implementation
- Geographic Information Systems (GIS) Program
- Habitat Restoration
- Lake Tahoe Environmental Improvement Program

ACCOMPLISHMENTS

- Revision and approval of the nationally recognized Nevada Wildlife Action Plan in 2013 that provides a strategic blueprint for achieving comprehensive wildlife conservation for over 250 species and 22 key habitats across the state.
- Release of the Nevada Crucial Habitat Assessment Tool (NVCHAT) in 2013, an online mapping tool that

provides comprehensive crucial habitat information for all of Nevada's wildlife to the public. The NVCHAT is the culmination of over five years of planning and development undertaken by the Department as part of a west-wide initiative directed by the Western Governors' Association.

- Responded to nearly 400 external requests for potential impact analysis of land development projects on wildlife resources and other wildlife species and habitat data requests.
- Conducted statewide golden eagle nest surveys, documenting nearly 1,500 new observations of active and potential eagle nest sites. These data are crucial components of effective land use planning and will be incorporated into a collaborative U.S. Fish and Wildlife Service (USFWS) model of eagle distribution across the West.
- Assisted the USFWS with radio tracking 10 golden eagle nestlings and nine adults to collect new data on eagle territory size, foraging areas, and seasonal movement patterns in response to land use development, especially energy and transmission projects.
- Conducted winter raptor surveys as part of a long-term, statewide study (established in 1994) of raptor distribution, status, and demographics in Nevada. These surveys are performed on over 70 established driving and boating survey routes and have resulted in over 2,000 individual raptor observations of at least 15 species over the past two years.
- Established a monitoring and protection program for the threat of White-Nosed Syndrome (WNS), a fatal disease rapidly spreading amongst bat populations throughout the mid-western and eastern United States. Wildlife Diversity staff surveyed 250 abandoned mine and cave sites throughout eastern and southern Nevada, detecting no bats with symptoms of WNS. 13 gates were installed in northwest Nevada to prevent human contamination of known bat roost and hibernacula sites. Ongoing monitoring includes future surveys, deploying remote data loggers used to detect climatic variables conducive to WNS, and analysis of bat guano and soil samples collected at known or potential bat hibernacula or roost sites.
- Successfully passed regulation with the support of the Wildlife Commission to limit the possession of pet desert tortoises to one after May 1, 2013 (CGR 426, NAC 503.093). This, along with several other agency efforts, has helped reduce the abandonment of unwanted pet tortoises from its historical average of over 1,000 per year to fewer than 100 in 2014.
- Ongoing special status species surveys throughout the state, including the Ridgeway's rail (formerly Yuma clapper rail), yellow-billed cuckoo, southwestern willow flycatcher, northern goshawk, migratory shorebirds, American pika, pygmy rabbit, northern flying squirrel, and other small mammal species.
- Aspen habitat restoration projects include the completion of a livestock exclosure at Cottonwood Creek, Elko County and maintenance work completed at three other sites in Elko County. Eight additional projects are currently in the planning stages.



**Nevada
Crucial Habitat
Assessment Tool
(NVCHAT)**

- Initiated a long-term effort to evaluate the impacts of hollow mine claim markers and the treatment of those markers to reduce wildlife mortalities. This program has treated over 15,500 hollow mine claim markers and recorded over 2,200 individual bird mortalities since 2012.
- Ongoing coordination of the Breeding Bird Survey (BBS) effort in Nevada, increasing the number of routes surveyed from 26 in 2012 to 35 in 2013.

CHALLENGES

- Continuing drought conditions are severely impacting terrestrial species and habitats, especially wetland and riparian dependent birds in northern Nevada.
- Impacts of increased fire behavior and subsequent habitat loss and/or conversion due to invasive species.
- The exacerbation of threats posed by climate change, especially increases in fire frequency and intensity, spread of invasive species, wildlife disease vectors, and diminishing habitat refugia.
- Solidifying critical, non-federal funding sources to be used as a match for State Wildlife Grant and other federal grant opportunities.
- Limited resources to manage and conserve rare, native, terrestrial species to prevent future ESA listings.
- Limited resources to implement species recovery actions and remove species from ESA listing.
- Limited resources to develop new and maintain existing comprehensive data management systems and applications for departmental and public data consumption.

HABITAT DIVISION



Division Administrator	1
Wildlife Staff Specialist	5
Biologist 4	3
Biologist 3	9
Wildlife Area Supervisor 2	2
Wildlife Area Supervisor 1	3
Wildlife Area Technician 3	3
Wildlife Area Technician 2	8
Equipment Mechanic 3	1
Equipment Mechanic 2	1
Total	36

DIVISION OVERVIEW

The Habitat Division has the primary responsibility for the management of Nevada's wildlife habitat resources through several programs including: technical guidance; habitat restoration; wildlife management areas; industrial artificial pond permitting; mining assessment fees; water development construction and maintenance; NDOW project management; and the Nevada Partners for Conservation and Development. Specifically, the technical guidance program, supported by all Department biologists, evaluates approximately 600 projects a year to identify, assess, avoid, minimize and if necessary mitigate impacts to wildlife species or their habitats. The industrial artificial pond permit program tracks and monitors approximately 85 operations to ensure wildlife protective measures. The wildlife management area program manages 11 WMAs and a multitude of other undesignated state in holdings totaling over 140,000 acres for wildlife benefit. Additionally, our water development program has constructed and currently maintains over 1,700 artificial water catchment projects (guzzlers) for the benefit of all of Nevada's wildlife. Management of restricted reserve accounts has resulted in over 2 million dollars being expended across more than 110 projects to benefit wildlife species and their habitats during fiscal years 2013 and 2014. Our Nevada Partners for Conservation and Development program has partnered to seed over 950,000 acres of fire rehabilitation and plant over 150,000 bare root shrubs to restore priority habitats. To track project effectiveness, our vegetation monitoring crews have monitored over 850 sites across 40 separate projects. The Habitat Division has 36 full-time

positions including 5 staff specialists, 3 supervising biologists, 9 field biologists, 16 wildlife technicians and 2 mechanics.

FUNCTIONS/ACTIVITIES

- Technical Guidance and NEPA Process Input
- Industrial Artificial Pond Permitting Program and Mining Assessment Fee
- Habitat Restoration Thru The Nevada Partners for Conservation and Development
- NDOW Funding Program and Project Management
- Wildlife Management Areas
- Water Development Construction and Maintenance

ACCOMPLISHMENTS

- During the last year, NDOW maintained permit records for eighty six Industrial Artificial Pond operations and field staff periodically inspected different operations to ensure compliance with the terms of the permit.
- In FY2014, a total of ten new big game and six new small game water developments were constructed. Additionally, major maintenance or complete re-builds were completed on twenty big game and two small game water developments. Inspections, minor maintenance, and placement of signage (to comply with SB134) were completed at 274 big game and 587 small game water developments. These efforts have culminated in the placement of appropriate signage at 1,700 of the State's active water developments.
- In 2014, technical guidance was provided on over 567 project proposals, 47 of which were energy or

transmission projects and 107 mining. Over 30 major planning efforts occurred with NDOW technical input, including the Las Vegas, Carson and Battle Mountain BLM Resource Management Plan revisions. More than 4,000 contacts were made including attendance at meetings, communications with other agencies and phone calls related to various project proposals.

- The Technical Guidance program also manages the "Fund for the Recovery of Costs" that allows NDOW to collect reimbursement costs from proponents of energy related projects to offset agency expenses incurred while evaluating and providing feedback on the impacts to wildlife of those projects. To date, NDOW has processed 39 applications for energy projects in Nevada, 11 of those in 2014.
- During the last two fiscal years, a large number of beneficial wildlife projects were funded through user fees and programs. In FY13, NDOW spent a total of \$1,146,726 of these funds and they were used by 51 different projects. Sixty projects were funded by these four programs in FY14, with a total expenditure of \$918,682.
- In 2013, two parcels of land totaling 832 acres were annexed onto the Mason Valley WMA. The land was donated to NDOW by the National Fish and Wildlife Foundation and will be managed for the upland bird and mule deer habitat that exists on the property.
- Two employee residences were constructed at the Steptoe Valley and Wayne E. Kirch WMA's. The residence at Kirch WMA replaces a unit that was taken out of service in 2004 due to mold issues. The new residence at Steptoe Valley WMA will be occupied by the Wildlife Area Supervisor for increased station security and to meet public demands as identified in the Conceptual Management Plan (CMP) that was written when the property was purchased in 1999.
- The CMP for the Overton WMA was updated and provides a course of action to avoid and minimize conflicts between user groups along with expanding hunting, bird watching and other recreational opportunities.

- A wetland enhancement project was completed with Ducks Unlimited and Bureau of Reclamation at the Carson Lake Wetlands. The project rehabilitated portions of the Rice Drain to improve water conveyance to the Rice and York Units. This work included cleaning sediments and vegetative growth from areas with poor conveyance capacity, replacing worn-out structures and adding a new weir. The project will enhance wildlife habitat on approximately 1700 acres when water is available.
- Vegetation monitoring crews have surveyed over 850 locations at 40 separate projects across northern Nevada. At many project sites, both pre and post treatment information has been collected. Data collection occurred on both private and public lands.
- Nevada Partners for Conservation and Development (NPCD) contributed seeds for approximately 950,000 acres of fire rehabilitation projects and over 150,000 bare root shrubs to restore wildfire damaged habitats
- NPCD has provided financial management for over \$1,000,000.00 of federal money which allowed for a higher proportion of the total project dollars to be used in 'on the ground' activities instead of being lost to overhead charges.

CHALLENGES

- Continuing drought conditions are severely impacting habitat restoration activities.
- Habitat losses to wildland fires remain a constant but unpredictable threat.
- Coverage for NEPA input requires an all agency approach which fluctuates with land management agency demands but is subordinate to other position priorities.
- Having adequate funding available in reasonable timelines to purchase important wildlife properties as they become available.
- Obtaining proper management on restoration projects long enough to allow recovery.



