

**NAVAL AIR STATION FALLON, NEVADA
NATURAL RESOURCES CONSERVATION – COTTLE/KEYZERS TEAM AWARD
FY 2012-2013**

BACKGROUND:

Two professionally trained civilian personnel attached to the Natural Resources (NR) Branch of the Public Works Environmental Division manage the lands at Naval Air Station (NAS) Fallon: Gary Cottle and Anna Keyzers, both Natural Resource Specialists. Gary Cottle has worked for the Navy for 25 years and Anna Keyzers has worked for the Navy for six years.

POSITION DESCRIPTION:

Mr. Cottle and Ms. Keyzers (Team) manage the natural resources of NAS Fallon, which occupies approximately 241,000 acres in Churchill County, Nevada. The Main Station consists of 8,670 acres and is surrounded by 3,000 acres in the Agriculture Outlease Program, and 3,865 acres of rangeland vegetation. The remaining area is the Fallon Range Training Complex (FRTC) that features four noncontiguous air-to-ground training ranges (B-16, B-17, B-19 and B-20), and an electronic warfare range (Dixie Valley). NAS Fallon is currently the only Navy facility providing advanced integrated Carrier Air Wing Strike training. Military aircraft from the Navy, Air Force, Marine Corps, and Nevada Air National Guard all train at NAS Fallon. While B-16 is only 15 miles from the Main Station, the other training areas range from 40 to 90 miles away, with long distances of dirt roads to and within these ranges. Approximately 96,000 acres of the FRTC are open to the public and are used for outdoor recreation. Recreational opportunities on these lands includes activities such as biking, hiking, bird watching, photography, hunting, fishing, and horse-back riding. Limited off-highway vehicle (OHV) use is allowed under joint Bureau of Land Management (BLM)/Navy management in the Dixie Valley Training Area.



Desert Bighorn Sheep Dixie Valley.-Photo by Gary Cottle

The team completes investigations of natural resource impacts and documents compliance with National Environmental Policy Act (NEPA) for projects initiated by NAS Fallon and resident tenant commands. The Team works closely with other Public Works Divisions, especially FEAD, Production, and Acquisitions during the contracting, review, development, and implementation of projects. Inspections of Navy lands and agricultural parcels are conducted monthly to monitor cattle grazing, wildlife, vegetation, landscaping hunting, fishing, and dumping/vandalism.

Environmental projects are planned for the conservation and restoration of habitat to benefit of all species, to minimize the spread of invasive weeds, and to enhance the recreational potential in public access areas. Additionally,

the Team has applied for and received National Environmental Education Foundation (NEEF) Department of Defense (DoD) Legacy awards for in FY12 and FY13. These grants have supplied additional funding for two restoration projects; one at Dixie Valley and one at the Main Station, both of which were coordinated using volunteers to accomplish the project goals. Project volunteers come from within the installation and the local community.

Essential to the success of NAS Fallon's Natural Resource program is the integrated coordination with NAVFAC SW, various contractors, and internal tenant commands such as NSAWC, SEALS, EOD, and the Range Office that coordinates all military training on the ranges. External stakeholders are equally important and vital to the success of our mission, as such; the team interacts with the US Fish and Wildlife Service (USFWS), BLM, Nevada Department of Wildlife (NDOW), and other local to cooperatively manage sensitive species, their habit, and to provide for public access in areas without military hazards.



Pronghorn antelope east of B-17 Training Range.
-Photo by Gary Cottle

Internal review and update of management plans for NAS Fallon including the Integrated Natural Resource Management Plan (INRMP), Weed Survey, Off Highway Vehicle Trail Study, Vegetation Study, and Pest Control Plan, to name a few, are ongoing tasks for the NAS Fallon Team. The Team actively participates in local meetings with County, NDOW, USFWS, etc. relating to invasive weeds management strategies, water use issues, listing of species and to coordinate actions and plan future projects. Meetings with our partners provide opportunities to fine tune future goals and to evaluate current needs and effectiveness of past years efforts. The Team also reviews and comments on state and federal agency plan updates, of which two federal and the state agencies have major resource management plans under revision.

NAS Fallon uses Environmental Management System (EMS) to integrate environmental considerations into the day-to-day activities across all levels and functions. The team developed training modules via the Environmental Compliance, Assessment, and Training Tracking System (ECATTS). During the achievement period 1,211 and 489 military, civilian, and contractor personnel were trained in General Environmental Awareness and Natural Resources, respectively.

The Team performs many other miscellaneous duties throughout the year as needed including Bird/Animal Strike Hazard planning, Pest Management throughout the installation, oversight of the grounds maintenance contractor, and educational outreach to the military and their families and the community at large.

SUMMARY OF ACCOMPLISHMENTS

Good communication between each other and across all departments, including tenant commands and contractors is the foundation to this successful Natural Resource Program. NAS Fallon's professionally trained Team attends various project planning meetings to keep "in the know" early in the planning process and throughout the duration of projects. Proactive coordination enables Team members to balance the many aspects of their job duties and utilize each member's strengths to accomplish the mission. As a result of this successful collaboration, the Team has received recognition for their spirited efforts. Anna Keyzers was named the NAVFAC SW Excellence Award Environmental Employee of the Year in 2012 and NAS Fallon earned the CNO Environmental Award for Natural Resources Conservation-Large Installation in also in 2012.

Active participation in organizations such as the National Military Fish and Wildlife Association, Society for Range Management, National Arbor Day Foundation, Soil and Water Conservation Society, and the DoD Partners in Flight keep the Team abreast of current developments in the field of study.

NAS Fallon is proud of these highlights from our NR Program during FY2012 and FY2013:

- * Ecosystem enhancement and invasive species control at Dixie Valley,
- * Bird and bat habitat protection at Training Ranges B-17 and B-19, and
- * Outstanding community outreach

Ecosystem enhancement and invasive species control at Dixie Valley:

The distinctively isolated Dixie Valley area has many artesian well-fed ponds. These ponds provide habitat for many species of migratory birds and waterfowl, mammals, amphibians, reptiles, and fish. Of particular importance is the Dixie Valley toad and a species of fish identified as the Dixie Valley tui-chub. Although this species has not undergone formal identification, the Navy with its partners, USFWS and NDOW, manage this species as unique.



Furthermore, the distinctive character of Dixie Valley provides an important area for the staging of targets for electronic warfare scenarios, as well as supporting air to ground training and tactical mobility training maneuvers. The variety of training opportunities afforded by this isolated area is also what draws the many species of waterfowl, migratory birds, and large mammals such as pronghorn antelope and desert bighorn, and it is for these reasons that continued conservation and restoration of the resources here is so critical for the continued success of the mission.

Dixie Valley tui chub during survey. –Photo by Gary Cottle

Conducted in tandem with agency partners at USFWS and NDOW, seven ponds were targeted for habitat improvements. The projects included creating deep water areas, removing invasive cattails and Russian olives, improving or repairing well heads, repairing gates and fences, bullfrog removal, and installing a bullfrog exclusion fence at two locations. Deep areas allow fish to survive the cold winter freezes, and cattail and olive tree removal opens up surface waters, which is important for a variety of waterfowl species that either use ponds for nesting or migratory rest stops. Additionally, over 600 acres of noxious and invasive species such as Russian knapweed and tall whitetop were treated throughout Dixie Valley. Noxious and invasive species of plants decimate the land's potential and impact many sectors of our economy, by devastating wildlife habitat and lowering forage value. Maintaining water wells ensures



Domonoske Pond, Dixie Valley, after restoration effort. –Photo by Anna Keyzers



Installed exclusion fence at Turley Pond, Dixie Valley. –Photo by Gary Cottle

constant flow of water, necessary for species survival. Bullfrogs are an invasive species and prey on native frogs and small fish species, including the tui chub. Over 500 bullfrogs and tadpoles were removed from one pond. The exclusion fence is designed to prevent unwanted species of amphibians from entering the excluded area; therefore, allowing a more sensitive species such as the tui chub to thrive with less threat of predation. Now that the frogs have been removed, the exclusion fence will prevent bullfrogs from migrating back in and re-establishing a population. Several gates and 2500 linear feet of fences were repaired to keep grazing cattle from trampling sensitive pond and stream banks and levees from degradation. Miles of old barbed wire fences were left from ranches present in the valley before the Navy purchased the area in the 1980s. In the last two years, over six miles of barbed wire fences and posts were removed from Dixie Valley allowing the pronghorn, deer and bighorn sheep to move throughout the valley unencumbered. Overall the projects enhanced the habitat for two sensitive species and will benefit many other species in the process. Although protection of non-listed species is not mandatory on federal installations, management of these species contributes to the overall health of their natural populations and reduces the likelihood that these species will be given legislative protection in the future. Enhancing ecological integrity benefits the military mission and long term sustained use of installation lands.

Bird and Bat Species Habitat Protection:

A critical bat habitat protection measure was carried out by the preventative closing of abandoned mines at the B-17 and B-19 Training Ranges. Abandoned mines are used as artificial roost sites for a large variety of Nevada's bat species for at least a portion of their lives such as during maternity and pup rearing, or hibernation. Bat populations throughout the nation have recently been threatened by a disease called white-nose syndrome. Caused by a white fungus that grows on the face, wings and bodies of bats, the disease has resulted in up to a 90% die off at affected areas. The newly identified disease has spread to caves and mines in 19 eastern states since first identified during the winter of 2006-07. It is believed that humans entering mines may unintentionally carry the causative agent from cave to cave on their clothing and gear. As illustrated by the photo below, these abandoned mines also pose significant safety and liability factors to military personnel during ground training and others from the public curious to explore.

The abandoned mines at B-17 and B-19 have potential for ground training incursion, as well as intrusion by gold speculators and recreational cavers. The Team worked cooperatively with NDOW biologists to identify mines used by bats and targeted 10 abandoned mine shafts and adits for bat compatible gate closure and with the Range Department and the NAS Fallon Archeologist to develop specific criteria for the Scope of Work so that all potential concerns



were taken into account. The gates were custom built to the unique openings and landscape that each mine presented. The project closed the mines to future human intrusion while allowing bat ingress and egress to continue. If the disease continues to spread, NAS Fallon has taken advantage of the 'time on our side' to preemptively take action to protect habitat for the health of sensitive bat species.

Abandoned Mine Shaft and Two Adits with Bat Compatible Gates Installed. –Photo by Anna Keyzers

Many old mining claims on the 1999 Withdrawn Lands throughout Training Ranges B-17 and B-19 are marked with white PVC pipe. The pipe is about a four feet tall tube with an open top that often attracts birds that get in and are then unable to get out. Thousands of birds have died in the pipes throughout the west. While working on the bat gate project, the Team removed approximately 30 old PVC Pipe claim markers to protect the birds such as the mountain bluebird, Nevada's state bird.

Outstanding Partnering and Community Outreach:

Partner agencies contributed time and expense to support Navy efforts by conducting repair work at Dixie Valley. USFWS and NDOW brought in equipment and repaired the water supply ditches to two ponds, while removing cattail overgrowth from a third pond at Dixie Valley. On

another project, NDOW and the NSAWC Range Office assisted in the improvement of the riparian area along Horse Creek, which is in the eastern foothills of Dixie Valley. NDOW brought equipment and removed vegetation in three areas to allow water access to wildlife. Depressions will fill with water, improving habitat for brook trout. This type of habitat improvement will benefit recreational fishing in the area that already hosts campsites. The Range Office personnel focused on repairing the road, cattle guard and gate repairs. Further efforts in cooperation occurred when NDOW requested emergency drought assistance for water guzzlers for Big Horn Sheep in the B-17 area and surrounding mountain ranges during the summers of 2012 and 2013. NAS Fallon Water Compliance and NR staff coordinated with outstanding support from the Range Office to assist NDOW in this request.

The Team applied for and was awarded NEEF DoD Legacy Awards for two restoration projects; Dixie Valley Range Land Restoration in 2012 and Veteran's Memorial Park Garden in 2013. Both of these projects relied on the donated time and services of volunteers, which were provided by Base Support Contractors, military personnel, and firefighters and ranchers from within the community. These projects are aimed at improving areas that have public access and benefit the community at large. The Dixie Valley project reseeded 12 acres with a native mix of shrubs, forbs, and grasses that had been previously decimated by overgrazing. With fences and gates repaired from the other projects earlier in the year, the area was ready for reseeded. The seeding will jump start the growth of native vegetation, which will provide valuable resources to the many migratory and upland game species that inhabit Dixie Valley. The Veteran's Memorial Park project plans to convert the abandoned weed lot into a real garden with walkways and plant beds that is a true memorial to Veteran's.

The Team either oversees or actively participates in several committees, such as Earth Day, Spring Wings Bird Festival, National Recycling Day, and Veteran's Memorial Park. These various committees refocus our public outreach efforts every year to reach out to children, military families, co-workers, and the local community. Events offer the opportunity to reach out and provide information, give guided tours, tree planting, and event fairs. The more that people know what the Navy does for the local environment, know what the local resource issues are, and know the importance of the resources, the easier it will be to continue to accomplish goals and support the mission.



Earth Day Fair at NAS Fallon. –Photo by Anna Keyzers

These many cooperative efforts bear testimony to the outstanding supportive and mutually beneficial relationship that the NAS Fallon Team has with its INRMP stakeholders, fellow departments and tenant commands, and the community of Fallon. As good stewards of the lands in the Great Basin ecoregion, the Team is committed to the protection of the natural resources on Navy-administered lands to facilitate military training, ensure there is no net loss in training areas, and ensure the resources are available for future generations.