Each agency with real property management responsibilities shall, by September 30, 2005, and every third year thereafter, prepares a report on its progress in identifying, protecting, and using historic properties in its ownership.

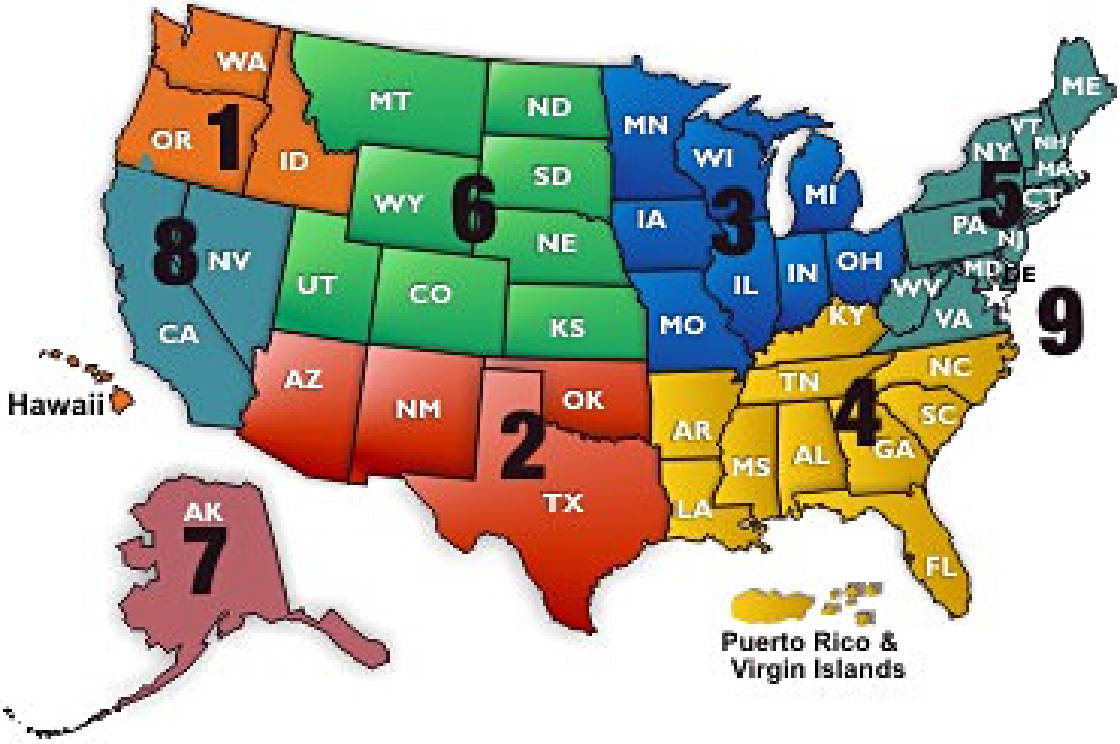
Section 3(c), Executive Order 13287

A 2011 Summary Report for E.O. 13287 for the US Fish and Wildlife Service

Eugene Marino, Service Archaeologist

October 2011

Protecting and Promoting History



Around the Service

USFWS cultural resources staff engaged in **Science and Research** projects that collected and used data recovered from archaeological sites. These data can be applied to larger issues, such as climate change, and can be used to help understand why a habitat has changed over time. **Training** projects help illustrate the importance of historical resources and provides guidance for their preservation to USFWS employees. **Partnership** opportunities help continue or establish corroborations between USFWS and other organizations. Tribes are an important partner when it comes to cultural resources and their cooperation is invaluable. **Education and Outreach** projects, a cornerstone of the USFWS, take on new dimension when coupled to archaeology and history. The interest people have in these subject areas connect very nicely to larger environmental education programs already in place throughout the Service.

USFWS Headquarters

Training

National Conservation Training Center

As part of its efforts to more fully engage USFWS Wage Grade employees, the cultural resources program worked with NCTC, our training center in West Virginia as they began restoration of an 1890s Pennsylvania Barn on their campus (figures 1 and 2). The work is being carried out by the NPS Historic Preservation Training Center (HPTC) who have assisted USFWS with training classes for USFWS WG staff.

For the NCTC work, the HPTC staff were assisted by USFWS WG employee, Russ Sandry from Wichita Mountains National Wildlife Refuge (NWR), Russ learned many techniques for maintaining historic buildings that he will then take back to Wichita Mountains. Barn restoration work will continue in 2011 and it is hoped that several other WG employees will be able to assist.

Figure 1. NPS and USFWS staff work on restoration of an 1890s Pennsylvania barn on the NCTC campus.

Figure 2. NPS crew along with Russ Sandry (foreground) from Wichita Mountains NWR cut lumber used for the restoration work.

The Midwest

Partnerships

Big Muddy National Fish and Wildlife Refuge

The Big Muddy National Fish and Wildlife Refuge interpreted the history of its Jameson Island Unit using a USFWS Preserve America Grant. The grant originated through a productive partnership between the Lewis and Clark National Historic Trail Heritage Foundation Manitou Bluffs Chapter (Foundation), Arrow Rock State Historic Site (Historic Site), and the Refuge. The grant provided funding to develop five interpretive signs (figure 3), and an interpretive brochure for the Arrow Rock Landing Trail on the Refuge.

The Arrow Rock Landing Trail provides a unique historical tour for visitors to walk in the area that was a major crossroad for westward expansion during the nineteenth century. The recorded history in the area started with the Lewis and Clark expedition and ended with the close of the steamboat era on the Missouri River. This historical area also experienced the Santa Fe Trail and conflicts during the Civil War. All these major events were interpreted in the panels. The panels also interpreted the role those historical events took upon fish, wildlife and plant resources.

The Foundation submitted the grant; the Historic Site reviewed the grant proposal and historical content of the interpretive signs and brochure. The Refuge helped design, review, and provide the location for the historical interpretation.

Figure 3. One of the five Interpretive Signs on The Big Muddy National Fish and Wildlife Refuge purchased with the Preserve America Grant

The Big Muddy National Fish and Wildlife Refuge proudly interpret the history of the land it manages. The natural environment of the refuge now conceals the remnants of this historic era but the signs and brochure help the visitor connect to a time of manifest destiny.

The Southeast

Science and Research

Suwannee and Cedar Keys National Wildlife Refuges

Kenneth E. Sassaman and graduate students from the University of Florida excavating a test unit at the Little Bradford Island Site on Lower Suwannee National Wildlife Refuge (figure 4). The work is part of a larger initiative and partnership between the USFWS and the University to conduct archaeological investigations along the Florida Gulf Coast on and near Lower Suwannee and Cedar Keys National Wildlife Refuges. The initiative focuses on large scale archaeological reconnaissance of the Refuges' shorelines and hammocks, research, and rescue or salvage of threatened sites, such as the Little Bradford Island Site. One of the initiative's major objectives is to examine how cultures adapt to climate change, specifically during periods of sea level fluctuations and the accompanying environmental changes. Testing of the Little Bradford Island Site, as well as systematic shovel testing of Richards Island, will be conducted in late November. Richards Island, located on Cedar Keys National Wildlife Refuge, is a large parabolic island that appears to be a Pleistocene relict dune. The island, which Sassaman described as a "fixture on the landscape with high relief and proximity to tidal water throughout much of its history," is likely to yield evidence of human occupation, as well as insight into changes to coastal ecology, over several millennia at a fixed location. The collection of this information is a critical first step in comparing other locales in the study area and to identify patterned variations in site type, function, and location across time.


Figure 4 Excavations on the Little Bradford Island site

St. Vincent National Wildlife Refuge

A University of South Florida archaeological field school was conducted on St. Vincent National Wildlife Refuge under the

supervision of Dr. Nancy White (figure 5). St. Vincent is a large barrier island located near the mouth of the Apalachicola River. A number of large precolumbian oyster shell middens are located on the island's northern shore. Over time, tidal fluctuations and storm events generated energy that severely eroded these sites. Dr. Donoghue, a geomorphologist from Florida State University (FSU), examined the soil profiles at several sites for evidence of sea level fluctuations, the island's formational processes, and to collect soil samples for optically stimulated luminescence dating. Dr. Marrinan, an archaeologist from FSU, and several of her students participated in the field school and will be analyzing the faunal assemblages.

White included a "public archaeology" component, which consisted of a public archaeology day at the Refuge, participation of volunteers in the archaeological field and lab work, and the establishment of a site-monitoring program.

Figure 5 Field school students excavate at St. Vincent NWR

Waccamaw National Wildlife Refuge

Coastal Carolina University's Center for Archaeology and Anthropology recently completed an archaeological field school along the Pee Dee River (figure 6). The students, under the supervision of Dr. Cheryl Ward, tested a 18th century slave settlement and a 19th – early 20th century African American tenant farm site located at Yauhannah Bluff near Waccamaw National Wildlife Refuge's recently completed Visitor Center.

Figure 6. Archaeologists from Coastal Carolina University at work on Waccamaw NWR

Education and Outreach

Bo Ginn National Fish Hatchery

Over 1000 people visited the public viewing of selected artifacts recently from Camp Lawton, discovered on Bo Ginn National Fish Hatchery (NFH) in Jenkins County, Georgia (figure 7). During the morning program presentations were made by:Mark Musaus, the Deputy Regional Director for the Southeast Region, Congressman John Barrows, Dr. John Derden, Professor Emeritus of History, East Georgia College, and Dr. Sue Moore, Georgia Southern University (figure 8).

The 42-acre Civil War site spans Bo Ginn NFH and Magnolia Springs State Park. The site housed approximately 10,000 Union prisoners in October to November, 1864. Sherman forced the Confederacy to evacuate the Camp barely six weeks after its occupation. Until the GSU investigations, that portion of the Camp located on the Hatchery was virtually invisible.

Additional information available at www.USFWS.gov/camplawtonsite/ and www.georgiasouthern.edu/camplawton/.

Figure 7. Attendees examine sample artifacts recovered from Camp Lawton.

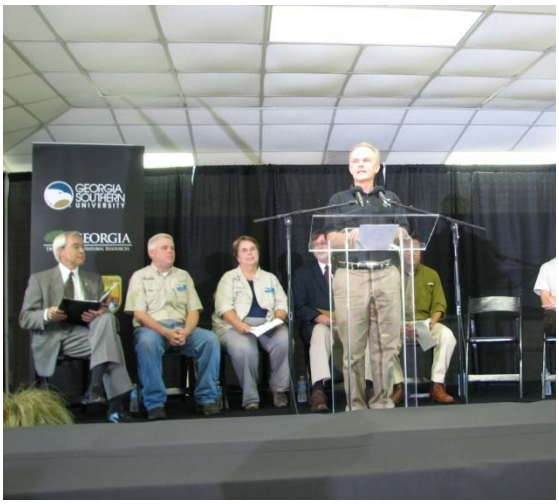


Figure 8. Deputy Southeast Regional Director, Mark Musaus addresses attendees of the Camp Lawton Bo Ginn media event.

Figure 9. Timbers being hauled to submersion area.

Science and Research

Cape Romain National Wildlife Refuge

The shoreline at Cape Romain NWR is often home to various pieces of timber from historic watercraft that eventually get despoiled on shore. In an effort to remove them from the beach but also keep them for their historical value staff from the Refuge, along with the Regional Archaeologist, found a home for them underwater. The timbers were recently re-submerged in a marshy, unopened area of the Refuge (figures 9 and 10). Keeping the timbers in a wet environment will help preserve them for future use and study. The timbers were weighted down with sandbags that will also serve as a marker of their location.

Figure 10. Weighted with sandbags, the timbers are re-submerged on the Refuge

Alaska

Alaska region has some of the most interesting cultural resources in the Service and some of the greatest challenges in their preservation. They have active partnerships with universities and local Alaska villages that often result in exceptional research and protection of culturally sensitive areas.

Science and Research

Alaska Maritime National Wildlife Refuge

The Rats and Birds archaeology crew stumped across three islands in the western Aleutians and labored over lab tables in museums in Alaska and Washington D.C. during the 2009 project supported by a USFWS Challenge Grant. The main goal of the project was to provide the Service and their partner, Seabird Restoration Project, with a composite image of prehistoric, and pre-rat and fox, bird species distributions on the Rat Islands. The only source for this information is archaeological sites, which were deposited by Aleuts who lived on the islands and harvested birds among them for more than three thousand years.

Figure 11 Identifying archaeological sites during the Kiska survey

The team spent thirteen days on Rat and Kiska Islands with two goals: find new Aleut sites along the shore and in upland locations, and test all sites to acquire a dated sequence of bird skeletons that spans the introduction of invasive species to the islands. Twenty-one new sites were found and tested on Rat and Kiska Islands (figure 11), and three known sites were tested, including one opportunistically tested on nearby Amatignak Island during a bird research team drop-off. During our survey on Kiska, we also identified a previously unknown WWII Japanese fighter plane.

We now have thirteen new radiocarbon dates for the western Aleutians that range from over 3,000 years ago to Russian arrival in the islands. Several of the sites yielded small bird bone assemblages, and five sites demonstrated the potential for rich, undisturbed bone sequences that will provide fine-grained data in future excavations. Many of the sites with northern exposures on the two

islands are experiencing catastrophic erosion, and will be completely gone within decades.

The Rats and Birds project shifted to the University of Alaska Museum in Fairbanks to examine previously excavated materials from sites on Amchitka Island. We removed over 500 diagnostic bird tarsometatarsi and humeri from the collections of six archaeological sites. These bones and the bird bones excavated on Rat and Kiska Islands will be identified to species in the Birds Division of the Smithsonian Museum of Natural History. Findings from the Rats and Birds project were presented to a group of fourth graders at a school focused on the sciences in Charlottesville, Virginia.

In addition to providing important data about pre-rat bird populations in the Rat Islands, the project also significantly enhances current knowledge regarding Aleut occupation of the Rat Islands. It is the first phase of longer term research focused on understanding Aleut influences on the Rat Islands land- and seascapes and the processes of historic contact between indigenous and alien cultures. The cooperation among researchers, students, agencies and organizations has made it possible to further research, mentor new scientists and develop information that can be used in long term refuge management.

Alaska Maritime National Wildlife Refuge

The Alaska region of the National Park Service applied for and received an American Battlefield Protection Program (ABPP) grant to document US and Canadian WWII sites on Kiska Island. They partnered with USFWS to obtain a first approximation of the nature, extent and condition of the sites, and to document them for inclusion on the existing National Historic Landmark.

Fieldwork began when the refuge research vessel M/V Tiglax dropped the crew off in Kiska Harbor for a week. The crew of 7 included two people from the National Park Service; Janis Kozlowski, manager of the World War II affiliated area, and Janet Clemens, the National Historic Landmarks coordinator. USFWS sent regional archaeologist Debra Corbett, and student interns Kimberly Fleming and Richard Galloway. Also attending was Dr Ian Jones from Memorial University in Canada and Dr. Dirk Spennemann, an expert on the remains of World War II in the Pacific, who had previously surveyed Japanese artillery on Kiska.

The team camped in Kiska Harbor and spent the week conducting a reconnaissance survey of Japanese, American and Canadian military facilities. The island was divided into 300 meter grid sections with aerial photographs and as-built drawings for each quadrant. Teams of two visited each quad, verifying the features visible in the photographs and identifying others. A representative sample of features within each grid was measured and photographed. Japanese facilities investigated included the Japanese

Naval Base in Kiska Harbor and on North Head, the Army Base in Gertrude Cove, and the mini-sub base in southern Kiska Harbor. American camps were surveyed in Kiska Harbor and around Trout Lagoon. The Canadian Base was well inland of Kiska Harbor overlooking the west coast allied invasion beaches. Among the highlights were the discovery of two unrecorded 25 mm mountain artillery guns, a previously unknown Japanese fighter plane, and fragments of a second mini-sub.

Dr. Jones conducted a broad area reconnaissance around Gertrude Cove, South Head and Mutt and Jeff Coves. A number of gun positions, aircraft wrecks, defensive features, docks and scatters of vehicles, munitions, and domestic debris were identified and described (figure 12).

Figure 12. Remnants of an American dock used during WWII were noted on Kiska

Partnerships

Alaska Maritime NWR

A Presidential Proclamation on December 5, 2008 created a new World War II Valor in the Pacific National Monument. The monument includes 5 sites in Hawaii and one in California. Three sites, Attu, Kiska and Atka Islands, in the Alaska Maritime National Wildlife Refuge, Aleutian Islands Unit were included in the monument. President Bush declared the monument would remind generations of Americans of the sacrifices that Americans made to protect our country and of the transformative effect of freedom. Because of their isolation and climate, Attu and Kiska are two of the best preserved WWII battlefields in the world.

After the Doolittle Raid on Tokyo on April 18, 1942, Admiral Isoroku Yamamoto conceived an elaborate plan to destroy the remnants of the American Pacific fleet, and to capture Midway Island and the western Aleutians to anchor the defenses of the north and central Pacific. Japanese planes based on two small carriers attacked the fishing port of Dutch Harbor on June 3, 1942. After the defeat at Midway, Japan persisted in capturing Kiska and Attu Islands on June 7 to salvage a propaganda victory.

Attu

The Japanese invaders of Attu captured 42 inhabitants of a small Aleut village. In September they were taken to Japan where almost half died. After the war US authorities refused to allow the survivors to return home. The loss of Attu and Kiska prompted a massive build up of bases and infrastructure in Alaska. Bombing of the Japanese bases began almost

immediately, but it was not until May 11, 1943, that a full scale counter counterattack was launched. For over three weeks, fighting raged over eastern Attu. By May 28, American forces had pushed the Japanese into Chichagof Valley.

Early on May 29, Colonel Yamasaki, with 800 of his 2,600 men left, made a desperate Banzai attack over Engineer Hill, the largest such attack of the war. If his men could take the artillery on Engineer Hill, gain access to supplies, and retreat into the mountains, they could await reinforcement. In reality it was their chance to die an honorable death. Medics, engineers, and service personnel on Engineer Hill fought back. The arrival of the 50th Engineers prevented the attackers from reaching the artillery. On May 30 most of the remaining Japanese committed suicide.

The monument on Attu includes the Japanese base and runway at Holtz Bay, Jarmin Pass and Engineer Hill, and the Japanese strongpoints on Fishhook Ridge and Sarana Nose.

The Battle for Attu was the first amphibious landing by the Army. The harsh lessons learned were put to use during other amphibious operations and during the fighting in Italy. By attacking Attu before Kiska the U.S. military innovated the leapfrog offensive used with devastating effect elsewhere in the Pacific to isolate and neutralize countless Japanese troops. The Battle for Attu was, per capita, one of the most costly of the Pacific War, exceeded only by the casualty rate at Iwo Jima. American casualties (3829) were significant compared to the number of Japanese troops on the island (2650). Only 28 Japanese were captured, the rest were killed or committed suicide. On Iwo Jima, later in the war, Commander Tadamichi Kuribayashi was ordered to use the lessons of Attu in preparing his defenses.

Kiska

Also on June 7, 1942 the 1,250 man Special Naval Landing Force overran a 10 man US Navy weather station on Kiska. The US launched the Kiska Blitz, an intensive bombing effort beginning on June 11th, with the first use of B-24's in combat. One of the new planes was blown up over Kiska and two others were crippled. The Blitz ended June 13 when rumors of an approaching Japanese naval force caused the remaining planes to retreat east.

In July 1943, after the capture of Attu, US and Canadian forces prepared to invade Kiska. The Japanese Navy sent ships to remove the 5,000 man garrison. On July 28, after American naval forces were drawn away by mysterious radar signals that may have been huge flocks of shearwaters, the Japanese entered Kiska Harbor, loaded the men in an hour, and escaped. Three weeks later, 34,426 American and Canadian troops landed. By August 18th the Allies knew there were no Japanese on Kiska.

The Monument on Kiska includes a Japanese mini submarine base in Kiska Harbor, the Japanese Army Base in Gertrude Cove, the Japanese Naval base with a major

concentration of coast artillery and antiaircraft guns, the unfinished Japanese runway and the post-invasion American and Canadian Camps, a Japanese camp and coastal artillery on Little Kiska Island, and an American PBY plane crash on Kiska volcano.

Atka Island B-24

This unit includes a Consolidated B-24D Liberator bombe, located at its crash site on Atka Island, Alaska. This type of bomber played a highly significant role in the Aleutian Campaign against Imperial Japanese forces from 1942 to 1943. This aircraft flew in at least 18 combat missions before finally succumbing to bad weather.

This B-24D (figure 13) came to Alaska in March 1942 and served exclusively in the Aleutian Campaign. B-24s flew in the initial patrols and search missions and are best remembered for the Kiska and Attu bombing campaign in the summer and fall of 1942, and the operations to recapture Kiska and Attu from the Japanese in 1943. During this time, hazardous long-range missions were flown from Umnak Island in the Aleutians to bomb Japanese installations at Kiska and Attu islands. The concentration of Japanese anti-aircraft fire (figure 14) and weather proved formidable foes. This planes final mission, on December 9, 1942, was a weather patrol to Attu Island. Fog obscured the new airbase on Adak and the plane, low on fuel searched for a flat landing area, stumbling onto the broad valley at the head of Bechevin Bay on Atka. Had it crashed during combat, the usual pattern of explosion, fire, or total loss at sea would have destroyed it. The tail broke off in the characteristic B-24 manner, but the tail section is intact, minus the vertical tail fins, which are in the vicinity of the aircraft. This is one of the oldest existing B-24's laft and is one of the very few survivors of combat missions.

Figure 13. B-24D Liberator bombers such as this one which crashed due to weather on Atka played a significant role in WWII in the Aleutians. Of the original 20 made, this one and one other are the only B-24Ds known to still be in existence.

Figure 14. Japanese anti-aircraft gun on Kiska in 2007. Remnants of Japanese coastal defenses are found on the Kiska and Attu portions of the Monument.

A management plan was recently completed and outlines actions to enhance protection, interpretation and public understanding and appreciation of the World War II Valor in the Pacific National Monument and the broader story of WW II in the Pacific. The new monument has a website at https://pwrcms.nps.gov/customcf/apps/ww2ip/ . More information about war in the refuge can be found on the refuge's site http://alaskamaritime.fws.gov/.

Alaska Maritime National Wildlife Refuge

In the summer of 1942, four Unangan Aleut villages disappeared. Following the Japanese attack on Dutch Harbor, and the invasion of Attu and Kiska, U.S. authorities evacuated the Native people of the Aleutian Islands and took them to internment camps in southeast Alaska. The Attuans, after the occupation of their island, were taken to Japan as prisoners of war. The Unangan Aleut communities lost 25-40% of their people in three short years. In a final blow, the survivors from several villages on Unalaska Island, Biorka, Kashega, and Makushin, and the village on Attu, were not allowed to return home after the war ended. The U.S. government relocated them to Unalaska, Akutan, and Atka.

More than sixty years after these villages disappeared, the National Park Service, in partnership with the Ounalashka Corporation, and the US Fish and Wildlife Service, is researching these villages from the Russian period to the wartime evacuation. The Lost Villages project weaves together new oral histories from the last few survivors, with archival material, ethnographic research, and historic photographs to examine social, political, and economic life in these communities before the catastrophic disruption of World War II. It also highlights the unique qualities of each village through a series of "village biographies," which incorporate detailed village descriptions, chronologies, and brief biographies of well-known village residents.

The final products of the Lost Villages project will be a book about 300 pages long and an exhibit to travel throughout the Aleutian and Pribilof region. The Lost Villages book will consist of three main parts, 1) A detailed chronology placing the villages in their larger historical context, 2) a thematic section illustrating social, political, and economic commonalities between the villages, and, 3) detailed descriptive village "biographies," from the mid-18th century to their final abandonment.

To complete the research, NPS program manager Rachel Mason wanted to take Elders from Makushin and Kashega to the sites of the villages this September. Following a short send-off reception at the Unalaska Senior Center, the crew of the USFWS vessel M/V Tiĝlaˆx shepherded Elders Nick Lekanof, Mary Diakanoff, and George Gordaoff and several family members aboard for a rough 5 hour

voyage to Makushin. Makushin Bay was calm and sunny and the crew skiffed Mr. Nick Lekanof ashore to visit his childhood home. We made our way to the ruins of the village chapel where the family members erected a Russian Orthodox cross and cleared the vegetation from several graves. We all enjoyed a rare sunny dry Aleutian day while Mr. Lekanof told his relatives about life in the small community (figure 15).

Figure 15 Elder Nick Lekanof poses with family members involved in the Lost village project

The Pacific Northwest and Hawaii

Training

Finley National Wildlife Refuge

In 2010 USFWS was able to continue its work with promoting preservation among its Wage Grade personnel. Finley National Wildlife Refuge in Oregon recently hosted a Wage Grade Preservation Skills Workshop. The NPS led workshop exposed USFWS WG employees to maintenance skills for use on Historic buildings.

During the week long workshop, participants assisted in re-glazing the windows and the re-roofing of a small carriage house adjacent to a historic home located on the Refuge (Figures 16-21). The Refuge intends to use the carriage house as a Visitor information station.

USFWS WG personnel were able to complete a portion of these repairs while at the same time learning some tips on how to handle historic building needs on their own Refuges.

The course is a great partnership between NPS and USFWS and offering USFWS WG staff not only a chance to receive new training, but also to improve their ability to approach the challenges of preserving a historic structure.

Figure 16. USFWS and NPS staff re-shingles the roof of the historic carriage house.

Figure 17. Benton County Youth Conservation Corps assists with site preparation.

Figure 18. Benton County Youth Conservation Corps observe as NPS instructors explain what tasks are planned.

Figure 19. USFWS staff learn to re-glaze historic windows during the Preservation skills workshop

Figure 20. Staff complete one side of the roof and continue work on the widow.

Figure 21. Completed work on the Carriage house.

Mountain-Prairie

Science and Research

Charles M. Russell National Wildlife Refuge

When most Montana residents and visitors hear the name Charles M. Russell National Wildlife Refuge (CMR), often their first thoughts turn to big game hunting. During the fall archery season, a bow hunter searching for an elk on the Charles M Russell National Wildlife Refuge found something he was not actually looking for; the fossilized bones of a rare prehistoric sea creature called a plesiosaur (figure 22). Dave Bradt of Florence, Montana notified the Refuge Headquarters in Lewistown of the discovery right away. The find is scientifically significant and promises to add to our knowledge about the remote past in what is now Montana.

Figure 22. Dave Bradt of Florence, Montana with the 'catch' of a lifetime.

Located in a remote section of the refuge, the plesiosaur was found in approximately 75 million year old dirt/rock. Part of the neck had been exposed by erosion, while much of the rest of the body is enclosed in a large rock or concretion. Plans are under way for properly excavating and removing the specimen in order to obtain as much scientific information as possible from the fossil and from its context in the marine sediments.

According to Ken Olson of Lewistown Montana, Research Associate in Paleontology, at Museum of the Rockies, plesiosaurs were a group of marine reptiles that were contemporary to the dinosaurs. When the dinosaurs dominated the land, these creatures thrived in what is called the Cretaceous Seaway of North America. Seventy-five million years ago, that sea extended from the Arctic to the Gulf of Mexico. The boundaries fluctuated but, at its greatest extent, it was a thousand miles wide from the rising Rocky Mountains in the west to what is now the state of Minnesota to the east.

Like modern day whales, plesiosaurs were air breathers. They oared through the sea with their four paddles, catching fish and other prey with well-toothed jaws on the end of long necks. There were several varieties. The largest plesiosaurs ranged up to 40 feet in length and could have nearly 70 neck vertebra. This discovery on the Charles M Russell NWR is of one of the smaller types and is believed to have between 19 and 26 neck vertebra.

The CMR is very excited about this most recent find as there have been very few prehistoric marine reptiles found on the Refuge. There will be continued consultation with various paleontological experts and agency staff to determine the most feasible course of action for the site and specimen. If excavated, the specimen will remain in the permanent custody of the USFWS and either be made available for public display and education or utilized for further scientific study.

The Refuge staff will continue to ensure that the site remains protected and is not disturbed or damaged. Such resources have been recently afforded protected under the Paleontological Resources Preservation Act (passed in 2009). In general the law states that a person may not "excavate, remove, damage, or otherwise alter or deface or attempt to excavate, remove, damage, or otherwise alter or deface any paleontological resources located on Federal land unless such activity is conducted in accordance with this act. This contribution from the Mountain Prairie region is fitting considering the long standing connection of this Region to the protection of paleontological resources.

Partnerships

Deer Flat National Wildlife Refuge
On February 25, 1909, President Theodore Roosevelt signed Executive Order 1032 and, with the stroke of a pen, designated 17 new western reservoirs, including Deer Flat National Wildlife Refuge at Deer Flat Reservoir in southwest Idaho, as "preserves and breeding grounds for native birds." On February 25, 2009, about 100 refuge visitors, neighbors, and partners joined Deer Flat NWR staff, volunteers, and Friends to mark the centennial and celebrate 100 years of working together for wildlife.

Centennial preparations actually began well in advance, when the Friends of Deer Flat Wildlife Refuge applied for a Preserve America grant from the National Fish and Wildlife Foundation to conduct historical research about the refuge and reservoir. With grant funds, matching and in-kind contributions from 11 partners, and assistance from a variety of Friends members and refuge volunteers, the project is nearing completion. Project partners and volunteers have made a variety of contributions, including donations of cash, assistance with historical research, laying out and designing interpretive signs, a pamphlet, and much more.

With grant and partner funds, a Project Coordinator and Research Assistant conducted historical research about the refuge and reservoir at various museums, archives, and libraries. Their research also uncovered a large collection of historical photos, which were cataloged and scanned by volunteers into a digital photo archive of over 600 photos (figure 23).

Figure 23. Example of historical photos identified at Refuge. Early picnickers at Deer Flat using newly constructed CCC or WPA picnic tables.

Finally, a small cadre of volunteers received training on conducting oral history interviews. They have conducted nine oral history interviews with a wide variety of people, including a long-term refuge employee, a fisherman who is the third generation in his family to commercially fish carp at the refuge, and several long-term refuge neighbors. The oral history tapes and transcriptions will be permanently archived at the Idaho State Historical Society.

The Preserve America grant has provided a unique opportunity to document refuge and reservoir history while forging new and strengthening existing partnerships. When the project is complete, the refuge will have a comprehensive historical narrative, a historical interpretive pamphlet that will be sold at cost in the Friends' bookstore, and a 1.3-mile historical trail with 13 interpretive signs (figure 24).

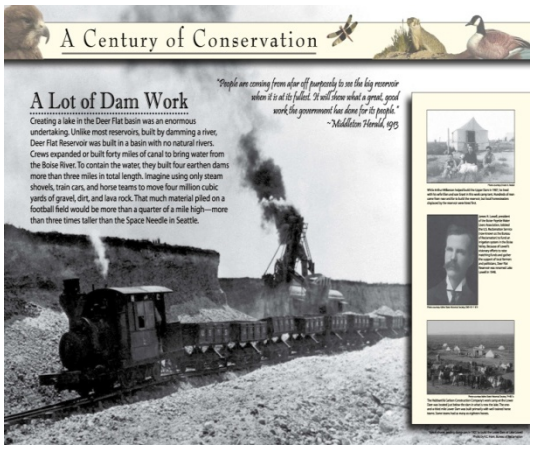


Figure 24. Example of an interpretive panel to be used in 1.3 mile historical trail at Deer Flat

Lee Metcalf National Wildlife Refuge

The Bitterroot Valley was the first region of Montana to see settlements of EuroAmericans from the east, circa 1841. The buildings on the refuge today reflect some of the earliest agricultural activity and settlement patterns in the valley. A functioning farm until government acquisition, the Whaley Homestead reflects the continuum of land use change in the Bitterroot Valley. Since its creation in 1963, the refuge has sought to preserve and protect the Whaley Homestead. Refuge staff worked to list the Whaley Homestead (figure 25) on the National Register of Historic Places in 1992.


Figure 25. the Whaley Homestead

The Whaley Homestead is a masterfully-crafted two-story log farmhouse that is clad with wooden clapboards. The grounds are shaded by large cottonwood trees overlooking some of western Montana's finest waterfowl habitat. The home was originally built by Peter Whaley, an Indian agent and contemporary of John Owen and other pioneering settlers in the Bitterroot. The house and farm eventually passed to the Harold Hagen family, who were prominent potato farmers in the area. Annual rainfall averages a mere 11 inches, but agriculture was successful thanks to a seventy mile long irrigation ditch, already in place by 1905, which distributed captured mountain snowmelt from a large watershed. Contrast this to the Salish, Native Americans that lived here as hunter/gatherers; who subsisted primarily on the tuber of the Bitterroot (State flower).

During the 1978 dedication ceremony renaming the Refuge to honor the late Senator Lee Metcalf, Harold Hagen spoke and said "I believe that we have attempted to mold the land to our ideas, to what it should produce when the land should have shaped our ideas and dictated to us what it could best produce." This wisdom makes the Whaley Homestead a place for tremendous interpretive potential relating the Bitterroot's early 20th century agricultural boom with historic wildlife narratives of Lewis & Clark.

To realize this potential, the Refuge and Regional Office Cultural Resources staff, in partnership with the Montana Preservation Alliance (MPA) and a host of community volunteers, has actively worked on the Homestead over the last two years. Thanks to a Fish and Wildlife Service Preserve America grant, the MPA has been able to facilitate restoration work, provide guidance on proper stewardship of the homestead, consulting with a variety of experts, and providing alternative interpretive plans for the Homestead.

The organized workdays not only restored the integrity of the structure, but became a catalyst for a rich exchange of stories. About 25 descendants of Peter Whaley gathered for a workday. Bob Whaley told of his father shooting geese off the Homestead porch. Betty Jean Wightman went into the Homestead for the first time ever taking in the view from the upstairs bedroom that for so long she had imagined…"awesome, what a legacy." A legacy, indeed, on many levels that the Refuge incrementally weaves into its wildlife mission in the beautiful Bitterroot Valley.

National Elk Refuge

Large mammal bones were found in 1971 on what is known as the Goetz site on the National Elk Refuge during limited excavations by the University of Wyoming (figure 26). In 2001, a reassessment of the site was begun with formal investigations funded by a grant from the Earthwatch Institute and a Challenge Cost Share grant from the Fish and Wildlife Service. The refuge provided administrative and heavy equipment support. Earthwatch volunteers from 16 states and six countries enthusiastically provided more than 6,000 hours of labor.

Figure 26. View of Goetz site excavation area

Led by Ken Cannon and Molly Boeka Cannon of the Midwest Archaeological Center of the National Park Service, the dig included hand excavation and backhoe trenching (figure 27). Geophysical surveys and three-dimensional mapping are being used to locate cultural materials and manage data. Bones of bison and elk were found as well as signs of cooking and stone tool production. The entire area was once covered by glaciers so a valley with steep walls may have served as a natural game trap. A spring at the base of the valley may have attracted both large mammals and humans.

Figure 27. Volunteers excavate artifacts from the site

Local high school groups have visited the site and high school and college students have been involved in the research. Artifacts are not currently on display and the site is not open to the public, but Cannon says there will be a poster display at the Bureau of Land Management National Historic Trails Interpretive Center in Casper, Wyoming and other presentations are also planned.

Cannon says a major focus of the research has been to illustrate the value of archaeology in addressing conservation biology and public land management. Detailed study of bison and their ecology was precluded due to their near extinction in the 1880s. Therefore much of what we know about bison and their ecology is based on anecdotal historic records and modern studies of small, isolated populations which represent only a fraction of their original range. What we hope to provide in this study is a more robust understanding of bison ecology over

a period of thousands of years and under various climatic regimes. In essence to provide a baseline of pre-European conditions against which modern conditions can be assessed.

While ecologists, conservation biologists, and resource planners and managers have typically been trained to view ecosystem function in synchronic terms, paleo-scientists have been trained to think in terms of diachronic processes and long temporal spans. By the very nature of our data we can provide the long-term view of ecosystem change.

Identification, Evaluation, and Policies—Historic Structures Identification and Reporting

Cultural Resource Management Program History

Cultural resources (also known as historic properties or heritage assets) include: archaeological sites (both prehistoric and historic and their associated documentation), buildings and structures, landscapes, objects, and historic documents. These items form a tangible links with the past. As an agency of the Federal government, USFWS is responsible for, and committed to, protecting and managing these irreplaceable resources in a spirit of stewardship for future generations to understand and enjoy. A Cultural Resources Management (CRM) program was established at USFWS in 1970s to manage the rich array of cultural resources under its jurisdiction. Its primary goal is to:

- identify, evaluate, and encourage preservation of cultural resources
- manage museum property collections
- consult with a broad array of interested parties
- promote heritage education
- provide expertise to USFWS programs such as, Federal Assistance, Partners for Fish and Wildlife, Realty, Endangered Species, Refuges, Fire, Planning with respect to Cultural Resource needs

Since its inception, the program has expanded as cultural resource laws, requirements, and public concerns, continue to increase. The Federal Preservation Officer, located in Arlington Virginia, coordinates the USFWS CRM program with many responsibilities delegated to regional staff. These include professional archaeologists, historians, and museum specialists. Each cultural resource professional in the USFWS meets the Secretary of the Interior's professional qualification standards for historic preservation qualifying them to conduct this type of work and serve as experts for this resource type.

Each Region employs at least one cultural resources specialist. These Regional Historic Preservation officers provide expertise and management advice to Senior Regional leadership with respect to cultural resources.

Table 1. USFWS Regional Historic Preservation Officers

Region	Name	Contact
1 and 8	Anan Raymond	20555 SW Gerda Lane Sherwood, OR 97140 503.625.4377; fax: 503.625.4887
2	David Siegel	P.O. Box 1306 Albuquerque, NM 87103 505.248.7396; fax: 505.248.7950
3	James Myster	Bishop Henry Whipple Federal Building Fort Snelling, MN 55111 612.713.5439; fax: 612.725.1754
4	Richard Kanaski	1000 Business Center Drive, Suite 10 Savannah, GA 31405 912.652.4415
5	John Wilson	300 Westgate Center Drive Hadley, MA 01035-9589 413.253.8560; fax: 413.253.8468
6	Meg VanNess	P.O. Box 25486 Denver Federal Center Denver, CO 80225

		303.236.8155 x258; fax: 303.236.8163
7	Debbie Corbett	1011 E. Tudor Road Anchorage, AK 99503 907.786.3399; fax: 907.786.3976
9	Eugene Marino	4401 North Fairfax Dr. Arlington Virginia 22203 703.358.2173; fax: 703.358-2517

The primary responsibilities of the Cultural Resource program and the Regional Historic Preservation Officers (RHPO) is to facilitate Service compliance with the National Historic Preservation Act (NHPA) and comply with other authorities pertinent to cultural resources (for detailed information on these authorities see http://www.USFWS.gov/historicPreservation/crp/authorities.html) , such as the Service's compliance with the Native American Graves Protection and Repatriation Act (NAGPRA) and its Museum Property related responsibilities. Program staff also comments on cultural resource related policy and guidance and offer opportunities for training and education on cultural resources to both Service staff and the general public.

Staff and Budget

Funding for National Historic Preservation Act compliance comes from individual program dollars with the majority of these activities being conducted on Refuges. This funding is used to support 22 cultural resource FTE (the second smallest cultural resources staff in Interior when considered against acres managed Table 2), but does not include costs of cultural resource related contract work (e.g., survey, excavations, etc…that are not completed in house).

Table 2 Expertise within the Cultural Resources Program

Region	Acres (Refuges only)	Expertise	FTE
1	89,947,372	Archaeologist	8
2	594,351	Archaeologist	1
3	1,365,800	Archaeologist	1
4	3,490,907	Archaeologist	2
5	460,646	Archaeologist	3
5	-	Architectural Historian	1
6	5,372,464	Archaeologist	3
7	78,837,263	Archaeologist	1
8	2,844,734	Architectural Historian	1
9	-	Archaeologist	1

For museum collections management, an estimated $385,000 was expended in the FY. This total includes funding provided under the USFWS "Art and Artifact" budget. Funding was used by USFWS offices to cover portions of salaries, travel, contracts, cooperative agreements, equipment, documentation of collections, interns, and a limited amount of conservation work. Salaries for museum personnel associated with the Bertrand collection at the Desoto Refuge, the D.C. Booth Hatchery, and the National Conservation Training Center were not covered by Arts and Artifacts funding, but are reflected in the overall funding estimate.

Internal Policies, Guidance, and Reporting for Cultural Resources

USFWS has developed several internal policies and handbooks that pertain to cultural resource program activities. 614 FW chapters 1-5 provides policy for compliance with the National Historic Preservation Act and coordination with the National Environmental Policy Act.

126 USFWS chapters 1-3 provides policy for the USFWS museum property program. It outlines responsibilities under federal statute as well as Departmental standards. USFWS also maintains a national museum property that is available on our museum property website http://www.USFWS.gov/historicPreservation/mp/museumPropPol.html

In FY10 both FY 614 and 126 were revised and updated. New versions are expected to go into effect in FY12.

Performance
Because of Cultural resources are included in the USFWS Strategic Plan, several reporting requirements specifically for performance are also the purview of the RHPO. The RAPP/Ops plan measures specific to cultural resources are:

- Number of archaeological sites in good condition
- Number of historic buildings in good condition
- Number of museum collections in good condition
- Number of paleontological sites in good condition

Data for the Refuge Annual Performance Plan (RAPP) and the USFWS Division of Finance Required Stewardship Information (RSI) report are embedded within other data categories noted under Compliance with the National Historic Preservation Act and other sections of this report.

Compliance with the National Historic Preservation Act
The USFWS Regional Historic Preservation Officers and, where applicable, their staff are the primary point of contact in each Region for cultural resource of historical/heritage asset related activities. They are the subject matter experts for the Regional Director, who retains final decision authority as per USFWS cultural resource policy (http://www.USFWS.gov/historicPreservation/crp/policiesHandbook.html). 90-95% of RHPO time is spent assisting the Regions of the Service to comply with Section 106 of NHPA. Section 106 requires federal agencies to consider potential effects of their mission related activities on cultural resources. These activities can range from the construction of a cell tower to creation of impoundments for duck habitat. In many instances, the RHPO is able to provide information on the potential of these projects to impact cultural resources very quickly. In other examples, further research and consultation is required. From 2000 through 2008 the number of projects submitted to the RHPOs for review has increased by about 30% annually. Table 3 shows data for NHPA compliance activities.

USFWS RHPOs also provide assistance in the development of Comprehensive Conservation Plans (CCPs) and Habitat Conservation Plans (HCPs) and provide comments on USFWS grants that might have the potential to affect cultural resources. Not all Regions are equally active in CCP and HCP development.

Table 3. Cultural Resource Program—Compliance Activities*

NHPA	R1	R2	R3	R4	R5	R6	R7	R8	*Total*
Number of NHPA Reviews this FY	384	250	68	169	89	487	53	327	*1827*
Number of archeological surveys this FY	32	20	8	32	15	27	6	32	*172*
Number of acres surveyed this FY	2295	8800	524	5050	54	1310	4500	437	*22970*
Number of archeological sites this FY	44	75	0	30	12	28	100	0	*289*
Number of archeological recovery projects this FY	0	0	0	0	1	1	2	1	*5*
Number of condition assessments for historic buildings this FY	0	0	0	1	6	3	0	0	*10*
Total Number of Archaeological Sites in the Region	875	425	3540	4730	921	3008	3781	1475	*18755*

RHPOs also maintain National Register data for the Region. As their time permits, they focus on addressing the backlog of sites that are listed as potentially eligible to the National Register. These properties must be reviewed and a determination made as part of compliance with the NHPA. Table 4 shows current National Register and other National designation data.

Table 4. National Designation Data

	R1	R2	R3	R4	R5	R6	R7	R8	*Totals*
Total number of NRHP eligible sites	0	100	16	66	13	7	3900	0	*4102*
Total number of NRHP sites actually listed (provide list)	17	5	11	25	12	0	14	10	*94*
Total number of national monuments (provide list)	5	0	0	0	0	0	1	0	*6*
Total number of national historic landmarks (provide list)	1	1	0	1	1	0	4	2	*10*

Museum Property

Program oversight at the national level is provided by the Chief, National Wildlife Refuge System and the USFWS Federal Preservation Officer. Each USFWS Regional Office has designated an individual to coordinate the management of collections and provide guidance within the region. The actual management of museum property maintained by USFWS units is the responsibility of the respective manager and his/her staff. Information on these collections is sent to and maintained by the Regional Office coordinator at the close of each fiscal year. In most instances, archaeological collections located in non-USFWS facilities are tracked by the appropriate Regional Historic Preservation Officer.

The USFWS Museum Property program currently tracks 5.6 million museum items (Table 5) across eight categories (Art, Archaeology, Ethnography, History, Documents, Biology, Paleontology, Geology) according to Department of Interior

(DOI or the Department) standards. Federal facilities are those located on USFWS property (on a Refuge for instance) while non-federal facilities refer to Universities, Museums, or other kind of repository that USFWS supports to curate and house its collections.

Table 5. Discipline totals for USFWS Museum Collections

Region (federal facilities n=115)	1	2	3	4	5	6	7	8
1	5	10,746	0	56	20	179,790	166	0
2	0	0	0	0	0	3,049	0	0
3	102	34,695	2	577,320	9,576	1,225	66	0
4	36	11,834	4	207	278,400	366	71	0
5	417	5,534	4	1,328	37,880	6,043	63	0
6	0	300	1	15,800	160,400	1	0	0
7	11	15,000	31	0	400	7,000	200	0
8	23	769	3	31	4	210	1	0
9	0	0	0	100000	34000	0	0	0
	594	**78,878**	**45**	**694,742**	**520,080**	**197,684**	**567**	**0**
Non-Federal n=210								
1	0	51,110	1	0	9	1	840	0
2	0	500	0	0	0	0	0	0
3	30	619,483	0	0	0	204	2	0
4	0	714,207	0	1	1,313,600	900	0	0
5	1	88,080	0	104	0	128	0	0
6	0	1,000,000	0	0	0	0	14,270	0
7	0	180,500	0	0	0	0	200	0
8	0	14,532	0	27	0	201	62	0
9	0	0	0	0	0	0	0	0
	31	**2,668,412**	**1**	**132**	**1,313,609**	**1,434**	**15,374**	**0**

1= art, 2=archaeology, 3= ethnographic, 4= history, 5= documents, 6= biological, 7= paleontology, 8= geology