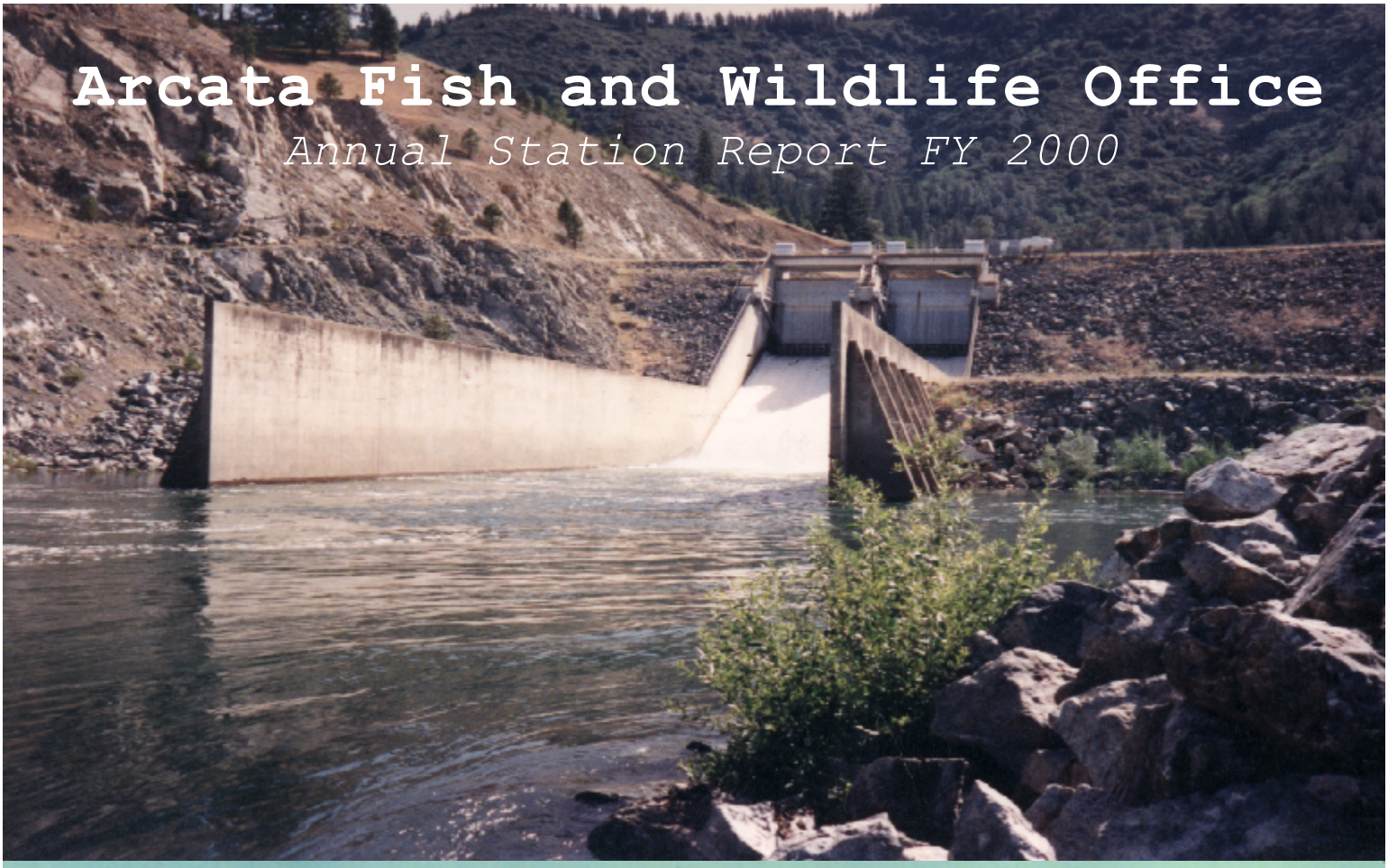
Arcata Fish and Wildlife Office

Annual Station Report FY 2000



ANNUAL REPORT

October 1, 1999 to September 30, 2000

ARCATA FISH AND WILDLIFE OFFICE

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Cover Photos
Top - Lewiston Dam on the Trinity River
Bottom - Snowy Plover

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FORWARD

In 1977, the Arcata Fish and Wildlife Office (AFWO) was established to assist in fishery resource-related issues of Northern California. Since that time, the AFWO has continued to seek resources to continue with fishery resource protection as well as funding to expand into other Service-wide activities important to natural resource protection.

In recent years, AFWO's activities have become focused in the Klamath/Central Pacific Coast Ecoregion, and the programs that are administered are much more diverse and cover many areas of responsibility of the Service. Under the direction of the California/Nevada Operations Office in Sacramento, the major areas of responsibility include: fishery program development, federal permits and licenses, habitat conservation planning, Endangered Species Act compliance, administration of the Northwest Forest Plan, an information resource management program, and forming partnerships with local and regional cooperators.

STATION OPERATIONS

On November 19, 1999, the AFWO staff moved into a new General Services Administration (GSA) building at 1655 Heindon Road in Arcata. This project had been in the planning stages for several years. The new building is also occupied by staff of the National Marine Fisheries Service, the National Park Service, and the U.S. Geological Survey. The building is also located next door to the Bureau of Land Management Office.

Figure 1. Ribbon-cutting ceremony held to dedicate the new federal office building at 1655 Heindon Road, Arcata, CA. Representatives of the U.S. Geological Survey, U.S. Fish and Wildlife Service, National Marine Fisheries Service, Redwood National Park, and state and local government were present.

STATION STAFF

The Arcata Fish and Wildlife Office (AFWO) was staffed by 27 permanent, 10 temporary or term, 1 employee in the Student Temporary Employment Program (STEP), and 3 employees in the Student Career Employment Program (SCEP). Combined, this accounts for 38 full-time equivalents (FTEs). Of the 10 temporary/term employees, by program assignment, the Habitat Conservation Planning (HCP) team employed one temporary clerical support position, and the fisheries program supported 9 biotechs/fishery biologists. One employee from the fisheries training program worked at AFWO during the summer months and

one person from Americorps assisted in the fisheries program during most of the year. AFWO also acts as a host agency for AARP Senior Community Service Employment Program. The goal of the program is to help AARP's clients to upgrade skills so they can find permanent employment. AFWO utilizes a part-time AARP client as a lobby receptionist.

FISHERIES PROGRAM

The AFWO Fisheries Program has been involved with fishery studies throughout California with the majority of activities focused in the Klamath River Basin in Northern California. The Klamath River flows through portions of Oregon and California within the boundaries of the Six Rivers, Klamath, and Shasta-Trinity National Forests (Figure 1). The Klamath River Basin has historically supported large runs of chinook salmon (*Onchorynchus tshawytscha*) and steelhead(*O. mykiss*).

In light of declining salmon and steelhead populations, federal and state governments have enacted legislation. In 1984, Congress passed the Trinity River Basin Fish and Wildlife Management Act, P.L. 98-541. The intent of this act was to restore anadromous fish populations of the Trinity River system. The program, which was originally authorized for 10 years, was reauthorized for several additional years and has provided the AFWO substantial opportunities to assist in improving fish habitat within the basin. In more recent years, AFWO participation in the Trinity River basin has been moderate, mainly due to increased fishery resource program development of the Hoopa Valley and Yurok Indian Tribes, which compete for similar funding sources. Due to the December 19th, 2000 decision by the Secretary of the Interior to implement a large scale restoration plan on the Trinity River system, AFWO participation may increase.

Concomitant to P.L. 98-541, Congress enacted P.L. 99-552, the Klamath River Basin Fishery Resources Restoration Act, on October 27, 1986. This action authorized the Secretary of the Interior to restore the anadromous fish populations to optimum levels, in both the Klamath and Trinity Rivers, through a 20 year habitat restoration program. The Act also created the Klamath Task Force (KTF)and the Klamath Fishery Management Council (KFMC), which deals with harvest allocation of Klamath River salmon.

AFWO conducts fishery related studies through the auspices of both restoration acts in the Klamath River Basin through an annual proposal process. These efforts focus on the monitoring and evaluation of wild and hatchery anadromous stocks and their habitats. Several of the more prominent

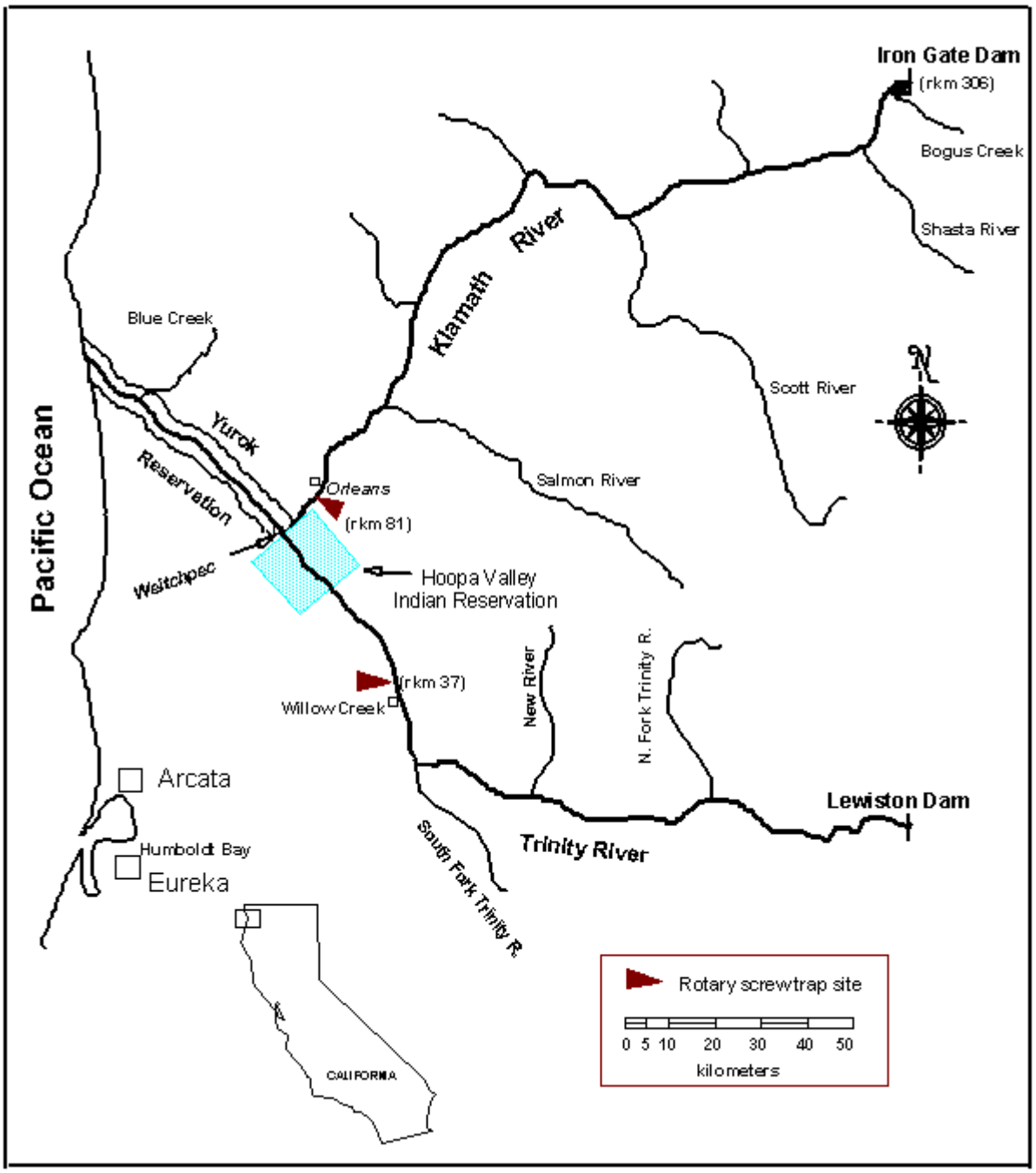

Figure 2. Klamath River Basin

studies conducted through this program are summarized in the following sections.

Klamath River Basin Projects

Juvenile Salmonid Monitoring Program

AFWO continued the Klamath/Trinity River Juvenile Salmonid

Monitoring Program in FY 2000. Objectives were to calculate and compare year-to-year abundance indices, estimate the relative contribution of hatchery and natural stocks, determine rates and peak timing of natural and hatchery stock migrations, and assess the general health of hatchery and natural stocks. Sampling of the Klamath and Trinity Rivers was conducted using eight-foot diameter rotary screw traps, constructed by the AFWO. The monitoring work on the Klamath River occurred at Big Bar (RKM 80) and field personnel included members of the Karuk Tribe of California.

In 2000, monitoring on the Klamath River began on April 06 and concluded July 19. The rotary trap operated effectively 87 (89%) of the 98 days possible. The 2000 Klamath River young-of-year chinook abundance index totaled 521,120, with hatchery fish representing 45% of the index. The chinook index for 2000 is below the 1992-2000 average of 892,770. The 2000 steelhead abundance index totaled 14,909, with hatchery fish representing 1% of the index. The steelhead index for 2000 is below the 1992-2000 average of 24,028. The coho index for 2000 totaled 4,805, with hatchery fish representing 77% of the index. The coho index for 2000 is also below the 1992-2000 average of 5,120.

Other species captured included Pacific and river lamprey, Green sturgeon, speckled dace, Klamath smallscale sucker, prickly, coastrange, and marbled sculpin, American shad, golden shiner, catfish species and fathead minnow. Funding for this project was received from several sources through the Klamath River Fishery Restoration Program's (KRFRP) annual proposal process, with additional project funding provided by the Bureau of Reclamation (BOR)and the AFWO.

Klamath River Technical Advisory Team (KRTAT)

The KRTAT provides technical support to the Klamath Fishery Management Council for the harvest management of Klamath River anadromous fishery resources. AFWO staff continue to participate on the KRTAT.

Klamath Technical Working Group (KTWG)

During FY 2000, Thomas Shaw represented DOI on the Klamath Technical Working Group (KTWG). The KTWG provides technical support to the Klamath Task Force (KTF). The KTWG is involved with the review and prioritization of proposals submitted for funding under the Klamath River Basin fishery Resources Restoration Act (P.L. 99-552). The KTWG then submits a

priorty list to the KTF for consideration for funding.

In addition to the annual proposal ranking process, the KTWG addresses technical issues presented at the quarterly KTF meetings. This year the TWG assisted the KTF with sub basin planning, monitoring prioritization, USGS stream gaging station needs assessment, creation of a Klamath River GIS/restoration web site, and the continued coordination with the Klamath River mainstem instream flow studies.

Microhabitat Studies

AFWO staff continued to work on the microhabitat analysis of the Klamath River. AFWO established microhabitat transects and began the collection of velocity and contour data for incorporation into the U.S. Geological Survey's (USGS), mid-continent Ecological Science Center's (MESC) system impact analysis model (SIAM).

AFWO continued the mainstem Klamath River fry density study, funded by USGS and the Klamath River Task Force. This effort focused on the distribution and density of fry chinook, coho and steelhead at the micro- and meso-habitat scale. Information from this and future studies will assist with the validation of the USGS-MESC salmon production model, for incorporation into SIAM. The Bureau of Reclamation funded the continuation of this study for FY-00.

AFWO has also assisted the DOI's efforts in the collection data and analyses in light of the on-going water resource issues facing the Klamath Basin, such as the State of Oregon's Alternative Dispute Resolution process for its Klamath Basin Adjudication and the Department's development of an interim operations plan for the Bureau of Reclamation's Klamath Project. Eight sites were sampled for hydraulic and biological data.

Adult Salmon Age Composition

Similar to past years, AFWO assisted the Yurok Tribe in deriving the age composition for returning Klamath River fall-run chinook salmon. In total, scale samples from 9,472 fish from 14 locations were aged and proportions of age 2,3,4 and 5 year old fish were determined. From the estimated run-size of 70,000 fall-run chinook, the following age distributions for FY 2000 were:

2 year olds, brood year 1997 (27.3%)
3 year olds, brood year 1996 (42.0%)

4 year olds, brood year 1995 (28.8%)
5 year olds, brood year 1994 (1.9%)

Mainstem Salmon Spawning Surveys

AFWO was funded by the Klamath River Restoration Fund to identify spawning areas and numbers of fall chinook spawners in the mainstem Klamath River. During FY 2000, a total of 135 river kilometers (Iron Gate Dam to the confluence of Indian Creek, at Happy Camp) was surveyed weekly (October 14 to November 19) by use of inflatable catarafts. Salmon redds were marked weekly with flagging and locations were recorded using topographical maps and GPS. Information gathered from this survey included biological and mark sample data on carcasses, and physical measurements of redd characteristics.

A total of 1,500 redds were observed in the fall of 2000, between Iron Gate Dam to the Indian Creek confluence. The distribution of these redds were similar to those observed in previous year.

The California Department of Fish and Game used this information to complete their Klamath River Basin fall chinook escapement estimate.

This survey is considered ongoing monitoring. Funding is contingent upon Klamath River Task Force and Technical Working Group approval.

Trinity River Basin Projects

Juvenile Salmonid Monitoring Program

Juvenile salmonid emigration was monitored on the Trinity River at Willow Creek (rkm 34) from May 16 to October 06. The 2000 Trinity River young-of-year chinook abundance index totaled 454,107, with hatchery fish representing of 45% o the index. The chinook index for 2000 is below the 1992-2000 average of 599,548. The 2000 Trinity River steelhead index totaled 27,142, with hatchery release representing 6% of the index. This total is below the 1992-2000 average of 83,987. The 2000 Trinity River coho index totaled 8,576, (11% being young-of-year). Hatchery yearling coho represent 62% of the index. The total coho index for 2000 was also below the 1992-2000 average of 38,812. The lower than average index totals for all three species in 2000 are likely due to a reduced sampling duration (134 in 2000). The average number of days trapped from 1992-2000 is 163.

Other species captured included Pacific and river lamprey, speckled dace, Klamath smallscale sucker, prickly, coastrange, and marbled sculpin, American shad, golden shiner, catfish species, brown trout, sockeye salmon and three-spine stickleback.

Trinity River Channel Rehabilitation Project Monitoring

We continued to develop methodologies for long term monitoring this year. This is a multi-year project and our primary goal is to test methods for evaluating channel rehabilitation site performance. Early in the season, we focused on monitoring project sites to determine if the sites are beneficial or detrimental to general herpetofauna populations or if there is no difference between rehabilitation sites and control sites. Preliminary information suggests that habitat may be more diverse at these sites for certain reptilian and amphibian species. We attempted to map habitat areas with GPS, and hope to combine this method with Total Station Surveys to provide information for two-dimensional habitat modeling efforts.

We also began direct observations for possible development of habitat suitability criteria for fish species in the Trinity other than salmonids. We recorded observations of Klamath smallscale Suckers and finescale dace. We began this work late (autumn) and were forced to stop when seasonal changes reduced river water temperatures. HSC observations may begin again in the spring.

Mainstem Salmon Spawning Surveys

Chinook salmon redd surveys occurred again this year in most of the mainstem Trinity. We coordinated with the California Department of Fish and Game, the Yurok Tribe and the Hoopa Valley Tribe on a cooperative project to attempt to survey the entire river, excluding the Burnt Ranch gorge area. USFWS again surveyed the 25 miles from the North Fork Trinity to Cedar Flat. Redd totals have increased from last year's count (although last year was a one time volunteer effort), but numbers are extremely low when considering the estimated number of fish returning to the system. We will assist in writing a joint report with CDFG and the Yurok Tribe when surveys are completed.

Fish Stranding Surveys

The AFWO was funded through the Bureau of Reclamation to evaluate salmonid stranding areas in the upper Trinity River.

As part of the study, AFWO staff conducted field studies to evaluate the effect of flow reductions of 5,000 to 4,000 cfs on fry salmon stranding. Sampling by electrofishing revealed that some areas had significant stranding. In one isolated pool (15' x 40') located 1.5 miles below Lewiston dam, 102 coho salmon fry and 68 chinook fry were rescued and returned to the mainstem river.

In addition to field-based stranding surveys, aerial photographs of the river were taken during this seasons high flow. These photographs, in addition to two other sets of photos, will be used to evaluate stranding potential at different flow levels.

Other Projects

Aquatic Non-indigenous Species (ANIS) Monitoring

AFWO assisted biologists of the University of California Sea Grant Extension program in determining the presence and distribution of the European green crab in Humboldt Bay. AFWO provided equipment and two fishery biologists to deploy and retrieve traps in several core sites around the bay. This cooperative effort was a first for the USFWS. Investigations in Humboldt Bay showed the green crab population continues to grow and their distribution is wide-spread throughout the bay, including areas adjacent to the Humboldt Bay National Wildlife Refuge Complex.

ECOLOGICAL SERVICE ACTIVITIES

Trinity River EIS/EIR

The U.S. Fish and Wildlife Service, U.S. Bureau of Reclamation, Hoopa Valley Tribe, and Trinity County were lead agencies in the preparation of an EIS/EIR. The EIS/EIR assisted the Secretary of the Interior in developing recommendations for permanent instream fishery flow requirements, habitat restoration projects, and operating criteria and procedures for Trinity River Division of the Central Valley Project, California. Such recommendations were required by: the January 14, 1981, Secretarial Decision that initiated the Trinity River Flow Evaluation; the Trinity River Basin Fish and Wildlife Management Act (Management Act) (Public Law 98-541); and the Central Valley Project Improvement Act (CVPIA) (Public Law 102-575). The purpose identified in the EIS/EIR, to restore and maintain the natural production of anadromous fish populations in the Trinity River, is in accordance with the 1981 Secretarial Decision,

the Management Act, the CVPIA, and the Federal government's tribal trust responsibility to Native American tribes that have depended on anadromous fishery resources of the Trinity River since time immemorial.

The EIS/EIR provided federal, state and local decision-makers, and the general public with detailed information for each alternative concerning the significant environmental, social, economic, cultural, and other impacts to the Trinity River Basin, as well as impacts to the Central Valley due to decreased trans-basin deliveries of Trinity River water to the Sacramento River Basin. The Draft EIS/EIR was distributed to interested parties in October 1999. The DEIS/EIR analyzed several alternatives, each of which consisted of combinations of various levels of mechanical restoration measures and instream flow volumes to the Trinity River, as well as spawning gravel augmentation and watershed rehabilitation measures. The recommendations contained in the Trinity River Flow Evaluation, with additional watershed rehabilitation measures, were adopted as the Preferred Alternative. The public comment period was extended for a total of 90 days, or until January 20, 2000. A final EIS/EIR was released November 17, 2000 and a Record of Decision was signed by Secretary Bruce Babbitt on December 19, 2000.

Klamath Project Operations Plan (KPOP)

The Bureau of Reclamation's Klamath Project provides irrigation water for agricultural and national wildlife refuge lands in the Klamath Basin. In addition to flood control obligations, the Bureau must operate to maintain Upper Klamath Lake elevations and Klamath River flows below Iron Gate Dam (IGD) at levels sufficient to uphold tribal trust obligations and to protect several fish and wildlife species affected by the Klamath Project. Some affected species are listed as threatened or endangered under the ESA.

Throughout the year, AFWO fisheries staff continued to provide review and comment of the Bureau's environmental assessment documents. These assessments lead to the implementation of a preferred operating alternative for the Klamath Project Operations Plan. Staff continued to provide the Bureau technical information regarding the salmonid resources below IGD.

Ecosystem Approach to Management

AFWO actively participates in ecosystem conference calls and meetings with the other field stations in this ecoregion

(Yreka and Klamath Falls) and with the refuges as well (Klamath Basin Complex and Humboldt Bay National Wildlife Refuge). Personnel and expertise are shared among all stations. Project planning and implementation efforts are shared among the stations in order to make the most efficient use of the collective expertise of the staff in the ecoregion. For example, the environmental contaminants staff in the Yreka office assists with technical project review and advice on water quality-related project review and also assisted with technical review of a mine remediation site near Happy Camp. In addition, all stations coordinate when dealing with water allocation and instream flow technical projects.

Endangered Species

Section 4: Listing and Recovery

The AFWO did not receive any listing assignments during FY 2000. We provided news releases to the media, public, key cooperators, congressional and other contacts with information regarding the designation of critical habitat for the western snowy plover. Recovery actions included the following: funding of surveys to determine the distribution, abundance, and status of the marbled murrelet and western snowy plover; and construction of exclosures to protect nests of western snowy plovers. In addition, we reviewed and commented on the final rule designating critical habitat for the western snowy plover.

Research Activities

We requested and obtained funding to support several key research activities. These activities included the following: surveys by the California Department of Fish and Game to determine the inland distribution of marbled murrelets in Santa Cruz, Marin, Sonoma, and Mendocino Counties; and partial funding of studies by the USGS Biological Resources Division to determine habitat use patterns, movements, and activities of radio-tracked marbled murrelets in Santa Cruz County.

AFWO, in cooperation with the Redwood Sciences Laboratory (USFS), continued to conduct offshore marine surveys to determine the relative abundance, adult-to-juvenile ratios and distribution of the threatened marbled murrelet in northern California. Surveys were conducted daily transects between False Cape and the confluence of the Mad River and extended offshore surveys between Point Arena and Shelter Cove. Surveys were conducted each month.

In addition, we participated in surveys to determine the occurrence and reproductive status of western snowy plovers on selected beaches throughout Humboldt and Del Norte Counties. Snowy. We also helped to fund the construction and monitoring of exclosures around known plover nests to protect them from human disturbance and predators.

We have also started to work with other potential cooperators to develop research proposals to describe the basic life history of Point Arena Mountain Beaver and the role of residual old-growth trees in the biology of listed species in second-growth redwood forests. Data in these areas are needed to improve protective measures and for HCP development.

Under the terms of the Pacific Lumber Company (PALCO) HCP, we have been working with CDFG biologists, company biologists, and private consultants to develop a research program for the marbled murrelet in Marbled Murrelet Conservation Zone 4. We deployed two ornithological radar units to detect murrelets in the summer of 2000 and have begun analyzing this data. We developed a proposal for a mark-resight study to determine survivorship and gather information on at-sea movements of individuals. We hope to begin this study in 2001. We are also working cooperatively with Redwood National and State Parks to develop a northcoast radio telemetry study. The goal is to address multiple research questions across multiple ownerships through cooperative efforts resulting in substantial cost and effort (personnel) savings. We hope to begin this study in 2001 as well.

Cooperative Grants

We continued our annual coordination with the California Department of Fish and Game to identify and prioritize projects which qualify for funding under Section 6 of the Endangered Species Act.

Section 7: Consultation

Informal consultation or technical assistance comprised the majority of the workload in 2000. Staff completed 874 consultations, of which 851 (97 percent) were technical assistance. Nine formal consultation were completed on 19 projects.

Approximately 56 percent of the formal and informal consultations were attributed to Federal agencies other than the Forest Service and Bureau of Land Management. Consultations were completed with agencies such as the

National Park Service, Bureau of Indian Affairs, Corps of Engineers, and Federal Highways Administration. We provided technical assistance to the Federal Emergency Management Agency, Coast Guard, Environmental Protection Agency, and California State Parks.

The average time to complete formal consultations was 87 days and the average time to complete informal consultation was 29 days. Consultations with the Forest Service and Bureau of Land Management were according to the streamlining guidance. The average time to complete streamlined formal consultations was 42 days and the average time to complete streamlined informal consultations was 33 days.

Consultations were completed largely on a project-by-project basis. The only exceptions were multi-year restoration projects.

Section 10: Recovery Permits

The Arcata Fish and Wildlife Office had the lead for seven Recovery Permits in FY 2000, and reviewed and facilitated the issuance of several additional permits for which other offices had the lead. The Recovery Permits were issued for several species including the western snowy plover, northern spotted owl, marbled murrelet, tidewater goby, and beach layia. In addition, staff coordinated with the California Department of Fish and Game regarding three permit actions for Federally listed plants that are co-listed by the State, but did not require a Recovery Permit.

Habitat Conservation Planning

The AFWO habitat conservation planning team continued to devote substantial effort toward implementing the Habitat Conservation Plan (HCP) for the Pacific Lumber Company (PALCO). The HCP and associated incidental take permit, issued to PALCO in March 1999, cover 17 species on 211,700 acres managed primarily for timber production. Since permit issuance, HCP implementation has occupied approximately 2.5 FTEs. There are several aspects of HCP implementation which require ongoing FWS involvement. These include watershed analysis, annual report review, fire management planning, development of research and monitoring plans, timber harvest plan (THP) review, and evaluation of research and monitoring results related to adaptive management decisions. HCP staff participated in the three watershed analyses initiated to date. We also reviewed 29 THPs for compliance with the HCP, prepared 65 letters of technical assistance, and responded to

3 adaptive management requests from PALCO. Finally, staff conducted a field survey to monitor how effectively PALCO THPs meet HCP conservation measures designed to leave wildlife ("live cull") trees for Pacific fisher and other covered species.

Work continued on developing an HCP for Ribar Timberlands. In 1999, the FWS received an application for an Incidental Take Permit for the northern spotted owl on the Ribar Timberlands, a small (1,384 acre) private landowner. During the review phase of the original HCP, the National Marine Fisheries Service listed the coho salmon. As a result, the original HCP went back to the applicant, who expanded the conservation plan to address the conservation of coho and the coastal cutthroat trout, for inclusion in the incidental take permit. The expanded draft HCP underwent several rounds of revision by the applicant and agencies in 2000. At the end of FY 2000, the applicant is reviewing the latest agency review comments on the draft HCP and Implementation Agreement. During FY 2000, FWS staff also prepared a preliminary draft of the environmental assessment for permit issuance, which will be completed when a final draft HCP is provided.

FWS continues to work with Simpson Timber Company on the development of a multi-species aquatic HCP for approximately 480,000 acres of timber lands in northern California. This HCP will focus on salmonids and headwater amphibians species.

FWS also continues to work with Mendocino Redwood Company (232,000 acres), providing technical assistance in anticipation of a multi-species (terrestrial and aquatic)HCP. The California Department of Forestry and National Marine Fisheries Service are also participating in the regular meetings.

FWS worked with Humboldt County to improve their management of county beaches, which provide nesting and wintering habitat for the western snowy plover and are also popular for a variety of uses, including vehicle use. FWS staff continues to provide technical assistance, while the AFWO encourages the county to develop an HCP, with FWS assistance. An HCP for county-managed beach and dune areas could provide the county with incidental take authorization, and address the plover's conservation needs, in addition those of listed plants of the coastal dune ecosystem.

The HCP staff is working cooperatively with the National Marine Fisheries Service to fulfill our tribal trust responsibilities under the Secretarial Order. We have been soliciting input from potentially affected tribes in Northern California, and have developed an informational status table

to keep tribes updated on the progress of various HCPs.

Technical Assistance

On July 1, 1999, responding to a request from the California Department of Forestry and Fire protection (CDF), the AFWO began reviewing all timber harvest plans (except those from Pacific Lumber Company and Simpson Timber Company who have incidental take permits)within the range of the federally listed northern spotted owl in Northern California. The purpose of the review was to provide letters of technical assistance to the CDF, facilitating the State Agency's compliance with State Law. In the first full fiscal year of this program, and under a 1 FTE constraint imposed by the California/Nevada Operations Office in Sacramento, the AFWO provided an incredible 720 letters of technical assistance as part of this new program. In addition to these technical assistance letters, in FY00 the AFWO fielded over 1,000 telephone calls from Registered Professional Foresters, Private Consulting Biologists, and Small Private Landowners as part of the process of providing this technical assistance.

In response to public requests, the AFWO HCP staff prepared an additional 51 letters of technical assistance during FY00, most of which pertained to THP-related spotted owl and marbled murrelet issues in coastal Mendocino County. The large number of requests for technical assistance from this region are apparently due to a high level of local environmental activism, turnover of local CDFG personnel, and expanding definitions of suitable marbled murrelet nesting habitat. The technical assistance workload in Mendocino is beginning to stabilize as new CDFG staff are assigned to this area. Staff also continued to provide technical assistance to AT&T and private land owners for road projects, trail projects, aerial tram construction, and fiber optic and other communications-related construction projects. All AT&T projects have avoided take of federally listed species including Lotus blue butterfly, Behren's silverspot butterfly, and the Point Arena mountain beaver.

Federal Permits and Licenses

In Fiscal Year 2000 Arcata continued to build on the accomplishments and partnerships that we have developed since we were assigned the lead for the Federal Permits and Licenses program in northwest California in FY 1997. Arcata currently has one FTE devoted to this program area and that individual divides their time between the Army Corps of Engineers (Corps) wetland development permitting program and the hydro-

power licensing program administered by the Federal Energy Regulatory Commission (FERC).

Geographic Responsibility

The Arcata, Klamath Falls, Yreka, and Sacramento Fish and Wildlife offices share program responsibilities for separate geographic areas within the Service's California/Central Pacific Coast Ecoregion. For the Corps permitting under Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act, Arcata has responsibility for Del Norte, Humboldt, and Trinity Counties, Mendocino County, excluding the Russian River Basin, and Siskiyou County, excluding the Sacramento River Basin.

For the FERC hydropower licensing program, directed by the Federal Power Act, we have responsibility for the same area described for the Corps permitting program, as well as the remainder of the Klamath River Basin that extends into Oregon. The Klamath basin in Oregon includes much of Klamath County and parts of Jackson and Lake Counties.

Wetland and Waterway Development Permits

Our involvement in this program during fiscal year 2000 covered a wide range of activities focused in particular upon Humboldt Bay and several of the coastal lagoon and river systems in northwestern California.

Humboldt Bay, CA

Humboldt Bay and adjacent former tidelands are the largest and perhaps the premier wetland habitats of our area of responsibility. Because of it's importance, the permits program expends considerable focus here.

Permitting issues have included waterfront development projects, channel deepening and maintenance dredging, large-scale Pacific oyster culture activities, roadway maintenance and improvement, and wetland priorities for compensatory mitigation.

Service priorities in the Bay include the protection and restoration of eelgrass meadows and salt marsh habitats. Tidal wetlands have seen the greatest decrease of any natural habitat around the Bay and are important habitats for the many species of shorebirds which seasonally occur here, and for which the Bay has been internationally recognized. Eelgrass

is a keystone species in the Bay that performs numerous functions from spawning habitat for herring, cover for larval fishes, to the primary dietary component for black brandt during their migratory stopover on Humboldt Bay.

Commercial shipping has become a focus of attention due to recent channel deepening, port development activities and two oil spills that occurred on and near the Bay.

We frequently coordinate our involvement in Bay related activities with Humboldt Bay National Wildlife Refuge staff and they continue to be a valuable partner in this program.

Lake Earl, CA

Lake Earl is a valuable and ecologically rich coastal lagoon ecosystem located near Crescent City in Del Norte County, CA. Artificial breaching of the lagoon has been conducted since at least the turn of the century by local farmers and ranchers in order to use adjacent lands for farming and grazing and to allow development within the floodplain. Some Native Americans in the area also state that their ancestors periodically breached the lagoon. In recent years, breaching has been conducted to prevent the flooding of uncapped private wells and a county road in the vicinity of the lagoon. Additional controversy exists because of an adjacent undeveloped subdivision, approved by the County in the late-60's , which is partially flooded when the lagoon exceeds approximately 8 feet MSL. With the exception of the subdivision, the remainder of the lagoon perimeter, up to the ten-foot elevation, is owned and managed by the State as a Wildlife Area. A primary focus of management for the Area is waterfowl, particularly the Federally-listed Aleutian Canada Goose, which has increased in population size to the point that flocks are hazed on nearby dairy pastures due to their impacts on forage for cattle.

The Service is a participant in the Lake Earl Working Group, which includes local, State, and Federal governmental partners, as well as NGOs, in an attempt to better understand and discuss breaching issues between interested parties in a forum of cooperation. The Corps recently released a series of studies they contracted to investigate ecological, cultural, and economic issues associated with the breaching of the Lake. Because of the development that has been allowed to occur around Lake Earl, artificial breaching will likely be a necessary action for some time to come. The question to resolve is how and when that breaching will be allowed to occur in order to minimize impacts to the species that depend upon Lake Earl for feeding, breeding, and shelter.

Lake Earl provides habitat for a large number and variety of species, including several that are federally listed. In addition to Aleutian Canada goose, listed species include tidewater goby, Oregon silverspot butterfly, California brown pelican, western snowy plover, bald eagle and possibly coho salmon. Waterfowl and other anadromous salmonids are also a concern.

Eel and Mad Rivers, CA

The Service continues to maintain involvement with gravel extraction activities on North Coast rivers through the Corp=s Letter Of Permission process that has been established for Humboldt and Del Norte Counties, although most of that activity occurs specifically on the lower Mad and Eel Rivers in Humboldt, and the lower Smith River in Del Norte. Of particular interest at this time are extraction related effects on federally-listed western snowy plover on the Eel River. Plovers are nesting on gravel bars along the lower Eel, a behavior unique for the Pacific Coast population of this species which usually nests on open, sandy beaches along the ocean. We continue to work with the Corps and gravel operators in an effort to avoid and minimize extraction activities that may affect plovers.

Redwood Creek, CA

Levees were constructed by the Corps of Engineers on the lower four miles of the creek in 1968 in the wake of the 1964 flood event. The levees are now the maintenance responsibility of Humboldt County. The maintenance baseline if strictly applied requires streambed gravels and cobbles and riparian vegetation to be removed to maintain channel capacity. The project not only disconnected the creek from its floodplain but also severely impaired the function of the estuary. We are working with Humboldt County, the Corps, NMFS, CDFG, the Coastal Commission, and Redwood NP to address flood control in the short-term, while retaining some habitat value, and pursuing long-term solutions which may include modification or removal of the levees.

Willits Bypass

The California Transportation Dept (Caltrans) is proposing to construct a four-lane freeway bypass of Highway 101 around the City of Willits. Willits is located in the Little Lake Valley which historically consisted mostly of wetlands and fed into Outlet Creek, a tributary of the Eel River which was touted

to have the longest run of coho salmon in California. We are working with Caltrans, in addition to other federal and state agencies, and local interests, to minimize the impact of this project on wetlands and develop acceptable compensatory measures for those impacts that cannot be avoided.

Hydropower Licenses

The Klamath/Central Pacific Coast Ecoregion contains 33 active hydroelectric projects licensed or exempted from licensing by the Federal Energy Regulatory Commission. The Potter Valley Project on the Eel River and the Klamath River Hydroelectric Project, are the largest of these and continue to dominate staff time in this program. Both of these Projects have ongoing, significant impacts on what were historically the two most productive anadromous salmonid rivers on the northern California coast. Native American Reservation Lands are located on both rivers and the Service routinely coordinates with Tribes regarding the protection of trust resources that may be affected by project operations.

Potter Valley Hydroelectric Project - Eel and Russian Rivers, CA

The Potter Valley Project has been in operation since 1908 and diverts water from the upper Eel River to a powerhouse located in Potter Valley in the Russian River Basin.

Populations of federally-listed steelhead, coho and chinook salmon in the Eel River and the water in which they thrive, are trust resources of the Round Valley Indian Tribes, which occupy reservation lands about 40 miles downriver from the diversion. At least one pair of bald eagle have nested at Lake Pillsbury, the project storage reservoir, since the late-1960's. Water diverted by the project significantly increases summer flows in the Russian River and is important for recreation , agriculture, and municipal uses in the Upper Russian above Dry Creek. Federally-listed salmon and steelhead also occur in the Russian River.

The mix of anadromous fisheries, high-value agriculture, municipal water, recreation, hydropower, trans-basin diversion, Tribal issues, and the uncertain future ownership of PG&E’s hydropower assets due to utility deregulation make this a highly visible and controversial project which has attracted the attention of many interest groups and politicians.

At the direction of the license issued in 1983, PG&E conducted

a ten-year study and developed a proposed new flow regime and project operation plan for the protection of anadromous salmonids. A slightly modified version of this proposal has been chosen as the proposed action in FERC's Final EIS for amendment of the project license.

In response to the Draft EIS, the Department of the Interior, representing the Service and BIA, and the National Marine Fisheries Service, submitted a joint DOI/NMFS flow proposal to FERC that is also a modified version of the original PG&E proposal. NMFS has recently issued a Draft Jeopardy Biological Opinion to the FERC regarding the proposed action and has identified the DOI/NMFS flow regime as a Reasonable and Prudent Alternative.

Klamath River Hydroelectric Project - OR & CA

Relicensing of this complex operation officially starts in FY 2001, but Service planning for this major action has already begun. Project facilities include 8 separate dams and powerhouses spread over 60 miles of the Klamath River in both CA and OR. Hydropower operations occur in conjunction with the Bureau of Reclamation's Klamath Project, which are both dependant upon releases from Upper Klamath Lake.

This proceeding has significant opportunities for the restoration of fish and wildlife habitats in the basin. Resources affected by the project include several anadromous salmonid species, multiple components of the National Wildlife Refuge system, the federally-listed Lost River and shortnose suckers, bald eagle, and numerous other aquatic and terrestrial species. Anadromous salmonid access to upwards of 200 miles of habitat has been precluded since the project's Copco I dam was constructed in 1911.

Anadromous salmonid and sucker populations in the Klamath Basin are considered trust resources of four Native American Tribes. Decommissioning of some or all of the project facilities will be a significant issue in this proceeding.

North Fork Sprague River Project - OR

Bull trout were recently listed as threatened in the Klamath Basin. The fish screens originally constructed on this project in 1985 do not meet criteria currently accepted as protective of fry and juvenile salmonid life stages by federal and state fish and wildlife agencies. We are working with the Oregon Department of Fish and Wildlife and have approached the licensee to begin discussions regarding the appropriate means

for protecting bull trout at the project.

INFORMATION RESOURCE MANAGEMENT (IRM)

The Information Resource Management (IRM) branch of the Arcata Fish and Wildlife Office (AFWO) consists of Greg Goldsmith and Tina Freeman. Responsibilities include individual computer support, training, and troubleshooting, LAN/WAN maintenance, support and troubleshooting, embedded microchip equipment support, support of smaller offices within the ecoregion, software training, geographic information systems (GIS) analyses and global positioning systems (GPS), and web site development.

Greg and Tina spent a large part of the year responding to requests from the AFWO staff, as well as the staff from other offices throughout the ecoregion. Significant events include: final design planning and move-in to a new building facility in November 1999, negotiation with the Bureau of Land Management for a shared office data connection, planning and implementation of a local area network in the Red Bluff FWO, analysis and planning for a local area network for the Coleman NFH and CA/NV Fish Health Center in Anderson, CA, completion of Y2K upgrading/testing, and computer support to the Humboldt Bay NWR.

The AFWO web site ***www.ccfwo.r1.fws.gov*** was expanded to provide more outreach information concerning listed species, and the varied functional programs within the office. Tina maintained and updated these sites.

In the area of Geographic Information Systems (GIS), AFWO had successful results in completion of many individual projects. Some of the highlights were:

1) Continued interagency cooperation/coordination through the North Coast Geographic Information Cooperative (NCGIC). This included continued funding of a ½ time position from the co-located National Park Service office to assist/collaborate in numerous AFWO GIS projects.

2) Completion of the Northern Spotted Owl Baseline analysis for California.

3) Continued updating of an ownership coverage for HCP/Private timberlands.

4) Completion of several maps for other FWS offices throughout the ecoregion.

5) Continued development of the NCGIC web site to include downloadable data relevant to the region.

FOREST RESOURCES

"Jobs-in-the-Woods" Watershed Restoration Program

The "Jobs-in-the-Woods" (JITW) Program Coordinator for the Klamath Central/Pacific Coast Ecoregion (KCPE) manages the Program from the Arcata Fish and Wildlife Office (AFWO). The Coordinator oversees the program among four field offices.

The Coordinator was responsible for the following:

1) Dissemination of information about the program to other Service field offices, the Provincial Advisory Committees (PACs),private landowners, tribes, businesses, and state agencies;

2) Entry and update of information on California JITW projects into a database for the Regional Office, the state of California, and a federal interagency database of restoration projects;

3) Ensuring projects managed directly from the Arcata office met all applicable environmental compliance requirements;

4) Writing of documents to meet federal regulatory requirements;

5) Attending various watershed group meetings and meetings of Service restoration staff;

6) Giving presentations to watershed groups, federal and state agencies about the program;

7) Writing Cooperative Agreements and landowner agreements;

8) Visiting project sites to assess and monitor restoration efforts;

9) Conducting field reviews of potential projects;

10) Coordinating JITW restoration efforts with other restoration programs within the Service, and other agencies, including the California Department of Fish and Game's SB 271 watershed restoration program;

11) Assisting landowners, businesses, and tribes with the development of restoration projects;

12) Assisting applicants with locating other sources of funding for restoration efforts which did not meet JITW requirements; and

13) Developing a watershed assessment component to the JITW Request For Proposals and gaining project leader support for the Service accepting proposals to conduct watershed assessment activities.

The KCPE received $791,000 of JITW funds in fiscal year 1999, of which $672,350 was allocated to specific projects. Proposals totaling approximately $2.2 million were received for the JITW program. A total of 10 projects were funded in 9 watersheds within 6 counties in California and Klamath county, Oregon. An example of a restoration project funded by the JITW program is illustrated in Figure X. Projects employed people from timber dependent communities to implement and monitor restoration efforts. Projects funded in 1999 supported road decommissioning, treatment of erosion sources from roads that caused sedimentation of streams, planting of native vegetation, improving instream habitat using large wood, and fencing riparian areas. Since the program's inception in 1995, the KCPE ecoregion provided $3.5 million for watershed restoration efforts on non-federal lands. Approximately 44 % of the $3.5 million available during the five-year time period of the program has been administered by the Arcata office.

The Coordinator represented the JITW program for the ecoregion during the revision of a joint "Request for Proposals" (RFP), for both Fiscal Year (FY) 1999 and 2000, which included 3 watershed restoration programs managed by the Service. The process of revising the document for FY 2000 JITW funds included the writing of a watershed assessment and inventory component to the program. The Coordinator worked to gain support of the four project leaders to allow a portion of JITW funds to be used for funding watershed assessment and inventory projects as well as specific habitat restoration and improvement projects. The effort was successful. The Coordinator revised the JITW section for both RFP's with editorial assistance from staff at the other three Service offices. The main highlight of the joint RFP process was that one application form could be used by a proposer to apply for multiple programs. Funding decisions for FY99 proposals occurred in March, and the FY 2000 RFP was sent out to the public in May with proposals due August 31st. Approximately 56 proposals were received for all 3 programs through the FY 2000 RFP with 31 of the proposals being eligible for JITW. In comparison to past years, a greater proportion of proposals received were eligible for JITW. During September and October all proposed projects were evaluated in the field by restoration staff of the four offices and other agency employees on the proposal

evaluation committee. Final evaluation of proposals for three programs was made in November by an interagency committee of federal biologists, geologists and restoration specialists, representing various areas of expertise, both geographically and within their disciplines. The Coordinator was accompanied by a fisheries biologist from our office to sit on the evaluation committee. The entire process was very successful. The AFWO is likely to receive JITW funds for six projects of the 9 proposals presented by the Coordinator to the evaluation committee. The joint evaluation process helped the Service better coordinate restoration efforts within a watershed and move closer to the goal of conducting restoration efforts with an ecosystem perspective in mind.

The Coordinator worked with Oregon and Washington JITW staff to organize a tri-state JITW meeting at the Portland Regional Office in January of 1999. The KCPE program and accomplishments for the past 5 years were presented to division chiefs and program directors at the Regional Office. Program accomplishments were well received. Office of Technical Support staff worked with us to begin efforts to compile briefing information on the program for Regional Office staff in the future and for a potential visit to the Director's office in Washington D.C.

The Coordinator participated in a 3 month effort to prepare a briefing book on the JITW program among the 3 states. A date was scheduled for a briefing to Jamie Clark and the Directorate for June. The color briefing book was completed with input of photos and text from JITW staff in all 3 states. Service restoration staff from each state traveled to Washington DC and presented the program to the Directorate and staff at Arlington Square. The goal of the visit was to make Washington DC staff aware of this program, its accomplishments and why it should be a regular and continued part of the Service budget for habitat restoration. No commitment has yet been made by the Service for continual funding but the JITW program budget was included in the FY 2000 and 2001 request for base funding to Congress.

The Coordinator wrote justification to the project leader and the deputy project leader identifying how and why the Partners For Fish and Wildlife(PFW)Program would be a valuable asset to the AFWO. The information was accepted and forwarded to the CNO for approval. CNO accepted the idea of AFWO requesting PFW funds for FY 2000.

NORTHWEST FOREST PLAN

Activities associated with implementation of the Northwest

Forest Plan are summarized as follows:

Provincial Resource Board (PRB)

The PRB consists of resource officers from the Six Rivers, Klamath, Shasta-Trinity, and Mendocino National Forests. The PRB was established to assist Forest Supervisors with implementation of the Northwest Forest Plan. Senior staff biologists from the Yreka, Red Bluff, Arcata, and Klamath Falls offices continued to meet with the PRB during 2000. Meetings focused on ongoing work to update the environmental baseline for the northern spotted owl.

Northern Spotted Owl Baseline Team

The Provincial Resource Board and the FWS Project Leaders chartered a technical team in 1997. This team consisted of biologists from the National Forest and Fish and Wildlife Service. Their duties were to complete tasks necessary to update the northern spotted owl baseline for the 4 northern forests in California. The Arcata office was the lead office for this effort.

During 1998, the team reached consensus on definitions of spotted owl habitat, based on ecological unit boundaries, as opposed to administrative unit boundaries. In 1999, the team began modeling efforts in collaboration with scientists from the Redwood Sciences Laboratory, Arcata, California to determine differences in the ability of the old (FEMAT map) versus new map of suitable habitat to predict occupancy of northern spotted owls. The modeling was completed and the new map was shown to be a substantially better predictor of owl occurrence.

Modeling results were then used to rank individual late-seral reserves on the Six Rivers, Shasta-Trinity, Klamath and Mendocino National Forests relative to their ability to provide for owls. Recommendations for consultation on projects around the reserves (the intervening matrix lands) were then developed according to the reserves' ability to provide for owls. The consultation recommendations will be used by the forests for large landscape level consultations.

Presentations on the development of the habitat definition, modeling process, and consultation recommendations were given to each of the 4 forests in northern California, the Region 5 Regional Forester, Oregon and Washington Service offices, the Klamath and Coastal California PACs in California, and at several professional scientific meetings and symposia. All

presentations were met with acceptance and approval. The Project Leaders and Forest Supervisors accepted the Team's recommendations in December 2000. The results will be applied in project planning and consultation in FY2001 and beyond.

Watershed Analysis and Adaptive Management Areas Workloads and staff levels precluded contribution of staff time to assist in efforts associated with either watershed analysis or Adaptive Management Areas during 2000. This scenario is not likely to change in subsequent years.

Provincial Interagency Executive Committee/Province Advisory Committee The office is a member of both committees. Staff attend meetings and provide technical assistance as needed.

OTHER FEDERAL ACTIVITIES

Staff participated in several working groups and project development teams for Federal activities and State activities with Federal commitments. AFWO staff maintain active membership in the Klamath River Technical Advisory Team as well as other committees on the Klamath River Task Force. AFWO staff also participate on the Technical Advisory Sub-Committee, Monitoring Sub-Committee, and Budget Sub-Committee of the Trinity River Task Force. In addition, staff participate as regular team members on the Coastal California Provincial Advisory Committee and the California Economic Revitalization Team; both teams are part of the implementation of the President's Northwest Forest Plan. Staff are also members of the Humboldt Bay Harbor and Conservation District Interagency Working Group, which is actively developing a management plan for Humboldt Bay. The Arcata Fish and Wildlife Office also actively participated as a member of the Pacific Coast Joint Venture; coordinating with partners such as the California Waterfowl Association, Natural Resource Conservation Service, Humboldt Bay Harbor District, National Audubon Society, Point Reyes Bird Observatory, and other local State and Federal Agencies to restore, enhance, and replace habitat essential to migratory birds. Participation within the Lake Earl Working Group focused on effects of breaching of the coastal lagoon to listed species of wildlife and potential long-term effects on wetlands. Project teams were developed to provide interagency input during planning stages of major road construction activities conducted by Federal Highways Administration, through the California Department of Transportation. Staff participated in consultations and research to minimize adverse effects to western snowy plovers on Eel River gravel bars, and coordinated with the Corps of

Engineers, gravel operators and consultants to develop a long-term permit for operations that will avoid or minimize adverse effects to this species. Additionally, the Arcata Fish and Wildlife Office took over monitoring responsibilities for the western snowy plover in FY 2000, from the California Department of Fish and Game. As a result, our knowledge of the local plover reproduction has been improved, in part, by implementing a banding program. The Arcata Fish and Wildlife Office continues to assist in the Natural Resource Damage Assessment for trust resources affected by a fuel spill outside of the Humboldt Bay entrance, and has stepped up coordination with both the Coast Guard and Oil Spill Prevention and Response Division of the California Department of Fish and Game (OSPR).

GOALS OF THE FOREST RESOURCES AND NORTHWEST FOREST PLAN

1) Continue to expand staff and funding for the California Forest HCP Team efforts on the north coast.

2) Continue to expand our ability to address listing and recovery actions on the north coast, and to improve service to Federal and non-Federal partners.

3) Continue to work on establishing an environmental baseline of species occurrence, areas surveyed, and suitable habitats. This information is necessary to conduct consultations, develop HCPs and aid in project planning.

4) Become more involved in identifying, funding, and overseeing research projects related to listed species and implementation of the NFP.

5) Expand our GIS capabilities with the National Park Service.

6) Work to use existing data available for JITW restoration projects within the ecoregion to create a GIS database. Other agencies would have access to the information and the database would allow for input of their data into the system. The goal is to be able to create maps and access information at an inter-agency level to view where we are all working on restoration projects and what we are doing. This information will help us to better plan and identify future restoration projects.

7) Work to develop an outreach component to the JITW program.

TRIBAL TRUST

Fisheries

As previously mentioned in the respective report section, the AFWO fisheries staff continue to provide technical assistance, equipment, and guidance to our tribal partners. These efforts include sharing of field activity responsibilities and equipment, training in fishery research techniques, and in co-developing study plans on the Klamath and Trinity Rivers. AFWO staff provide recommendations to water managers that are based on fishery resource science with consideration of our tribal trust obligations.

California Forest and Fire Management Council

We continue to provide technical assistance to the California Indian Forest and Fire Management Council, a coalition of 19 tribes from throughout California. We did not attend their annual membership meeting in 2000.

Secretarial Order 3206

Secretarial Order 3206, *American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act*, in part, addresses our tribal trust responsibilities. We have a representative on a subcommittee designated to develop implementation steps for the Secretarial Order. The committee did not meet during 2000.

In keeping with the intent of the Secretarial Order, we continue to contact tribes within our geographic area of responsibility. This effort seeks to establish good working relationships.

COOPERATIVE ACTIVITIES

AFWO staff were involved in various cooperative activities during FY 2000, including:

1) We participated in Humboldt State University's annual Career Day event, whereby AFWO and various natural resource management agencies provided employment information and counseling to students seeking federal seasonal and permanent jobs.

2) Senior staff biologist, David Solis, continues to function as assistant manager of the Marine Wildlife Care Center, in Arcata, CA. This Center is part of a seven-station network of wildlife emergency response centers along the coast.

The centers play a key role in the rehabilitation of oiled marine birds.

3) AFWO conducted a variety of field research projects which involved members of the various tribal, state and/or Federal entities in the Klamath Basin. Many of these cooperative work activities were facilitated through cooperative agreements.

4) AFWO provided considerable time and effort disseminating scientific findings to cooperators and the general public.

5) Staff members assisted the Humboldt Bay Wildlife Refuge during their annual effort to remove European beach grass from a portion of the coastal dune ecosystem.

6) Deputy Project leader Mary Knapp presented research findings on watershed collaboration at the Third World Fisheries Congress Briefing, Nov 1, 2000.

7) Staff took a lead role in re-establishing the Forest Reptile and Amphibian Working Group (FRAWG), a scientific group including representatives from timberland owners, agencies, and other professionals. AFWO staff facilitate the working group, which was formed to address reptile and amphibian issues in California's north coast region.

FUTURE OUTLOOK

The Klamath River relicensing efforts along with the water quality adjudication between Oregon and California and the Klamath River Long-Term Operations Plan EIS will require significant staff time in the coming year. In FY2001, additional financial resources may be available to AFWO to deal with these important issues.

Efforts have also been initiated to explore the establishment of a coastal program by AFWO. Contacts with local partners such as the Humboldt Bay Harbor District, the Coastal Conservancy and Humboldt Watershed Advisory Council have been positively received and there appears to be significant support for a Coastal Program effort.

Alternative sources of funds have become increasingly important to sustain the base of financial support for AFWO. Proposals for grant dollars have been identified as one way of addressing this need. To facilitate these efforts a database with active proposal ideas and available grant programs with deadline and application information has been created and maintained for use by staff as needed.

The role of AFWO in addressing resource-related issues involving the Klamath/Central Pacific Coast Ecoregion and elsewhere continues to evolve. Implementing the President's Forest Plan will continue to be a major activity for AFWO in FY 2001. AFWO's Habitat Conservation Planning team will continue to address HCP needs for the entire geographical area covered under the Northwest Forest Plan.

The AFWO Fishery Program will continue to seek funding as necessary to conduct research and gather information needed for the proper management of hatchery and natural anadromous fish stocks. AFWO Fishery Program staff will continue to seek cooperative activities with state, federal and tribal governments.

The primary area of concern for the AFWO Fishery Program remains to be the near total reliance on reimbursable funding, primarily through restoration programs within the Klamath River basin. It is anticipated that funding will continue to be available through these programs, especially in light of a decision on implementation of the preferred alternative of the Trinity River EIS, which includes many restoration activities and likely future funding. Funding received through the Klamath River Basin Fishery Resources Restoration Program, although variable and subject to shifts in funding category (e.g. on-the-ground restoration, monitoring, education), will continue to exert an influence on program direction. Currently, efforts are being made to secure funding for a Klamath River Flow Study - in which AFWO will be a major participant.

Projects that AFWO expects to continue into FY 2001 include:

1) Juvenile Chinook Salmon Production Monitoring
AFWO intends to continue juvenile salmonid monitoring activities on the Klamath and Trinity Rivers. We will continue to seek funding to maintain consistent data collection.

This program is viewed as an ongoing monitoring effort that will provide data on salmonid population trends. This information is important to determine the magnitude of juvenile salmonid production in the Klamath and Trinity Rivers, relative proportions of hatchery and naturally produced salmonids, and timing of emigration. Such data has been and will continue to be useful in the evaluation of the current and future restoration efforts.

2) Humboldt Bay National Wildlife Refuge Complex Salmon Creek supports coho salmon, chinook salmon, and steelhead trout. The importance of these species warrants monitoring work.

The proximity of the two offices and the lack of trained fishery personnel at the refuge will continue to provide opportunities for cooperation between HBNWRC and AFWO.

3) KTWG AFWO will continue to work with the other federal, state, tribal and local governments, as well as private timber companies in restoring the Klamath River Basin and anadromous fisheries. AFWO views this as a significant opportunity to protect and restore anadromous fish habitat along the west coast.

4) The Northwest Forest Plan AFWO will continue to cooperate with other agencies to assist in the implementation this plan locally and regionally. Significant opportunities may exist to participate in the watershed analysis process,restoration and monitoring of watersheds and stream habitats, and co-managing these resources with federal, state and local agencies, and private companies. The office will continue to be actively involved in research projects on species covered by the Northwest Forest Plan

5) Trinity River Restoration Activities
AFWO anticipates continued involvement in the Trinity River basin in 2001 and more extensive involvement following the 12/19/2000 signing of a Record of Decision on the Trinity River EIS/EIR. Future involvement will be assisting in the implementation of the preferred alternative of the EIS/EIS, development and assessment of channel rehabilitation projects, and assessment of adult and juvenile salmonid habitat use and population levels.

6) Klamath River Restoration/Flow Study
AFWO anticipates continued cooperative involvement with the Biological Resource Division of U.S.Geological Survey, Fort Collins, Colorado in habitat assessments of the Klamath River. Habitat and population models will be used to assess future flow requirements for salmonids of the Klamath River. Recent and future efforts will be coordinated with agencies and tribes represented in the Klamath Basin.

Program planning, direction, and coordination will remain an essential and on-going part of AFWO activities. Program coordination and information dissemination to other groups and agencies involved with the Klamath-Trinity Basin fishery resource are recognized as high priorities. Frequent meetings will continue to be held with biologists representing U. S. Bureau of Reclamation, the California Department of Fish and Game, U.S.Forest Service, Hoopa Valley Tribe, Yurok Tribe, Karuke Tribe of California, Oregon Department of Fisheries and Wildlife, National Marine Fisheries Service, Bureau of Indian Affairs, and other groups. Public involvement is also a

critical component to effective management. A pro-active effort will be made by Service employees to inform other agencies, tribes, and the public of the need to protect and enhance natural resources.

BUDGET

The AFWO operated with a total budget of $3,093,685.00 in FY2000. The cost breakdown by activity is provided in the following table.

Table 1. AFWO budget FY00.

PROJECT DESCRIPTION	ACTIVITY CODE	ALLOCATED FUNDING ($)
Forest Plan		
Consultation	1112	327,318.00
Implementation	1113	500,064.00
Prelisting	1115	8,848.00
Habitat Conservation Planning	1112/1113/1115	861,588.00
Habitat Conservation Planning - Mamu Surveys	1112	33,462.00
Partners	1121	18,975.00
"Jobs-in-the-Woods"	1126	389,877.00
Other		
Project Planning	1122	87,341.00
Anadromous Fish Management	1331	208,916.00
Fish and Wildlife Assistance	1332	48,171.00
Fisheries Population Monitoring	1937	566,052.00
National Marine Fisheries Service-Admin Support	1962	33,073.00
M/V Stuyvesant Oil Spill Assessment	9812	5,000.00
M/V Kure Oil Spill Assessment	9813	5,000.00
Grand Total		3,093,685.00