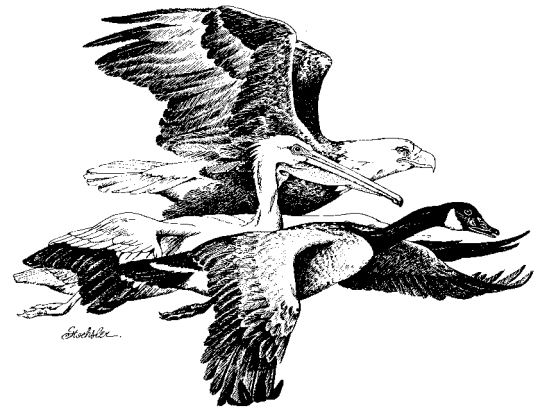


Words from the Wetlands



News from The Klamath Basin NWR's

Winter/Spring 2003

Refuges Announce 2003 Centennial Plans

The Klamath Basin Refuges has announced a month-by-month schedule of events to celebrate the Centennial of the National Wildlife Refuge System in 2003. Refuge staff and volunteers have already conducted a winter bird watching tour of Lower Klamath Refuge on January 25th enjoyed by 20 enthusiastic participants. Highlights on the list of events include the Bald Eagle Conference in **February**, an open house/luncheon and time capsule interment to commemorate the day 100 years ago that the first National Wildlife Refuge was established (**March 14th**), and the TuleLake Migratory Bird Festival on **May 24th**. Some of the dates and plans listed below are tentative so you may want to check the refuge website (www.klamathnwr.org) for periodic updates to the centennial events schedule.

The following events are planned:

FEBRUARY 15-17th : Bald Eagle Conference – Special Centennial Exhibit and Refuge open house

MARCH 14th at the Refuge Visitor Center : Open house with time capsule interment and lunch to commemorate the 2003 Refuge Centennial Celebration day on March 14, 2003.

APRIL 26th*: Wildlife appreciation and photography tour and seminar for beginners.

MAY 24th : Tulelake Migratory Bird Festival with a guest appearance by Theodore Roosevelt!

JUNE 28th*: Wildlife tour, open house and time capsule interment at Klamath Marsh National Wildlife Refuge.

JULY 19th*: Guided canoe tour of Upper Klamath Refuge.

AUGUST 16th*: Clear Lake Refuge tour with lunch at Boles Creek.

SEPTEMBER 20th*: Teacher Wetlands Workshop.

OCTOBER (date to be announced): Celebration of youth waterfowl hunting day.

NOVEMBER (date to be announced): Farming and Wildlife on Refuges Tour.

DECEMBER 6th*: The joys of winter birding tour of Tule Lake National Wildlife Refuge

* Dates are tentative and specific details will be announced

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The Year 2002 in Review

Dave Mauser
Wildlife Biologist

The year 2002 marked a turning point in the recent water allocation conflicts in the Basin when the National Academy of Science (NAS) completed a preliminary review of the Biological Opinion for protection of listed fish species in the Klamath Basin. While the NAS report supported many of the conclusions in the Biological Opinion, they felt overall that the shut-off irrigation water to the Klamath Project was un-warranted, concluding that there was little indication that operation of the Project over the last 10 years had jeopardized either the Short-nose or Lost River sucker or coho salmon. Using this preliminary conclusion, the U.S. Bureau of Reclamation (USBR) prepared a 10-year operations plan that essentially mirrored its "average" operation of the last decade. In summary, Klamath River flows and Upper Klamath Lake levels would be reduced below those recommended by previous Biological Opinions. The new plan essentially made more water available to Project farmers and the refuge generally benefits from the agricultural return flows. However, down river interests, environmental groups and the Klamath Basin's Native American Tribes were not pleased with this outcome and litigation is pending over the 10-year Plan.

Although 2002 had its ups and downs, conditions for wildlife on the Klamath Basin NWR Complex were much improved over the severe drought year of 2001. A near normal snow pack and runoff allowed the Refuge to flood nearly all wetlands on Lower Klamath NWR that were dry during 2001 in time for the spring waterfowl migration. In addition, water was available for local farmers and gone were the protests and media events that marked the very difficult summer of 2001.

Once wetlands were re-filled in winter, the stage was set for spring migration and what a migration it was! Total waterfowl seen in the Upper Klamath Basin (including off-Refuge lands) peaked at 1.8 million birds with 396,000 seen on Tule Lake and 846,000 observed on Lower Klamath NWR. This is the largest number of spring waterfowl ever seen on Tule Lake NWR (at least back to the 1940's) and observed on Lower Klamath NWR in nearly 20 years.

An unusually dry summer resulted in less water available than had been predicted at the beginning of the season. As a result, water was shut off to Lower Klamath NWR in August. In September, water delivery resumed to Lower Klamath NWR, although at a reduced rate. As a result, the Refuge fell significantly behind in its "normal" fall flooding of seasonal wetlands. On the positive side, the relatively large acreage of summer flooded wetland meant that fewer wetlands on Lower Klamath NWR had to be filled in the fall. In contrast to Lower Klamath NWR, adequate water was available on Tule Lake NWR to serve the existing sumps and 4,500 acres of wetland restoration and enhancement sites. As a result of these fall habitat conditions, Tule Lake NWR received near normal waterfowl use where as Lower Klamath NWR use was significantly reduced.

Probable cause for the decline on Lower Klamath NWR was the reduction in seasonal wetlands, the preferred habitat of fall migrant waterfowl. Other Refuges on the Complex such as Upper Klamath NWR and Klamath Forest NWR which are dependent on a more "natural" supply of water, contained adequate water for spring migration but were largely dry during late summer and fall.

In 2002 to develop waterfowl (and other marsh birds) population and habitat objectives. As a first step, the Refuge has contracted with Ducks Unlimited, U.S. Geological Survey, Oregon State University, and Point Reyes Bird Observatory to assess wetland and agricultural food resources and current and past water bird use. This information will be used to determine the acreage of wetlands and agricultural habitats needed on the Refuges to support water bird populations in the Basin. With water supplies limited, it is vital that the Refuges be efficient in water use and be able to articulate the need for water. It is expected that this project will take from 2-3 years to complete.

The Refuge Complex's forested habitats continue to receive major work efforts. Nearly all forested habitats on Bear Valley and Klamath Marsh NWR are in a very "unnatural" state with large accumulations of downed woody material and dense stands of small trees that historically were thinned with natural fire regimes. In 2002, the Refuge's fire program was instrumental in obtaining major funding for fuels reduction/wildlife habitat projects on both Bear Valley and Klamath Marsh NWRs.

The Refuge has treated approximately 800 acres of forested habitat on Bear Valley NWR. Once the smaller trees are thinned from beneath the larger trees, prescribed fire will be used to maintain the forest in a more natural condition. Protection and enhancement of forested habitat at Bear Valley NWR is vital to the Refuge's old growth and mature forest stands which support up to 300 roosting eagles during winter months and 3 nesting pairs in summer.

A new fuels treatment project was initiated in 2002 on Klamath Marsh NWR that will enhance approximately 3,000 acres of habitats. The Refuge assembled a team of biologists, fire specialists, and silviculturists from the U.S. Forest Service, Klamath Tribes, and the Klamath Bird Observatory to develop a prescription for a desired future condition that will reduce the risk of catastrophic wildfire, and create habitats for wildlife.

In summary, 2002 was a major improvement for wetland wildlife in the Upper Klamath Basin and the Refuges when compared to 2001. Although wetland habitat conditions improved in the short-term, major long-term issues remain; principally how to allocate water for endangered species, native American subsistence, irrigated agriculture, and the Klamath Basin Refuges. Solutions to these problems will involve time and much discussion among all interested parties.

What's Happening at Klamath Marsh NWR?

Walt Ford
Refuge Manager

New Office

Late in 2001, a double wide trailer that had been used as the Refuge office since 1990, was abandoned due to health and safety reasons. The Refuge office was then relocated to the unoccupied east side of the residential duplex. The trailer was part of the Nicol Ranch which the refuge acquired in 1989. We believe that it was constructed in 1971 and was originally used as a bunkhouse for the cowboys that worked on the ranch. Water damage, the destructive nature of mice and other rodents, and the risk of human occupants acquiring the deadly Hantavirus from infected rodents sharing the same house, forced us out.

A new office building is currently being constructed. It is expected that construction will be completed in early 2003. The building will be a modest 1100 sq. feet and is being built on the same site as the former office trailer. The new office floor plan is that of a 3 bedroom home. Long-term Refuge plans call for the eventual construction of a building that will house Refuge offices and a small visitor center. The new office will act as a visitor contact station only. The difference is that a contact station provides information only, while the visitor center provides educational and interpretive displays, souvenirs, etc., in addition to the basic visitor information. If funding is eventually provided for such a building, our new office will be easily converted into housing for Refuge staff. Providing housing to refuge staff is essential due to the Refuge's remote location.

Refuge System Centennial Celebration

As you have already heard, the National Wildlife Refuge System will be one hundred years old this spring! President Theodore Roosevelt established the first National Wildlife Refuge on March 14, 1903 by creating a wildlife sanctuary on tiny Pelican Island, on Florida's east coast. Today the refuge system has grown to well over 500 refuges and nearly 100 million acres. While many refuges will be holding their centennial celebration during the March 14th weekend, Klamath Marsh NWR will delay the celebration until June 28. The middle of March is not the most hospitable time of year on the marsh. Depending on the year, of course, snow and ice may still dominate the landscape.

Did you know that Klamath Marsh NWR was established in 1958, 45 years ago? Plans for the June 28 centennial/birthday celebration include: an open house of the new Refuge office building; placement of the time capsule; Tribal artisans demonstrating their traditional culture; hands on bird house construction; and bird walks led by members of the local Audubon Chapter. It should be a fun filled day and we hope that you will join us for this important anniversary. It is a great opportunity for anyone that isn't familiar with this remote Refuge in the Klamath Basin to get to know us. Anyone wanting more information about Klamath Marsh NWR or wanting to help Refuge staff with the celebration/planning activities are encouraged to call 541-783-3380.

"Old Faithful Geyser - West"

Fran Maiss
Deputy Manager

Perhaps you have noticed a steam plume during these cold winter days coming from the back of the Lower Klamath NWR. It is actually an apt signal of things to come, as the Lower Klamath NWR searches for alternative methods of securing water for the nation's first waterfowl Refuge. The Refuge has been diligently searching for ground water sources within the Lower Klamath Refuge to provide some measure of reliability/stability in maintaining its wetlands during water short years.

The well near Unit 9a, is roughly 600 feet deep and has a production capacity of 7,500 gallons per minute (16 cubic feet per second). The reason for the steam plume is that it is a geothermal well with a temperature approaching 160 degrees. Though hot, the water has been extensively tested and analyzed and has been deemed fit for use within Refuge wetlands. One restriction on its use however is that it spill into water flowing through the adjacent P-1 Canal. If we have at least one pump at "D" Plant on the Tule Lake NWR flowing through Sheepy Ridge we can split the flow to divert about 20 cfs through the P - 1 Canal to mix with the 16 cfs from the well to feed into adjacent refuge wetlands. The water at the spill pool in the canal immediately drops to 90 degrees which is safe for wildlife and other animals. Water from this well can contribute up to 32 acre feet per day to the Refuge's needs during water short periods.

Another success from our ground water exploration program has been the completion of a good well north of the Stearns Shop adjacent to White Lake. We currently have a well site there that can produce 2,200 gallons (5 cfs) of clean 80 degree water. With help from the Tulelake Irrigation District who loaned us a high volume portable pump with diesel engine, we were able to activate this well in September to help with the fall flood up of White Lake. Due to further geologic analysis it has been determined that we can place a companion well at the same site and double our production. We plan on doing this at some point in the future and then installing permanent infrastructure on these wells to enable us to flood both White Lake and some of the wetlands on the newly purchased Stearns property. With this capacity at this well site we should be able to fully flood White Lake over a two month period in the fall, regardless of any water shortage.

The Refuge also developed a 4,000 gallon per minute well (10 cfs) on Otey Island adjacent to Unit 2. We will be engineering and installing the infrastructure on this well to deliver it directly into Unit 2 which is one of our most biologically productive units.

Based on test well drilling this past fall we also plan to develop another well adjacent to White Lake near the old Orem house site. It will be developed to deliver water to both White Lake and the newly acquired Orem property.

While not a total solution to our water difficulties, these wells will give the Refuges some control over maintaining individual wetland habitats over the course of a dry summer and the guarantee of flooding White Lake in a timely manner every fall.

Burning the Lease Lands at Tule Lake and Lower Klamath National Wildlife Refuges

J. Susie Donahue
Range Technician

In 1964, the Kuchel Act directed the U.S. Fish and Wildlife Service to consider optimum agriculture use of its lands on Tule Lake and Lower Klamath National Wildlife Refuges in addition to the primary purpose of waterfowl management. Since then, farmers have annually leased approximately 15,000 acres on Tule Lake refuge and 5,000 acres on Lower Klamath Refuge for growing crops such as barley, oats, alfalfa, winter wheat, potatoes, and onions. Many farmers prefer to burn the residual plant matter from the previous growing season before planting a new crop. While lease land farmers have traditionally burned their own leases, federal wildland fire policy prohibits burning on government lands by those not qualified as wildland firefighters. After several meetings over the winter between the Lease Land Advisory Board, the Bureau of Reclamation, and the Fish and Wildlife Service, it was decided that the refuge fire management staff would conduct springtime burning on the lease lands beginning in 2002.

When the time came for burning the lease lands on Tule Lake Refuge, we were fortunate to have two weeks of good burning weather with dry sunny days and light winds. Fire management staff divided into two groups of 5-6 people. Each group included a burn boss, an engine and operator, and several firefighters on ATV's doing the ignition. Each ATV was equipped with a fuel tank and propane burner designed to light a mixture of diesel and gasoline as it is pumped from a tank mounted on the back of the ATV. The ATV operator only has to flip a switch and drive, while a trail of fire follows behind. The ATV operators igniting the field are coordinated by the burn boss for safety and air quality reasons.

The two groups were able to burn approximately 2,000 acres per day. Some fields burned very well; 15 minutes after ignition the whole field was black. Other fields burned in patches or not at all due to the sparse and discontinuous fuels. Because of the irrigation water cutoff in 2001, some stubble fields had been out of crop production for two winters and were too decayed and compacted for fire to spread on its own, even with wind. In all, we burned or attempted to burn approximately 13,000 acres on Tule Lake refuge between March 26 and April 3.

The lease lands at Lower Klamath Refuge are north of State Line Road in Oregon. When the time came for burning these fields, we had sunny weather, but most of the fields remained damp from being flooded for the waterfowl hunting season. As the lease lands are drained in the spring, most of the loose plant material is carried toward the low end of the field and deposited in one corner, making it difficult to cleanly burn the entire field. We burned or attempted to burn approximately 3,000 acres of the lease lands on Lower Klamath Refuge between May 14 and 16.

The refuge fire management staff is planning to burn the lease lands again this spring, but with some help. Congress has directed that a portion of each agency's work be contracted to local vendors. In the summer of 2002, contractors bid on the chance to burn up to 10,000 acres of the lease lands in the spring of 2003. If the weather this spring is not as favorable for burning as last year, adding a group of contract firefighters and qualified burning teams to the capabilities of refuge fire management staff will increase our chances of completing the burns in a timely manner for the upcoming growing season.



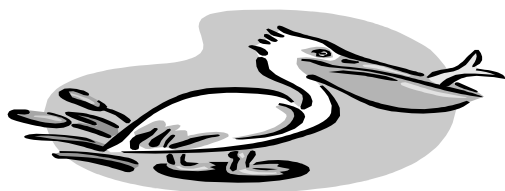
Lease Land Burning on Lower Klamath and Tule Lake Refuges

2003 Bald Eagle Conference

“Flying Towards the Future” is the theme for Klamath Basin Audubon Society's 24th Annual Bald Eagle Conference. It is the time of year, when the Klamath Basin Community comes together to celebrate the spectacular sight of the largest wintering concentration of bald eagles in the lower 48 states. The conference will be another great year of events and activities for all ages. It will be held at the Klamath Community College in Klamath Falls, Oregon on **February 14, 15 & 16 2003**. For registration contact Anne Wenner at (541) 882-1219 or (541) 891-2319. You can also visit their website (www.eaglecon.org). Contact the Klamath County Department of Tourism at 1-800-445-6728 for local accommodations and services.

Hope to see you at the Conference!!!





Species Spotlight

HOODED MERGANSER Duck

Joan Van Matre
Refuge Volunteer

The Hooded Merganser (*Lophodytes cucullatus*) ranks with the wood duck as one of the world's most beautiful water birds. His fan-shaped white crest, bordered in black, can be raised or lowered at will, but it is always noticeable. The grayish-brown female can be recognized by its bushy crest and merganser bill, which is a thin cylinder edged with tooth-like serrations, an aid in holding slippery prey. Hooded mergansers are known as diving ducks because they feed on small fish, crustaceans, crayfish, tadpoles, snails, aquatic insects, plants and seeds, which are mostly under water. They share many of their habits with the wood duck, such as nesting in natural cavities in trees, and readily use artificial nest boxes. They usually lay 8 to 12 almost round white eggs, with an incubation period of 29-37 days. The young leave the nest by clambering to the opening and dropping to the ground, where the mother is waiting to lead them to the nearest water.

Hooded Mergansers nest in two separate regions of the United States-east of the great plains and in the northwest. They summer in swamps, wooded streams, ponds and lakes of Alaska, Canada and parts of the United States (except the southwest) in suitable habitat- rarely or locally breeds to the southern U.S. Mergansers are fairly regular, but secretive, permanent residents of the Pacific Northwest. They occur mostly on fresh water streams, on small ponds, or at the edges of undergrowth along the shores of larger ponds.

The hooded Merganser is the smallest of the North American mergansers at 16"-19" long with a wingspread of 24-26 inches. Flight of this species is usually silent, it flies very swiftly in a direct straight line and is usually seen in pairs or in very small flocks.

The Hooded Merganser rises from the water in full flight without any preliminary motions, and is on wing at once. On the water, if suspicious, sinks its body until the water is almost level with its back-dives quickly and is extremely rapid underwater, using wings and feet to "fly" under the surface (Bent 1923)

The merganser has been known to crossbreed and produce hybrids. The male in eclipse plumage resembles the female. The Hooded merganser is known by many other names, such as little fish duck, water pheasant, tow-head, wood sheldrake or a combination of sheldrake, etc.

References:

Audubon Society Encyclopedia of North American birds
Audubon Society Birds of North America
Familiar Birds of the Northwest by Harry B. Nehls



Volunteers Needed !!!

Contact us on how you can become part of the team.

We especially, need volunteers to help with our Visitor Center operations .

So, if you would like to become part of a great team of Volunteers and Employees, meet new and interesting people and have an all around good time.

Then Don't Wait !!!!

Contact: Park Rangers David Champine or Jerry Ann King at (530) 667- 2231

Editor's Note

Many months have passed since the last "Words from the Wetlands" and we apologize. Therefore it has been decided by the editorial staff, that "Words from the Wetlands" will become a semiannual publication instead of quarterly. This change will allow us to continue to give you a good quality product, while also attending to other Refuge duties. We apologize for any inconvenience and **Thank You** for your support of this newsletter.

Please, Keep in touch !!

If you would like to be added to the mailing list or have had a change of address, see the back cover for details.

Refuge Waterfowl Hunting 2002-03

A Season of Change

Dave Menke
Outdoor Recreation Planner

The 2002-03 waterfowl hunting season on Lower Klamath and Tule Lake Refuges was impacted by the cut off of all water deliveries to the Refuges announced in late August. Water deliveries were resumed at reduced rates in mid September. The cutoff, followed by reduced deliveries, delayed seasonal marsh flooding on Lower Klamath Refuge during the first month of the season. The situation slowly improved with most hunting areas accessible to motorboats by mid-November.

Significant changes were made in the California hunting regulations this year with reduction of the duck hunting season to 86 days and reduction of the daily ducks limit from 7 to 5. The white-fronted goose and Cackling Canada goose seasons were extended through the entire season (44 days previously).

Approximately 40 percent of Sump 1B on Tule Lake Refuge (1,290 acres) was opened to waterfowl hunting for the first time during the 2002-03 season. An adjacent area, Frey's Island, totaling 233 acres was also opened to waterfowl hunting in the 2002-03 season. Limited cover in the Sump 1B hunting unit made it difficult to hunt by boat this season. A number of successful hunts involved walk-in hunters accessing the unit from the east side early in the season. Three of the six Frey's Island units were flooded by early November providing some excellent duck and goose hunting.

The Refuge purchased and installed four, 4-hunter pit blinds in two of the Frey's Island subunits and the flooded "D" blinds in cooperation with the California Waterfowl Association and the Cal-Ore Wetlands and Waterfowl Council this year. Although three of these blinds popped out of the grounds as the areas flooded, the locations provided some excellent hunting opportunity through the season. We plan to anchor the blinds in a different fashion in the coming season. The Cal-Ore Wetlands and Waterfowl Council also fabricated two, much improved disabled blinds for use in the spaced-blind program and installed 2 boat-in blinds for disabled hunters on Lower Klamath Refuge.

Overall waterfowl hunting use on Tule Lake Refuge was up sharply compared to last year. Duck hunting use and success was significantly higher in marsh units than in the previous two seasons. Goose hunting use also increased in the spaced-blinds compared to last year. Goose hunting in the League-of-Nations was the lowest on record this year due to very low numbers of geese using the northern portion of Tule Lake Refuge most of the hunting season.

Duck hunter use on Lower Klamath marsh units increased 34 percent while duck hunting success declined from an average of 2.83 duck per hunter during the 2001-02 season to 2.35 ducks per hunter in the 2002-03 season. The most significant difference in duck hunting on Lower Klamath this year was the reduced number and percent of mallards taken this year (2028 or 18 percent of the ducks taken) compared to 4065 mallards amounting to 40 percent of all ducks taken by Lower Klamath marsh hunters the previous season. This downward trend in the number and percent of mallards taken by Lower Klamath marsh hunters may be due to recent marsh habitat improvements on nearby Tule Lake Refuge. Goose hunter use on Lower Klamath field units was down 41 percent compared to the 2001-02 season. Much of the decline in goose hunter use and success is probably due to the sharp decline in the number of white-fronted geese using Lower Klamath Refuge this season.

Warm Welcomes and Fond Farewells

David Champine
Park Ranger/ Interpretive Specialist

As been described in other newsletter articles, 2002/2003 has been a time of change. The Klamath Basin Refuges "Family" has also gone through changes. We have welcomed new members and said "Good Bye" to others. We welcomed Marco Buske into the "Family" and wished all the best to Phil Norton and Jim Hainline as they retired and started a new chapter of their lives. Following are the stories of these three people and how they touched the Klamath Basin Refuges.

Marco Buske Integrated Pest Management Specialist

Marco Buske arrived at Klamath Basin Refuges in September of last year. Marco is the Refuge's new Integrated Pest Management Specialist. He will work on pest and pesticide issues involving the Refuge's lease land and cooperative farming programs, and habitat management. He comes to Klamath Basin from DeSoto and Boyer Chute National Wildlife Refuges near Omaha, Nebraska where he was the Refuge biologist for seven years. There he conducted field research and worked with local farmers to blend the Refuge's low-input farming philosophy and objectives with the farmer's economic needs. This involved altering cropping patterns, using a prescription approach to modify fall tillage practices, pesticide use patterns, and nitrogen fertilizer use, coordinating a crop scouting program with a local agchemical dealer and patience. He also developed the Refuge's Geographic Information System program, restored cropland to native tallgrass prairie, and administered the vegetation management program.

Prior to working for the U.S. Fish and Wildlife Service Marco was an Area Crops Specialist for Iowa State University Extension Service in eighteen southwest Iowa counties for eleven years, and an Extension Integrated Pest Management Associate in eight southeast Iowa counties for three and half years. He has extensive experience in soil conservation and conservation tillage, weed and insect control, soil fertility, integrated pest management and crop scouting, and pesticide applicator training. He has also volunteered for short-term assignments with Winrock International's Farmer-to-Farmer program in Nicaragua and Turkmenistan working on a variety of crops and pest management issues.

Marco and his spouse, Diane, reside in Klamath Falls. They are empty nesters with children and grandchildren in Wisconsin and Georgia, and immediate family scattered throughout the Midwest and High Plains.

(Continued to Page 7)



Warm Welcomes and Fond Farewells (Continued from Page 6)

Phil Norton Refuge Manager

Refuge Manager Phil Norton retired on Nov 1, 2002 with 35 years devoted to the National Wildlife Refuge System. Phil was well known and appreciated within Refuges. Over the years Phil has been well traveled within the refuge system, working early in his career at five different Refuges mostly in Texas/Oklahoma area as an assistant refuge manager, then moving on to a supervisory/advisory manager positions in the Phoenix Area Office, Denver Regional Office and Washington D.C. Office. He spent 13 years as the Refuge Manager at the Bosque Del Apache Refuge in New Mexico where he was recognized for his accomplishments by receiving the Refuge Manager of the Year Award from the National Wildlife Refuge Association and the Audubon Society in 1996. The New Mexico Distinguished Public Service Award the same year. New Mexico Chapter of The Wildlife Society presented him with its Professional Award in 1999.

One of Phil's main accomplishments during his tenure here has been to steer through a major engineering study to determine the most efficient way to utilize the limited water resources we are now getting on Lower Klamath Refuge, and to do the topographic mapping of the Tule Lake Refuge that will allow us to develop a crop land/wetland rotational schedule to enhance that refuge's wildlife habitat. This is something that has been sorely needed for some time. Phil also provided substantial input to the successful development of deep groundwater wells on Lower Klamath, that will hopefully give the Refuges some minor amounts of flexibility in managing limited water supplies.

Phil also took a personal interest in the maintenance function of the Refuge complex and wanted to insure that we completed our various projects with a professional polish. He was always challenging all of us to do and look our best and provide a positive outward appearance to the general public.

On Friday evening Nov 1 on Phil's last day of work a retirement celebration was held with about 50 people, including staff, folks from other agencies and Non-governmental Organization, and even a contingent of volunteers from Phil's Bosque del Apache days, who live in neighboring communities.

We presented Phil with a 1998 Ducks Unlimited Print of a wetland on Lower Klamath NWR with Pintails swimming in the foreground and Mt. Shasta in the background. This print was the winning entry by a local Klamath Falls artist, Pam Stoehsler, of a Ducks Unlimited art contest specific to the Klamath Basin.

This was a great present for Phil, as the picture is very distinctly discernible to Lower Klamath Refuge, not only a place he worked on for 3 years, but also a Flagship refuge within the System and a very fitting gift to present a nationally known leader within the Refuge System.

Jim Hainline Senior Refuge Biologist

After 30 years of Federal service with 25 years at Klamath Basin Refuges, Jim Hainline, Senior Refuge Biologist retired in January. Jim came to the Klamath Basin Refuges in 1977 from the U.S. Forest Ser-

vice and oversaw unique aspects of the biological program. Jim conducted over 20 years of aerial surveys where he counted waterfowl, eagles, and sandhill cranes. Jim's surveys have been combined with those conducted in the 1960's and 1970's by Ed O'Neil (former Refuge biologist) and entered to a database of over 7,000 records. Recently the U.S. Geological Survey has summarized this work in a publication titled "Waterfowl Migration Patterns on Klamath Basin National Wildlife Refuges, 1953-2001." This document tracks the trends in the major waterfowl species that use the Refuge Complex as well as species such as sandhill cranes, white pelicans, and bald eagles. The document will be a valuable reference for biologists and managers for decades to come.

One of Jim's major focuses in his career was the restoration and enhancement of wetland habitats whether they were on private lands or the Refuges. On the Refuges, Jim was instrumental in implementing many wetland management improvements, especially on Lower Klamath NWR that ultimately increased waterfowl use as well as the overall diversity of wetland bird species. In addition to his on-Refuge activities, Jim's farm background served him well in this capacity as private lands restoration biologist. In that capacity, Jim was directly involved in the restoration and enhancement of tens of thousands of acres of wetland habitats. Several restoration project earned national awards within the Fish and Wildlife Service's Partners for Fish and Wildlife Program.

In addition to Jim's wildlife and wildlife habitat achievements, his experience and insight touched the lives and careers of many up-and-coming Service employees, many of which are today's Refuge Biologists and Managers elsewhere in the country. Despite the increasing amount paper work, cell phones, computers, and meetings, Jim always kept the younger employees focused on the "bottom line" of Refuge management – **maintenance of high quality habitats for wildlife!** Jim's wealth of experience and insight as well as his always helpful attitude will be sorely missed. The Refuge staff wishes both Jim and his wife Carla the best of luck in the years to come and we hope that Jim will come visit us whenever he is in the neighborhood!

Good Luck to All !!



A Volunteer Perspective

By Hank Smith
Refuge Volunteer

Something must be fun if you keep doing it year after year. I have volunteered over 10 years for the US Fish & Wildlife Service. It is more than fun. It is fantastic!!! This past year's volunteer efforts amounted to about 1500 hundred hours at three different National Wildlife Refuges; Kodiak, Klamath Basin and Ruby Lakes. Each has its own unique qualities while still providing the things which are exciting to a person who enjoys wild creatures and their special habitat. The types of projects I did varied with the immediate needs of the Refuge where I was at the time. These included building 4 man hunting blinds for disabled hunters, constructing photo blinds, replacing signs for nature interpretative areas and Refuge boundaries, operating air boats to pick up dead and dying waterfowl during disease out breaks, and night time waterfowl banding operations, and conducting visitor surveys of people who flew into the back country to view Kodiak Brown Bears fishing in a nearby stream. Conducted waterfowl surveys in the back country of Kodiak Island, repaired public use cabins in the back country on Kodiak Island, replaced decking on heavy equipment trailers, hauled unwanted junk to land fills, conducted waterfowl hunter surveys every third day at Klamath Basin NWR, helped remove over 80 truck loads of dirt and rock by operating a bull dozer to create a 120 X 60 building site for an equipment storage facility at Ruby Lakes NWR, installed doors on Refuge residences, assembled and installed office furniture, repaired Refuge automotive equipment, taught firearms safety to refuge and volunteer personnel, conducted team building seminars for summer camp counselors, cleared nature trails of overgrowth, helped waterfowl hunters find downed birds with my Brittany Spaniel named Cody, assisted bird watchers locate birds of special interest to them, assisted temporary law enforcement officers to increase their waterfowl identification skills, rescued lost hunters, developed a waterfowl identification video for the Pacific Flyway, assisted in the development of a system for educating waterfowl hunters in the determination of effective shooting ranges.

Needless to say, the variety of the projects coupled with the knowledge that you are doing something that is important really helps to make the hard work worth while. It also goes without saying that the refuge personnel themselves really appre-

ciate your efforts.

The reason I have listed the variety of projects is to encourage others who might have a special interest or skill to take the step forward to offer their services. Most of the projects I worked on are outdoor type activities, which fit my special interests. However, there are also many projects which are best done indoors.

It is hard to say which of the projects I found the most exciting but possibly the visitor survey of Kodiak Brown Bear viewing would rank rather high. I was flown 120 miles into the back country of Kodiak Island and left for about 3 weeks. We had a population of about 20 Kodiak Brown bear who used a small area to fish for salmon during the summer spawning run. Most of these bear were sows with cubs of various ages. They came to fish about 4 or 5 times a day, eating 6 to 10 fish each time. Much of these meals would be shared with their cubs. After a few days, I was able to "read" their body language as they interacted with each other and with me. This was a population of bears who were habituated with humans and did not seem to be overly concerned with the presence of people who used the wildlife viewing pad. However, we never forgot that this could change in a second if a transient bear appeared. As time went along it was easy to distinguish one bear from another. I developed a great respect for a particular mother bear who was doing an excellent job of mothering a set of triplets. Two of the cubs liked to tussle with one another but the third cub did not like physical engagement and would back away from any form of physical touching. Apparently recognizing that play fighting was an important part of the survival process, this mother (whom I nicknamed "Sweetie Pie") would provoke the timid cub until it would finally engage her in a short episode of combat. After a very short time it would try to run away from the mother only to be gently rolled again.

Each day I was in the back country, I was required to call into the refuge headquarters promptly at 8:15 am to insure that I was ok. During one call to headquarters, I mentioned I had given one of the mother bears the nickname of "Sweetie Pie",---- there was short pause, then the person said "maybe you have been out there too long. It might be wise to come and fly you back to town". I could go on for a long time with descriptions of the antics and behaviors of these magnificent bears but I have neither the space

nor the writing talent to do them justice.

As you will see, my background of professional experience wasn't necessarily a fit for the volunteer activities which were undertaken for these refuges. My four years active military service was for the US Navy aboard USS Midway, flying such single seat jet fighters as the F8 Crusader, FJ 3 Fury, F9F 8 Cougar, and F9F 5 Panther. 28 years was spent in the Naval Reserve flying the A4 Sky hawk, A7 Corsair, F2H Banshee and T-33 Lightning .

Most of my professional life has been devoted to teaching young people in grades elementary thru university level in the subject of music. I spent some time spent teaching the topic of human factors in the School of Aviation Safety at the Naval Postgraduate School, Monterey. For a few years I managed the Emergency Response training program for Lawrence Livermore National Laboratory and earlier coordinated the aircrew Anti-Submarine Warfare training program for the P-3 Orion at Moffet Field, California. While at Moffet Field, we put together a team building seminar for aircrew which was delivered widely to many organizations and countries.

I also taught the Hunter Safety course for the California Department of Fish & Game. Volunteering for our system of national wildlife refuges has been like experiencing a second childhood. Everyday is a new and exciting experience. It is hard work but it is worth every bit of energy you put into it.



Hank Smith Constructing New Photo Blind at Tule Lake Refuge