

U.S. Fish and Wildlife Service Fire Activity Report



2005

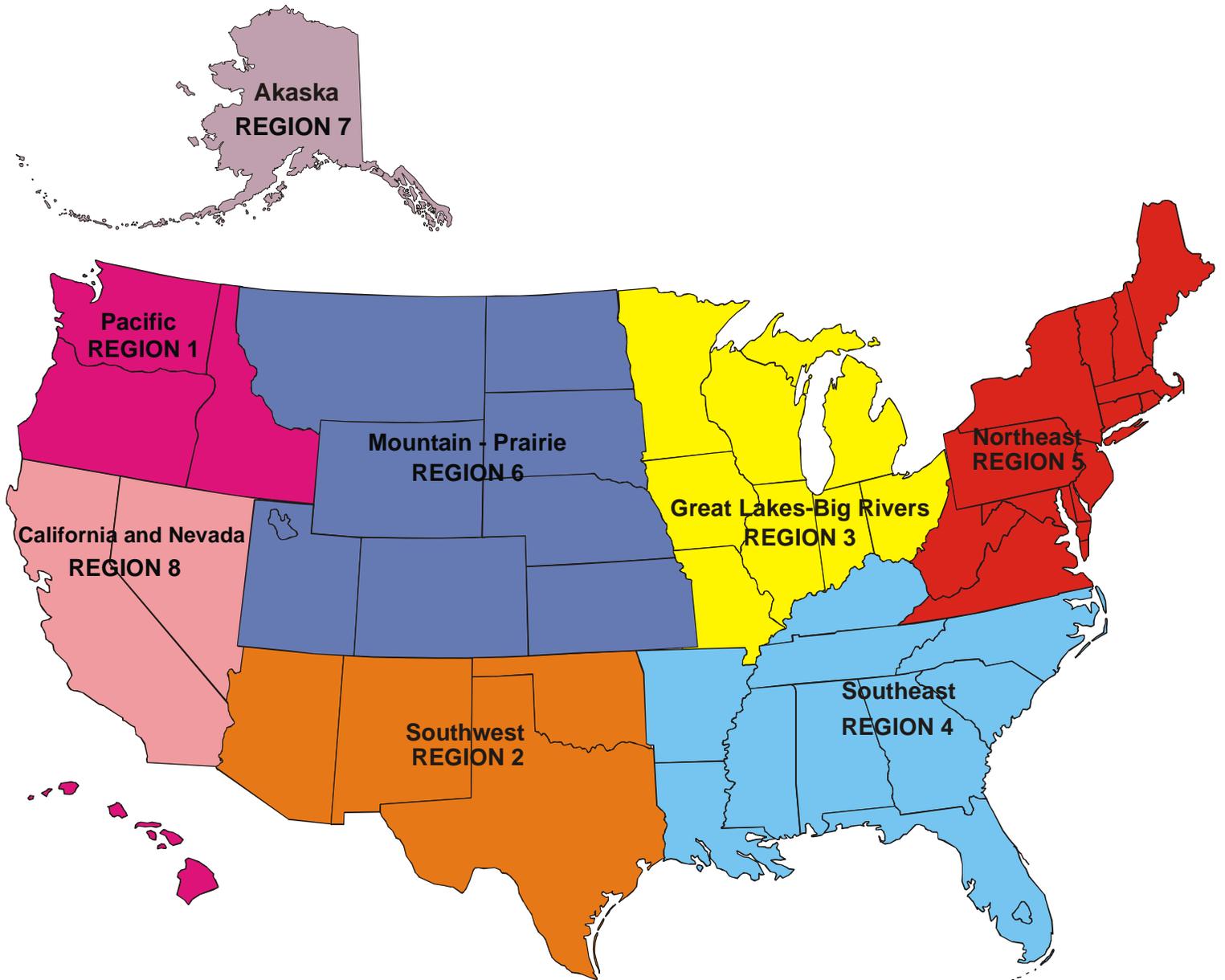
TABLE OF CONTENTS

2005 Fire Statistics

| | |
|------------------------------------|----|
| Regional Map | i |
| Regional Activity Summaries | |
| Pacific | 1 |
| Southwest | 4 |
| Great Lakes-Big River | 7 |
| Southeast | 11 |
| Northeast | 15 |
| Mountain-Prairie | 19 |
| Alaska | 22 |
| Wildfires | |
| Fire Activity Map | 26 |
| Number / Acres | 27 |
| By State | 28 |
| By Refuge | |
| Pacific | 30 |
| California/Nevada Operations | 31 |
| Southwest | 32 |
| Great Lakes-Big Rivers | 33 |
| Southeast | 34 |
| Northeast | 36 |
| Mountain-Prairie | 37 |
| Alaska | 38 |
| By Cause | 39 |
| By Size Class | 39 |
| 10-Day Period | 40 |
| Treatments (Non-WUI) | |
| Activity Map | 41 |
| Number / Acres..... | 42 |
| By State | 43 |
| By Refuge | |
| Pacific | 45 |
| CNO | 46 |
| Southwest | 47 |
| Great Lakes-Big Rivers | 48 |

| | |
|---|----|
| Southeast | 50 |
| Northeast | 51 |
| Mountain-Prairie | 52 |
| Alaska | 54 |
| Wildland-Urban Interface Treatments | |
| Activity Map | 55 |
| Number / Acres..... | 56 |
| By State | 57 |
| By Refuge | |
| Pacific | 59 |
| California/Nevada Operations | 60 |
| Southwest | 61 |
| Great Lakes-Big Rivers | 62 |
| Southeast | 63 |
| Northeast | 65 |
| Mountain-Prairie | 66 |
| Alaska | 67 |
| 2001 - 2005 Statistics | |
| Pacific | 68 |
| California/Nevada Operation | 71 |
| Southwest | 74 |
| Great Lakes-Big Rivers | 77 |
| Southeast | 80 |
| Northeast | 83 |
| Mountain-Prairie | 86 |
| Alaska | 89 |
| Regions 1-7 | 92 |
| False Alarms | 95 |
| Support Actions | 95 |
| 1996 - 2005 Statistics | |
| Wildfires | 96 |
| Treatments | 97 |
| Department of the Interior 2001 - 2005 | |
| Wildfires | 98 |
| Treatments | 99 |

U.S. FISH & WILDLIFE SERVICE Regional Map



PACIFIC REGION

Record spring rains were received over much of the Region in 2005. As a result, fine fuels were very heavy throughout the Region. The Sheldon-Hart Mountain Complex, a normally xeric landscape, experienced the most spectacular bloom of wildflowers anyone on the staff could remember. Shoulder high grass could be found widespread over the northwest. Then, when the rains stopped, things turned completely around. A prolonged drought, also setting new records over much of the area, cured the fine fuels causing fire managers from all five wildland fire bureaus to fear a raging fire season. Several very large fires did occur in Washington and Oregon, most of which were other agencies' responsibility. The Hanford Reach/Saddle Mountain Complex also had two large fires and Sheldon NWR was threatened by another.

The PNW Multi-agency Coordinating (MAC) Group was active this summer conducting weekly, then daily conference calls. However, no face to face meetings were held. During a good part of the fire season, Pacific Region staff was also committed to daily Great Basin MAC conference calls.

Severity funds were requested on an interagency basis for most of Washington and portions of Oregon. Extended staffing levels were implemented for Sheldon-Hart Mountain, Columbia, Little Pend Orielle, and Turnbull Refuges. A single engine air tanker was ordered for Hanford/Saddle Mountain, but because of the extreme activity in the southwest, the order went unfilled until the end of July. When an aircraft finally arrived, it was stationed at the Benton County Regional Airport in Richland, WA.

In spite of the potential for a disaster season, the combination of an aggressive initial attack by the augmented resources above, and the lack of any significant lightning episodic event, led to an average fire season for the area as a whole. The two major fires on refuges occurred at Saddle Mountain NWR and Hanford Reach National Monument. The Weather Station fire on Saddle Mountain reached a total acreage of 4,917 and the McLane fire at Hanford Reach totaled 6,851 acres. The McLane fire nearly became a major project fire with the potential to burn thousands of acres of private lands and Bureau of Reclamation holdings. The quick response of our SEAT, stationed at the nearby Benton County Airport, held the west flank of the fire in check when ground resources were not able to gain access to that side. The dry conditions and 100 degree heat still led to the decision to order a Type 2 Incident Management Team on the afternoon of August 10th. However, predicted high winds failed to appear that night, and well directed use of dozers resulted in the ability to contain the fire during the late night hours. The fire was declared controlled at mid-morning the following day and the order for the Team was cancelled.

Earlier on the same day the McLane fire started. This fire was located immediately adjacent to the refuge boundary, and was held completely in check by the SEAT, allowing refuge ground forces to arrive and complete mop-up operations. The aircraft also assisted local fire district resources on two fires threatening the surrounding communities and was credited with providing crucial support resulting in a successful attack in both cases. During the same period, the aircraft also flew several missions during the early hours of what became the massive School fire, just across

the river in Oregon. All told the SEAT delivered approximately 18,750 gallons of retardant to the various fires.

Both the Weather Station and McLane fires resulted in significant impacts to the unique old growth big sage community found at Saddle Mountain and Hanford Reach. A Burned Area Emergency Rehabilitation Plan was prepared for Weather Station calling for \$1,964,000 to control invasive plants and begin restoration of the native plant community. The McLane fire also resulted in a large BAER plan documenting the need for \$2,880,000 in treatments designed to stem the spread of cheat grass and restore native plants.

Sheldon-Hart, Turnbull, and LPO resources were involved with several fires in support of their local cooperators. Aside from McLane and Weather Station, no large fires occurred at any other Pacific Region refuges during 2005.

The Region sponsored one position on a Forest Service type 4 engine stationed in the Columbia River Gorge, providing coverage for Steigerwald Lake, Franz Lake and Pierce Refuges. Again this year, a position on the Las Vegas Helitack was used as a detail training opportunity for FWS personnel. In all, three FWS personnel were detailed to this program to gain valuable fire management experience. Although not all of the detailers were able to complete their taskbooks, 1- HECM and 1- FFT1 were signed off by evaluators. Our detailers, who were already qualified as ICT5, also proved to be excellent trainers for ICT5 for other crewmembers.

Personnel throughout the Region participated on both area and national teams. These individuals helped to manage numerous fire incidents including the School fire, the Blossom fire, the Mule Peak fire, and the Dirty Face fire. Numerous

other personnel assigned as single resources, with crews, or on engine modules, assisted on fires in Idaho, Washington and Oregon and also throughout the country.

Hurricanes Katrina and Rita responses were actively supported by the PNW Geographic Area Coordination Center and the member agencies. According to the NW Coordination Center, more personnel were mobilized for relief and recovery efforts from the PNW than any other GACC. Incident management teams with FWS personnel were mobilized while the emergencies were still unfolding. Law enforcement personnel were added to ROSS to be dispatched for security and search and rescue. All of the Regional Office fire staff went on assignments and several field station fire personnel as well. Later on, volunteers from outside the fire community went to work on the "Blue Roof" and debris removal projects.

Fuels treatment accomplishments for Oregon, Washington, Idaho and Hawaii totaled 6,039 acres for Wildland Urban Interface (WUI) and 7,826 acres for Hazard Fuels Reduction (HFR). In previous years, the reported accomplishments included California and Nevada, but did not in 2005. Sheldon-Hart Mountain personnel continued to manage prescribed fire for the Nevada refuges again this year, adding to the accomplishments reported under CNO. The Turnbull Prescribed Fire Module was used extensively throughout the region and is a valuable asset to completing both mechanical and prescribed fire projects benefiting refuge lands. The crew, along with Regional Office personnel and interagency cooperators, completed numerous prescribed fire projects at the height of the fire season in the Willamette valley.

Region 1 continued to be an active member of the National Fire Plan Grants Working

Team, a chartered committee of the Pacific Northwest Wildfire Coordination Group. The mission of this group is to provide a coordinated interagency approach to the selection and administration of Community Assistance and other National Fire Plan grants in Oregon and Washington. A major objective of the team is to provide, through a “one-stop shopping” concept, the solicitation of applications for National Fire Plan grant funds for hazardous fuels reduction work on non-federal lands.

Personnel from the Regional Office were involved in numerous incident and fire training endeavors. These included S-520/620 - Command and General Staff/Multi-Agency Coordination, and M-581 - Fire Program Management, Local Fire Management Leadership, a new course on using simulation in training and other local and area training sessions. In addition, refuge fire management personnel helped

with regional and local training.

In mid-April, Region 1 hosted the presentations and defense of the Final Project – Module 6 for Technical Fire Management 19, in Portland, Oregon. Held during four consecutive days, 32 presentations were given by students of session 19 and previous sessions. Nearly 20 evaluators were needed along with numerous hours of staff time to pull off this important endeavor. Washington Institute, along with the students, greatly appreciated the time put in by the Regional Office staff.

Managing the division of resources and responsibilities between Region 1 and the California/Nevada Operations Office continued to be a difficult and time consuming process. Some services such as IFPM and prescribed fire oversight were still supplied by Portland. Operational responsibility was transferred to CNO as was rehabilitation and WUI.

SOUTHWEST REGION

The year was extremely busy for the fire program in the southwest. Fuels treatments, habitat improvement burns, wildfire suppression operations, hurricane all-risk incidents and implementation of Fire Program Analysis (FPA) provided ample challenges for the personnel staffing the fire program.

Several personnel changes were experienced in 2005. Regional Fire Management Coordinator Jeff Whitney transferred to the Ecological Services office in Phoenix, Arizona, and was replaced by Dave Lentz. Cameron Tongier was hired in the new Fire Planner position, and Administrative Officer Kathy Whinship transferred to NIFC and was replaced by Donna Zanger.

Fire Ecology: Restoration and Research

Wildland Fire Burned Area Rehabilitation projects help fund current FWS positions that are involved with the project, and help meet the Regions hazardous fuels contracting target. Four new rehabilitation projects were proposed and funded this year including three at the Lower Rio Grande Valley Refuge and one at the Havasu Refuge. Fire Monitoring Plans have been approved for the Texas Mid-Coast Complex, and are in final draft for the Aransas and Buenos Aires Refuges. These monitoring plans are helping guide the Refuge Habitat Monitoring and Comprehensive Conservation Plans from the ground up. Three poster presentations of the Region fire success stories were submitted and accepted to the first Fire Behavior and Fuels Conference taking place this spring.

There are two continuing Joint Fire Science research projects: Patch Burning on Grasslands - Effects on Fuels, Fire Behavior, and Fire Spread; and Fire Effects

on Yuma Clapper Rails and California Black Rails on the Lower Colorado.

There are two ongoing fire related Science Support Program research projects: Using Prescribed Fire to Reduce the Risk of Catastrophic Wildfire for Habitat of the Endangered Golden-Cheeked Warbler at the Wildland-Urban, and Effects of Prescribed Burning on Marsh Elevation Change and Risk of Wetland Loss.

Fire Operations

The 2005 fire season started in January with wildfire activity continuing through the winter months in the western and southern areas of the Region on the Colorado River, Lower Rio Grande, and the Gulf Coast of Texas. Arizona, New Mexico, and West Texas saw record levels of precipitation during the winter of 2004-2005 which produced a continuous ground cover of annual grasses and forbs in desert areas where normally they are nonexistent. Southern Arizona refuges that have had no fire in recent history had significant wildfire activity requiring additional severity personnel and equipment be staged for initial attack.

The Region saw a significant workload in 2005 with response and recovery efforts for hurricanes Katrina and Rita. An incident command team was mobilized from Region 2 to relieve the Region 4 personnel at Big Branch Marsh NWR. This team continued the primary relief and recovery efforts of feeding and housing relief workers from the Federal Emergency Management Agency, American Red Cross, local hospital staff and patients, firefighters, and military personnel. A second incident management team consisting of 74 personnel was sent to lead recovery and stabilization efforts following

Hurricane Rita's landfall on the Texas/Louisiana border. Both teams worked to re-establish emergency access, secure service facilities, assist local and county government, and establish emergency housing for employees.

Region 2 refuges were also busy with wildfires on Service lands and with fires threatening the boundaries. These suppression actions totaled 316 fires for 65,371 acres burned.

Refuges suppressed 42 wildfires in Arizona, 9 in New Mexico, 32 in Oklahoma, 255 in Texas and assisted neighboring jurisdictions with the suppression of another 172 fires across the Region. The largest fires on Fish and Wildlife Service lands were the 4,145 acre Whites Levee fire on McFaddin NWR, 3,000 acre Mill Creek fire on Tishomingo NWR and the 26,000 acre King Valley fire on the Kofa NWR.

Region 2 requested 127 days of severity funding in 2005. Request for severity covered March through August supplementing local suppression resources with engines, overhead, single engine air tankers and helicopter support in Arizona and along the Gulf Coast of Texas. These additional resources were invaluable in controlling new starts in the first burning period, thus reducing extended commitment of suppression resources needed for ongoing initial attack.

Hazard Fuel Reduction and Habitat Management

This year has been an all time high for large landscape scale prescribed burns. The Region developed 10 landscape/programmatic burn plans covering up to 18 units in one document to save time, money, and mass duplication. The Region has been able to far exceed their target of 18,942 acres by treating 54,709

acres of condition classes 2 and 3 in fire regimes 1-3, outside of the wildland urban interface.

Region 2 is a very active partner in the Interagency SW Fire Use Training Academy. Fire personnel assist the academy by providing a host of instructors for both the spring and fall sessions. Additionally, Region 2 provided 19 % of all the prescribed fire project work for trainees to gain experience and work on qualification taskbooks, second only to the USFS.

This year the Region has made great strides in adapting to the new Interagency Prescribed Fire Planning and Implementation Policy by developing plans compliant with the new guidance while facilitating the development of highly skilled Type II Burn Boss qualified personnel. The Region is beginning to utilize new fire behavior technologies such as: Scott and Burgman's 40 Fuel Models, advanced versions of Behave Plus modeling software and GIS spatial data storage and mapping.

Wildland Urban Interface

Eighty-three Wildland Urban Interface fuels project treatments were conducted which treated 21,786 acres.

Region 2 distributed \$154,033 Rural Fire Assistance (RFA) grants to 40 fire departments in Arizona, New Mexico, Oklahoma and Texas for an average grant of approximately \$3,800. Many refuges in this Region are dependent upon rural fire departments for wildfire suppression assistance. In addition, the Region provided \$10,000 to support Community Assistance programs in Texas and Arizona.

Fire Program Analysis

The Fire GIS/Planning position was filled in

September 2005 in response to the needed technical expertise and increasing time demands of the congressionally mandated interagency fire planning tool, FPA.

A great deal of progress has been made in coordinating the efforts of the Region 2 Fire Management Officers, within their respective Fire Planning Units (FPU), with their interagency partners to insure that FPA National objectives are met. In addition, deficiencies in GIS spatial data, as it related to fire management, have been addressed and a plan for collecting and storing fire management spatial data within the region is underway. This effort is being coordinated with other regions to meet National and Agency standards.

Other: IMT Support and Local and National Training

Region personnel supported large fire support with participation on type 1/2/3 Incident Management Teams, Geographic Area MAC membership and dispatch coordination. ICS training was provided to USFWS Regional Law Enforcement and other non-fire personnel. National level training was supported by many program personnel during 2005. Personnel participated at NAFRI, the Arizona Fire Academy and the Texas Fire Academy.

On-going efforts in leadership training development and delivery continued with several TDGS/STEX train-the-trainer sessions and AAR training development for the Center for Lessons Learned. In addition to participating in the instruction of training, program employees completed S-520, Fire Program Management, Fire Program Leadership and numerous FPA courses.

GREAT LAKES-BIG RIVERS REGION

Region 3, the Great Lakes and Big Rivers Region, experienced a year of excellent fire program growth and accomplishment in 2005. As in the past several years, it was highlighted by key changes in personnel, emergency response and fire program accomplishment.

Keeping our string of leadership change alive, the Regional Fire Management Coordinator (RFMC) position was vacated in June, 2005, with Dave Lentz moving to Albuquerque, NM to fill the vacant R-2 RFMC position. Dave was anxious to return to the desert southwest and we wish him continued success in his new position. The Region 3 RFMC vacancy was filled with the selection of Steve Jakala in October, 2005. Steve comes to us from the US Forest Service, where he was the Assistant Fire Management Officer for the Chippewa and Superior National Forests. Steve has a long career in fire management and his knowledge and expertise in wildfire, prescribed fire, wildland fire use and fire aviation will benefit our region greatly. Steve has settled in and is working vigorously with each zone to continue to advance and grow the goals and objectives of our regional fire program.

Weather again was the major factor affecting all fire operations during 2005. A drought extending from the eastern Upper Peninsula of Michigan southwesterly through Illinois and into southwest Missouri caused problems essentially all through the year. Seney NWR suffered through this extended drought with record setting low fuel moisture indices and explosive burn conditions. Seney requested and

received severity assistance in July to offset the burden of extended rotations, pre-positioning of resources and assistance they supplied to the State and US Forest Service. Most thankfully, no major fire event occurred on the refuge as the historic 1976 Seney fire loomed big in everyone's mind. The drought area described above continued throughout 2005 and affected eastern Michigan, portions of Iowa, Illinois, Wisconsin, and Missouri.

Above normal temperatures coupled with below normal precipitation have impacted large areas of the region. For example, central and southern Minnesota completed the 15th warmest meteorological winter in recorded history dating back to 1891. Winter 2005 was the 4th straight winter with above normal temperatures, in fact, 14 out of the last 17 winters have been warmer than normal according to National Weather Service records. What this means across these large areas is that fire season has less of an "off season" every year and prescribed burning is able to start up earlier each spring or even during winter months. The negative effect is that the threat of wildfire remains a near constant problem within the region throughout the year. Minnesota was not the only above normal reporting location for weather data. The fall of 2005 found Wisconsin and Michigan also reporting above normal temperatures in October along with Iowa and Illinois, which also reported greatly reduced precipitation amounts. Only Missouri and Indiana reported near normal temperatures for this period. However, Missouri also recorded below normal precipitation this

past fall. Thus, rotating drought periods and precipitation deficits create on-going challenges for our managers.

Drought conditions were not the only factor to affect our fire program. Hurricanes Katrina, Rita, and Wilma necessitated a rapid response from Region 3 to assist both the refuges and Gulf Coast states affected by them. The region responded by sending 55 personnel with a myriad of skills and equipment to assist in disaster mitigation and clean-up. Law enforcement personnel with airboats and MarshMaster amphibious tracked vehicles, fire personnel skilled in chainsaw use, safety personnel, heavy equipment operators, and a host of others all contributed to the disaster effort

In 2005, there were 65 wildfires which burned approximately 2,725 acres within Region 3. Staff from Leopold WMD, Necedah NWR and Big Oaks NWR supported Seney NWR during its severe drought period and severity request. Additional large fire incidents staffed by regional FWS employees included the Alpine Lake Fire, 1400 acres (US Forest Service, Superior National Forest). Personnel from Big Stone NWR, Agassiz NWR engine module, Necedah NWR and the Horicon NWR Refuge Manager assisted on this fire. In May, 2005, personnel from Leopold WMD, Necedah and Horicon NWR's and the Madison Private Lands Office assisted on the Cottonwood Fire (State of Wisconsin), a 3,400 acre fire that was extremely destructive in destroying 100 structures, including 30 homes. The FWS personnel played a major role in fighting this fire including the use of the FWS MarshMaster tracked vehicles

which proved to be indispensable. In total, more than 150 FWS Region 3 personnel were mobilized to out-of-state wildfire and disaster incidents. As in years past, over 20 staff participated in a fire severity engine detail to the Arizona strip with the Bureau of Land Management in St. George, Utah. This has provided an excellent opportunity for our regional fire staff to utilize their engine and water handling expertise while gaining additional hands-on training.

The 2005 prescribed burn and hazardous fuels reduction program was very successful, especially given the weather challenges that occurred throughout the region along with the national disaster response. Region 3 completed a total of 73,550 acres of WUI and HFR accomplishments. This included 27,719 acres of WUI projects and 45,831 acres of hazardous fuels treatments. A total of 195 projects were accomplished consisting of prescribed fires and various mechanical fuels treatments. Great progress has continued in the restoration of sensitive and endangered habitat including our northern tall grass prairies and oak savannas. Assisting the prescribed burn program in our West Zone (MN) were National Park Service (NPS) Fire Use Modules from four parks. Included were the Buffalo River NP Module (AR), Black Hills Module (SD), Zion NP (UT), and Yellowstone NP, (WY) Reciprocal assistance was provided back to the NPS through the use of our engine modules. Agassiz NWR conducted an aerial ignition prescribed burn on approximately 3,000 acres in cooperation with the State of Minnesota helicopter module.

The joint Region 3 and Region 5 FWS

and USGS Cattail Marsh Study project has continued forward with important progress made during 2005. A shift in project implementation along with a firm commitment from the R-3 fire program will allow for continued project accomplishment and potential for productive prescribed fires in the coming year. This promises to be an outstanding refuge fire ecology study that has important ramifications and findings for refuges and wetlands nationwide suffering from a cattail problem. We are grateful for the opportunity to team with the expertise of the USGS staff professionals and a fellow region to help answer some tremendously complex wetland management problems.

Seney NWR successfully applied for and received funding for a Joint Fire Science project on the refuge. Teaming with staff from Ohio State University, the refuge has embarked on an important silvicultural and fire ecosystem project.

We continue to make excellent use of the IDIQ (Indefinite-delivery, Indefinite-quantity) contract as developed within Region 3 to allow for the efficient and timely ordering of MarshMaster tracked vehicles. In 2005, MarshMasters were ordered for Big Stone, Seney, Sherburne, and Union Slough NWR's. These are proven pieces of equipment that are an indispensable vehicle for firefighting and prescribed fire purposes on our refuges.

Region 3 distributed \$246,962.00 through the Rural Fire Assistance (RFA) Program. This funding purchased personal protective gear, equipment, supplies and fire training and was distributed to 47 rural fire departments

in eight states. This funding greatly assists the local fire departments adjacent to NWR's and WMD's to expand their fire fighting capabilities. Further, it is a great public outreach educational tool that expands our network of local firefighters available to respond to rural incidents.

In March, 2005, the region launched our fire website. The address is: www.fws.gov/midwest/Fire/. We use this site primarily as an educational tool for our public viewers, but it has also provided us an excellent location to publicly list our NEPA documentation and Fire Management Plans that are posted for the 30 day public review and comment period.

During the week of February 7-11, 2005, the FWS assisted the State of Iowa with their first ever prescribed fire conference and workshop. This proved to be an excellent training opportunity and public information forum. The FWS fire program continues to grow and expand in Iowa with tremendous potential awaiting us.

The three permanent Remote Automatic Weather Stations (RAWS) purchased in 2004 were delivered and installed during February and March. The new RAWS are located at Big Stone NWR, Litchfield WMD and Rice Lake NWR. These three RAWS will greatly expand the fire weather data collection and weather history at all three sites so critical for prescribed fire management and Fire Program Analysis.

Region 3 has vigorously pursued the initiation, coordination and completion of Fire Program Analysis (FPA) planning within the region. Several Fire

Program Units (FPU) have been completed with analysis and data runs. FPA is a challenge and the current phase 2 implementation will require additional effort from all our involved staff.

In conclusion, 2005 was a year of challenges and accomplishment for the Region 3 fire program. The stability that has now been formed within the region will allow for continued program growth and development.

SOUTHEAST REGION

Region 4 (Southeastern Region) had 236 wildland fires covering 34,260 acres in 2005. The largest fire occurred in the Sabine NWR and totaled 12,154 acres. A total of 24 mechanical treatments were conducted for a total of 3,202 acres. There were 307 prescribed burns accomplished for a total of 141,616 acres. The total acres treated in Region 4 were approximately 144,818 acres.

Extreme wet conditions in the Southeastern Region affected the timing of certain prescribed burns during the year, but the Southeastern Region still achieved approximately 33% of the Service's targeted prescribed burns as well as 15% of the Department's targeted prescribed burns. These wet conditions continue to provide for management challenges to balance the prescribed burning and the wildland fire suppression programs.

In previous years, the southeastern states applied for and received FEMA Fire Assistance grants, in the spring and fall fire seasons. This year there were numerous requests for FEMA disaster assistance due to hurricane activity. FEMA assigned a mission to the Fish & Wildlife Service to manage a base camp in Lacombe, LA. This was a first for FEMA to assign a mission directly to the Fish & Wildlife Service.

A total of 24 refuges in the Southeastern Region participate and receive funds in the amount of \$219,142 from Rural Fire Assistance grants. The RFA funding pays for personal protective gear and basic wildland fire training classes.

Sabine NWR, St. Mark's NWR, Okefenokee NWR, Lacassine NWR, and Noxubee NWR prescribed burned over 72,778 acres despite the extreme wet conditions. These refuges accounted for 48% of the Refuge's prescribed burning acreage and 65% of the number of burns

The Southeastern Region is within the Southern Area Geographical Area. The 2005 season can be described as a year unlike any other year – fire or otherwise. Vieques NWR in Puerto Rico began having fires in January, which then triggered a severity request for the first time in Puerto Rico's history. The fuels in this area are very hazardous and support high intensity fires with high rates of spread. The closest fuel models to describe the vegetation would be models 1, 3, and 6, and the upland fuels are short and tall grasses with shrubs. Unusually dry weather conditions had increased fire severity substantially. The area recorded 55+ days of no precipitation prior to March 29th. Between Vieques, Cabo Rojo, and Culebra NWRs, there were 53 fires, which includes fires which were a threat, that consisted of 2,422.5 acres. The Road 305 fire in Cabo Rojo ended at 1,300 acres which burned up to the edge of the refuge. District 6 FMO Jim Durrwatcher and a total of 40 individuals from various areas and agencies filled resource requests. Greg Buckalew from MS Sandhill Crane NWR assisted in training the state folks on how to set up portable tanks. The severity request finally ended around the first of May due to receiving precipitation.

As the spring fire season subsided and

hurricane season arrived, the fire staff from the Southeastern Region turned its attention to the incredible hurricane season predicted. The next four months were exclusively devoted to rendering assistance to refuges and communities impacted by various storms. The majority of everyone's time was spent in the Mississippi and Louisiana Gulf Coasts. The east coast of Florida was also affected by Hurricane Wilma, which rendered the same path that had been heavily affected in the previous year. The North Carolina coast was also affected by yet another hurricane.

Sami Gray served as the IC and Tony Wilder served as Operations Section Chief for a Type 3 FWS IMT for the Hurricane Dennis clean-up. The ICT3 for the Hurricane Katrina incident at Lacombe, LA was Tom Crews. Tom and his fire staff devoted approximately 5,313 hours for the aid to other refuges and cities, devastated by Hurricane Katrina. District 3 FMO Fred Wetzel of Okefenokee NWR served as the IC for a Type 3 team that responded to Southland, Louisiana after Hurricane Rita. There were several Florida refuges that were aided by Acting District 5 FMO Glen Stratton after Hurricane Wilma slammed southern Florida. Terri Jenkins, District 2 FMO worked with the Blue Team as a Logistics Chief coordinating efforts out of Meridian, MS after Hurricane Katrina and then she was reassigned to the Fish & Wildlife Service's Hurricane Katrina incident in Lacombe, LA as the Deputy IC. There was 364 Service staff from all refuges in the Southeastern Region assisting. Other FWS Regions provided 108 individuals, plus numerous individuals from other agencies assisted with the recovery and response to the hurricanes.

Nearly every employee at Mississippi Sandhill Crane NWR sustained some degree of damage to their personal property. Several lost their homes and are now living in temporary housing provided by the Fish and Wildlife Service. In the Southeast Louisiana Refuges all of the staff were moderately to severely affected. Some homes were flooded up to 12-feet due to the storm surge. A Fish and Wildlife overhead team spent over a month on-site at the headquarters of the Southeast Louisiana refuges working effortlessly to assist not only the Refuge recovery, but was tasked by FEMA to support a 1,500-person-base camp to assist other federal agencies, Red Cross, National Guard, and local hospital with logistical help. During the logistical assistance these individuals were provided with meals and water.

After Hurricane Wilma, Glen Stratton's Incident Command Team responded to Loxahatchee, Key Deer, and Hobe Sound NWR and helped repair or tarp roofs of employee residences, Refuge buildings, security fences, water treatment plant, and cleared roads of debris and downed trees, plus restored electricity. They and others assisted through this devastating hurricane season, by providing drinking water, generators, and heavy equipment.

There were 21 named storms that occurred since October 18th which has tied the previous record set in 1933. Hurricane Katrina was the most destructive hurricane to hit the United States in many decades, resulting in a massive relief operation headed up by FEMA and the military. The overall response effort was comprised of nearly 13,000 employees from the wildland fire community.

By the middle of September, Mississippi Sandhill Crane NWR was dealing with the recovery from Hurricane Katrina and became aware that wildland fire preparedness would have to be part of their response. By the middle of October the Keetch-Byram Drought Index had reached record daily highs and by early November a record all-time high was within reach. In addition to the extended dry period, Hurricane Katrina had left behind increased fuel loads due to salt-killed vegetation and timber blow down. In October, the MS Sandhill Crane NWR Fire Management staff made its first Severity Funding request since 2001. Increased staffing, combined with vigorous county and state enforcement of local burn bans, averted a possible second disaster.

The western and southwest fire season was very minimal. Alaska required the most assistance this year. We provided overhead positions and firefighters on 14-day assignments. Robert Eaton served on a 14-day detail to Fairbanks, Alaska and Pete Kubiak also completed a 14 day detail to Alaska. Jeff "Bunk" Twist served as a trainee Infrared Interpreter in Washington and Oregon. Jan Tripp from Savannah Coastal Refuges went to Idaho as a Helicopter Crew Member.

T.J. Prisock was hired at Noxubee NWR as a new fire employee. Eric Cagle was promoted to Lead Forestry Technician at Noxubee NWR. Sherri Matthews was hired at the Regional Office as the Fire Program Assistant. Sami Gray transferred from the Southeast Louisiana Refuges Complex to MS Sandhill Crane NWR as the Prescribed Fire Specialist. Gregg Buckalew left MS Sandhill Crane NWR and accepted a position with the Bureau of Land Management in Wyoming.

Jeremy Keller transferred from the Regional Office to the Mississippi Sandhill Crane NWR on July 13 as District 7 WUI Coordinator.

Sami Gray participated on a national committee examining issues related to Prescribed Burn Boss training, qualifications, and implementation of the new FWS standard prescribed fire plan.

Robert Eaton, Assistant Regional Fire Management Coordinator and Fred Wetzel, District 3 FMO, both served in the Washington Office for a two week detail assisting the Service's National Fire Plan Coordinator.

During the Annual FMO workshop held in Tallahassee, FL, District 7 FMO Tony Wilder received the first Annual Regional Fire Management Leadership Award. Other awards presented at this meeting included the Annual Regional Prescribed Fire Management Award presented to District 2 FMO, Terri Jenkins and the Annual Regional Fire Prevention Award presented to District 1 WUI Coordinator, Kelley Van Druten.

Pete Kubiak was invited by the Nature Conservatory (TNC) on a trip to Trinidad to meet with Forestry Officials and Forestry Agricultural organizations to participate in organizing a basic fire management training workshop for the entire English-speaking Caribbean region.

Pat Boucher, the FWS Assistant Area Coordinator was the Lead in ROSS to make sure all resources for the FWS hurricane response was accounted for and that everyone's access continued to function due to the new password change during the busy hurricane season. She

also helped teach D-310, Support
Dispatcher in Atlanta.

Region 4 of the Fish and Wildlife Service
has several employees that serve on both

of the Southern Area's Type I Teams.
The positions that these members serve in
are OSC1, DIVS, SITL, PSC1(T),
ICT1(T) and SOF1(T).

NORTHEAST REGION

Overall, the Northeast Region experienced a wet year which kept wildfire occurrence to a minimum and hampered prescribed burning efforts. The greatest amounts of rainfall occurred in New England, where October was one of the wettest months on record and central Maine received 168% of normal rainfall. The southern part of the Region was somewhat drier, particularly in late summer when KBDI drought indices approached record highs and raised concerns about fire danger. However, lightning activity was minimal and most fires that did occur were off refuge on private lands.

Great Dismal Swamp NWR only had one wildfire in 2005, a small lightning strike in mid-September on the North Carolina side. Chesapeake Marshlands Complex fire staff suppressed 18 wildfires totaling over 3,000 acres in Maryland and Delaware, primarily on private or state cooperator lands. Some fire activity was reported at E.B. Forsythe NWR in New Jersey, and four small wildfires were reported from Maine refuges, all human caused.

For the year 2005, there were 34 burn days in the South Zone, starting in January with assists to Mackay Island NWR. Projects were completed at Back Bay, Patuxent, Prime Hook, Bombay Hook, Rappahannock, Occoquan, Eastern Shore of Virginia, and Great Dismal Swamp NWRs. Assistance was given to projects on Mackay Island NWR in Region 4, the Virginia Department of Conservation and Recreation's Natural Heritage Program, The Nature Conservancy, and National Park Service

lands. Approximately 2,800 acres were treated by fire, including a 950 acre burn at Back Bay accomplished by aerial ignition. Personnel from fifteen different refuges and cooperating partner agencies took part in the burn projects. Nine Region 5 refuges were represented, as well as staff from the Regional Fire office, Region 4 refuges, Virginia DCR, The Nature Conservancy, Delaware Forest Service, National Park Service, and local AD firefighters.

Chesapeake Marshlands fire staff managed to burn approximately 5,000 acres of marsh habitat on both the Blackwater NWR and Fishing Bay Wildlife Management Area. They also assisted with burns at Supawna Meadows NWR working with the state of New Jersey, and completed burns at Eastern Neck NWR. The crew also traveled to Soldiers Delight State Park northwest of Baltimore to assist the state of Maryland in improving habitat for the endangered Sand Plains Gerardia. New York and New Jersey refuges conducted a series of prescribed fires in spite of moist weather conditions, treating about 220 acres total. Mechanical treatments (mowing) were used for projects where weather precluded burning, enabling the Zone to exceed its treatment targets. As one would expect, the area receiving the most precipitation, New England, had the greatest difficulty achieving its burn targets and was able to accomplish only about 150 acres involving 20 small burns, which was only half the anticipated amount.

The Wildland Urban Interface (WUI) program funded treatments on

approximately 6,609 acres in fiscal year 2005 with a combination of prescribed fire (1,497 acres), mechanical (1,973 acres) and herbicide treatments (3,139 acres). Approximately \$750K in project funds was executed to accomplish these treatments as well as several planning efforts and equipment acquisitions to support future WUI projects. Work took place at 19 refuges, one fish hatchery, and one Ecological Services field office. The WUI program exceeded the 50% contract performance measure by contracting approximately 86% of its project dollars. In addition to using commercial vendors, work was contracted with USGS, The Nature Conservancy in Massachusetts and Maine, and with the West Virginia Division of Forestry. WUI Specialist Bob Harris conducted risk assessments at Nulhegan Refuge, North Attleboro Hatchery, Massasoit NWR, and Rachel Carson NWR, and assisted the state of Massachusetts in Firewise assessments.

One of the Region's first biomass utilization contracts was initiated at Great Dismal Swamp NWR with the objective of salvaging Hurricane Isabel storm damaged timber and regenerating the globally rare Atlantic white cedar forest cover type. Income generated from the salvage of windblown cedar was used to improve the condition of access roads and compensate the contractor for removal of unmerchantable or low value material. Salvage operations are being assisted through the use of helicopter yarding (Carson) which also minimizes ground disturbance. This project has the dual benefits of reducing a hazardous fuel situation while helping to regenerate cedar seedlings and eventually restore the forest type, all at little cost to the government. WUI project funds were

used to contract for the streamlined EA and bring in a consultant in helicopter logging operations to help develop the scope of work and evaluate bids. As of December 31, 2005 approximately 1,400,000 board feet of cedar had been salvaged on about 225 acres.

The Rural Fire Assistance program awarded 36 grants in 2005 worth \$154,033 to fire departments in Maine, Vermont, Massachusetts, Rhode Island, New Jersey, New York, Pennsylvania, Maryland, and Virginia. Thirty compliance visits were conducted to monitor fire department compliance from the FY04 grant program. Overall, there are approximately 200 fire departments in the Northeast Region eligible to participate in the RFA program.

The slow fire season in the West minimized the number of Region 5 personnel assigned to out-of-region suppression or severity details. One firefighter from Chesapeake Marshlands NWR went to South Dakota and Montana on assignments. Forestry Tech Jim Forsythe of Great Dismal Swamp NWR went on a severity detail in August to Ruby Lake NWR in Nevada, preceded by a 3-person contingent from Maine refuges. Central Zone FMO Mike Durfee was assigned to Howard Carlson's Western Montana Type II Team as a SITL. Regional Fuels Coordinator Steven Hubner served on several western assignments as a Contracting Office Technical Representative and trainee Food Unit Leader. WUI Specialist Gerald Vickers served as a Type II Safety Officer on Stan Benes' Northern Rockies IMT2 and was detailed to several Montana fires, and did a stint as a DIVS on the Jennifer Fire in Louisiana. WUI Specialist Bob Harris served as Support

Dispatcher on the Bear Fire in Arizona. Northeast Coordination Center Fire Logistics Dispatcher Stephanie Fournier went to Missoula, Montana as a Support Dispatcher and completed her EDSD task book. Moosehorn NWR Forestry Tech Wes Hatch took a 20-person crew to western Montana, assigned to the CB Ranch and Signal Rock fires.

Hurricane responses surpassed wildfire assignments in 2005. Two firefighters from Chesapeake Marshlands NWR, one from Wallkill River NWR, and the Regional WUI Coordinator were members of an interagency crew that traveled to Louisiana after Hurricane Katrina and assisted in distribution of food and water. FMO Mike Durfee traveled to Florida to serve as SITL on an Incident Management Team providing relief after Hurricane Wilma. Wes Hatch of Moosehorn NWR headed a crew to Katrina where they inventoried and distributed mobile trailers. Bob Harris served as Ordering Manager Trainee in Texas for Hurricane Katrina support and completed his task book. Gerald Vickers served as Type 1 Safety Officer Trainee on the Bennett IMT1 in Beaumont, Texas.

Training provided by Region 5 fire personnel included 12 annual firefighter refresher sessions conducted throughout the Region; Plastic Sphere Dispenser Operation (PLDO) at Back Bay NWR in conjunction with Region 4 personnel; S-215 provided by WUI staff at the New York Fire Academy, Virginia Wildfire Academy, and Missouri Fire Academy; S-234 Firing Operations for the states of Maryland and Delaware; and Basic Firefighter (S-130/190) training in southern Maine. In addition, Region 5 fire staff served as unit instructors for S-

215, S-234, S-290, S-270, Ground Transport of HazMat, S-371, Tractor Plow and MarshMaster operation, and three Region 5 chainsaw training sessions.

Fire Management Plans were completed and approved for Eastern Shore of Virginia and Fisherman Island NWR, Presquile NWR, and Canaan Valley NWR (revision). Regional Refuge Program Specialist Catherine Hibbard completed Fire Management Plans for 12 National Fish Hatcheries in Region 5.

Regional Fire Biologist Laura Mitchell continued supporting refuges by contributing fire ecology information for Fire Management Plan development at Shawangunk Grasslands NWR, James River NWR, and Eastern Shore of VA NWR. She reviewed and commented on habitat objectives and the role of prescribed fire for CCP development at Missisquoi NWR and Long Island NWR, and contributed fire ecology information for Refuge Habitat Management Plans. She also coordinated or commented on various monitoring efforts to determine fire effects on wildlife species of concern.

Thanks to Refuge Program Specialist Catherine Hibbard, fire management outreach efforts have begun to take off in the Region. Catherine conducted a very productive two-week detail in Arlington with National Fire Plan Coordinator Art Latterell where, among other things, she briefed congressional staff on the Rural Fire Assistance program. She became the Regional lead representative on the National Fire Outreach Team and coordinated with External Affairs staff to initiate a regional fire intranet page and photo library.

Most fire program staff were involved in various interagency and interregional working groups. FMO Joe Krish served on the FWS Wildland Fire Operations and Safety Team (WFOST); FMO Rick Vollick served on the Northeast Compact's Fire Weather/Fire Behavior Working Team and represented the Compact on the Eastern Area Dispatch Working Team. Stephanie Fournier is on

the Dispatch Working Team and was part of a subject matter expert group rewriting the D-110 Dispatch Recorder course. The Region suffered a loss with the departure of Regional Prescribed Fire Specialist Mike Davis in May. Mike left the Service to take a job with the USDA Forest Service as FMO on the Hoosier National Forest in Indiana so that he could be closer to his parents and family.

MOUNTAIN-PRAIRIE REGION

Region 6 started 2005 with honors, several employees received the Paul Gleason “Lead by Example” award. Todd Schmidt (Quivira NWR) and Pat Harty (Lacreek NWR) shared a “Mentoring and Vision” group award with Rodd Redinger of the Kansas Forest Service for their work with the Mid-Plain Type 2IA handcrew. Paul Chamberlin (an interagency position in the Northern Rockies carried as a FWS employee) received the “Motivation and Vision” category for his work in a variety of projects related to safety and decision tools.

The year began with very dry conditions in the region, including severe drought in Montana and burn bans in effect in South Dakota. Fortunately, early summer rains moderated conditions and allowed staff to complete approximately 279 prescribed burns covering nearly 57,000 acres. The early rains caused abnormally heavy fine fuel loading at many refuges later in the year, with the result that severity requests were necessary due to the high fire potential. In spite of this, wildfire activity was generally low with the exception of Montana, where Incident Management Teams were required for interagency fires in and around the Charles M. Russell NWR.

Fire staff participation in filling resource orders for fire assignments outside the Region was good, and later included responses to hurricanes Katrina and Rita. Region 6 not only sent staff, but also established a type 3 “Hurricane Relief Response Team” to aid Regions 2 and 4.

FWS fire staff in all zones participated in numerous interagency sponsored courses as course coordinators, cadre members, steering committee members, revision subject matter

experts, and students. Training was frequently offered to local volunteer fire departments by refuge staff, and monetary support was provided to many of our local cooperators through the Rural Fire Assistance program.

Several challenges faced the Region in 2005. Initiation of the FPA program was a large workload for much of the Region’s fire staff. Another challenge is an ongoing effort to redistribute funding and positions equitably in order to establish several new fire management programs without a significant increase in funding. The many challenges were discussed and potential solutions developed at a regional FMO meeting held in Rapid City in late November.

MT/UT/WY ZONE

This was the most productive prescribed fire year on record for the Zone – a dry spring with good burning conditions allowed for an early prescribed fire season that carried through the fall. Roughly 5,700 acres were treated in thirty four burns on nine refuges. Fall burning was conducted at Lee Metcalf and Fish Springs NWRs for the second year and at Seedskaadee and Red Rock Lakes NWRs for the first time. WUI accomplishments included the completion of seven prescribed burns for roughly 760 acres treated and planning for at least eight additional projects. Wildland Fuels Assessments, which will be used to implement future projects, were completed for the Lee Metcalf NWR and the Charles M. Russell NWR.

The Zone experienced an average fire season. Utah and Eastern Montana began the year under severity conditions but received much needed moisture by year’s end. There were

32 wildfires for approximately 9,969 FWS and 10,186 mutual aid/assist wildfire acres burned this year. The Charles M. Russell NWR hosted a Type 2 Team on the McArthur Fire.

Todd Schmidt was selected to replace the vacant Prescribed Fire Specialist position at Medicine Lake NWR. Todd brings a wealth of experience from his previous position at Quivira NWR in Kansas.

CO/KS/NE ZONE

The Zone was very active in prescribed fire this year. A total of 21,167 acres were burned with prescribed fire in 97 different treatments. Highlights included a large scale (2,000+ acres) aerial ignition burn of bottomland and upland hardwood forest at Marais des Cygnes NWR; “in-season” summer burns in the Mid-Plains Fire Management District; and several large burns within the Colorado Fire Management District that required a great deal of interagency coordination and participation. Zone fire management staff also assisted several other agencies with prescribed fire projects in Florida, Nebraska, Colorado, Texas, and Wyoming. Over 5,000 acres of assists were recorded.

The Mid-Plains Interagency Type 2 IA Hand crew performed admirably for its second year. The crew held a week-long refresher at the Nebraska National Forest near Bessey, Nebraska. This academy included classroom training, sand table exercises, group physical fitness training, and a full day of realistic scenarios. The crew served on three assignments including working with the Pike IHC on the Mason Gulch Type 1 Incident during the initial attack stages of this Colorado wildfire.

The funded monitoring program within the Eastern Kansas Fire Management District, which started in 2005, was a huge success. As

a result, biologist Tim Menard and FMO Fenn Wimberly were asked to participate as Cadre members for RX-510 hosted at NAFRI in 2006.

A two year Interagency planning effort with the Leadville Ranger District of the San Isabel National Forest and the Leadville National Fish Hatchery concluded in December. This project will involve several hundred acres of mechanical thinning and pile burning in and around the historic hatchery and employee residences. Joint planning documents lay out project locations and specifications; contracted work will begin on the project in 2006.

Additional interagency planning efforts continued in the San Luis Valley of Colorado and in the Sandhills of Nebraska where joint fire management plans are being developed between The Nature Conservancy, National Park Service, the Fish and Wildlife Service and other cooperators. A contract to complete Wildland Urban Interface and Hazard Fuels Assessments for Fort Niobrara, Valentine and Boyer Chute NWRs was awarded this year.

Brice Krohn was hired as a Fire Program Technician for the Mid-Plains Fire Management District, replacing Todd Schmidt as a District resource. Brice will be stationed at Rainwater Basin Wetland Management District. Pat Harty left the Prescribed Fire Specialist position at Lacreek NWR for a new position with BLM in Lewistown, MT.

ND/SD ZONE

Year 2005 was another active season for the U.S. Fish and Wildlife Fire Management Program in the ND/SD Zone. Favorable weather conditions dominated most of the Zone throughout the prescribed fire season. The only exception to this was at the Long Lake and Sand Lake Refuges where isolated pockets of drought remained and temporary burning restrictions were imposed early in the

spring.

The implementation of larger landscape scale prescribed burns is beginning to occur in the Dakotas. A total of 148 prescribed burns were conducted totaling approximately 30,061 acres. This represents a 4.5% increase from the zone's historic high set in 1999 (28,763 acres) and a 37% reduction in the number of burns being implemented from our historic high of 203 prescribed burns. Other highlights in the zone include the completion of 19 mechanical treatment projects for a total of 655 acres, and the completion of the Aurora and Charles Mix County Fire Management Plans – WUI planning activities that will provide assistance to over 12 rural communities. Fish and Wildlife personnel also responded to 25 FWS wildfires burning a total of 588 acres of Service lands.

Sharing resources across agency boundaries continues to play an important role completing the National Fire Plan targeted treatment acres in the Dakotas. However, competition for these resources remains high. A significant effort to emphasize and increase internal cooperation between all Refuge and Wetland Management District staff in the zone is ongoing.

The ND/SD zone has made some great strides in training, qualifications, and experience in achieving higher NWCG wildfire

qualifications over the past year resulting in a significant increase in the number of qualified Division Supervisors and Type 3 ICs certified this year. Many additional qualified Strike Team Leaders, Type 4 ICs, Helicopter crew member trainees and several Logistics section positions have also been added within the zone.

North Dakota Dispatch Center (NDC) was moderately active in filling orders for fire incidents this year. Fire danger in North Dakota was lower this year compared to last, which increased the availability of personnel for dispatch. A total of 208 interagency employees, including 5 crews, 37 overhead and 22 equipment orders were dispatched through NDC. However, personnel from the zone contributed only 1,701 person days -- a 9% decrease in comparison to the 2004 figures (1,748 person days).

It was anticipated that NDC would move to a new location this year, but the project was not initiated before winter began. As a result, construction of the new facility was delayed until the spring of 2006.

Mike Smith, FMO of the Huron WMD, took a job at the National Office in Boise late in the year, and Lee Blaschke, Prescribed Fire Specialist in the Tewaukon District, left the Service for a job with the USDA.

ALASKA REGION

The 2005 fire season was another banner year for fire occurrence in Alaska. A total 624 fires burned over 4,607,953 acres in Alaska. Once the season started, drought and dry windy weather conditions kept fires burning into September. Based on the historical record, 2005 was the third largest fire year for acres burned since 1957 and the second largest for acres burned on National Wildlife Refuges, at 1,691,195 acres. Of the total fires, more than 47% of those in Alaska were human caused. The remaining fires were the result of lightning. The Kenai Peninsula was impacted by unusually high incidents of lightning activity. All fires that occurred on the Kenai NWR were lightning caused. Kenai is heavily used by the public and not to have a human caused fire is unusual.

As a result of interagency efforts, public meetings and air quality alerts, only a few smoke complaints were received. Many of the fires on National Wildlife Refuge lands were in remote areas and did not impact population areas to any great extent. Due to the number of fires burning and uncommon wind patterns, smoke did impact Bethel and western Alaska communities. For communities where smoke was an issue, evacuation plans and mitigative measures were employed by both the Fish and Wildlife Service and the interagency community including the State of Alaska.

The season's first fire was reported May 2 on the Tetlin National Wildlife Refuge. Due to extreme fire indices, smoke issues and a state-wide shortage of suppression resources, FWS refuge staffs were unable to implement many planned prescribed burns and fire-related monitoring activities.

Nearly one-third of the total Alaska acreage burned this year was on National Wildlife Refuge System lands. Wildfires occurred on 11 of Alaska's 16 refuges. A total of 78 fires burned on refuge lands. There were 11 fires originating off of refuge lands and burned onto refuge lands. These resulted in 163,045 acres burned and 3 false alarms.

Humans caused 4% of the 78 fires on refuges. Fires occurred on the Kenai, Yukon Flats, Innoko, Kanuti, Nowitna, Arctic, Koyukuk, Yukon Delta, Selawik, Togiak and Tetlin Refuges. Two fires, the Sheenjek on the Yukon Flats and the King County on the Kenai, required Type 2 Incident Management Team support. Two additional fires, Irish Channel and the Fox Creek, were managed as Wildland Fire Use fires. These two incidents were the only WFU incidents on FWS lands in the United States in 2005. An Alaska Type 2 suppression team was used and the FWS provided a FUM2. The management of these fires using the Wildland Fire Implementation Planning process along with suppression tactics to protect values at risk was very successful. Using a Fire Use Manager along side a Type 2 incident Management Team was a first for Alaska and demonstrated a strong interagency collaborative team effort.

Refuge lands in Alaska have pre-planned initial attack suppression options. These options are Critical, Full, Modified, and Limited. No fires occurred in the Critical protection area. In the Full area, 25 acres burned; in Modified, 281,679 acres burned; and in Limited, 1,505,265 acres burned. A great deal of effort by refuge staff was put into the management, monitoring, and aerial surveillance of wildland fires in 2005. Three fires approached 200,000 acres with 3

fires between 50,000 and 150,000 acres. The largest single fire (Nelson Mountain) was a lightning start on June 13 on the Yukon Flats Refuge, encompassing 244,001 acres, and was declared out in mid-September.

Kanuti, Innoko, and Yukon Flats prepared Emergency Stabilization and Rehabilitation plans. These projects include cultural resource assessments, trail, and invasive species assessment and treatment. Yukon Flats, Kanuti, Kenai, Koyukuk, and Innoko conducted Emergency Stabilization and Rehabilitation treatments associated with the 2004 fires. Treatments included 40,000 acres of invasive plant assessments and treatments, 7 cultural resources sites assessed and stabilized, 5 miles of winter trails cleared of hazard trees and 3 miles of trail rehabilitated and hazard trees removed. Burn severity and vegetation composition plots were assessed on 5 fires from 2004 and 1 from 2003. The fires were located on the Kanuti, Innoko, Yukon Flats, Kenai and Tetlin Refuges. A total of 341 plots were visited. The Region coordinated the invasive species treatment and investigation on the 2004 fires. This included guiding the development of sampling protocols, treatment strategies and a cooperative "CESU" agreement with the Alaska Natural Heritage Program (AKNHP) to conduct the field work. We looked for, and treated, non-native plants on 6 of the 2004 fires on 4 refuges.

The Region sponsored a Fire in Wilderness workshop that brought refuge managers and fire staff together to discuss when, and why, prescribed fire might be the appropriate tool for resource management within designated Wilderness Areas. Attendees included Fire staff from NIFC, U.S. Forest Service and State of Alaska, Division of Forestry personnel. Several fire staff from the region and refuges worked with biologists and wilderness specialist to develop a

preliminary draft of a position paper on Fire in Wilderness.

Twenty seven firefighter medical examinations were completed (3 baseline, 21 annual, 3 periodic). Twenty six work capacity tests completed and twenty six red cards issued. Region 7 employees participated on interagency fire assignments in Alaska. The following Incident Management positions were held in 2005: Incident Commander Type 5, Situation Unit Leader, Engine Boss, Engine Crew, Equipment Time Recorder, Fire Use Manager Type 2, Fire Use Manager Type 2 trainee, Resource Advisor, Security, Dispatch, and Helicopter Manager FWS Regions 1, 2, 3, and 4 assisted with staff detailers during the height of our fire season. Several staff members responded to hurricane Katrina. One person responded with the Alaska Type 1 team for a thirty day assignment. Other responders filled equipment time recorder, contracting officer and safety positions. Refuge employees worked over 100 shifts on Alaska Interagency fires. Fire suppression and related activities assistance was provided to the State of Alaska, Division of Forestry by way of initial attack, helitack crew and dispatch functions.

Region 7 employees attended the following fire management and related courses, workshops and meetings in 2005: Fire Management Leadership, Applied Fire Effects, FPA Preparedness, Historical Analysis and BDD, Wildland Fire Situation Analysis, Upper Tanana Cultural Resources Summit, National Fuels Meeting, Hazwoper Technician, S-339 Division/Group Supervisor, Helicopter Manager, PREMO recertification, S-490 Advanced Wildland Fire Behavior Calculations, Fire Mentoring Program mentor, One person was accepted into the Technical Fire Management (TFM) program, Technical Writing, HAZWOPER, S-290 Wildland Fire Behavior Calculations,

S-231 Single Resource Boss, S-215 Fire in the Urban Interface, FWS fuels working group, and National Fire Leadership Team. In addition, the following annual training was attended: Fire arms, bear, aviation, and boating safety, CPR/First Aid, Safety Refresher and Pack Testing. Advances were made in developing a Regional Strategic Plan. Basic course S-130, S190, I-100, S-212 and L180 were completed.

Region 7 FWS employees provided the following fire management and related training courses: Interagency Helicopter Crew, Fire line Safety Refresher, and Pack Testing. Regional Staff Subject Matter Experts worked on the S-245 Display Processor and S-346 Situation Unit Leader and S-372 Helicopter Manager courses. Region 7 staff provided Burn Severity field sampling (42 attendees) and Vegetation Monitoring Techniques (12 attendees) and Composite Burn Index (8 attendees) training. Efforts were conducted with refuge managers to evaluate the effects of fire retardant on refuge lands. The Kenai NWR offered S-130, S190, I-100 and L-180. Region 7 staff served as instructors for S-290 Intermediate Fire Behavior, S-212 Chain Saw, Incident Qualifications and Certification System, S-372 Helicopter Manager, S-271 Helicopter Crewmember, and B3 Aviation Safety.

Refuge staff conducted outreach, fire prevention and education efforts for well over 1,000 individuals contacts. Education and outreach topics included: "Role of Fire", wildland fire prevention, mitigation measures, safety, adapted species, fire effects, research, monitoring and mapping. Presentations included: FireWise workshops, Fire Curriculum Workshop for teachers, (Tok, Healy, Fairbanks in cooperation with Park Service and Alaska Dept of Fish and Game), classroom presentations, Boreal Botany High School course (24 classes for high school students

focusing on plant ID, Plant workshops in the village of Northway and Tok, and nature buddies field day. Other outreach activities included an article on Wildland Fire Use published in "Refuge Update". Fire awareness and prevention messages are promoted at the Environmental Education Cabin, Contact Station at the Refuge Visitor Center on the Kenai, Ninilchik State Fair, Peninsula Sportsman Show, Peninsula Home Show and National Refuge Week Open House. Fire messages were also promoted at the Coldfoot interagency visitor center in Coldfoot and the Tetlin NWR visitor center.

Region 7 staff presented a poster on Wilderness and fuels management at the International Wilderness Congress held in Anchorage. The Regional staff ecologist is involved with the Alaska Landfire project. The FWS organized, facilitated, and hosted a Landfire interagency meeting between Landfire staff and Alaska fire managers. Other presentations and assistance to Universities and communities included: "Fire Hazard Reduction – Northway Village Case Study", fire effects on subsistence activities, and the Joint Fire Science Caribou/Fire Study.

Fire Management Plans were completed and approved for the Koyukuk, Innoko, and Selawik Refuges. Draft plans were completed for Kanuti, Arctic and Yukon Delta Refuges. Refuge fire staff were involved with the Comprehensive Conservation Plans (CCP) planning process on the Kodiak, Kenai, Kanuti, and Tetlin Refuges. Fire Staff also participated in the Tetlin NWR Biological review.

The Kenai, Tetlin, Selawik, Innoko and Koyukuk Refuges completed 488 acres of Wildland Urban Interface hazard fuel treatments. Wildland fire use on the Kenai Refuge accomplished 27,225 acres of treatment. Wildland Urban Interface

hazard fuel reduction projects involved collaboration with Native village councils and leaders, and other Federal and State agencies. Firewise defensible space treatments were completed on 435 acres on the Kenai Refuge. The Koyukuk Refuge treated 1 acre for hazardous fuels reduction, and 4 acres were treated around Service administrative cabins on the Selawik Refuge. The Village of Huslia fuels project was completed for a total of 45 acres treated. The Region contracted with a firm to formulate a landscape level Risk Assessment for Alaska wildlife refuges. Well over 50% of the fuels work was done through contract with local village crews. On the Kenai Peninsula Refuge, fire staff served as agency advisors in a collaborative interagency effort to complete 8 Community Wildland Fire Protection Plans (CWPP).

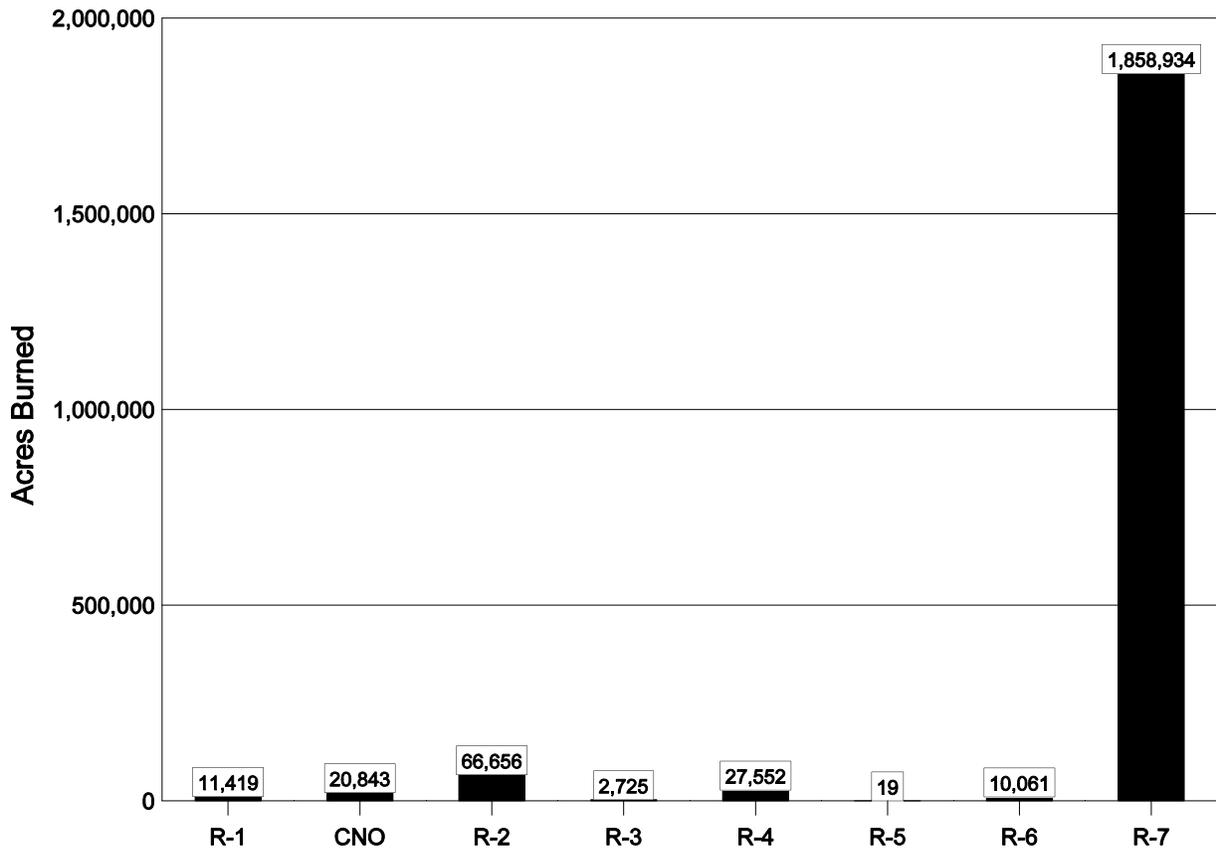
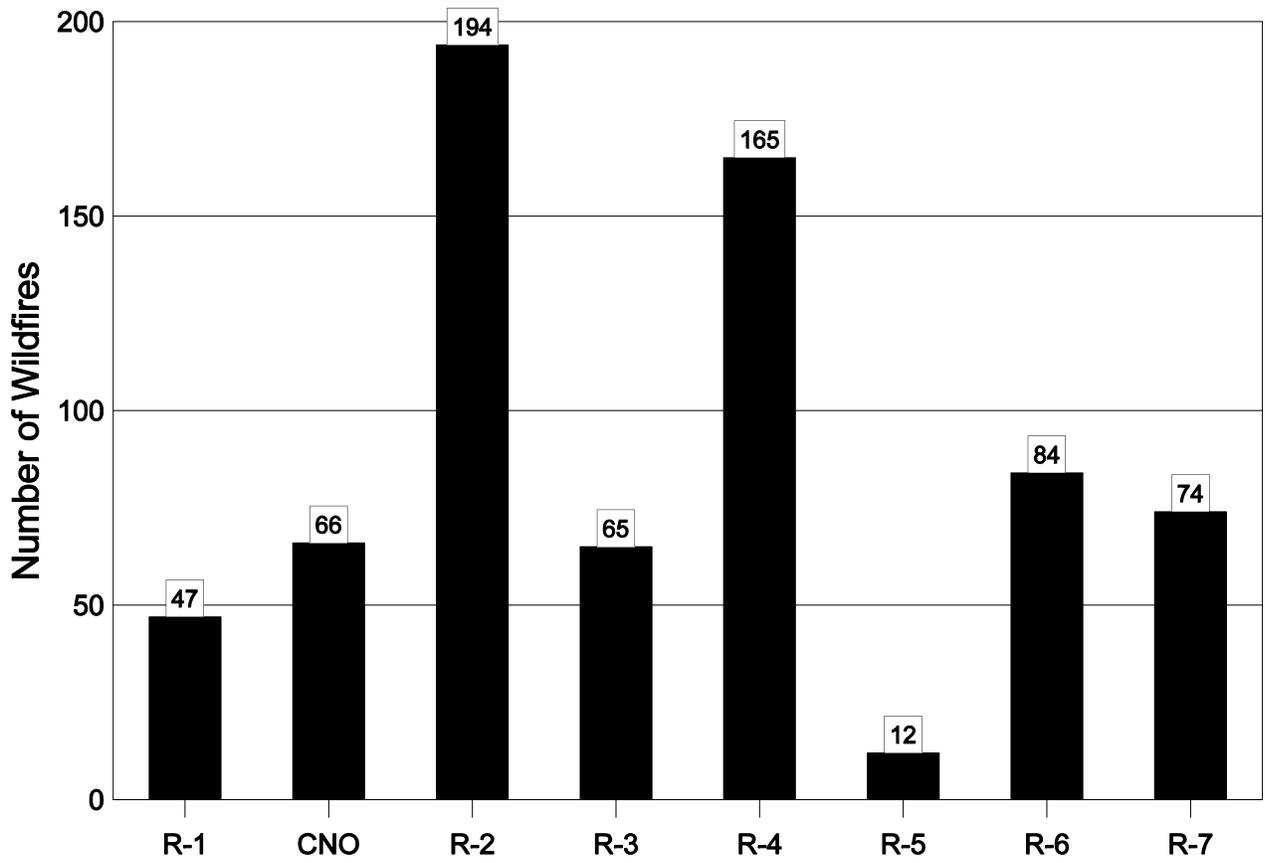
Region 7 employees participated with the following interagency committees and work groups:

Alaska Wildfire Coordination Group (AWFCG), Casual Pay Specialist, Incident Qualification Certification System, Fuels Management Conference, Helicopter Operations Working Group, National FWS Wildland Fire Operations and Safety Team, National DOI Chain Saw Operator Qualification and Certification, Alaska Interagency Fall Fire Workshop, AWFCG Fire Effects Task Group, Research Committee, Safety Committee, Wildland Fire Use Implementation Guide Interagency Development, Alaska Interagency Wildland Fire Management Plan Working Group, Fire and GIS National Working Group, Alaska Smoke Management Group, Alaska Fire Program Analysis Prototype Fire Planning Unit Interagency Group, Alaska MAC Group, AWFCG Training Committee, AWFCG Fire Education, Prevention, Awareness Committee, Interagency FEAT and FIRMON Integration Users Group, Interagency Fire Regime Condition Class Group, and Interagency Landfire Group,

Firebase Working Group, Kenai Peninsula Borough Local Emergency Planning and Fire Committee, Peninsula Fire Chiefs Association, Kenai Peninsula Forest, Fire, Fuels and Fire Committee. The FMO for the Kenai NWR completed a two week detail at the Washington Office. The Region staff represented the FWS at the USGS Landcover Summit. The Region also participated in regional ecology and climate change meetings. As a result of the 2004 fire season and smoke issues the interagency Smoke committee developed criteria to be used during wildland fire incidents to guide decision makers in the reduction of smoke impacts. The Fish and Wildlife Service took the lead to collaborate with interagency partners to develop a Fuels committee and formulated an interagency template for Community Wildland Protection Plans (CWPP).

The FWS co-hosted the Joint Fire Science Program Board meeting. The FWS partnered with the Anchorage Fire Department and lead a field trip for the JFSP board demonstrating fuels reduction practices in and around Anchorage and southcentral Alaska that had ties to JFSP funding. FWS is a Federal Cooperator and co-PI on a JFSP funded research project. Fire staff participated with other research activities such as the ash deposition in lakes and wood frog studies. Follow-up on plots established on a 1947 burn was completed.

WILDFIRES 2005



WILDFIRES

by State

2005

| <u>STATE</u> | <u># FIRES</u> | <u>FWS ACRES</u> |
|----------------|----------------|------------------|
| Alaska | 74 | 1,858,934.2 |
| Arizona | 19 | 35,037.0 |
| Arkansas | 8 | 182.3 |
| California | 42 | 325.5 |
| Colorado | 1 | 0.1 |
| Florida | 27 | 1,135.7 |
| Georgia | 2 | 98.8 |
| Idaho | 7 | 3.7 |
| Illinois | 4 | 108.0 |
| Indiana | 1 | 9.0 |
| Iowa | 6 | 225.0 |
| Kansas | 24 | 181.5 |
| Kentucky | 1 | 100.0 |
| Louisiana | 63 | 24,950.0 |
| Maine | 4 | 2.8 |
| Maryland | 3 | 10.8 |
| Michigan | 1 | 0.4 |
| Minnesota | 44 | 2,037.9 |
| Mississippi | 19 | 489.2 |
| Missouri | 2 | 225.1 |
| Montana | 21 | 9,040.3 |
| Nebraska | 7 | 231.0 |
| Nevada | 22 | 20,514.7 |
| New Jersey | 3 | 5.0 |
| New Mexico | 5 | 6.4 |
| North Carolina | 24 | 337.6 |
| North Dakota | 22 | 574.2 |
| Oklahoma | 38 | 2,570.6 |
| Oregon | 12 | 458.8 |
| Pennsylvania | 1 | 0.2 |
| Puerto Rico | 19 | 192.0 |
| South Carolina | 2 | 65.1 |
| South Dakota | 7 | 33.1 |
| Tennessee | 1 | 1.0 |

| | | |
|--------------|------------|--------------------|
| Texas | 132 | 29,042.1 |
| Utah | 1 | 1.0 |
| Washington | 30 | 10,959.4 |
| Wisconsin | 7 | 120.0 |
| Wyoming | 1 | 0.1 |
| Total | 707 | 1,998,209.6 |

WILDFIRES Pacific Refuges

| <u>REFUGE</u> | <u># FIRES</u> | <u>FWS ACRES</u> |
|-------------------------------|----------------|------------------|
| Baskett Slough NWR | 2 | 5.1 |
| Cold Springs NWR | 1 | 0.1 |
| Columbia NWR | 6 | 28.9 |
| Conboy Lake NWR | 1 | 0.1 |
| Deer Flat NWR | 6 | 3.6 |
| Hanford Reach NM/Saddle Mtn | 8 | 10,909.6 |
| Hart Mtn Natl Antelope Refuge | 4 | 427.6 |
| Little Pend Oreille NWR | 1 | 0.1 |
| Malheur NWR | 2 | 22.8 |
| McNary NWR | 6 | 1.2 |
| Minidoka NWR | 1 | 0.1 |
| Nisqually NWRC | 3 | 1.3 |
| Ridgefield NWR | 2 | 0.3 |
| Toppenish NWR | 1 | 6.0 |
| Turnbull NWR | 2 | 2.0 |
| Willapa NWR | 1 | 10.0 |
| Total | 47 | 11,418.8 |

WILDFIRES

California/Nevada Operations Refuges

| <u>REFUGE</u> | <u># FIRES</u> | <u>FWS ACRES</u> |
|-----------------------------------|----------------|------------------|
| Ash Meadows NWR | 3 | 230.1 |
| Bear Valley NWR | 1 | 0.1 |
| Bitter Creek NWR | 1 | 100.0 |
| Coleman NFH | 1 | 0.5 |
| Delevan NWR | 1 | 6.8 |
| Desert National Wildlife Range | 2 | 10,069.0 |
| Desert NWRC | 13 | 10,213.3 |
| Don Edwards San Francisco Bay NWR | 1 | 3.0 |
| Lower Klamath NWR | 4 | 54.0 |
| Merced NWR | 1 | 100.0 |
| Moapa Valley NWR | 1 | 0.1 |
| Pahranagat NWR | 1 | 2.0 |
| Ruby Lake NWR | 2 | 0.2 |
| Sacramento NWRC | 2 | 1.7 |
| Sacramento River NWR | 3 | 5.3 |
| San Diego Bay NWR | 1 | 0.1 |
| San Diego NWR | 4 | 2.2 |
| San Diego NWRC | 1 | 10.0 |
| San Joaquin River NWR | 2 | 2.0 |
| San Luis NWRC | 9 | 35.9 |
| Sutter NWR | 2 | 3.0 |
| Tijuana Slough NWR | 7 | 0.7 |
| Tule Lake NWR | 3 | 3.3 |
| Total | 66 | 20,843.3 |

WILDFIRES

Southwest Refuges

| <u>REFUGE</u> | <u># FIRES</u> | <u>FWS ACRES</u> |
|----------------------------------|----------------|------------------|
| Anahuac NWR | 9 | 3,288.1 |
| Aransas NWR | 2 | 193.0 |
| Aransas/Matagorda Island | 1 | 1,039.0 |
| Balcones Canyonlands NWR | 1 | 0.1 |
| Bosque Del Apache NWR | 4 | 6.3 |
| Brazoria NWR | 7 | 1,130.1 |
| Buenos Aires NWR | 10 | 62.4 |
| Buffalo Lake NWR | 1 | 300.0 |
| Cabeza Prieta NWR | 3 | 8,725.0 |
| Cibola NWR | 1 | 39.0 |
| Deep Fork NWR | 8 | 2,395.1 |
| Dexter NFH and Fish Tech. Center | 1 | 0.1 |
| Hagerman NWR | 2 | 20.8 |
| Havasu NWR | 2 | 209.5 |
| Kofal NWR | 2 | 26,001.0 |
| Laguna Atoscosa NWR | 1 | 370.0 |
| Little River NWR | 6 | 42.9 |
| Lower Rio Grande Valley | 55 | 653.4 |
| McFaddin NWR | 40 | 19,753.9 |
| San Bernard NWR | 7 | 1,053.3 |
| San Bernardino NWR | 1 | 0.1 |
| Sequoyah NWR | 1 | 40.0 |
| Texas Point NWR | 6 | 1,240.4 |
| Tishomingo NFH | 1 | 10.0 |
| Wichita Mtns Wildlife Refuge | 22 | 82.6 |
| Total | 194 | 66,656.1 |

WILDFIRES

Great Lakes-Big Rivers Refuges

| <u>REFUGE</u> | <u># FIRES</u> | <u>FWS ACRES</u> |
|---|----------------|------------------|
| Agassiz NWR | 3 | 25.5 |
| Big Muddy National Fish and Wildlife Refuge | 1 | 0.1 |
| Crab Orchard NWR | 4 | 108.0 |
| Detroit Lakes WMD | 3 | 1,811.0 |
| Fergus Falls WMD | 1 | 2.0 |
| Horicon NWR | 2 | 2.2 |
| Iowa WMD | 2 | 1.0 |
| Leopold WMD | 1 | 0.1 |
| Litchfield WMD | 8 | 51.5 |
| Middle Mississippi River NWR | 1 | 225.0 |
| Minnesota Valley NWR | 21 | 2.1 |
| Morris WMD | 4 | 122.6 |
| Necedah NWR | 4 | 117.7 |
| Potaka River NWR | 1 | 9.0 |
| Port Louisa NWR | 4 | 224.0 |
| Seney NWR | 1 | 0.4 |
| Sherburne NWR | 2 | 23.0 |
| Tamarac NWR | 1 | 0.1 |
| Windom WMD | 1 | 0.1 |
| Total | 65 | 2,725.4 |

WILDFIRES

Southeast Refuges

| <u>REFUGE</u> | <u># FIRES</u> | <u>FWS ACRES</u> |
|--------------------------------|----------------|------------------|
| Ace Basin NWR | 1 | 0.1 |
| Alligator River NWR | 6 | 180.8 |
| ARM Loxahatchee NWR | 2 | 75.0 |
| Bald Knob NWR | 1 | 123.5 |
| Bayou Sauvage NWR | 1 | 1.5 |
| Big Branch Marsh NWR | 7 | 939.3 |
| Bogue Chitto NWR | 2 | 28.1 |
| Cache River NWR | 5 | 51.4 |
| Cameron Prairie NWR | 14 | 1,037.3 |
| Caribbean Islands Refuges | 19 | 192.0 |
| Carolina Sandhills NWR | 1 | 65.0 |
| Cedar Island NWR | 9 | 6.5 |
| Clarks River NWR | 1 | 100.0 |
| Currituck NWR | 3 | 128.0 |
| D'Arbonne NWR | 1 | 10.0 |
| Felsenthal NWR | 1 | 6.4 |
| Florida Panther NWR | 2 | 600.1 |
| Grand Bay NWR | 7 | 127.5 |
| Hobe Sound NWR | 1 | 0.5 |
| Holt Collier NWR | 1 | 265.0 |
| Lacassine NWR | 7 | 2,707.5 |
| Lake Wales Ridge NWR | 1 | 3.0 |
| Lake Woodruff NWR | 1 | 174.0 |
| Lower Suwannee NWR | 4 | 1.8 |
| Mattamuskeet NWR | 1 | 1.0 |
| Merritt Island NWR | 7 | 10.0 |
| Mississippi Sandhill Crane NWR | 5 | 5.0 |

| | | |
|---------------------------|------------|-----------------|
| National Key Deer Refuge | 2 | 0.2 |
| North Mississippi Refuges | 3 | 86.5 |
| Noxubee NWR | 2 | 5.1 |
| Okefenokee NWR | 1 | 0.1 |
| Pea Island NWR | 1 | 1.0 |
| Pee Dee NWR | 1 | 20.0 |
| Piedmont NWR | 1 | 98.7 |
| Pocosin Lakes NWR | 2 | 0.2 |
| Sabine NWR | 31 | 20,225.4 |
| St. Johns NWR | 1 | 200.0 |
| St. Marks NWR | 2 | 64.0 |
| St. Vincent NWR | 4 | 7.1 |
| Tennessee NWR | 1 | 1.0 |
| Tensas River NWR | 1 | 1.0 |
| White River NWR | 1 | 1.0 |
| Total | 165 | 27,551.6 |

WILDFIRES

Northeast Refuges

| <u>REFUGE</u> | <u># FIRES</u> | <u>FWS ACRES</u> |
|---------------------------|----------------|------------------|
| Chesapeake Marshlands NWR | 3 | 10.8 |
| Edwin B Forsythe NWR | 3 | 5.0 |
| Great Dismal Swamp NWR | 1 | 0.1 |
| John Heinz NWR at Tinicum | 1 | 0.2 |
| Moosehorn NWR | 2 | 0.2 |
| Rachel Carson NWR | 1 | 2.5 |
| Sunkhaze Meadows NWR | 1 | 0.1 |
| Total | 12 | 18.9 |

WILDFIRES

Mountain-Prairie Refuges

| <u>REFUGE</u> | <u># FIRES</u> | <u>FWS ACRES</u> |
|-----------------------|----------------|------------------|
| Arrowwood NWR | 1 | 1.0 |
| Audubon NWR | 1 | 5.0 |
| Benton Lake NWR | 1 | 1.0 |
| Bowdoin NWR | 1 | 236.0 |
| Browns Park NWR | 1 | 0.1 |
| Charles M Russell NWR | 17 | 8,796.9 |
| Crescent Lake NWR | 3 | 100.0 |
| Des Lacs NWR | 2 | 2.8 |
| Devils Lake WMD | 11 | 219.9 |
| Flint Hills NWR | 18 | 178.1 |
| Fort Niobrara NWR | 1 | 6.0 |
| J Clark Salyer NWR | 3 | 7.5 |
| Lacreek NWR | 2 | 1.1 |
| Lake Andes NWR | 1 | 20.0 |
| Lostwood WMD | 1 | 235.0 |
| Madison WMD | 1 | 9.0 |
| Marais Des Cygnes NWR | 5 | 3.3 |
| Medicine Lake NWR | 1 | 6.0 |
| Ouray NWR | 1 | 1.0 |
| Quivira NWR | 1 | 0.1 |
| Rainwater Basin WMD | 3 | 125.0 |
| Red Rock Lakes NWR | 1 | 0.4 |
| Sand Lake NWR | 1 | 1.0 |
| Seedsdakee NWR | 1 | 0.1 |
| Valley City WMD | 3 | 103.0 |
| Waubay NWR | 2 | 2.0 |
| Total | 84 | 10,061.3 |

WILDFIRES

Alaska Refuges

| <u>REFUGE</u> | <u># FIRES</u> | <u>FWS ACRES</u> |
|---------------------|----------------|--------------------|
| Arctic NWR | 5 | 342,139.5 |
| Innoko NWR | 10 | 224,190.5 |
| Kanuti NWR | 2 | 196,741.0 |
| Kenai NWR | 12 | 37,379.3 |
| Koyukuk NWR | 9 | 105,360.9 |
| Koyukuk/Nowitna NWR | 6 | 2,232.0 |
| Nowitna NWR | 2 | 193,401.5 |
| Selawik NWR | 4 | 105.0 |
| Tetlin NWR | 3 | 0.5 |
| Togiak NWR | 2 | 56.8 |
| Yukon Delta NWR | 4 | 78,603.0 |
| Yukon Flats NWR | 15 | 678,724.2 |
| Total | 74 | 1,858,934.2 |

WILDLAND FIRES by CAUSE 2005

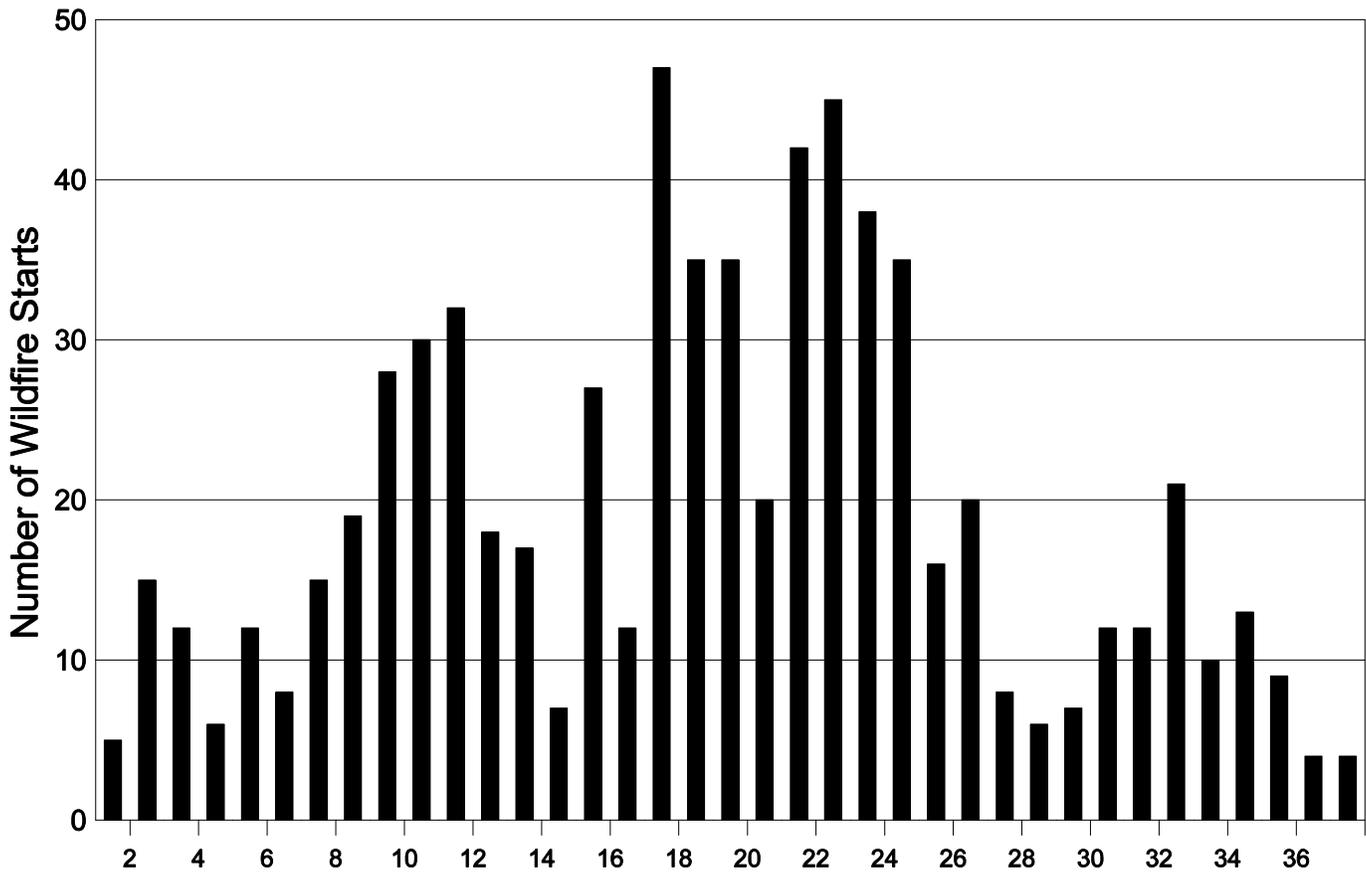
| CAUSE | # FIRES | # ACRES |
|----------------------------|------------|--------------------|
| Natural | 215 | 1,925,304.6 |
| Debris/Vegetation Burn | 65 | 8,933.3 |
| Equipment Use | 43 | 642.3 |
| Exceeded RX (prescription) | 3 | 2,570.0 |
| Incendiary | 127 | 3,052.2 |
| Misuse of Fire | 38 | 3,627.4 |
| Open or Outdoor Fire | 74 | 1,028.3 |
| Smoking | 12 | 340.8 |
| Structure | 2 | 2.0 |
| Other Causes | 53 | 29,873.1 |
| Undetermined | 75 | 22,835.6 |
| TOTAL | 707 | 1,998,209.6 |

WILDLAND FIRES by SIZE CLASS 2005

| SIZE | # FIRES | # ACRES |
|-------------------|------------|--------------------|
| A (0 - .2) | 191 | 21.7 |
| B (.3 - 9.9) | 268 | 549.7 |
| C (10 - 99.9) | 126 | 4,674.6 |
| D (100 - 299.9) | 34 | 6,290.5 |
| E (300 - 999.9) | 28 | 14,015.2 |
| F (1000 - 4999.9) | 29 | 71,698.7 |
| G (5000 +) | 31 | 1,900,959.2 |
| TOTAL | 707 | 1,998,209.6 |

WILDFIRE STARTS - 2005

10-Day Period

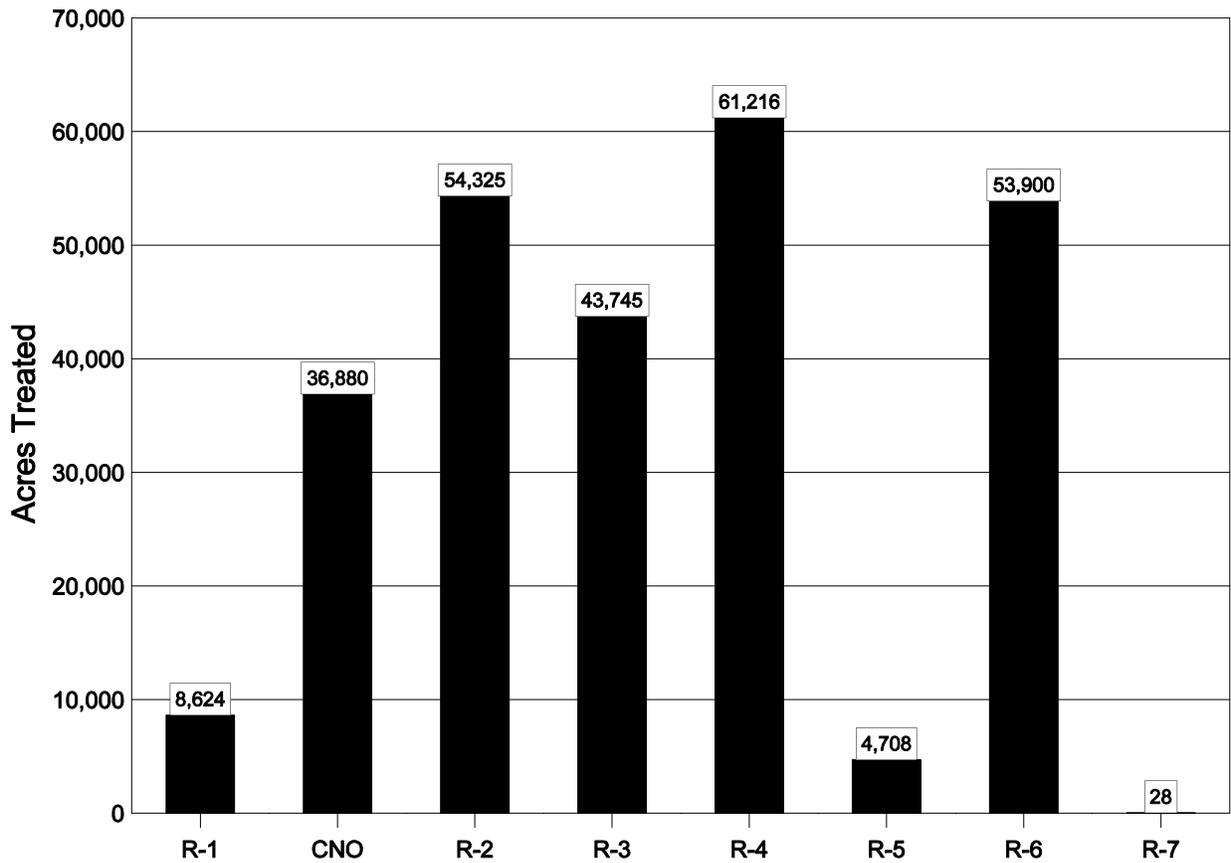
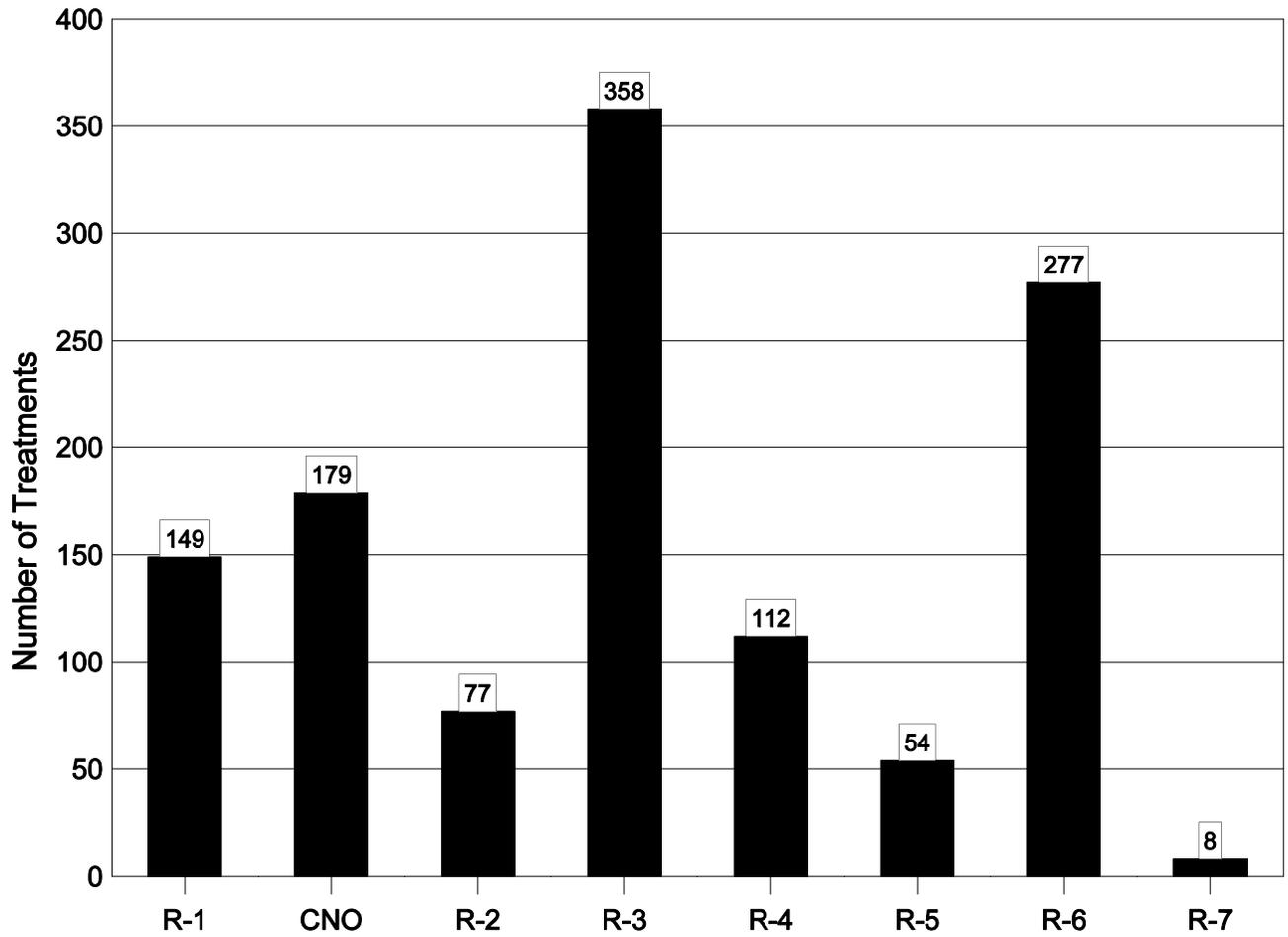


| <u>Period</u> | <u>Dates</u> | <u>Period</u> | <u>Dates</u> | <u>Period</u> | <u>Dates</u> |
|---------------|-----------------|---------------|-------------------|---------------|-----------------|
| 1 | Jan 01 - Jan 10 | 13 | May 01 - May 10 | 25 | Aug 29 - Sep 07 |
| 2 | Jan 11 - Jan 20 | 14 | May 11 - May 20 | 26 | Sep 08 - Sep 17 |
| 3 | Jan 21 - Jan 30 | 15 | May 21 - May 30 | 27 | Sep 18 - Sep 27 |
| 4 | Jan 31 - Feb 09 | 16 | May 31 - June 09 | 28 | Sep 28 - Oct 07 |
| 5 | Feb 10 - Feb 19 | 17 | June 10 - June 19 | 29 | Oct 08 - Oct 17 |
| 6 | Feb 20 - Mar 01 | 18 | June 20 - June 29 | 30 | Oct 18 - Oct 27 |
| 7 | Mar 02 - Mar 11 | 19 | June 30 - July 09 | 31 | Oct 28 - Nov 06 |
| 8 | Mar 12 - Mar 21 | 20 | July 10 - July 19 | 32 | Nov 07 - Nov 16 |
| 9 | Mar 22 - Mar 31 | 21 | July 20 - July 29 | 33 | Nov 17 - Nov 26 |
| 10 | Apr 01 - Apr 10 | 22 | July 30 - Aug 08 | 34 | Nov 27 - Dec 06 |
| 11 | Apr 11 - Apr 20 | 23 | Aug 09 - Aug 18 | 35 | Dec 07 - Dec 16 |
| 12 | Apr 21 - Apr 30 | 24 | Aug 19 - Aug 28 | 36 | Dec 17 - Dec 26 |
| | | | | 37 | Dec 27 - Dec 31 |

2005 NON-WUI TREATMENTS



NON-WUI TREATMENTS



NON-WUI TREATMENTS
by State
2005

| <u>State</u> | <u>Number</u> | <u>Rx Acres</u> | <u>Mech Acres</u> | <u>Chem/Other Acres</u> | <u>Total Acres</u> |
|----------------|---------------|-----------------|-------------------|-------------------------|--------------------|
| Alabama | 1 | 269.0 | | | 269.0 |
| Alaska | 9 | | 28.0 | 11.0 | 39.0 |
| Arizona | 1 | 50.0 | | | 50.0 |
| Arkansas | 1 | 643.0 | | | 643.0 |
| California | 140 | 30,686.8 | 7.0 | 25.0 | 30,718.8 |
| Colorado | 6 | 863.9 | 19.0 | | 882.9 |
| Delaware | 1 | 95.0 | | | 95.0 |
| Florida | 43 | 12,755.1 | | | 12,755.1 |
| Georgia | 15 | 12,828.0 | 636.0 | | 13,464.0 |
| Idaho | 2 | 31.5 | | | 31.5 |
| Illinois | 29 | 1,055.0 | | | 1,055.0 |
| Indiana | 9 | 5,584.0 | | | 5,584.0 |
| Iowa | 59 | 6,294.0 | 23.0 | | 6,317.0 |
| Kansas | 36 | 10,750.1 | | | 10,750.1 |
| Louisiana | 11 | 22,882.0 | | | 22,882.0 |
| Maine | 9 | 105.7 | 48.6 | | 154.3 |
| Maryland | 33 | 3,495.5 | 14.0 | 330.0 | 3,839.5 |
| Michigan | 5 | 14.0 | | | 14.0 |
| Minnesota | 197 | 26,759.1 | | | 26,759.1 |
| Mississippi | 18 | 4,025.0 | | | 4,025.0 |
| Missouri | 15 | 1,272.0 | | | 1,272.0 |
| Montana | 13 | 3,775.0 | | | 3,775.0 |
| Nebraska | 46 | 5,375.0 | | | 5,375.0 |
| Nevada | 21 | 4,411.0 | 128.0 | | 4,539.0 |
| New Mexico | 1 | 781.0 | | | 781.0 |
| New York | 2 | 168.7 | | | 168.7 |
| North Carolina | 22 | 6,991.0 | 31.0 | | 7,022.0 |
| North Dakota | 117 | 25,120.6 | 50.0 | | 25,170.6 |
| Oklahoma | 9 | 11,633.0 | | | 11,633.0 |
| Oregon | 69 | 3,681.7 | 588.5 | | 4,270.2 |

| | | | | | |
|----------------|--------------|------------------|----------------|--------------|------------------|
| Pennsylvania | 1 | 57.0 | | | 57.0 |
| Rhode Island | 2 | 2.0 | 58.0 | | 60.0 |
| South Carolina | 1 | 180.0 | | | 180.0 |
| South Dakota | 58 | 6,423.0 | 542.0 | | 6,965.0 |
| Texas | 66 | 41,769.6 | 91.2 | | 41,860.8 |
| Utah | 4 | 985.0 | | | 985.0 |
| Virginia | 5 | 298.0 | | | 298.0 |
| Washington | 96 | 3,281.2 | 2,478.2 | 185.2 | 5,944.6 |
| Wisconsin | 39 | 1,935.3 | 432.0 | 236.0 | 2,603.3 |
| Wyoming | 2 | 137.0 | | | 137.0 |
| Total | 1,214 | 257,463.8 | 5,174.5 | 787.2 | 263,425.5 |

Total Acres = FWS acres treated.

NON-WUI TREATMENTS Pacific Region

| <u>Refuge</u> | <u>Number</u> | <u>RX Acres</u> | <u>Mech Acres</u> | <u>Other Acres</u> | <u>Total Acres</u> |
|-------------------------------|---------------|-----------------|-------------------|--------------------|--------------------|
| Ankeny NWR | 5 | 135.0 | 300.0 | | 435.0 |
| Baskett Slough NWR | 7 | 58.0 | 8.0 | | 66.0 |
| Camas NWR | 1 | 10.0 | | | 10.0 |
| Columbia NWR | 24 | 936.8 | 185.2 | 185.2 | 1,307.2 |
| Hanford Reach /Saddle Mtn | 8 | 52.0 | 1,532.0 | | 1,584.0 |
| Hart Mtn Natl Antelope Refuge | 5 | 87.0 | 21.5 | | 108.5 |
| Kootenai NWR | 1 | 21.5 | | | 21.5 |
| Little Pend Oreille NWR | 23 | 560.3 | 761.0 | | 1,321.3 |
| Malheur NWR | 8 | 651.0 | 119.0 | | 770.0 |
| McNary NWR | 1 | 15.0 | | | 15.0 |
| Sheldon NWR | 5 | 475.0 | 33.0 | | 508.0 |
| Toppenish NWR | 6 | 234.1 | | | 234.1 |
| Turnbull NWR | 33 | 1,473.0 | | | 1,473.0 |
| Umatilla NWR | 7 | 333.1 | | | 333.1 |
| William L Finley NWR | 15 | 297.0 | 140.0 | | 437.0 |
| Total | 149 | 5,338.8 | 3,099.7 | 185.2 | 8,623.7 |

NON-WUI TREATMENTS California/Nevada Operations

| <u>Refuge</u> | <u>Number</u> | <u>RX Acres</u> | <u>Mech Acres</u> | <u>Other Acres</u> | <u>Total Acres</u> |
|----------------------------------|---------------|-----------------|-------------------|--------------------|--------------------|
| Bear Valley NWR | 6 | 83.4 | | | 83.4 |
| Colusa NWR | 2 | 61.0 | | | 61.0 |
| Delevan NWR | 1 | 2.0 | | | 2.0 |
| Klamath Marsh NWR | 1 | 12.0 | | | 12.0 |
| Lower Klamath NWR | 50 | 19,331.7 | | | 19,331.7 |
| Merced NWR | 6 | 963.0 | | | 963.0 |
| Modoc NWR | 3 | 32.0 | | | 32.0 |
| Red Bluff Fish & Wildlife Office | 3 | 25.0 | | | 25.0 |
| Ruby Lake NWR | 6 | 3.0 | 40.0 | | 43.0 |
| Sacramento NWRC | 6 | 243.0 | | | 243.0 |
| Sacramento River NWR | 4 | 108.0 | 7.0 | | 115.0 |
| San Joaquin River NWR | 1 | 20.0 | | | 20.0 |
| San Luis NWR | 3 | 239.0 | | | 239.0 |
| Stillwater NWR | 10 | 3,933.0 | 55.0 | | 3,988.0 |
| Stone Lakes NWR | 1 | 35.0 | | 25.0 | 60.0 |
| Tule Lake NWR | 76 | 11,662.3 | | | 11,662.3 |
| Total | 179 | 36,753.4 | 102.0 | 25.0 | 36,880.4 |

NON-WUI TREATMENTS

Southwest Region

| <u>Refuge</u> | <u>Number</u> | <u>RX Acres</u> | <u>Mech Acres</u> | <u>Total Acres</u> |
|-------------------------------|---------------|-----------------|-------------------|--------------------|
| Anahuac NWR | 14 | 8,059.2 | | 8,059.2 |
| Aransas NWR | 4 | 1,517.0 | | 1,517.0 |
| Aransas/Matagorda Island NWRC | 15 | 7,588.0 | | 7,588.0 |
| Attwater Prairie Chicken NWR | 4 | 1,155.0 | | 1,155.0 |
| Balcones Canyonlands NWR | 5 | 566.0 | 11.2 | 577.2 |
| Big Boggy NWR | 1 | 652.0 | | 652.0 |
| Brazoria NWR | 2 | 827.0 | | 827.0 |
| Buenos Aires NWR | 1 | 50.0 | | 50.0 |
| Caddo NWR | 1 | | 50.0 | 50.0 |
| Inks Dam NFH | 1 | 3.0 | | 3.0 |
| McFaddin NWR | 5 | 15,706.2 | | 15,706.2 |
| Muleshoe NWR | 6 | 2,131.2 | | 2,131.2 |
| Salt Plains NWR | 2 | 5,347.0 | | 5,347.0 |
| San Andres NWR | 1 | 781.0 | | 781.0 |
| San Bernard NWR | 7 | 3,565.0 | | 3,565.0 |
| Sequoyah NFH | 1 | 169.0 | | 169.0 |
| Texas Point NWR | 1 | | 30.0 | 30.0 |
| Tishomingo NWR | 1 | 200.0 | | 200.0 |
| Washita NWR | 2 | 770.0 | | 770.0 |
| Wichita Mtns Wildlife Refuge | 3 | 5,147.0 | | 5,147.0 |
| Total | 77 | 54,233.6 | 91.2 | 54,324.8 |

NON-WUI TREATMENTS

Great Lakes - Big Rivers Region

| <u>Refuge</u> | <u>Number</u> | <u>RX Acres</u> | <u>Mech Acres</u> | <u>Other Acres</u> | <u>Total Acres</u> |
|----------------------|---------------|-----------------|-------------------|--------------------|--------------------|
| Agassiz NWR | 19 | 6,207.2 | | | 6,207.2 |
| Big Oaks NWR | 9 | 5,584.0 | | | 5,584.0 |
| Big Stone NWR | 15 | 1,996.0 | | | 1,996.0 |
| Crab Orchard NWR | 14 | 619.0 | | | 619.0 |
| Crane Meadows NWR | 7 | 472.0 | | | 472.0 |
| Cypress Creek NWR | 1 | 25.0 | | | 25.0 |
| Desoto NWR | 8 | 217.0 | | | 217.0 |
| Detroit Lakes WMD | 22 | 3,767.0 | | | 3,767.0 |
| Driftless Area NWR | 1 | 11.0 | | | 11.0 |
| Emiquon NWR | 2 | 68.0 | | | 68.0 |
| Fergus Falls WMD | 29 | 3,629.0 | | | 3,629.0 |
| Fox River NWR | 4 | 17.4 | | | 17.4 |
| Great River NWR | 6 | 364.0 | | | 364.0 |
| Hamden Slough NWR | 10 | 128.0 | | | 128.0 |
| Horicon NWR | 8 | 484.4 | | | 484.4 |
| Leopold WMD | 13 | 750.5 | | | 750.5 |
| Litchfield WMD | 20 | 2,226.0 | | | 2,226.0 |
| Meredosia NWR | 4 | 141.0 | | | 141.0 |
| Michigan WMD | 1 | 7.5 | | | 7.5 |
| Mingo NWR | 3 | 109.0 | | | 109.0 |
| Minnesota Valley NWR | 1 | 1.0 | | | 1.0 |
| Morris WMD | 30 | 3,660.8 | | | 3,660.8 |
| Neal Smith NWR | 11 | 2,167.0 | 20.0 | | 2,187.0 |
| Necedah NWR | 5 | 586.0 | 4.0 | 236.0 | 826.0 |
| Port Louisa NWR | 37 | 3,495.0 | | | 3,495.0 |

| | | | | | |
|------------------------------|------------|-----------------|--------------|--------------|-----------------|
| Rice Lake NWR | 4 | 501.0 | | | 501.0 |
| Rydell NWR | 3 | 70.0 | | | 70.0 |
| Seney NWR | 4 | 6.5 | | | 6.5 |
| Sherburne NWR | 6 | 1,705.0 | | | 1,705.0 |
| Squaw Creek NWR | 10 | 906.0 | | | 906.0 |
| St Croix WMD | 7 | 70.0 | 428.0 | | 498.0 |
| Tamarac NWR | 9 | 460.1 | | | 460.1 |
| Tremplealeau NWR | 2 | 27.0 | | | 27.0 |
| Two Rivers NWR | 3 | 70.0 | | | 70.0 |
| Union Slough NWR | 7 | 545.0 | 3.0 | | 548.0 |
| Upper MS River-Savanna Dist. | 1 | 25.0 | | | 25.0 |
| Windom WMD | 22 | 1,936.0 | | | 1,936.0 |
| Total | 358 | 43,054.4 | 455.0 | 236.0 | 43,745.4 |

NON-WUI TREATMENTS

Southeast Region

| <u>Refuge</u> | <u>Number</u> | <u>RX Acres</u> | <u>Mech Acres</u> | <u>Other Acres</u> | <u>Total Acres</u> |
|------------------------|---------------|-----------------|-------------------|--------------------|--------------------|
| Alligator River NWR | 11 | 4,031.0 | 31.0 | 11.0 | 4,073.0 |
| Blackbeard Island NWR | 1 | 147.0 | | | 147.0 |
| Bogue Chitto NWR NWR | 4 | 250.0 | | | 250.0 |
| Carolina Sandhills NWR | 1 | 180.0 | | | 180.0 |
| Chassahowitzka NWR | 1 | 40.0 | | | 40.0 |
| Currituck NWR | 1 | 341.0 | | | 341.0 |
| D'Arbonne NWR | 4 | 303.0 | | | 303.0 |
| Grand Bay NWR | 1 | 960.0 | | | 960.0 |
| Lacassine NWR | 2 | 10,005.0 | | | 10,005.0 |
| Lake Woodruff NWR | 5 | 445.0 | | | 445.0 |
| Lower Suwannee NWR | 7 | 628.1 | | | 628.1 |
| Mattamuskeet NWR | 4 | 670.0 | | | 670.0 |
| Merritt Island NWR | 2 | 1,604.0 | | | 1,604.0 |
| MS Sandhill Crane NWR | 6 | 1,096.0 | | | 1,096.0 |
| Noxubee NWR | 8 | 1,988.0 | | | 1,988.0 |
| Okefenokee NWR | 5 | 7,533.0 | | | 7,533.0 |
| Pea Island NWR | 2 | 757.0 | | | 757.0 |
| Pee Dee NWR | 1 | 150.0 | | | 150.0 |
| Piedmont NWR | 9 | 5,148.0 | 636.0 | | 5,784.0 |
| Pocosin Lakes NWR | 2 | 135.0 | | | 135.0 |
| Sabine NWR | 3 | 12,444.0 | | | 12,444.0 |
| St Marks NWR | 18 | 6,860.0 | | | 6,860.0 |
| St Vincent NWR | 10 | 3,178.0 | | | 3,178.0 |
| Swanquarter NWR | 1 | 872.0 | | | 872.0 |
| Upper Ouachita NWR | 2 | 130.0 | | | 130.0 |
| Wapanocca NWR | 1 | 643.0 | | | 643.0 |
| Total | 112 | 60,538.1 | 667.0 | 11.0 | 61,216.1 |

NON-WUI TREATMENTS

Northeast Region

| <u>Refuge</u> | <u>Number</u> | <u>RX Acres</u> | <u>Mech Acres</u> | <u>Other Acres</u> | <u>Total Acres</u> |
|------------------------------|---------------|-----------------|-------------------|--------------------|--------------------|
| Bombay Hook NWR | 1 | 95.0 | | | 95.0 |
| Chesapeake Marshlands NWRC | 31 | 3,487.5 | 14.0 | 230.0 | 3,731.5 |
| Eastern Neck NWR | 2 | 8.0 | | 100.0 | 108.0 |
| Eastern Virginia Rivers NWRC | 5 | 298.0 | | | 298.0 |
| Erie NWR | 1 | 57.0 | | | 57.0 |
| Great Dismal Swamp NWR | 1 | 35.0 | | | 35.0 |
| Iroquois NWR | 1 | 105.7 | | | 105.7 |
| Maine Coastal Islands NWR | 1 | | 22.1 | | 22.1 |
| Montezuma NWR | 1 | 63.0 | | | 63.0 |
| Moosehorn NWR | 4 | 48.0 | | | 48.0 |
| Petit Manan NWR Complex | 1 | 10.7 | | | 10.7 |
| Rachel Carson NWR | 1 | | 5.9 | | 5.9 |
| Rhode Island NWRC | 2 | 2.0 | 58.0 | | 60.0 |
| Sunkhaze Meadows NWR | 2 | 47.0 | 20.6 | | 67.6 |
| Total | 54 | 4,256.9 | 120.6 | 330.0 | 4,707.5 |

NON-WUI TREATMENTS

Mountain-Prairie Region

| <u>Refuge</u> | <u>Number</u> | <u>RX Acres</u> | <u>Mech Acres</u> | <u>Total Acres</u> |
|--------------------------------|---------------|-----------------|-------------------|--------------------|
| Alamosa | 1 | 644.0 | | 644.0 |
| Arrowwood NWR | 7 | 2,065.0 | | 2,065.0 |
| Arrowwood WMD | 3 | 399.0 | | 399.0 |
| Audubon NWR | 13 | 1,276.0 | | 1,276.0 |
| Benton Lake NWR | 2 | 1,655.0 | | 1,655.0 |
| Bowdoin NWR | 4 | 1,027.0 | | 1,027.0 |
| Boyer Chute NWR | 5 | 231.0 | | 231.0 |
| Browns Park NWR | 3 | 130.0 | 19.0 | 149.0 |
| Chase Lake Prairie Project WMD | 9 | 954.0 | | 954.0 |
| Crescent Lake NWR | 7 | 805.0 | | 805.0 |
| Crosby WMD | 7 | 1,207.0 | | 1,207.0 |
| Des Lacs NWR | 14 | 2,419.1 | | 2,419.1 |
| Devils Lake WMD | 15 | 1,875.0 | | 1,875.0 |
| Fish Springs NWR | 2 | 525.0 | | 525.0 |
| Flint Hills NWR | 8 | 1,822.0 | | 1,822.0 |
| Fort Niobrara NWR | 2 | 43.0 | | 43.0 |
| Huron WMD | 13 | 300.0 | 75.0 | 375.0 |
| J Clark Salyer NWR | 11 | 1,663.0 | 50.0 | 1,713.0 |
| Kirwin NWR | 8 | 2,426.0 | | 2,426.0 |
| Kulm WMD | 2 | 40.5 | | 40.5 |
| Lacreek NWR | 8 | 1,386.0 | | 1,386.0 |
| Lake Andes NWR | 9 | 684.0 | 73.0 | 757.0 |
| Leadville NFH | 1 | 1.0 | | 1.0 |
| Long Lake NWR | 5 | 723.0 | | 723.0 |

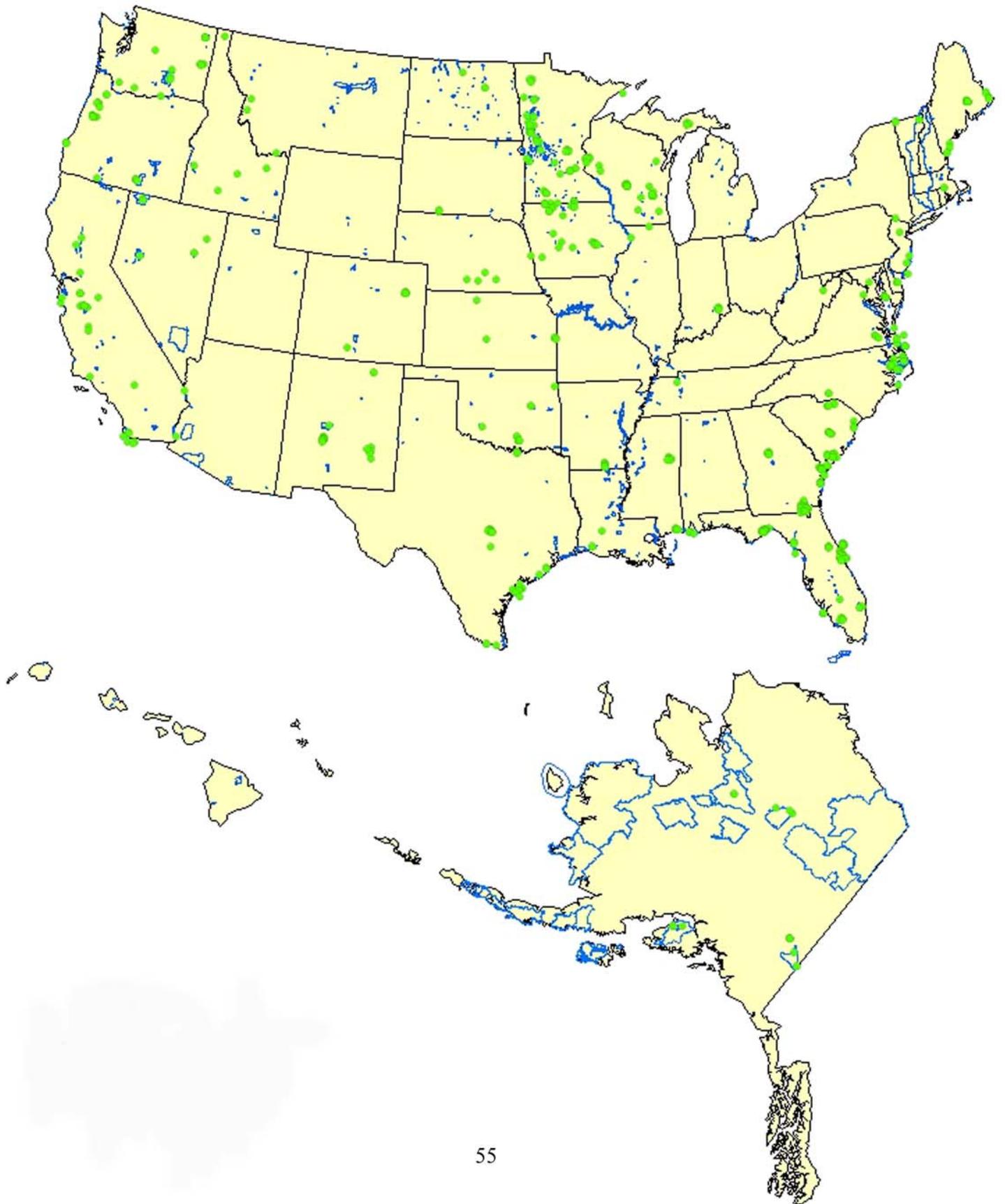
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|--------------------------|------------|-----------------|--------------|-----------------|
| Lostwood NWR | 7 | 8,714.0 | | 8,714.0 |
| Lostwood WMD | 3 | 504.0 | | 504.0 |
| Madison WMD | 17 | 1,137.0 | 394.0 | 1,531.0 |
| Marais Des Cygnes NWR | 9 | 2,813.0 | | 2,813.0 |
| Medicine Lake NWR | 6 | 1,033.0 | | 1,033.0 |
| Mortenson Lake NWR | 1 | 22.0 | | 22.0 |
| National Bison Range NWR | 1 | 60.0 | | 60.0 |
| Ouray NWR | 2 | 460.0 | | 460.0 |
| Quivira NWR | 11 | 3,689.1 | | 3,689.1 |
| Rainwater Basin WMD | 27 | 4,155.0 | | 4,155.0 |
| Rocky Mtn Arsenal NWR | 1 | 88.9 | | 88.9 |
| Sand Lake NWR | 7 | 2,056.0 | | 2,056.0 |
| Seedskadee NWR | 1 | 115.0 | | 115.0 |
| Tewaukon NWR | 5 | 1,234.0 | | 1,234.0 |
| Upper Souris NWR | 10 | 1,543.0 | | 1,543.0 |
| Valley City WMD | 6 | 504.0 | | 504.0 |
| Waubay NWR | 4 | 860.0 | | 860.0 |
| Total | 277 | 53,288.6 | 611.0 | 53,899.6 |

NON-WUI TREATMENTS

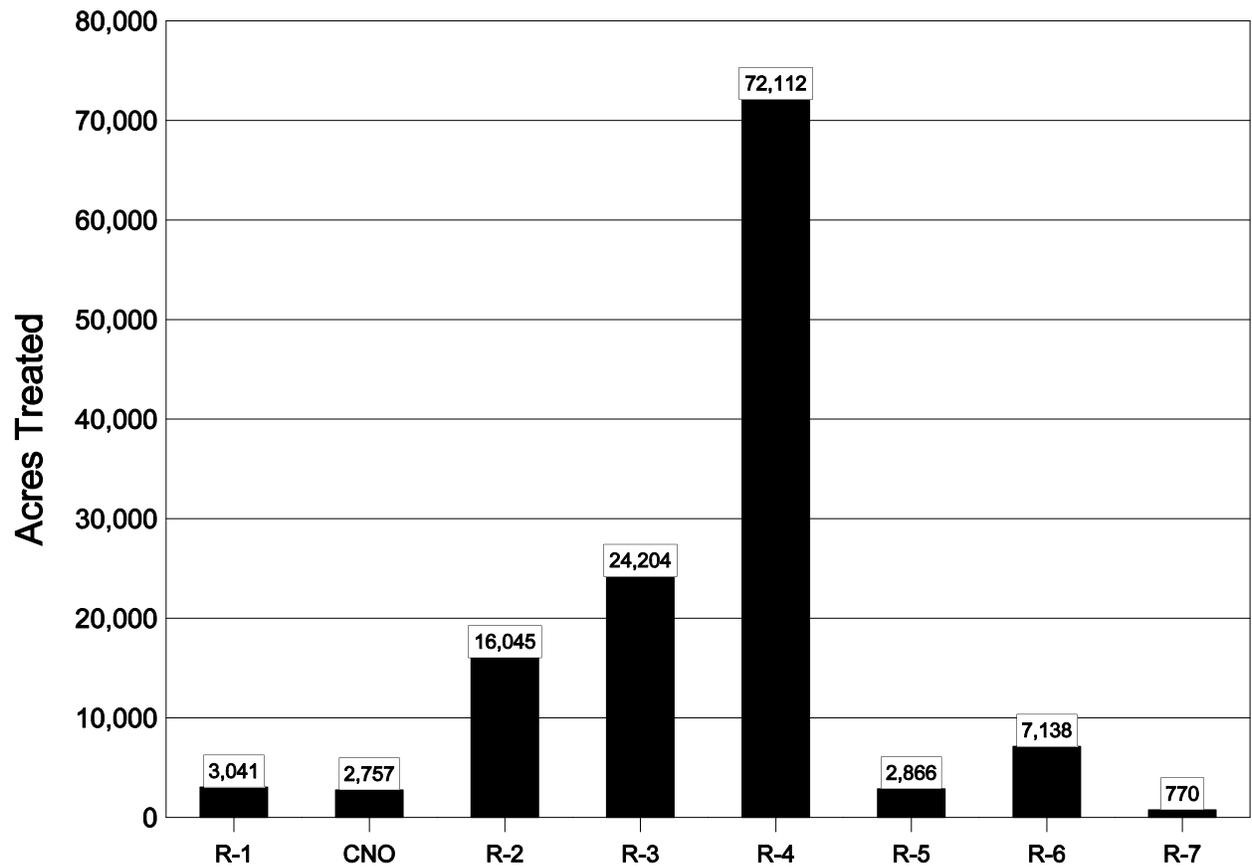
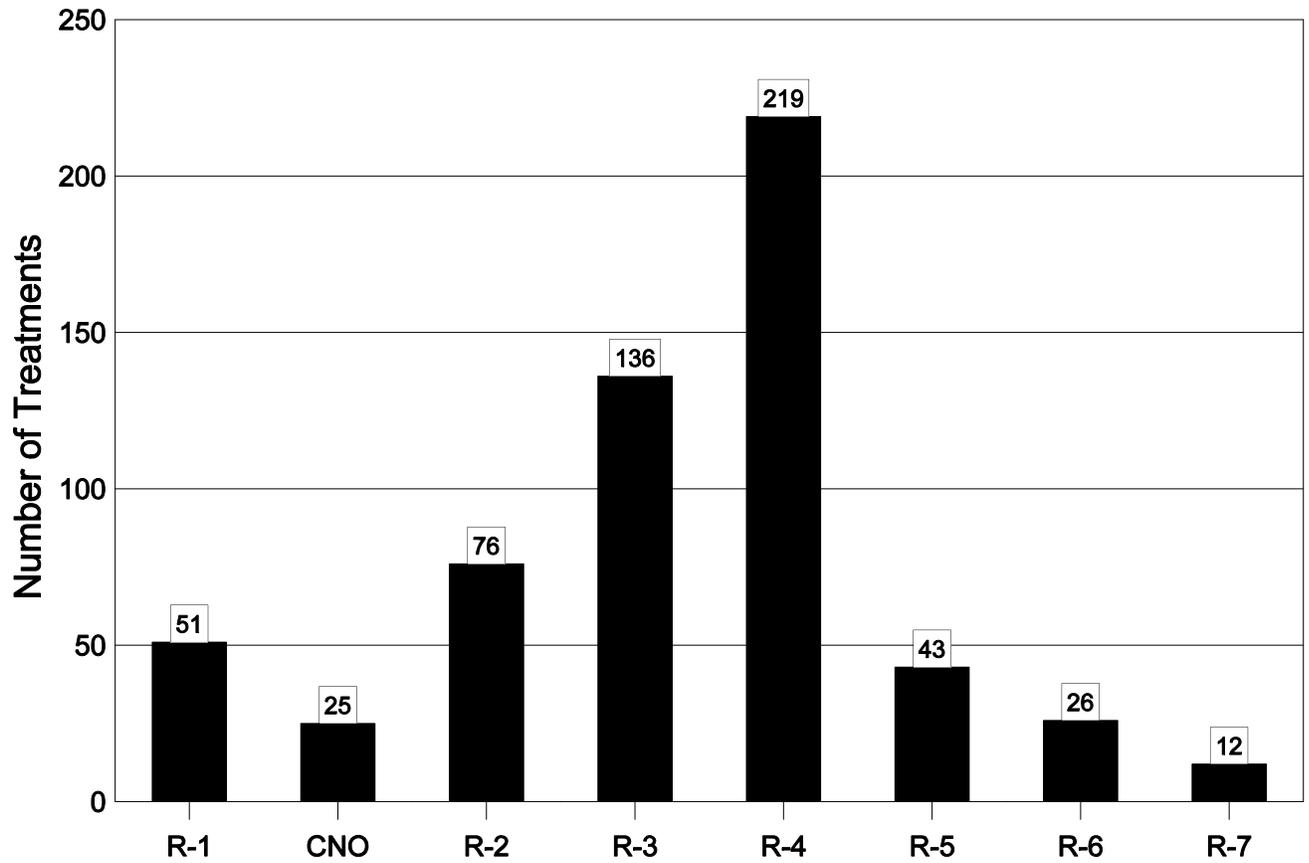
Alaska Region

| <u>Refuge</u> | <u>Number</u> | <u>RX Acres</u> | <u>Mech Acres</u> | <u>Total Acres</u> |
|---------------------|---------------|-----------------|-------------------|--------------------|
| Koyukuk/Nowitna NWR | 4 | | 7.0 | 7.0 |
| Tetlin NWR | 4 | | 21.0 | 21.0 |
| Total | 8 | 0.0 | 28.0 | 28.0 |

2005 WUI TREATMENTS



WILDLAND URBAN INTERFACE Treatments - 2005



WUI TREATMENTS by State 2005

| State | Number | RX Acres | Mech Acres | Other Acres | Total Acres |
|----------------|--------|----------|------------|-------------|-------------|
| Alabama | 1 | 383.0 | | | 383.0 |
| Alaska | 12 | 291.0 | 439.0 | 40.0 | 770.0 |
| Arizona | 2 | 110.0 | | | 110.0 |
| Arkansas | 7 | 2,035.0 | | | 2,035.0 |
| California | 21 | 400.0 | 2,252.0 | 2.0 | 2,654.0 |
| Colorado | 6 | 1,079.4 | | | 1,079.4 |
| Connecticut | 2 | | 30.0 | | 30.0 |
| Delaware | 3 | 191.0 | | | 191.0 |
| Florida | 83 | 31,733.0 | 103.0 | | 31,836.0 |
| Georgia | 34 | 9,408.0 | 660.0 | | 10,068.0 |
| Idaho | 4 | 217.0 | 40.0 | | 257.0 |
| Illinois | 1 | | | 0.2 | 0.2 |
| Indiana | 4 | 4,222.0 | | | 4,222.0 |
| Iowa | 28 | 2,436.0 | | | 2,436.0 |
| Kansas | 6 | 3,337.0 | 70.0 | | 3,407.0 |
| Louisiana | 11 | 4,718.5 | | | 4,718.5 |
| Maine | 21 | 33.0 | 234.7 | | 267.7 |
| Maryland | 3 | 43.0 | 900.0 | | 943.0 |
| Massachusetts | 2 | | 11.0 | 5.0 | 16.0 |
| Michigan | 3 | | 121.0 | | 121.0 |
| Minnesota | 54 | 9,255.0 | 185.0 | | 9,440.0 |
| Mississippi | 17 | 6,611.0 | 196.0 | | 6,807.0 |
| Montana | 4 | 759.0 | | | 759.0 |
| Nebraska | 5 | 1,018.0 | | | 1,018.0 |
| Nevada | 7 | 50.0 | 108.6 | | 158.6 |
| New Jersey | 5 | | 286.0 | 325.0 | 611.0 |
| New Mexico | 29 | 5,171.1 | 316.0 | 148.0 | 5,635.1 |
| North Carolina | 26 | 7,020.0 | 529.0 | 84.0 | 7,633.0 |
| North Dakota | 3 | 646.0 | | | 646.0 |

| | | | | | |
|----------------|------------|------------------|----------------|----------------|------------------|
| Oklahoma | 12 | 1,819.5 | | | 1,819.5 |
| Oregon | 28 | 415.0 | 776.0 | 10.0 | 1,201.0 |
| South Carolina | 40 | 5,470.0 | 161.0 | 3,000.0 | 8,631.0 |
| South Dakota | 2 | 229.0 | | | 229.0 |
| Texas | 33 | 8,209.5 | 169.8 | 101.0 | 8,480.3 |
| Vermont | 1 | | 13.0 | | 13.0 |
| Virginia | 5 | 130.0 | | 560.0 | 690.0 |
| Washington | 16 | 300.0 | 1,227.0 | | 1,527.0 |
| West Virginia | 1 | | 104.0 | | 104.0 |
| Wisconsin | 46 | 7,410.5 | 574.0 | | 7,984.5 |
| Total | 588 | 115,150.5 | 9,506.1 | 4,275.2 | 128,931.8 |

WUI TREATMENTS Pacific Region

| <u>Refuge</u> | <u>Number</u> | <u>RX Acres</u> | <u>Mech Acres</u> | <u>Other Acres</u> | <u>Total Acres</u> |
|-------------------------------|---------------|-----------------|-------------------|--------------------|--------------------|
| Ankeny NWR | 2 | 145.0 | | | 145.0 |
| Bandon Marsh NWR | 3 | | 25.0 | 10.0 | 35.0 |
| Baskett Slough NWR | 6 | 53.0 | 261.0 | | 314.0 |
| Branch of Fire Management | 1 | | 200.0 | | 200.0 |
| Camas NWR | 1 | 162.0 | | | 162.0 |
| Columbia NWR | 2 | | 32.0 | | 32.0 |
| Conboy Lake NWR | 2 | | 175.0 | | 175.0 |
| Deer Flat NWR | 1 | | 30.0 | | 30.0 |
| Hagerman NFH | 1 | | 10.0 | | 10.0 |
| Hanford Reach NM/Saddle Mtn | 2 | | 600.0 | | 600.0 |
| Hart Mtn Natl Antelope Refuge | 5 | 4.0 | 171.0 | | 175.0 |
| Kootenai NWR | 1 | 55.0 | | | 55.0 |
| Little Pend Oreille NWR | 6 | 47.0 | 160.0 | | 207.0 |
| Sheldon NWR | 3 | 50.0 | 6.0 | | 56.0 |
| Tulatin River NWR | 2 | 5.0 | 5.0 | | 10.0 |
| Turnbull NWR | 4 | 253.0 | 260.0 | | 513.0 |
| Umatilla NWR | 1 | | 6.0 | | 6.0 |
| William L Finley NWR | 8 | 208.0 | 108.0 | | 316.0 |
| Total | 51 | 982.0 | 2,049.0 | 10.0 | 3,041.0 |

WUI TREATMENTS California/Nevada Operations

| <u>Refuge</u> | <u>Number</u> | <u>RX Acres</u> | <u>Mech Acres</u> | <u>Other Acres</u> | <u>Total Acres</u> |
|-----------------------|---------------|-----------------|-------------------|--------------------|--------------------|
| Bitter Creek NWR | 1 | | 45.0 | | 45.0 |
| Ellicott Slough NWR | 1 | | 25.0 | | 25.0 |
| Merced NWR | 2 | 100.0 | 100.0 | | 200.0 |
| Ruby Lake NWR | 3 | | 89.0 | | 89.0 |
| Sacramento NWRC | 1 | | 3.0 | 2.0 | 5.0 |
| Sacramento River NWR | 1 | | 5.0 | | 5.0 |
| San Diego Bay NWR | 1 | | 150.0 | | 150.0 |
| San Diego NWRC | 2 | | 710.0 | | 710.0 |
| San Joaquin River NWR | 4 | | 425.0 | | 425.0 |
| San Luis NWR | 7 | | 524.0 | | 524.0 |
| Stillwater NWR | 1 | | 13.6 | | 13.6 |
| Stone Lakes NWR | 1 | 300.0 | 265.0 | | 565.0 |
| Total | 25 | 400.0 | 2,354.6 | 2.0 | 2,756.6 |

WUI TREATMENTS Southwest Region

| <u>Refuge</u> | <u>Number</u> | <u>RX Acres</u> | <u>Mech Acres</u> | <u>Other Acres</u> | <u>Total Acres</u> |
|------------------------------|---------------|-----------------|-------------------|--------------------|--------------------|
| Aransas NWR | 1 | 5.0 | | | 5.0 |
| Aransas/Matagorda Island NWR | 9 | 3,431.0 | | | 3,431.0 |
| Balcones Canyonlands NWR | 13 | 1,380.5 | 18.8 | 26.0 | 1,425.3 |
| Bitter Lake NWR | 4 | 3,447.0 | | | 3,447.0 |
| Bosque Del Apache NWR | 20 | 1,124.1 | 312.0 | 148.0 | 1,584.1 |
| Brazoria NWR | 2 | 1,998.0 | | | 1,998.0 |
| Deep Fork NWR | 2 | 869.0 | | | 869.0 |
| Dexter NFH and Fish Tech. | 1 | 354.0 | | | 354.0 |
| Hagerman NWR | 3 | 921.0 | | | 921.0 |
| Havasu NWR | 1 | 100.0 | | | 100.0 |
| Imperial NWR | 1 | 10.0 | | | 10.0 |
| Lower Rio Grande Valley NWR | 1 | | 100.0 | | 100.0 |
| Maxwell NWR | 3 | 221.0 | 4.0 | | 225.0 |
| Ozark Plateau NWR | 1 | 71.0 | | | 71.0 |
| San Bernard NWR | 1 | 474.0 | | | 474.0 |
| Santa Ana NWR | 3 | | 51.0 | 75.0 | 126.0 |
| Sevilleta NWR | 1 | 25.0 | | | 25.0 |
| Tishomingo NFH | 2 | 73.0 | | | 73.0 |
| Tishomingo NWR | 6 | 616.5 | | | 616.5 |
| Wichita Mtns Wildlife Refuge | 1 | 190.0 | | | 190.0 |
| Total | 76 | 15,310.1 | 485.8 | 249.0 | 16,044.9 |

WUI TREATMENTS Great Lakes-Big Rivers Region

| <u>Refuge</u> | <u>Number</u> | <u>RX Acres</u> | <u>Mech Acres</u> | <u>Other Acres</u> | <u>Total Acres</u> |
|------------------------|---------------|-----------------|-------------------|--------------------|--------------------|
| Agassiz NWR | 4 | 2,083.0 | | | 2,083.0 |
| Big Oaks NWR | 4 | 4,222.0 | | | 4,222.0 |
| Big Stone NWR | 1 | 327.0 | | | 327.0 |
| Detroit Lakes WMD | 7 | 1,259.0 | | | 1,259.0 |
| Fergus Falls WMD | 17 | 802.0 | 26.0 | | 828.0 |
| Horicon NWR | 8 | 2,665.0 | | | 2,665.0 |
| Iowa WMD | 21 | 1,885.0 | | | 1,885.0 |
| Leopold WMD | 7 | 639.5 | | | 639.5 |
| Litchfield WMD | 1 | 28.0 | | | 28.0 |
| Minnesota Valley NWR | 6 | 142.0 | 140.0 | | 282.0 |
| Morris WMD | 2 | 389.0 | | | 389.0 |
| Necedah NWR | 22 | 3,008.0 | 574.0 | | 3,582.0 |
| Port Louisa NWR | 7 | 551.0 | | | 551.0 |
| Rydell NWR | 1 | 2.0 | | | 2.0 |
| Seney NWR | 3 | | 121.0 | | 121.0 |
| Sherburne NWR | 7 | 3,513.0 | | | 3,513.0 |
| St Croix WMD | 9 | 1,098.0 | | | 1,098.0 |
| Upper MS River-Savanna | 1 | | | 0.2 | 0.2 |
| Windom WMD | 8 | 710.0 | 19.0 | | 729.0 |
| Total | 136 | 23,323.5 | 880.0 | 0.2 | 24,203.7 |

WUI TREATMENTS Southeast Region

| <u>Refuge</u> | <u>Number</u> | <u>RX Acres</u> | <u>Mech Acres</u> | <u>Other Acres</u> | <u>Total Acres</u> |
|------------------------|---------------|-----------------|-------------------|--------------------|--------------------|
| Alligator River NWR | 5 | 20.0 | 89.0 | | 109.0 |
| ARM Loxahatchee NWR | 2 | 91.0 | | | 91.0 |
| Big Branch NWR | 8 | 1,790.0 | | | 1,790.0 |
| Bon Secour NWR | 1 | 383.0 | | | 383.0 |
| Cape Romain NWR | 1 | | 8.0 | | 8.0 |
| Carolina Sandhills NWR | 4 | 1,410.0 | 38.0 | | 1,448.0 |
| Cedar Island NWR | 2 | 5,000.0 | 25.0 | | 5,025.0 |
| Currituck NWR | | | | | |
| EFH Ace Basin NWR | 9 | 1,496.0 | 40.0 | 3,000.0 | 4,536.0 |
| Felsenthal NWR | 7 | 2,035.0 | | | 2,035.0 |
| Florida Panther NWR | 7 | 3,977.0 | | | 3,977.0 |
| Harris Neck NWR | 5 | 676.0 | | | 676.0 |
| J N Ding Darling NWR | 5 | 22.0 | | | 22.0 |
| Lacassine NWR | 3 | 2,928.5 | | | 2,928.5 |
| Lake Woodruff NWR | 15 | 4,787.0 | | | 4,787.0 |
| Lower Suwannee NWR | 3 | 354.0 | 60.0 | | 414.0 |
| Mackay Island NWR | 8 | 1,473.0 | 21.0 | | 1,494.0 |
| Mattamuskeet NWR | 1 | 53.0 | | | 53.0 |
| Merritt Island NWR | 17 | 14,054.0 | | | 14,054.0 |
| MS Sandhill Crane NWR | 7 | 3,017.0 | 196.0 | | 3,213.0 |
| Noxubee NWR | 10 | 3,594.0 | | | 3,594.0 |
| Okefenokee NWR | 20 | 6,078.0 | | | 6,078.0 |
| Pee Dee NWR | 2 | 155.0 | | | 155.0 |
| Piedmont NWR | 6 | 2,350.0 | 660.0 | | 3,010.0 |
| Pinckney Island NWR | 3 | 345.0 | | | 345.0 |

| | | | | | |
|--------------------------|------------|-----------------|----------------|----------------|-----------------|
| Pocosin Lakes NWR | 8 | 319.0 | 394.0 | 84.0 | 797.0 |
| Santee NWR | 10 | 892.0 | 75.0 | | 967.0 |
| Savannah Coastal Refuges | 14 | 1,456.0 | | | 1,456.0 |
| St. Johns NWR | 2 | 452.0 | | | 452.0 |
| St Marks NWR | 32 | 7,996.0 | 43.0 | | 8,039.0 |
| Waccamaw NWR | 1 | 5.0 | | | 5.0 |
| Wassaw NWR | 1 | 170.0 | | | 170.0 |
| Total | 219 | 67,378.5 | 1,649.0 | 3,084.0 | 72,111.5 |

WUI TREATMENTS Northeast Region

| <u>Refuge</u> | <u>Number</u> | <u>RX Acres</u> | <u>Mech Acres</u> | <u>Other Acres</u> | <u>Total Acres</u> |
|-------------------------------|---------------|-----------------|-------------------|--------------------|--------------------|
| Back Bay NWR | 2 | 65.0 | | 500.0 | 565.0 |
| Canaan Valley NWR | 1 | | 104.0 | | 104.0 |
| Cape May NWR | 1 | | 4.0 | | 4.0 |
| Chesapeake Marshlands NWRC | 2 | 15.0 | 900.0 | | 915.0 |
| Eastern Virginia Rivers NWRC | 1 | | 6.0 | 5.0 | 11.0 |
| Eastern Shore of Virginia NWR | 1 | 25.0 | | | 25.0 |
| Edwin B Forsythe NWR | 2 | | 100.0 | 325.0 | 425.0 |
| Great Dismal Swamp NWR | 1 | | | 60.0 | 60.0 |
| Great Swamp NWR | 1 | | 25.0 | | 25.0 |
| Missisquoi NWR | 1 | | 13.0 | | 13.0 |
| Moosehorn NWR | 4 | 9.0 | 135.0 | | 144.0 |
| North Attleboro NFH | 1 | | 5.0 | | 5.0 |
| Patuxent Research Refuge | 1 | 28.0 | | | 28.0 |
| Potomac River NWRC | 1 | 40.0 | | | 40.0 |
| Prime Hook | 3 | 191.0 | | | 191.0 |
| Rachel Carson NWR | 4 | | 67.2 | | 67.2 |
| Silvio O. Conte | 2 | | 30.0 | | 30.0 |
| Sunkhaze Meadows NWR | 13 | 24.0 | 32.5 | | 56.5 |
| Wallkill River NWR | 1 | | 157.0 | | 157.0 |
| Total | 43 | 397.0 | 1,578.7 | 890.0 | 2,865.7 |

WUI TREATMENTS Mountain-Prairie Region

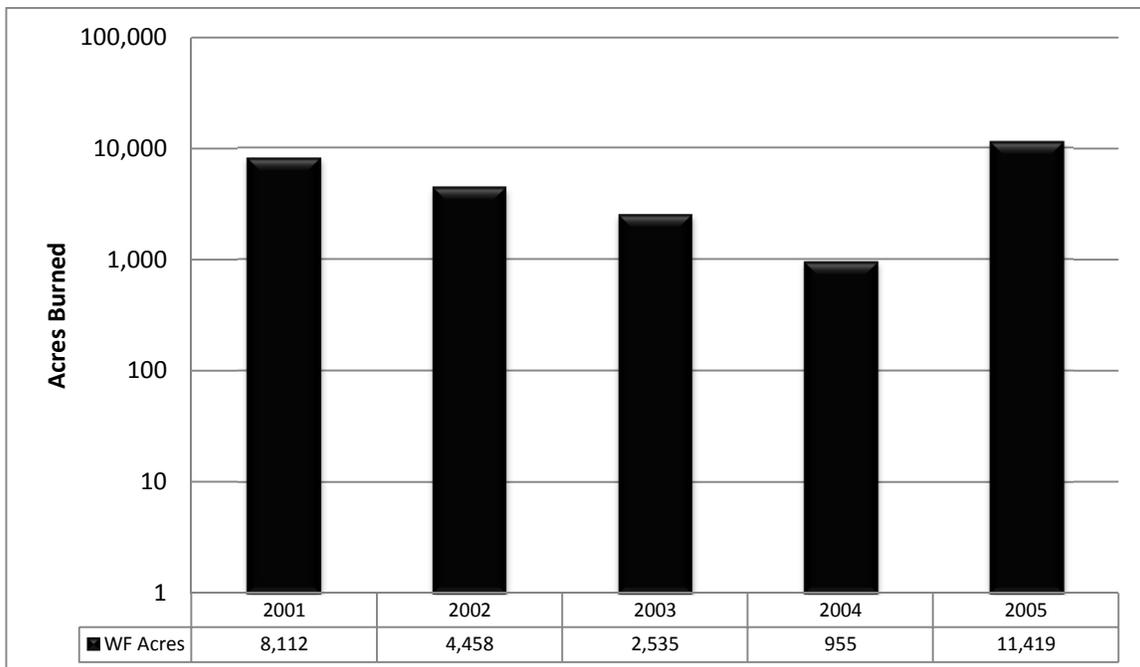
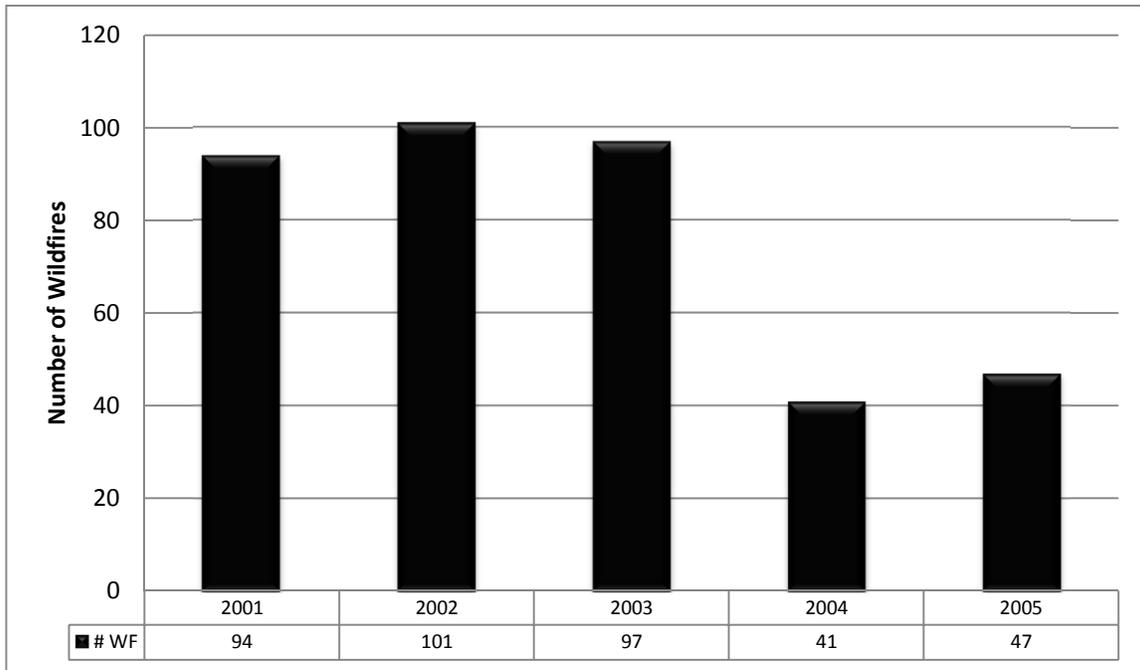
| <u>Refuge</u> | <u>Number</u> | <u>RX Acres</u> | <u>Mech Acres</u> | <u>Other Acres</u> | <u>Total Acres</u> |
|------------------------|---------------|-----------------|-------------------|--------------------|--------------------|
| Boyer Chute NWR | 1 | 255.0 | | | 255.0 |
| Devils Lake WMD | 2 | 161.0 | | | 161.0 |
| J. Clark Salyer NWR | 1 | 485.0 | | | 485.0 |
| Kirwin NWR | 2 | 878.0 | | | 878.0 |
| Lacreek NWR | 2 | 229.0 | | | 229.0 |
| Lee Metcalf NWR | 3 | 59.0 | | | 59.0 |
| Marais Des Cygnes NWR | 4 | 2,459.0 | 70.0 | | 2,529.0 |
| Monte Vista NWR | 1 | 861.0 | | | 861.0 |
| Rainwater Basin WMD | 4 | 763.0 | | | 763.0 |
| Red Rock Lakes NWR | 1 | 700.0 | | | 700.0 |
| Rocky Mtn. Arsenal NWR | 5 | 218.4 | | | 218.4 |
| Total | 26 | 7,068.4 | 70.0 | 0.0 | 7,138.4 |

WUI TREATMENTS

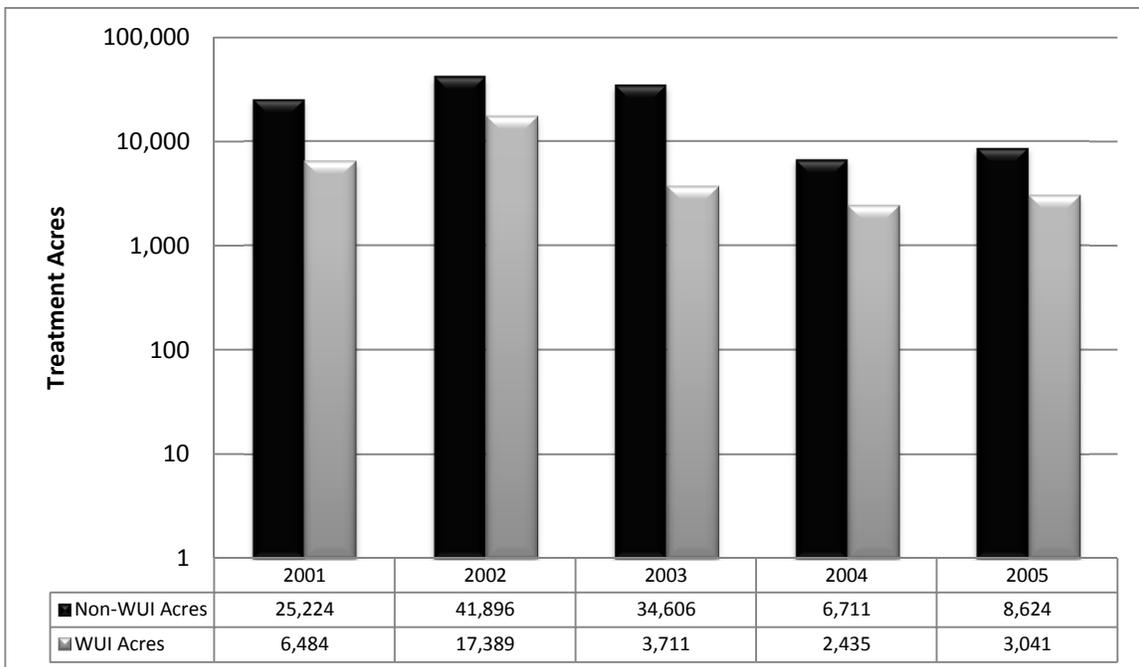
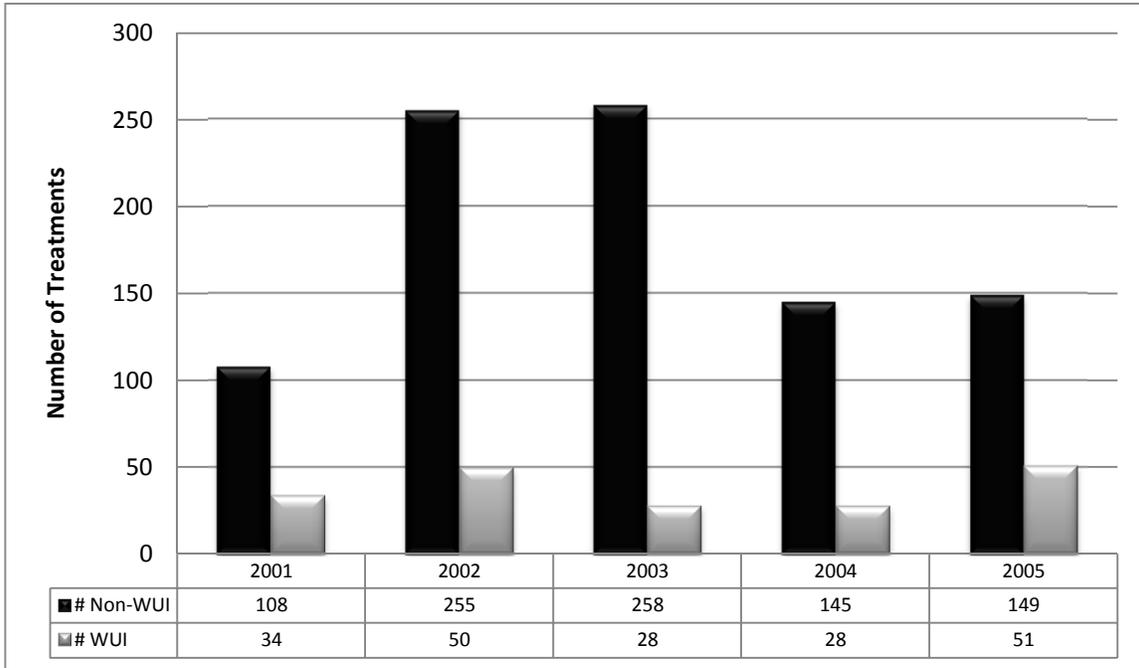
Alaska Region

| <u>Refuge</u> | <u>Number</u> | <u>RX Acres</u> | <u>Mech Acres</u> | <u>Other Acres</u> | <u>Total Acres</u> |
|---------------|---------------|-----------------|-------------------|--------------------|--------------------|
| Kenai NWR | 4 | 185.0 | 330.0 | 40.0 | 555.0 |
| Tetlin NWR | 8 | 106.0 | 109.0 | | 215.0 |
| Total | 12 | 291.0 | 439.0 | | 770.0 |

PACIFIC REGION Wildfires 2001-2005

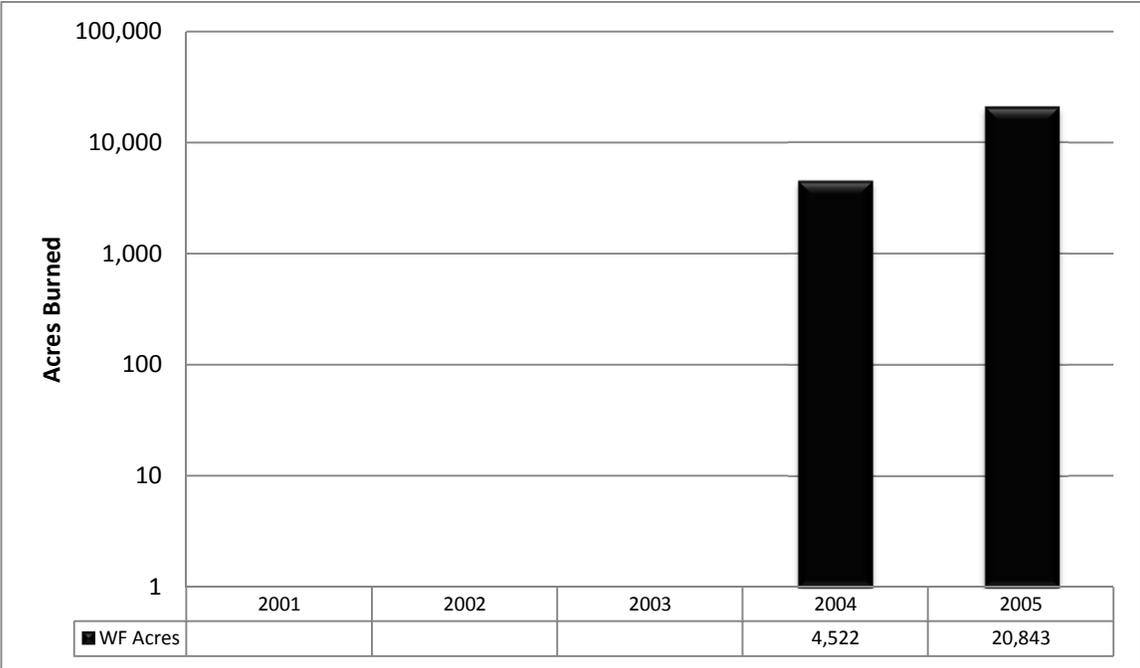
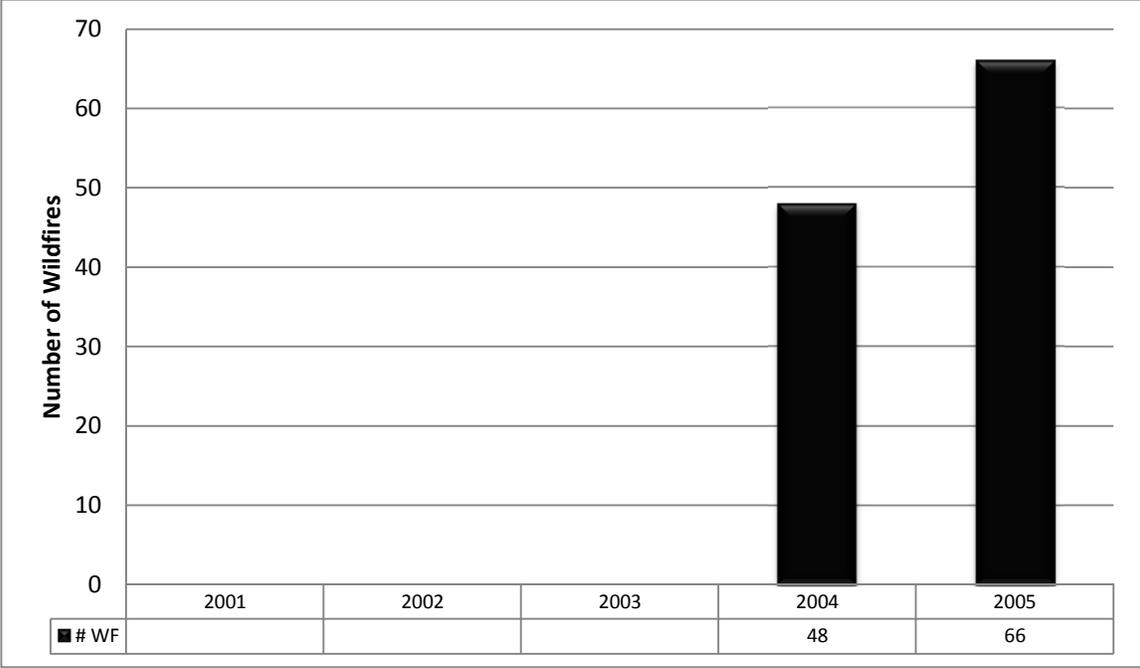


PACIFIC REGION Treatments 2001-2005

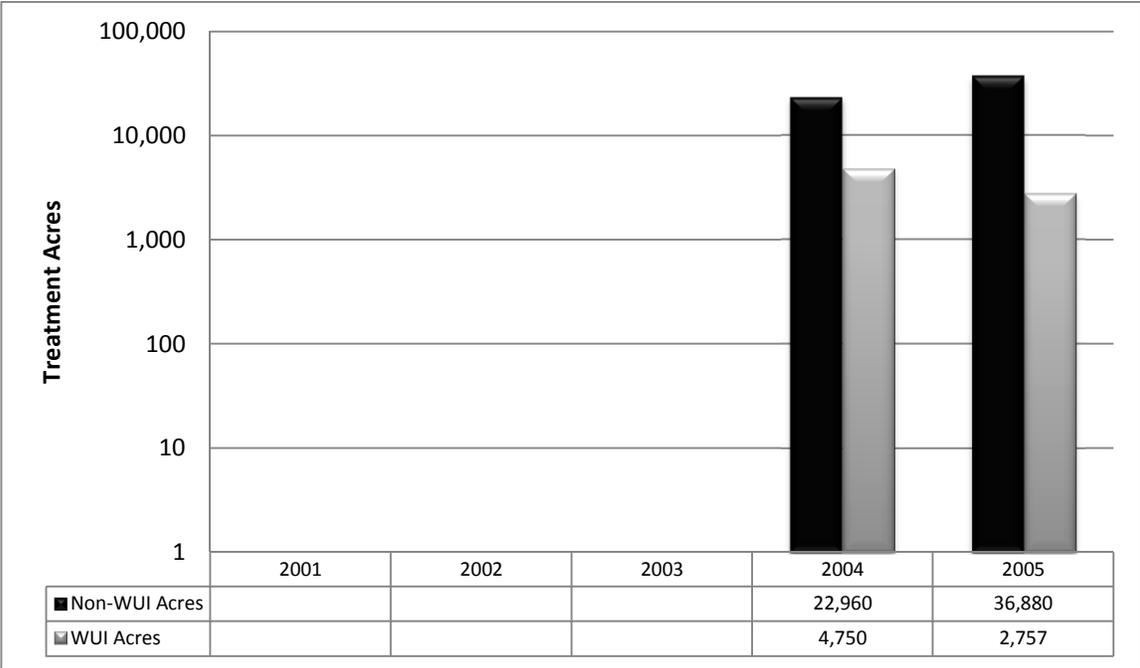
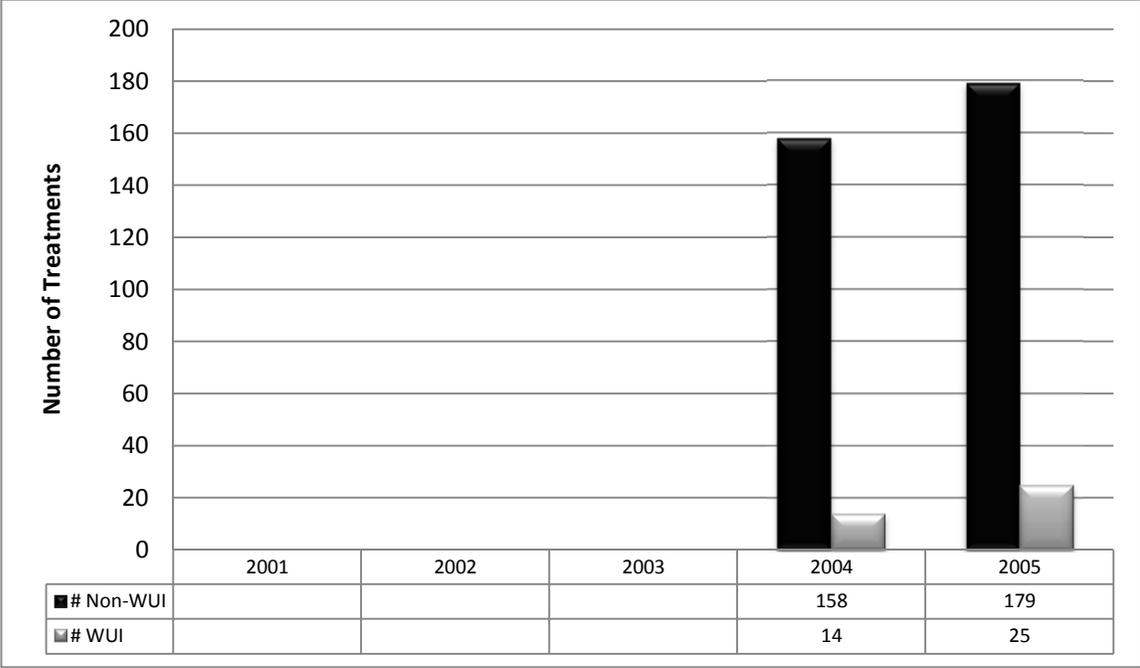


WUI = Wildland Urban Interface

CA/NV Operations Wildfires 2001-2005



CA/NV Operations Treatments 2001-2005

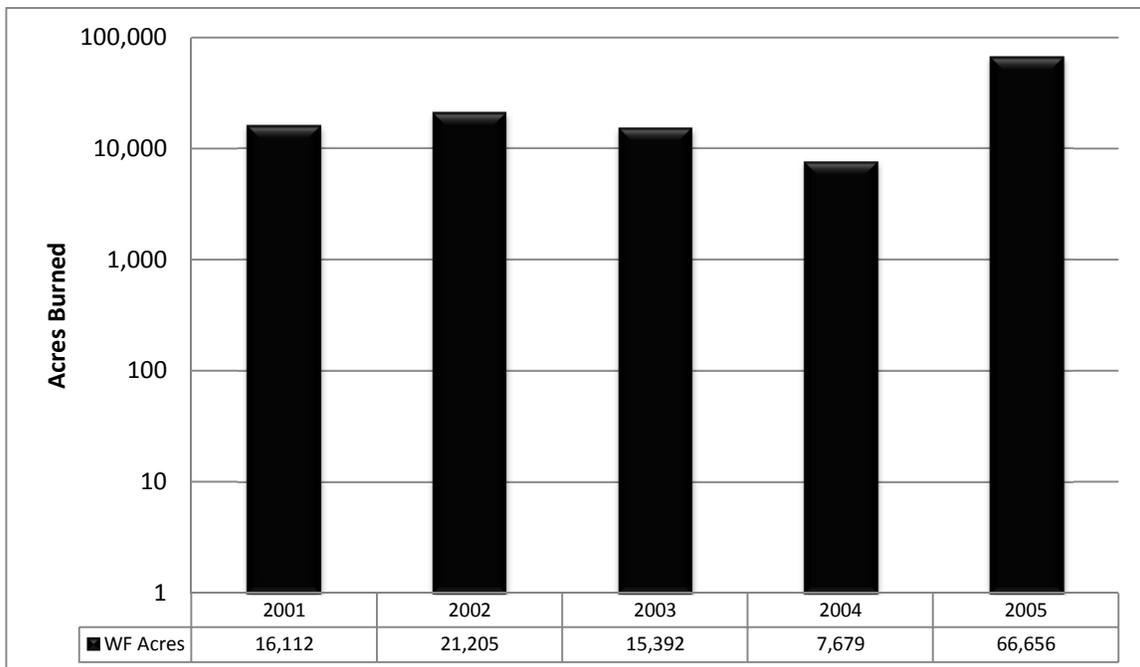
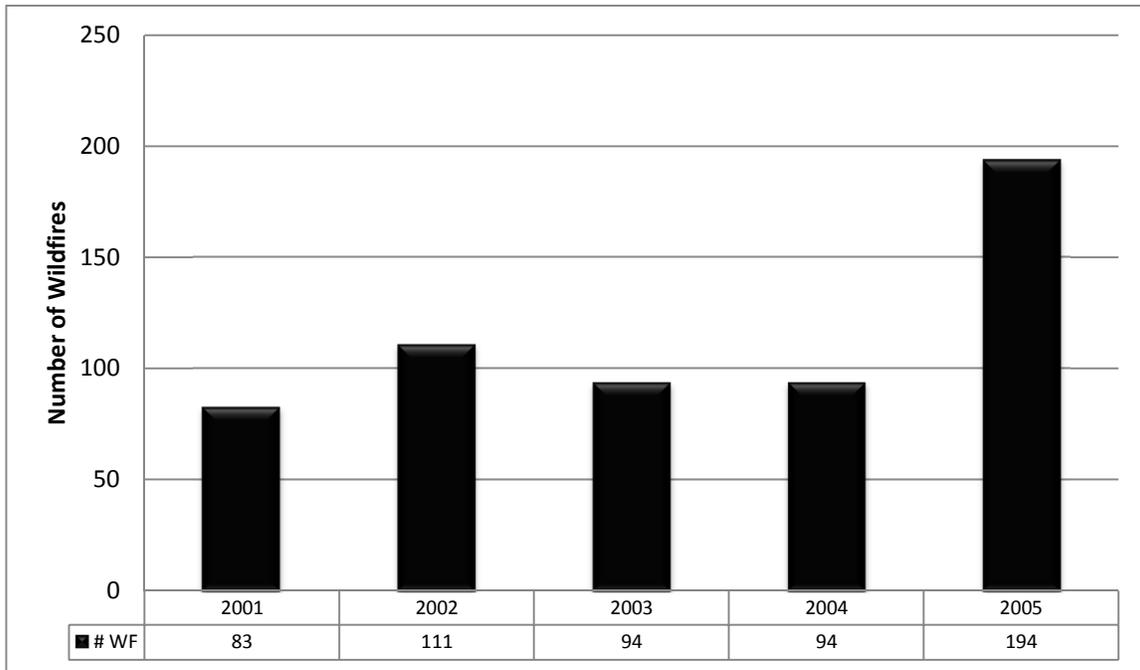


WUI = Wildland Urban Interface

SOUTHWEST REGION

Wildfires

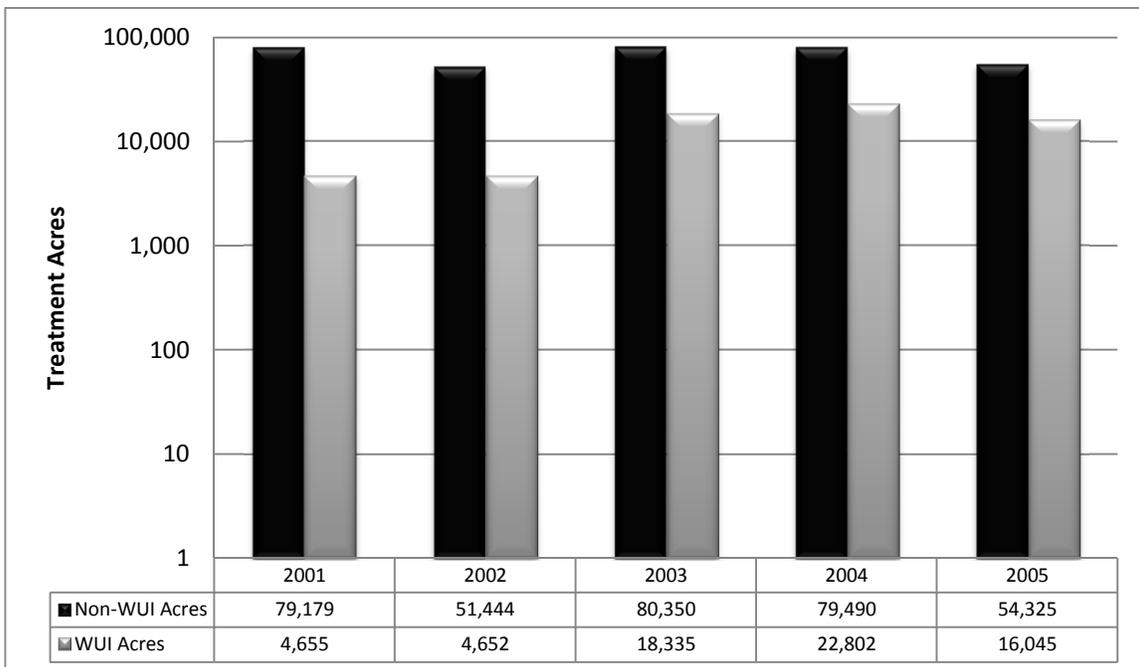
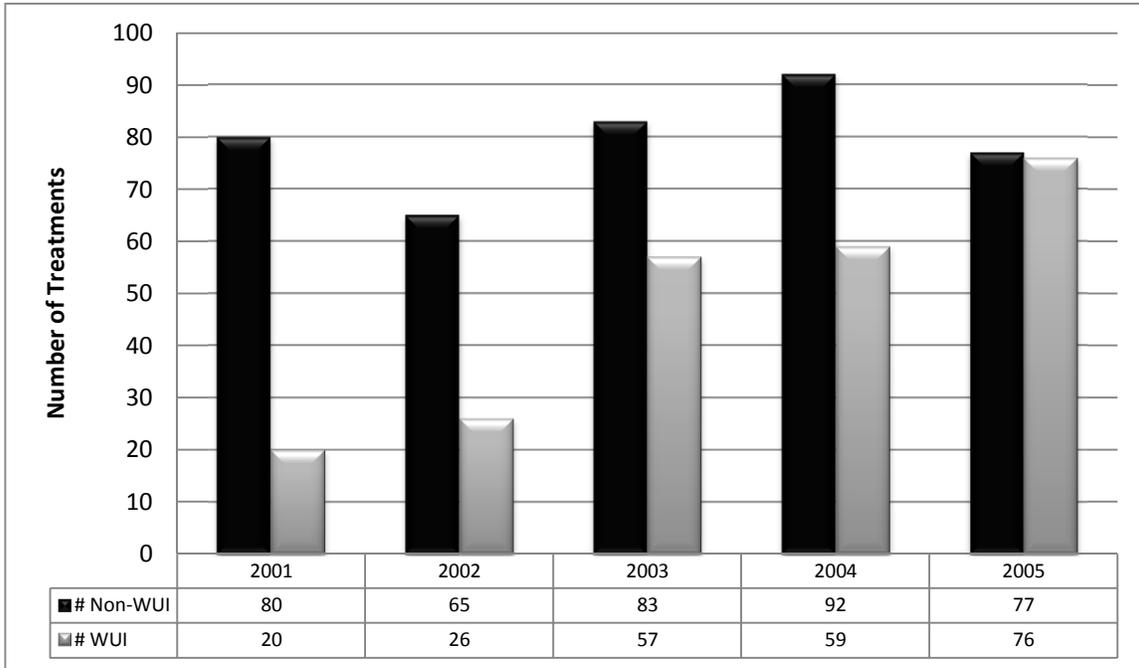
2001-2005



SOUTHWEST REGION

Treatments

2001-2005

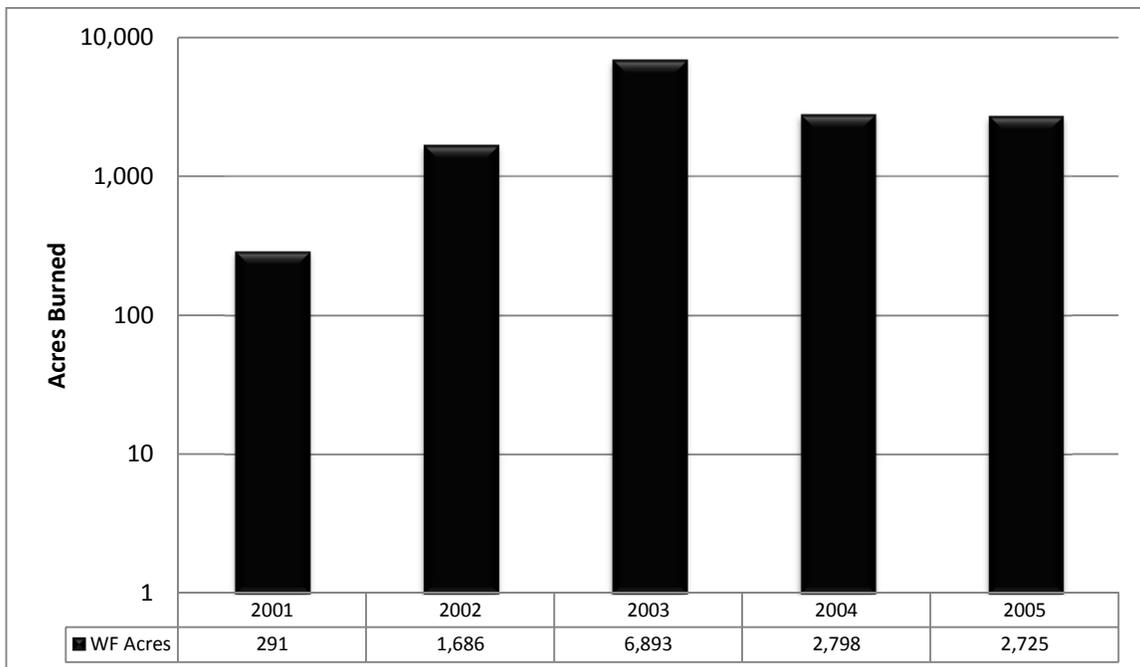
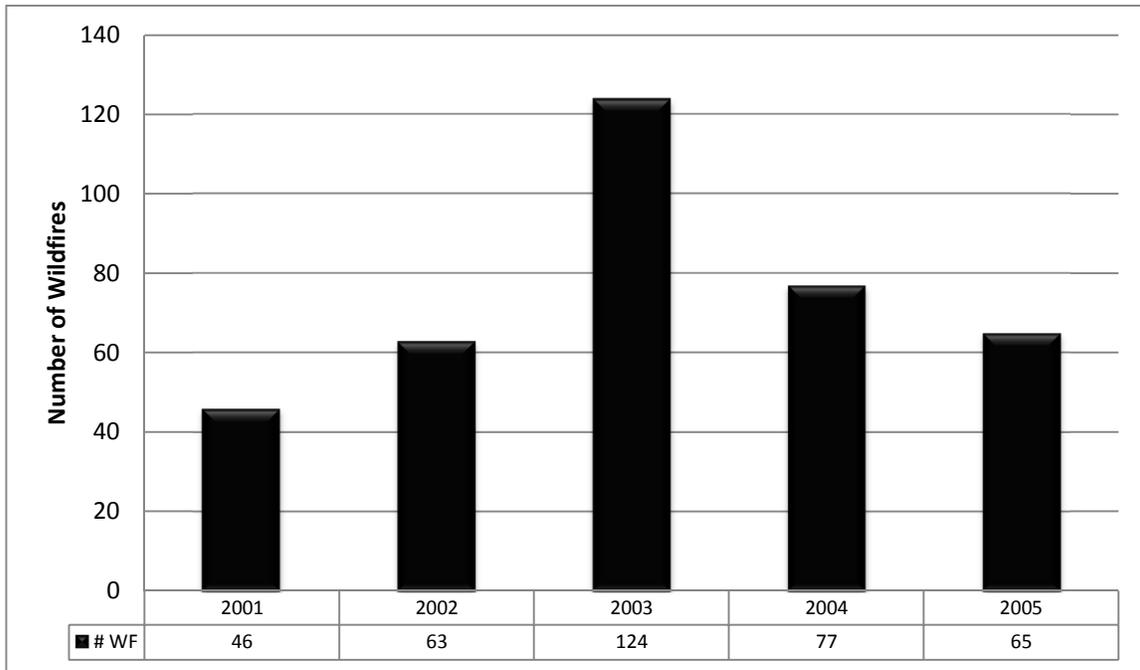


WUI = Wildland Urban Interface

MIDWEST REGION

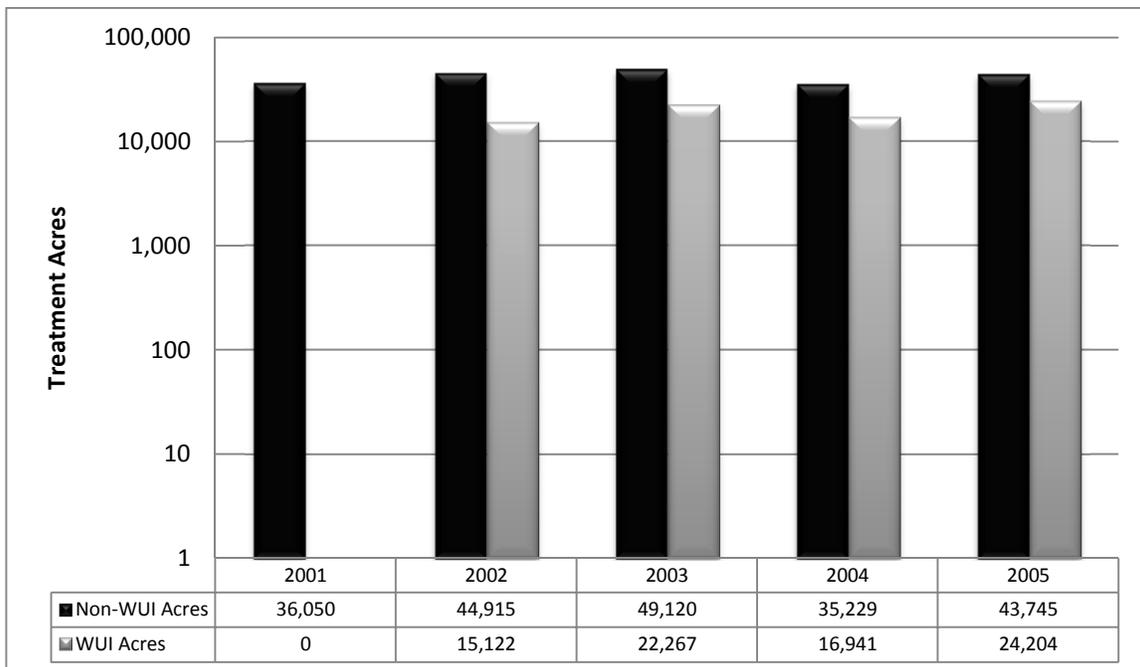
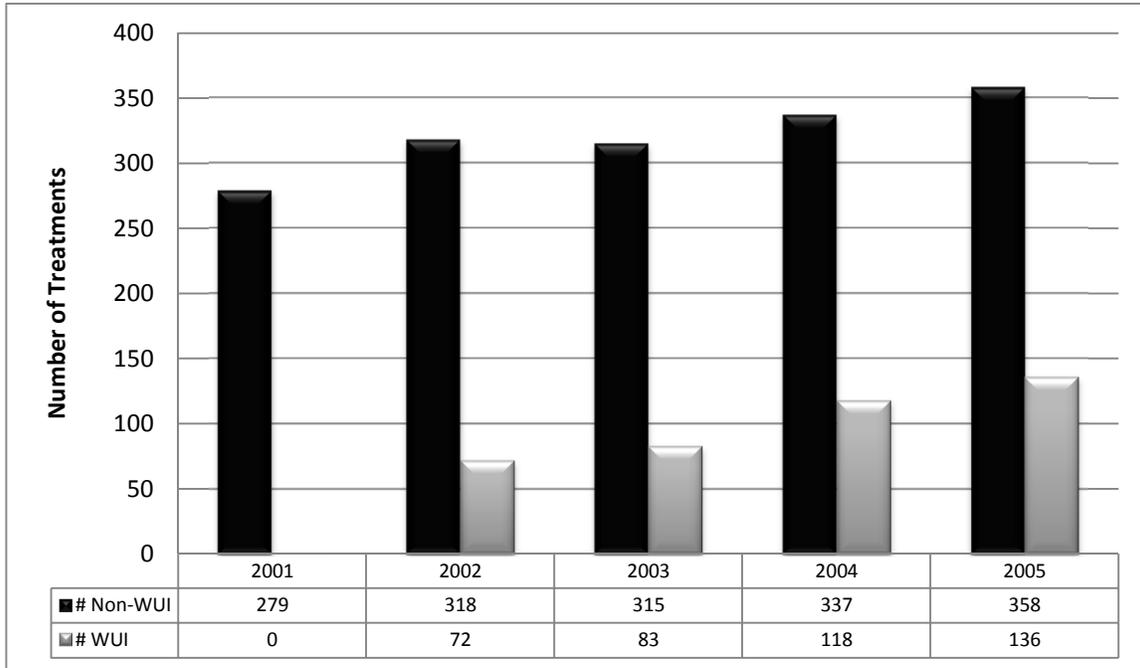
Wildfires

2001-2005



MIDWEST REGION

Treatments 2001-2005

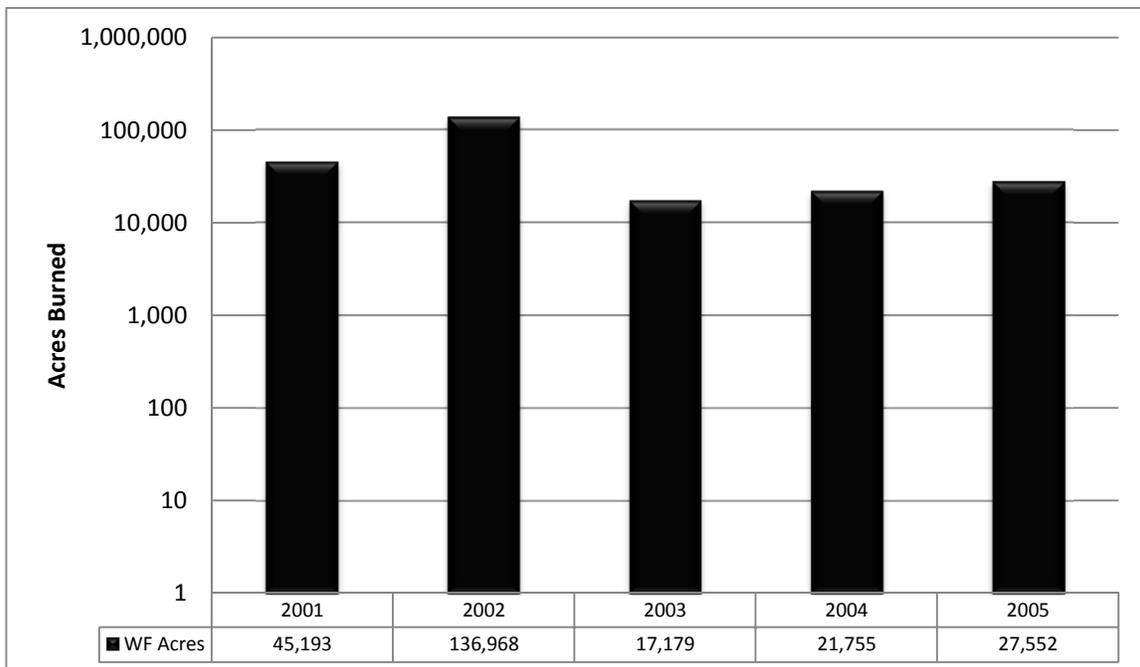
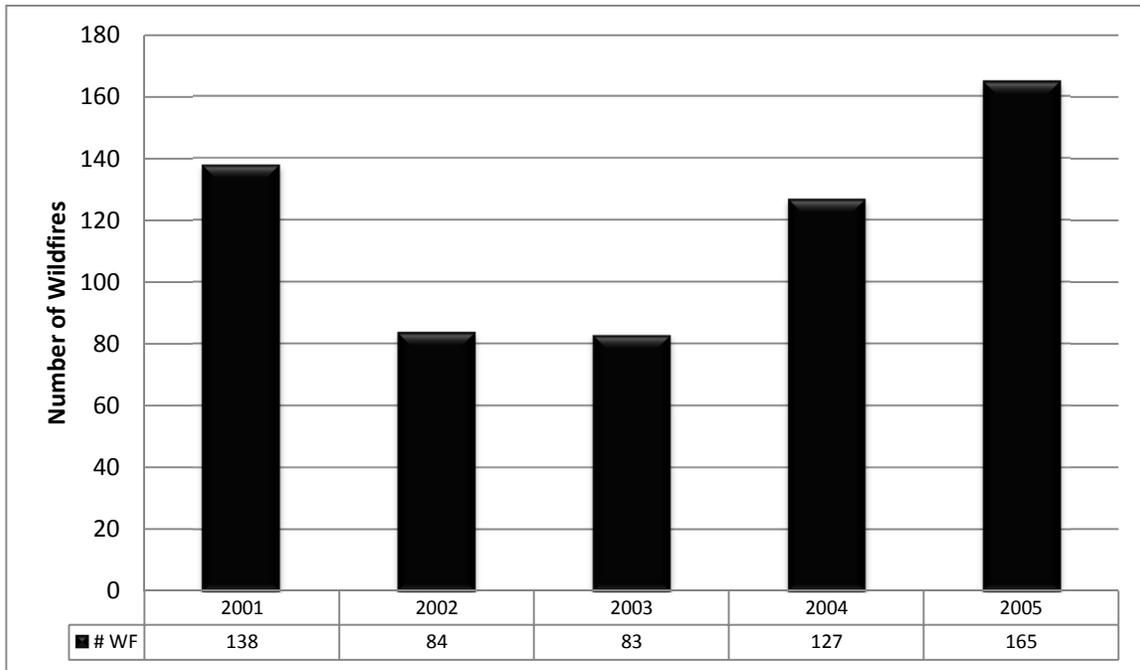


WUI = Wildland Urban Interface

SOUTHEAST REGION

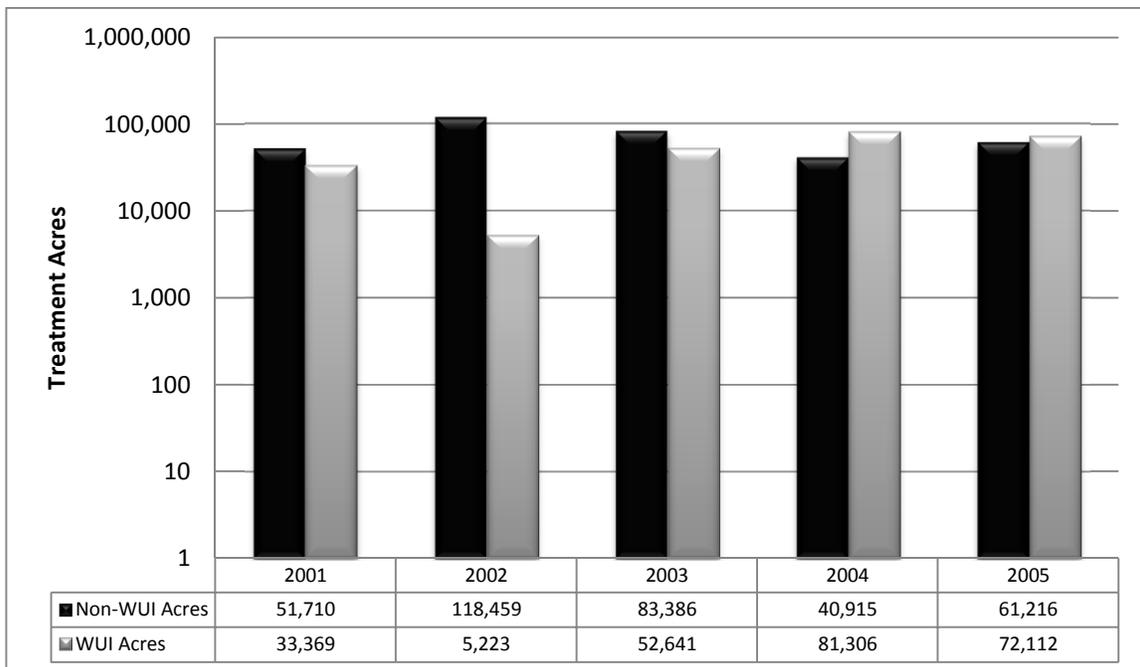
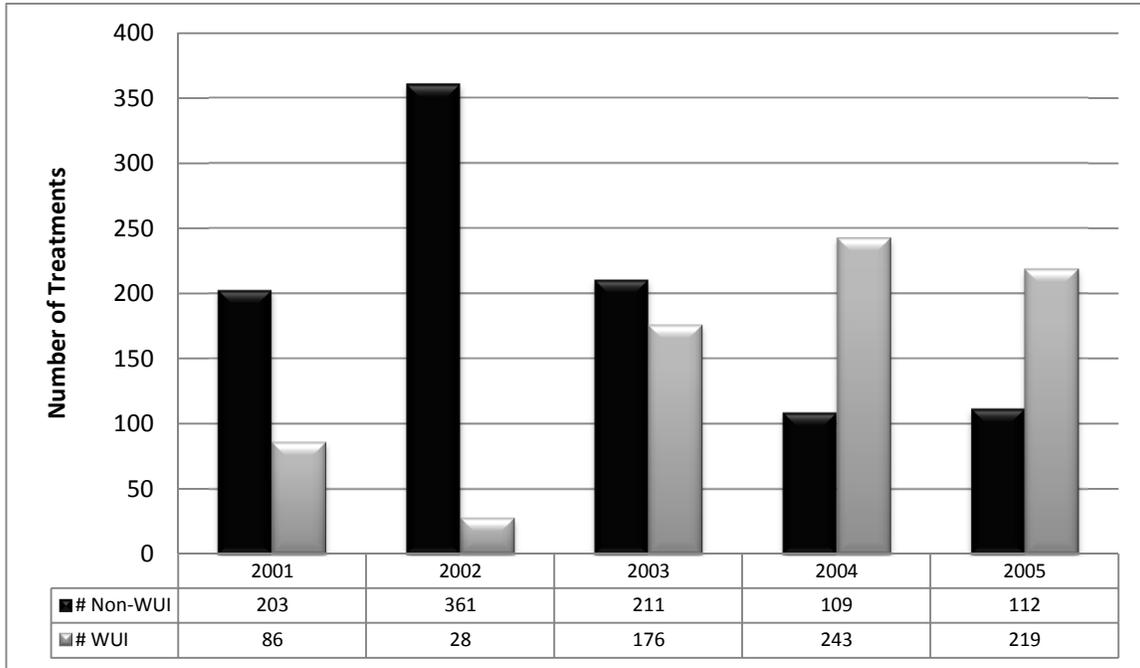
Wildfires

2001-2005



SOUTHEAST REGION

Treatments 2001-2005

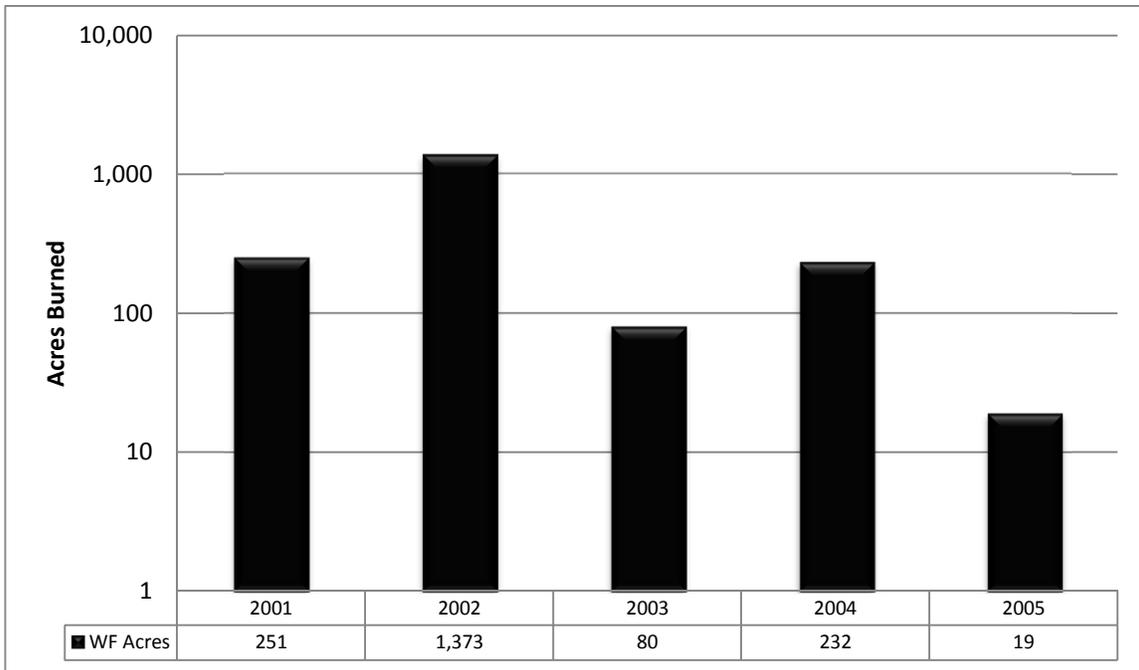
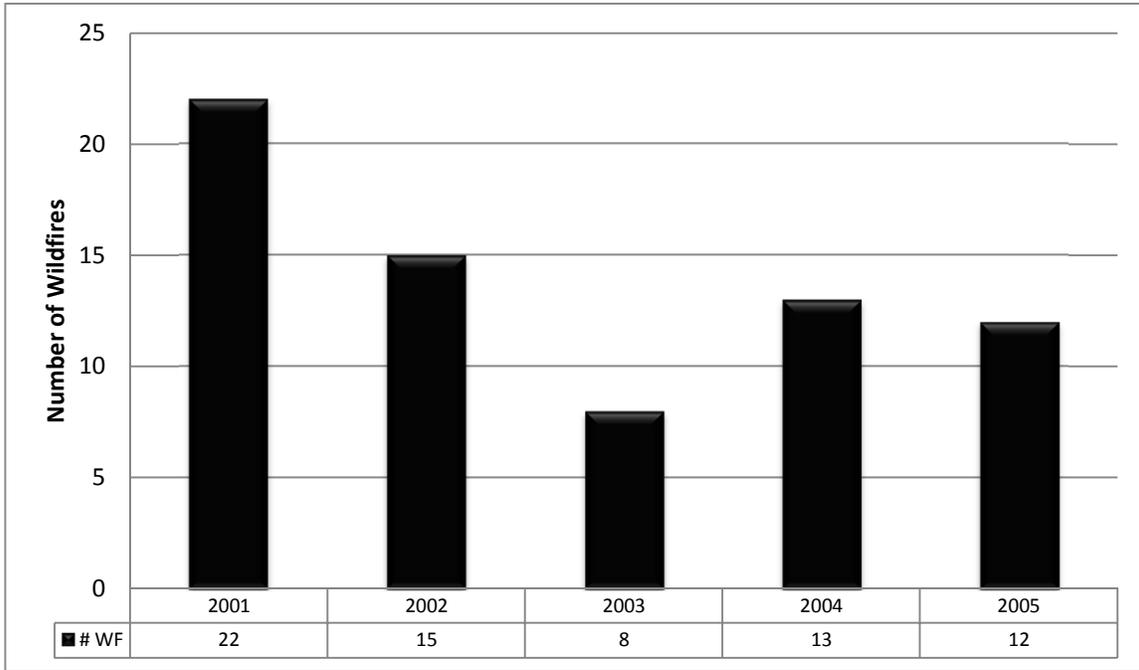


WUI = Wildland Urban Interface

NORTHEAST REGION

Wildfires

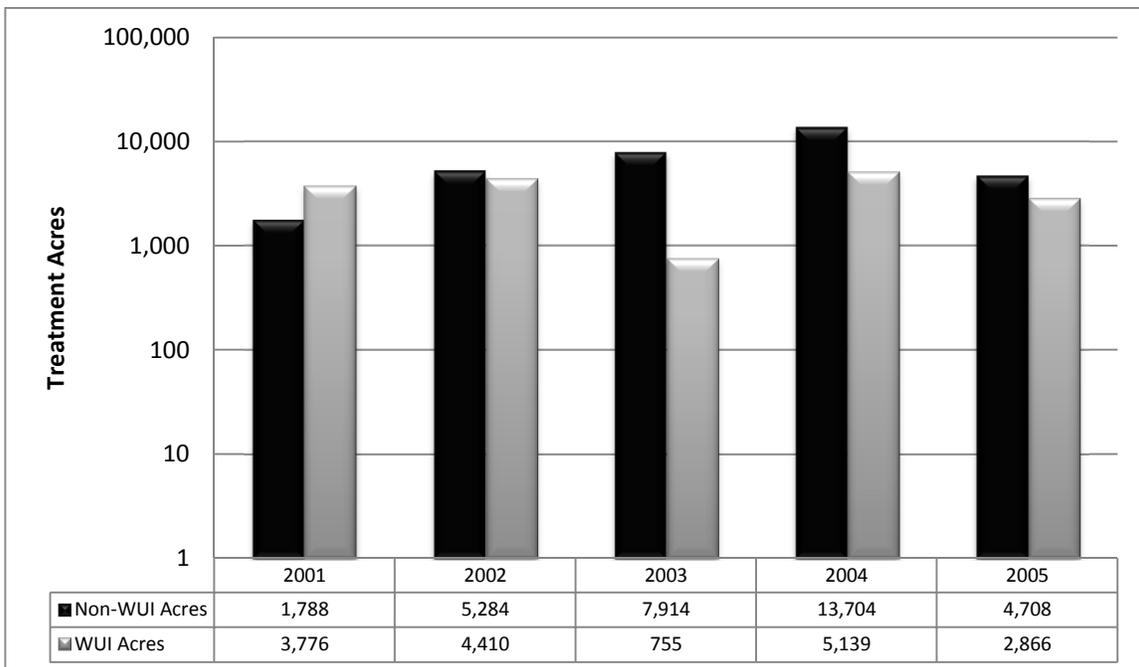
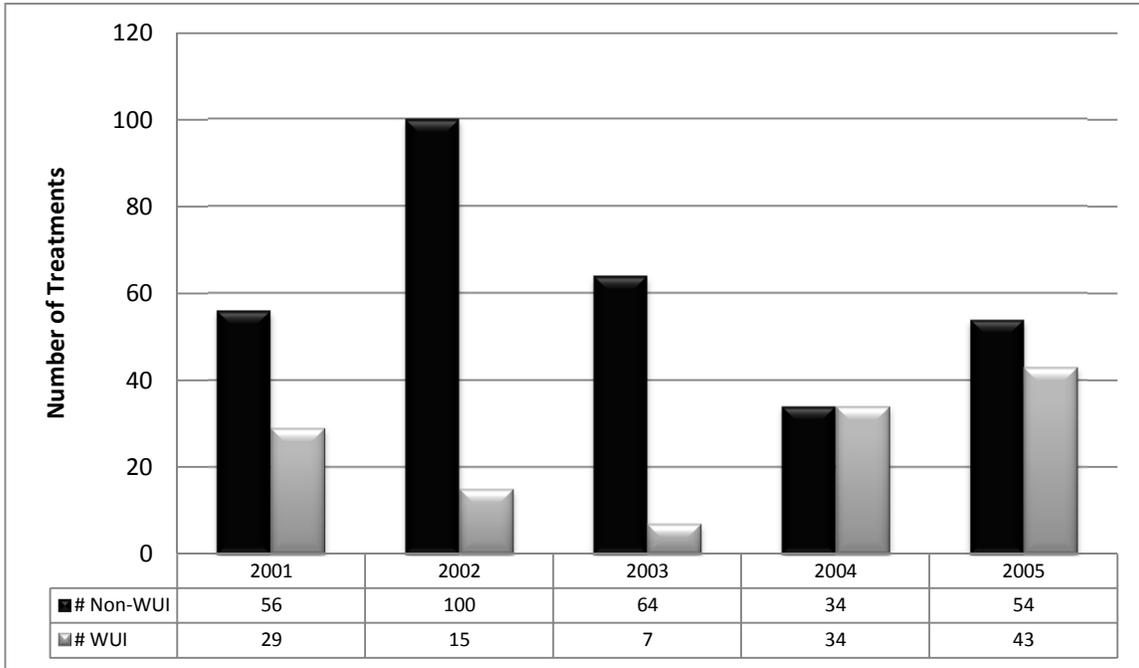
2001-2005



NORTHEAST REGION

Treatments

2001-2005

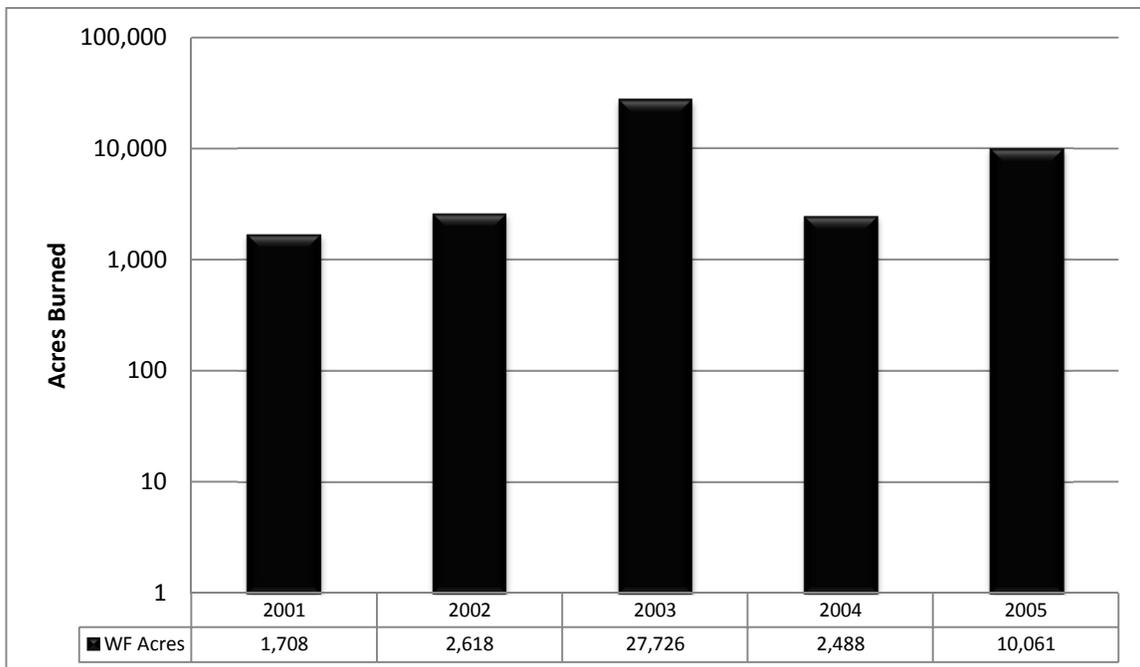
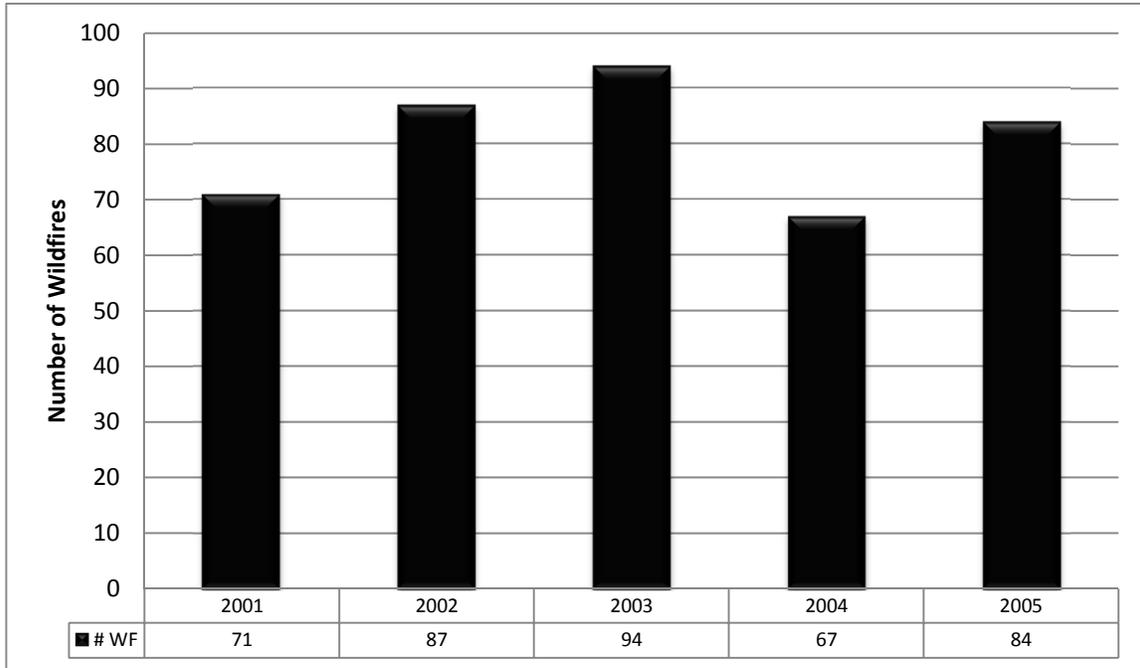


WUI = Wildland Urban Interface

MOUNTAIN - PRAIRIE REGION

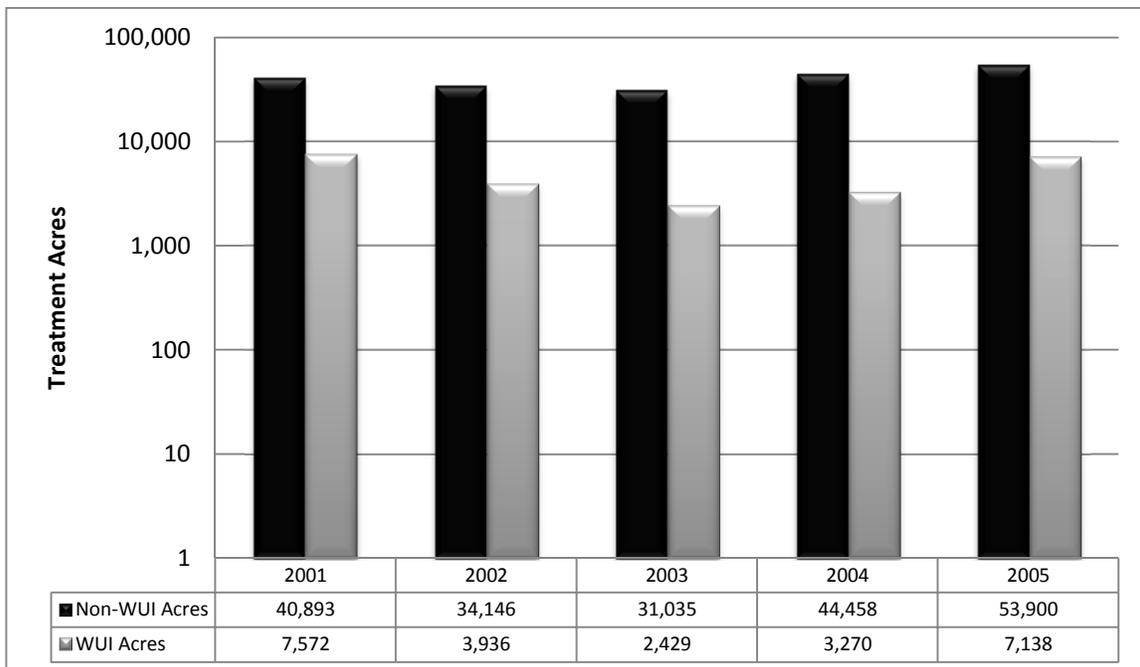
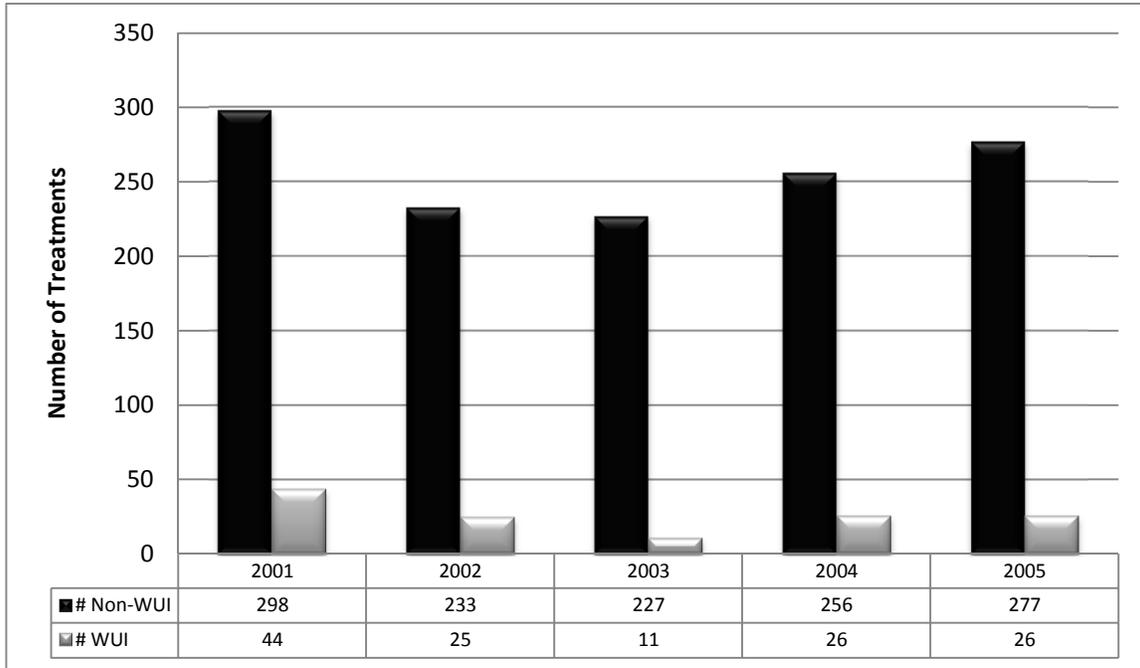
Wildfires

2001-2005



MOUNTAIN - PRAIRIE REGION

Treatments 2001-2005

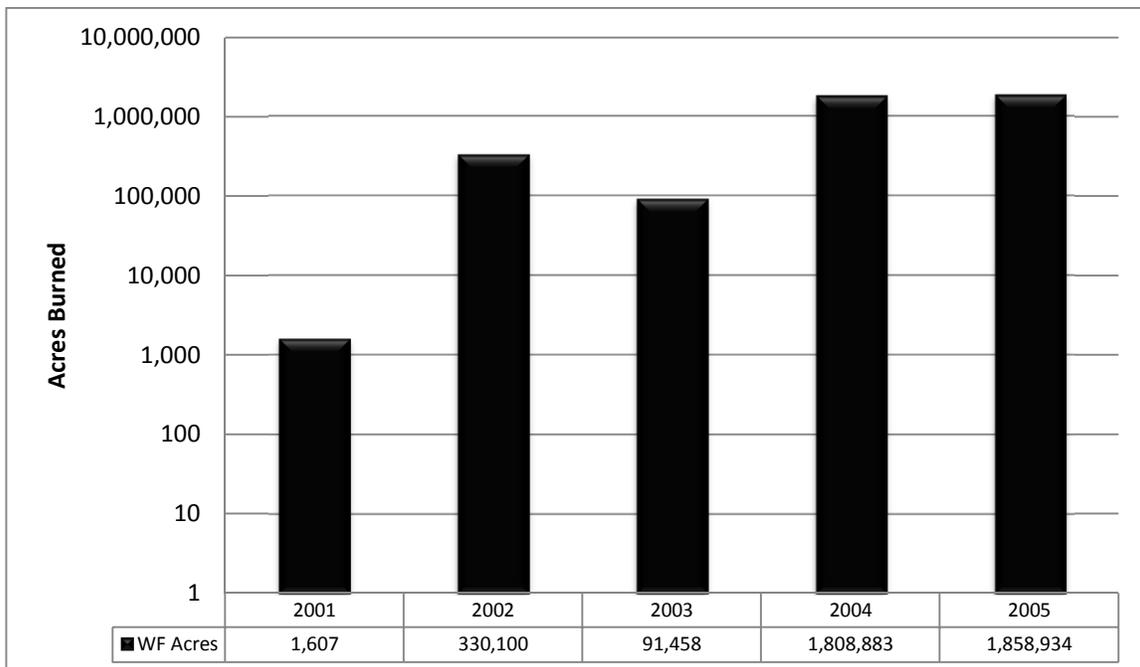
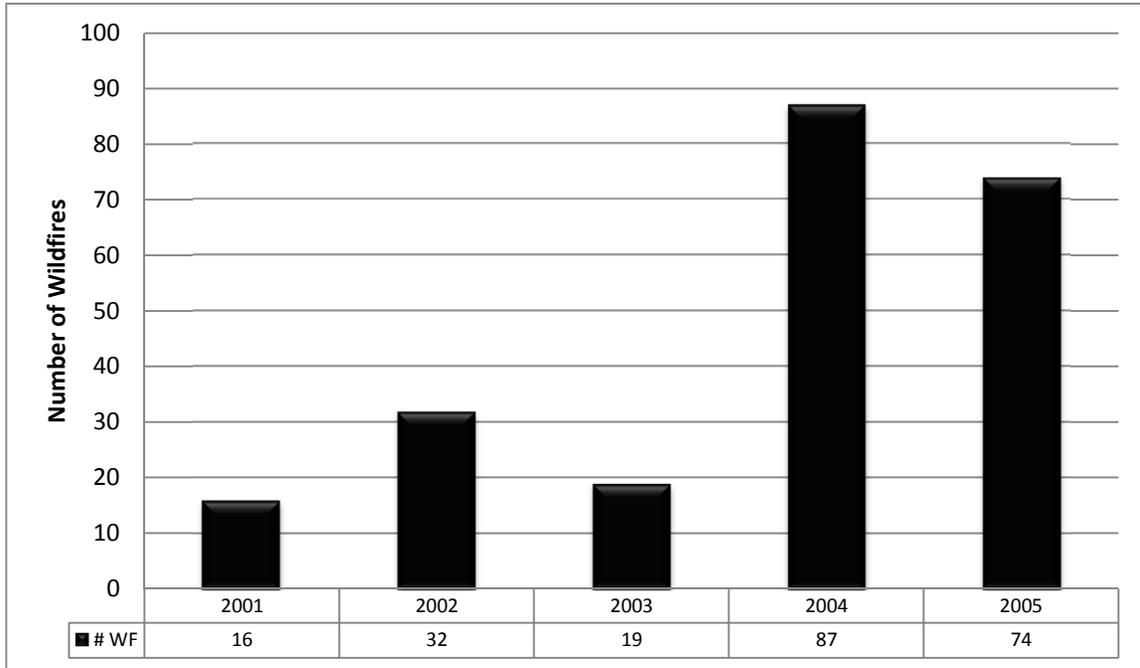


WUI = Wildland Urban Interface

ALASKA REGION

Wildfires

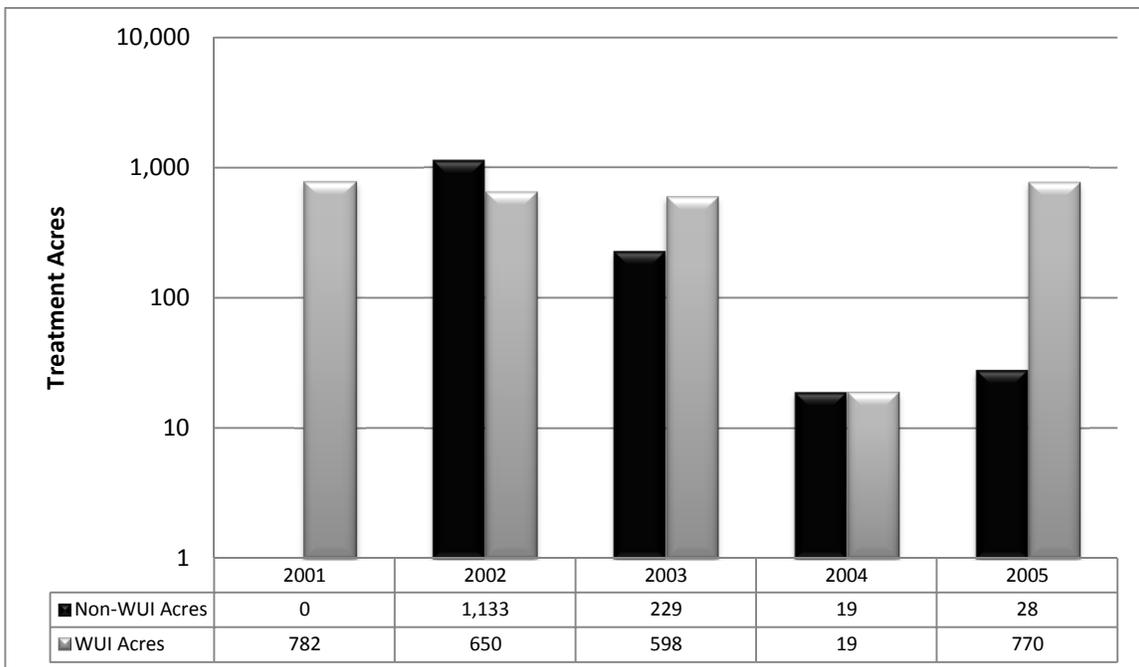
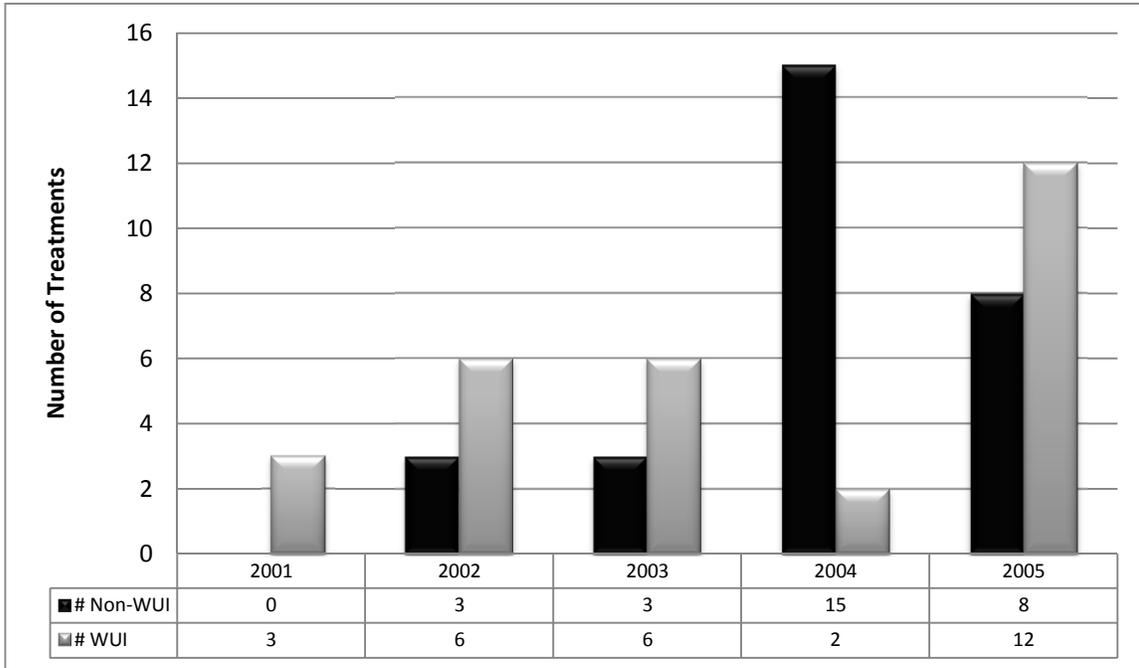
2001-2005



ALASKA REGION

Treatments

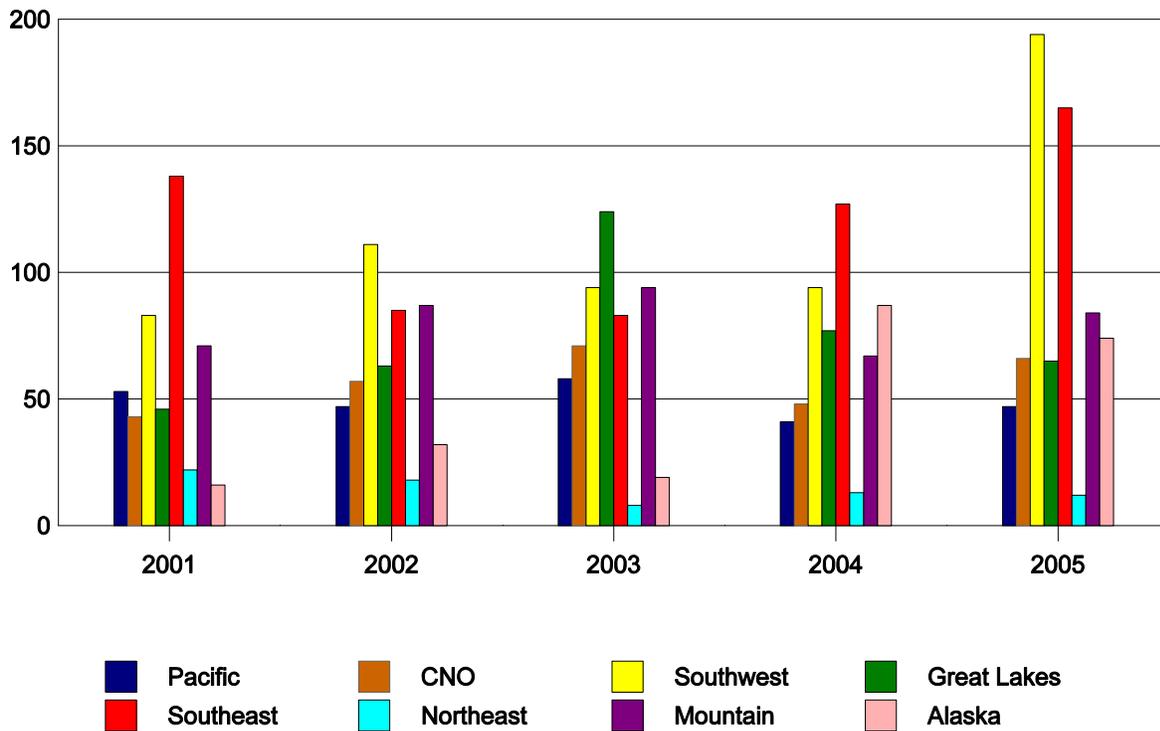
2001-2005



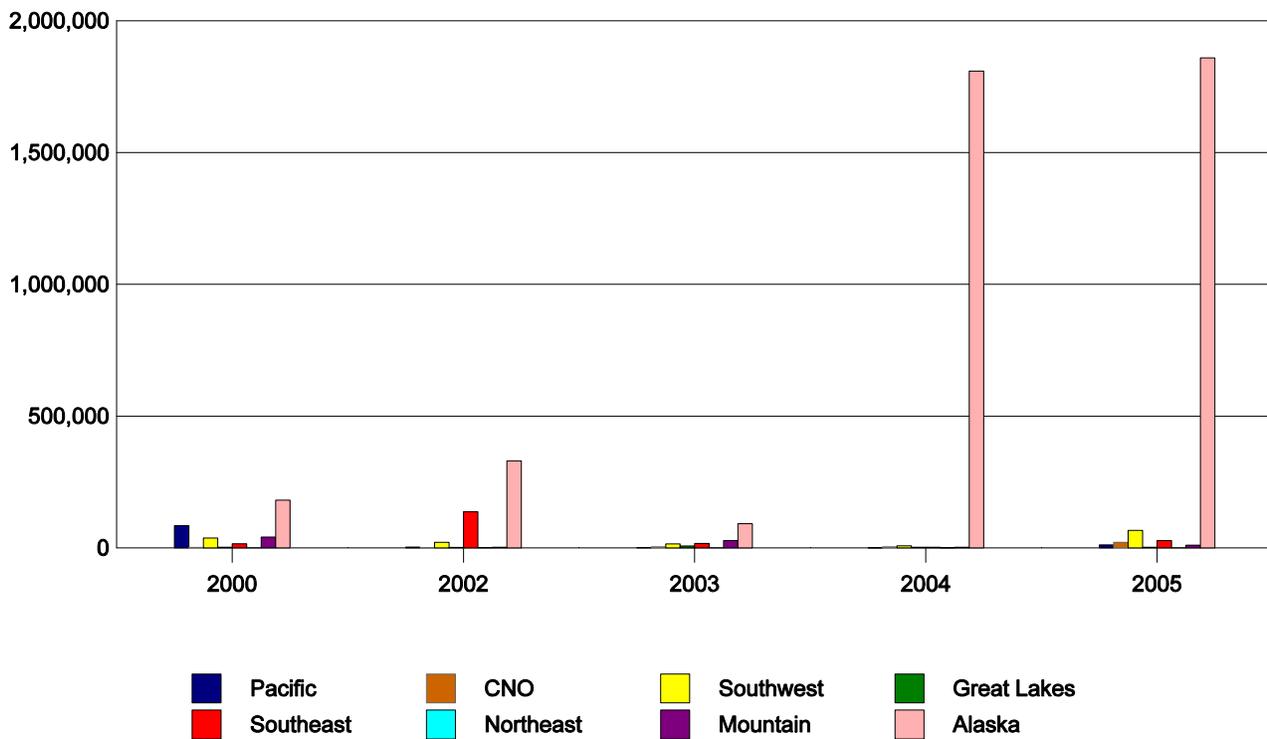
WUI = Wildland Urban Interface

WILDFIRES 2001 - 2005

Number of Wildfires

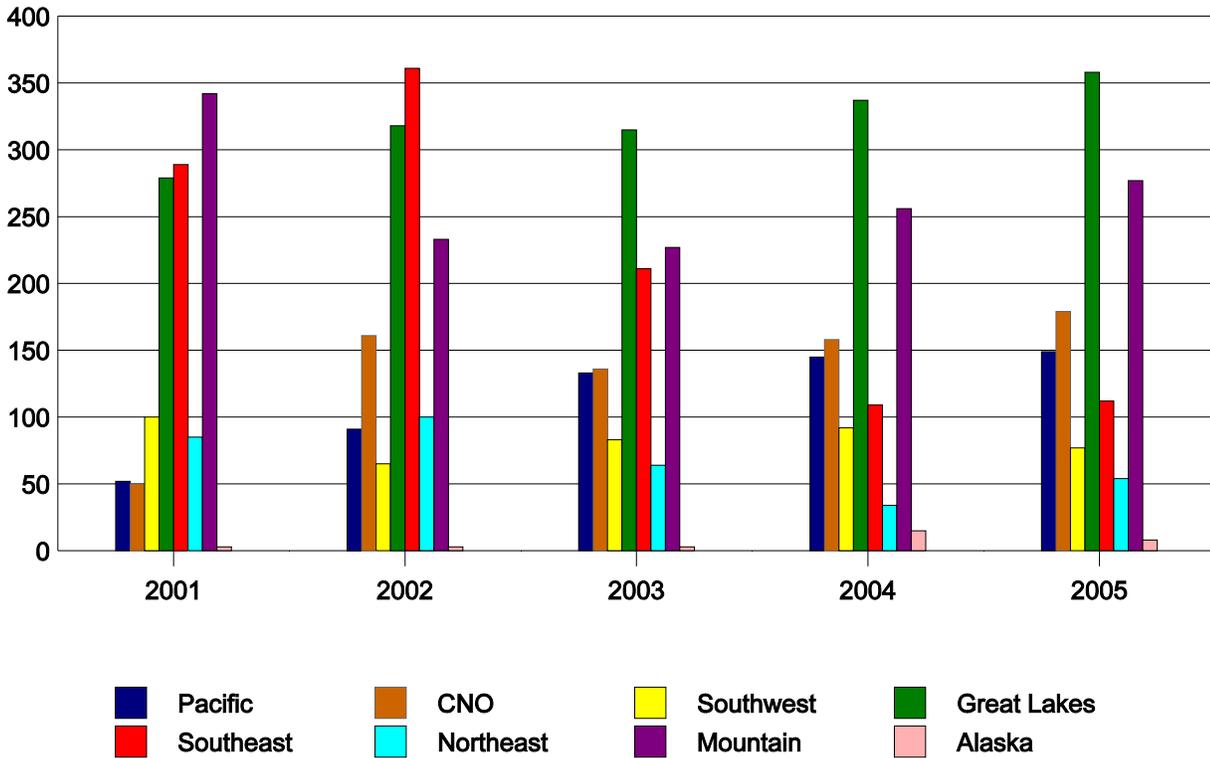


Number of Acres Burned

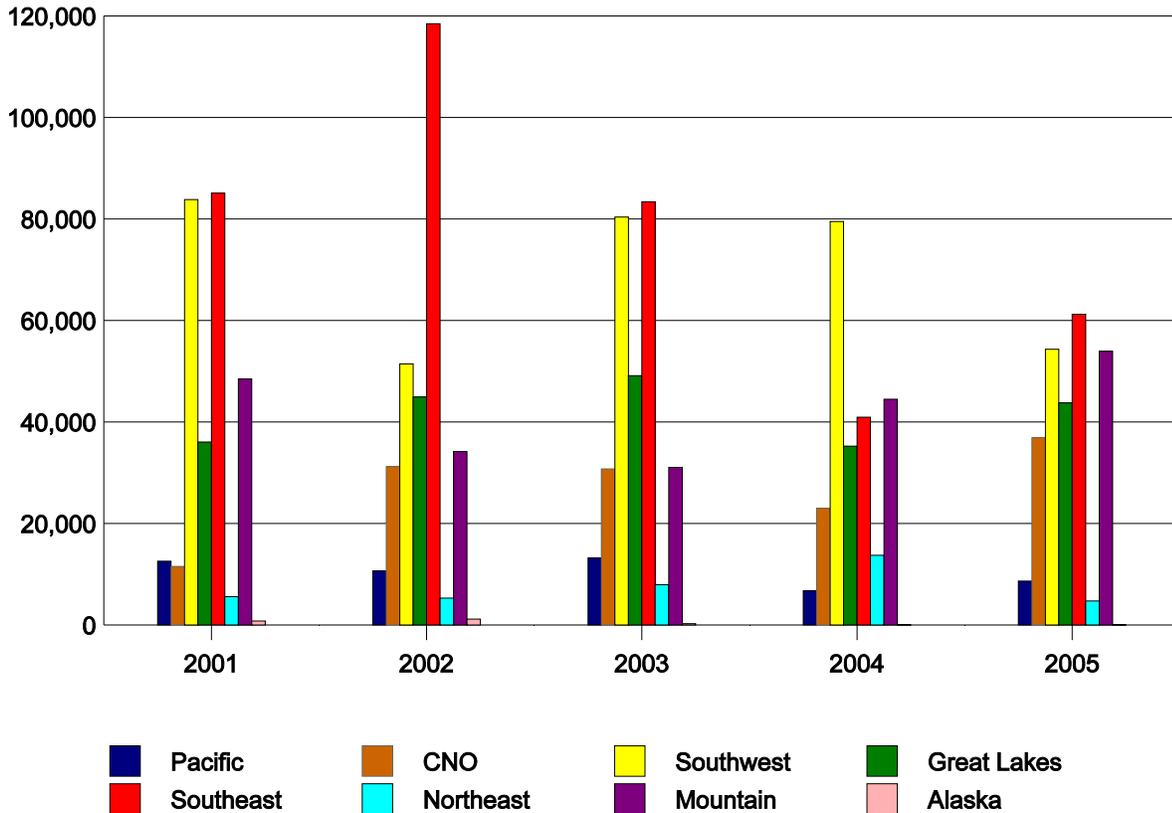


NON-WUI TREATMENTS 2001 - 2005

Number of Treatments

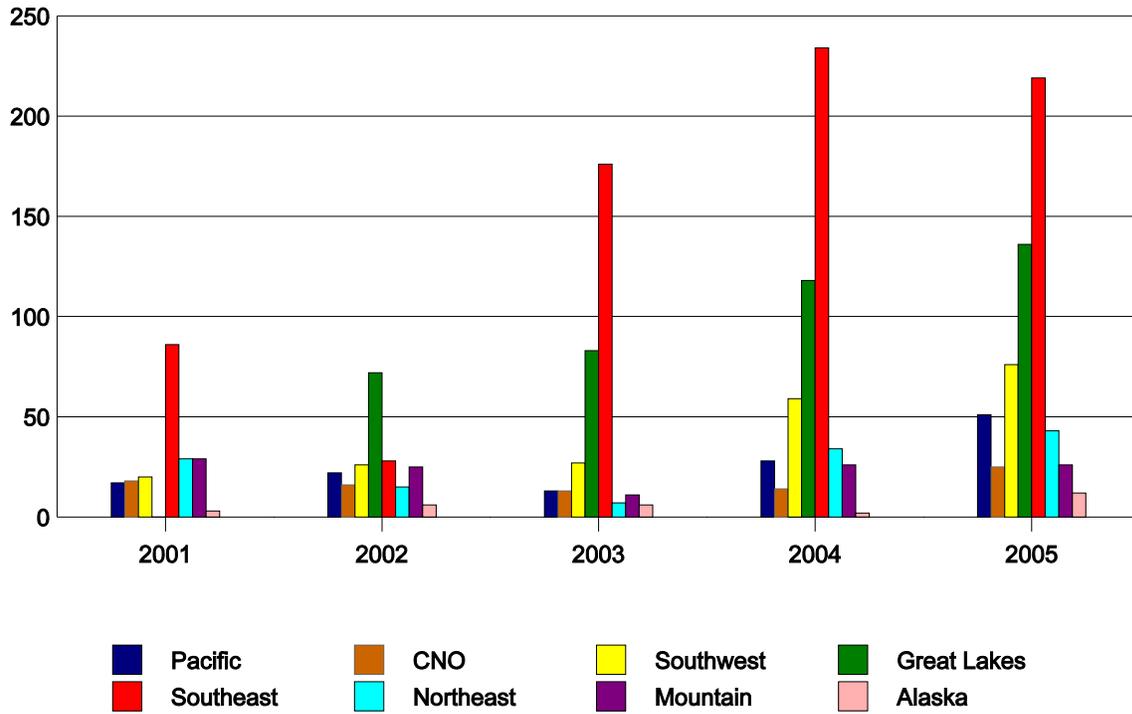


Number of Acres Treated

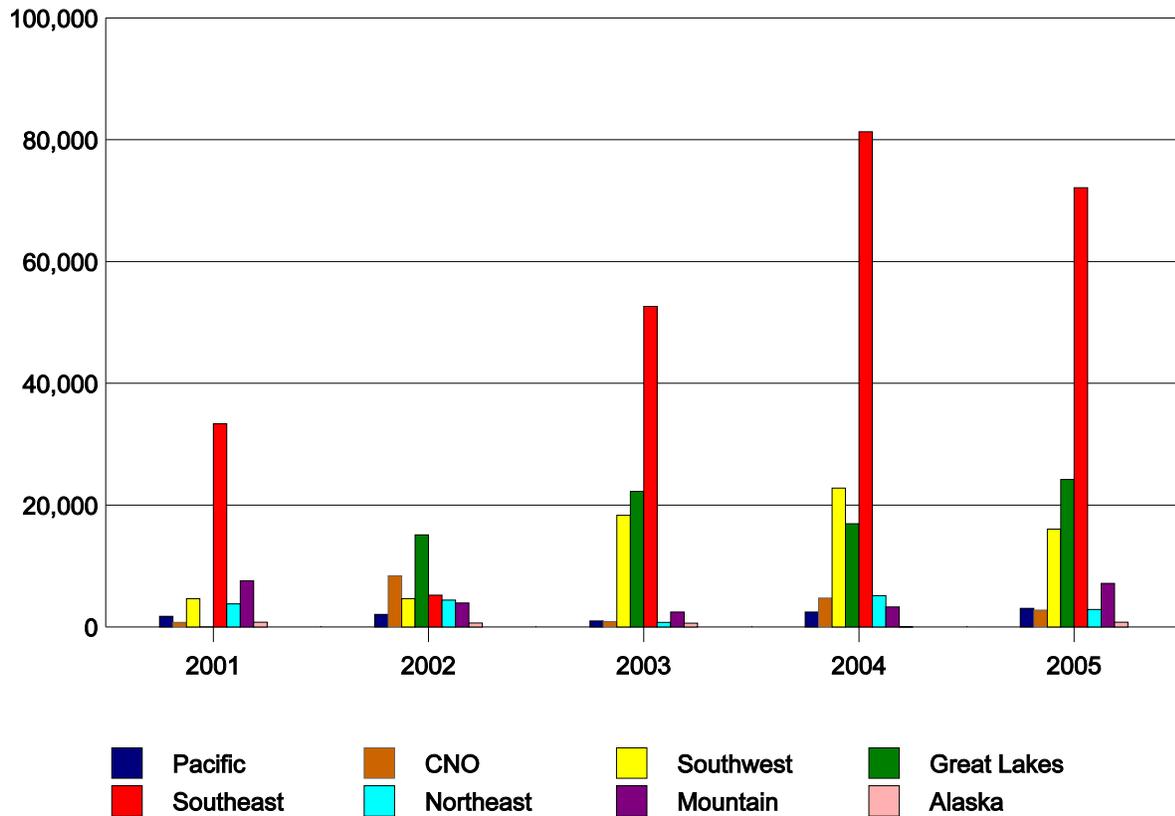


WUI TREATMENTS 2001 - 2005

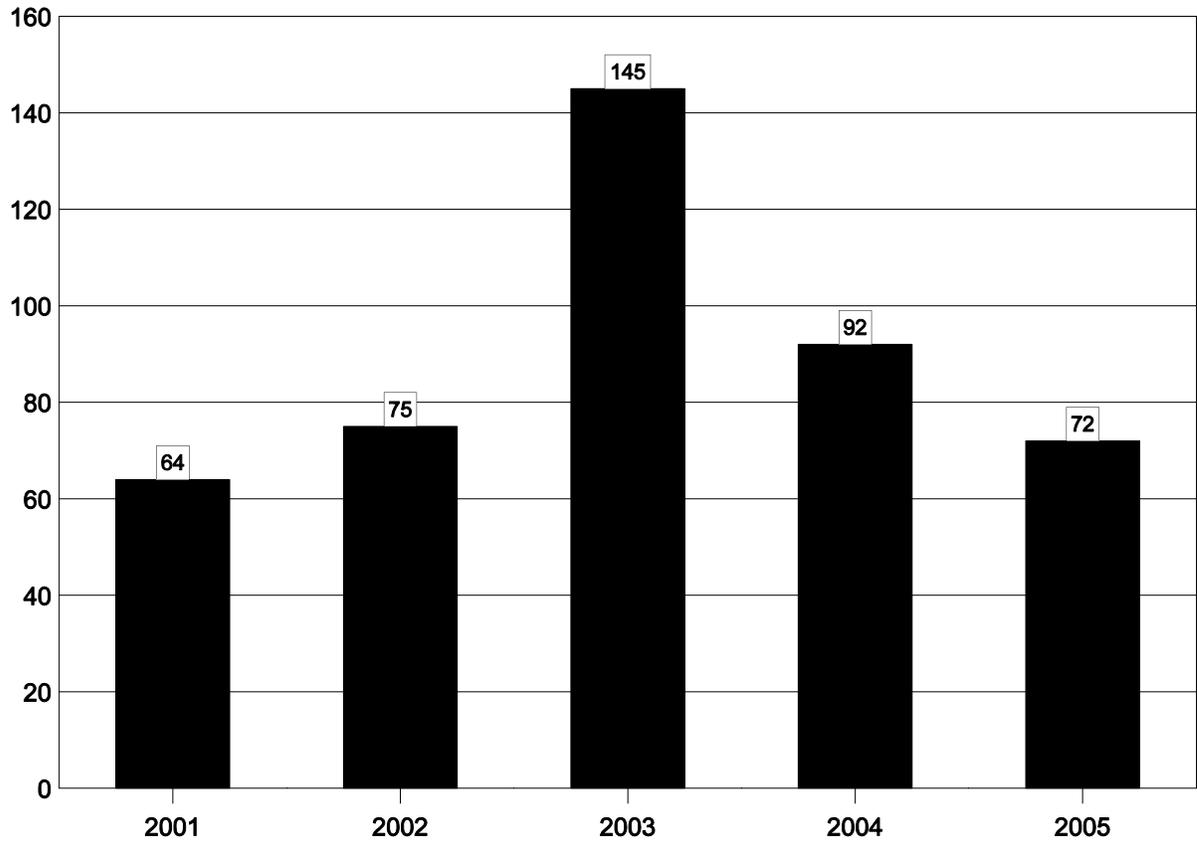
Number of Treatments



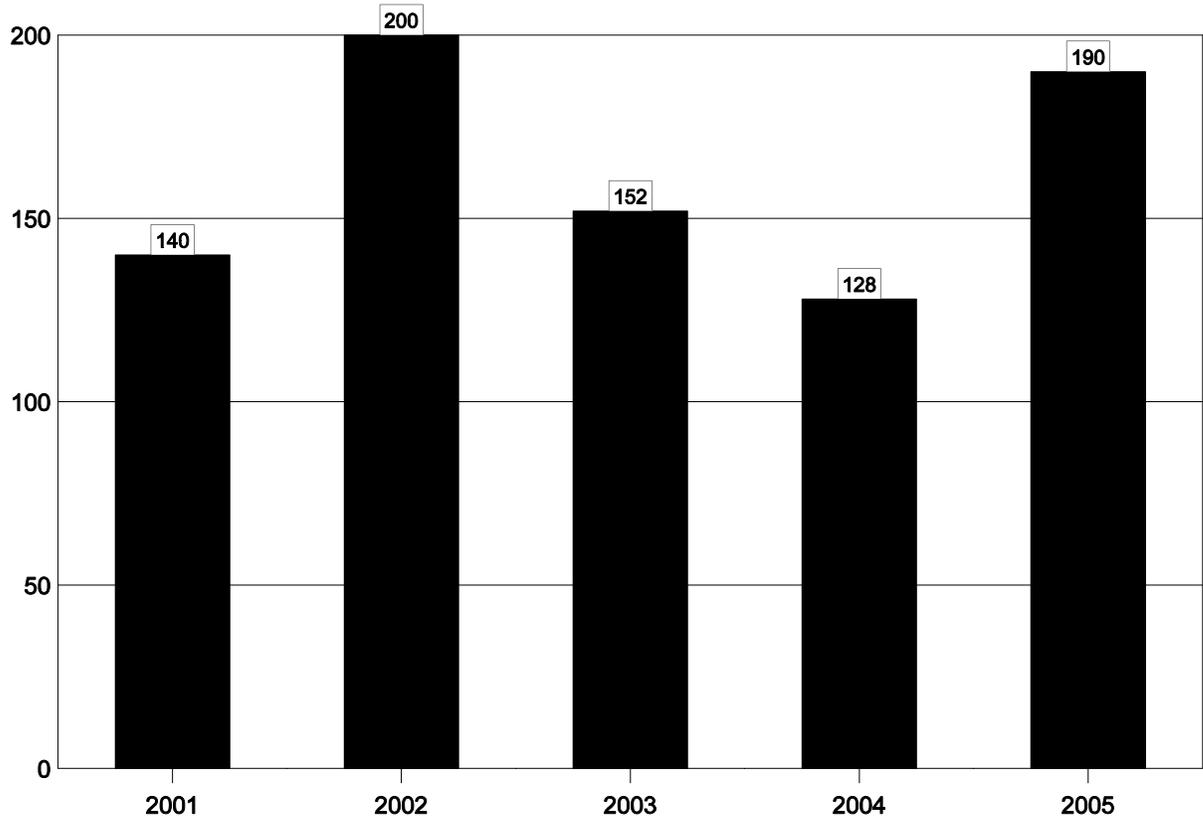
Number of Acres Treated



FALSE ALARMS 2001 - 2005

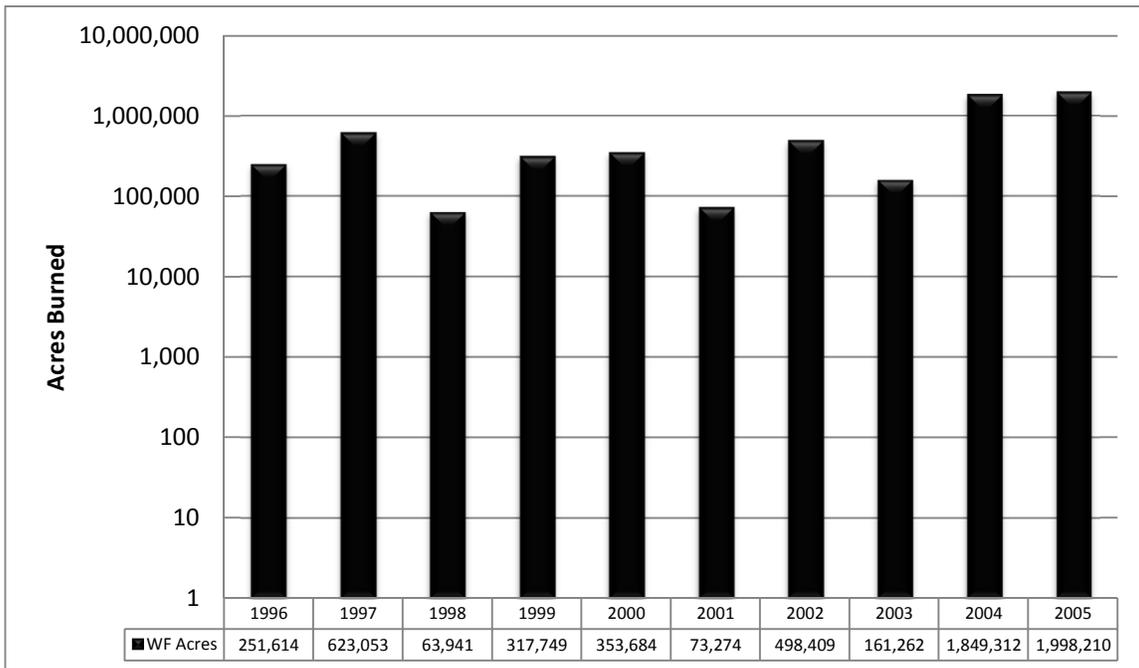
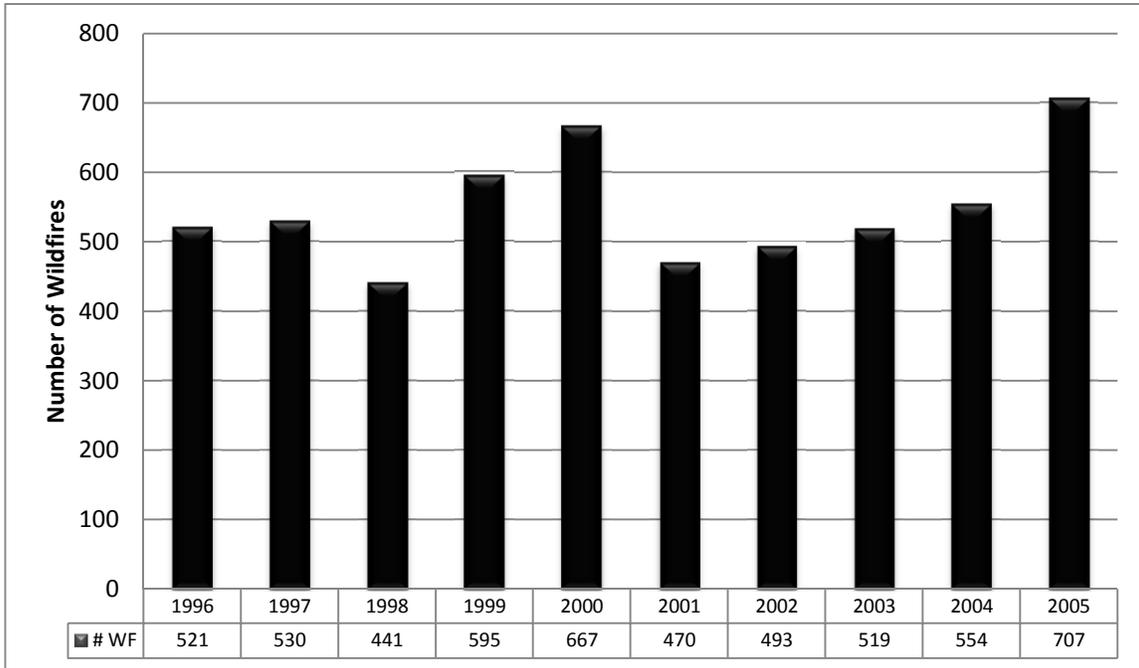


SUPPORT ACTIONS



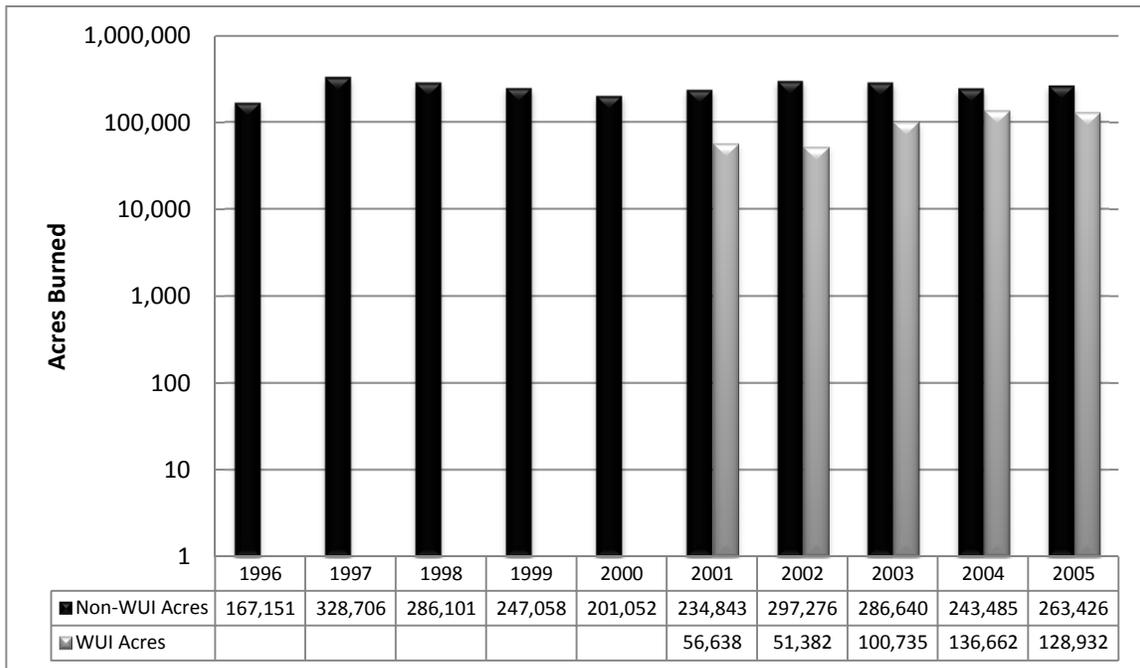
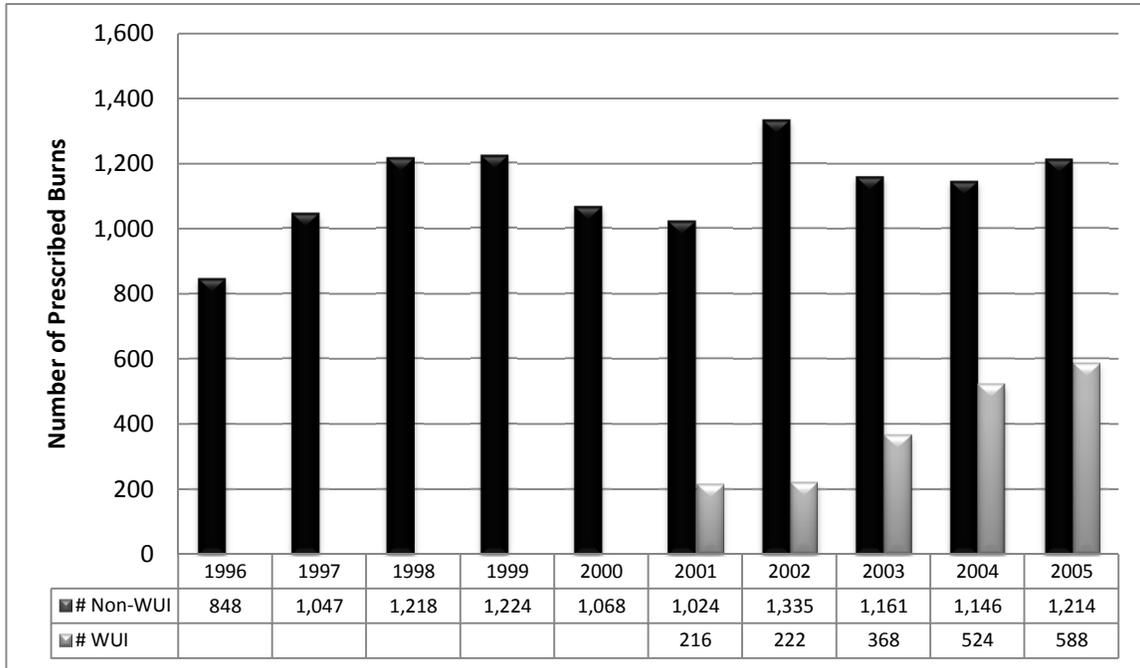
WILDFIRES

1996 - 2005



TREATMENTS

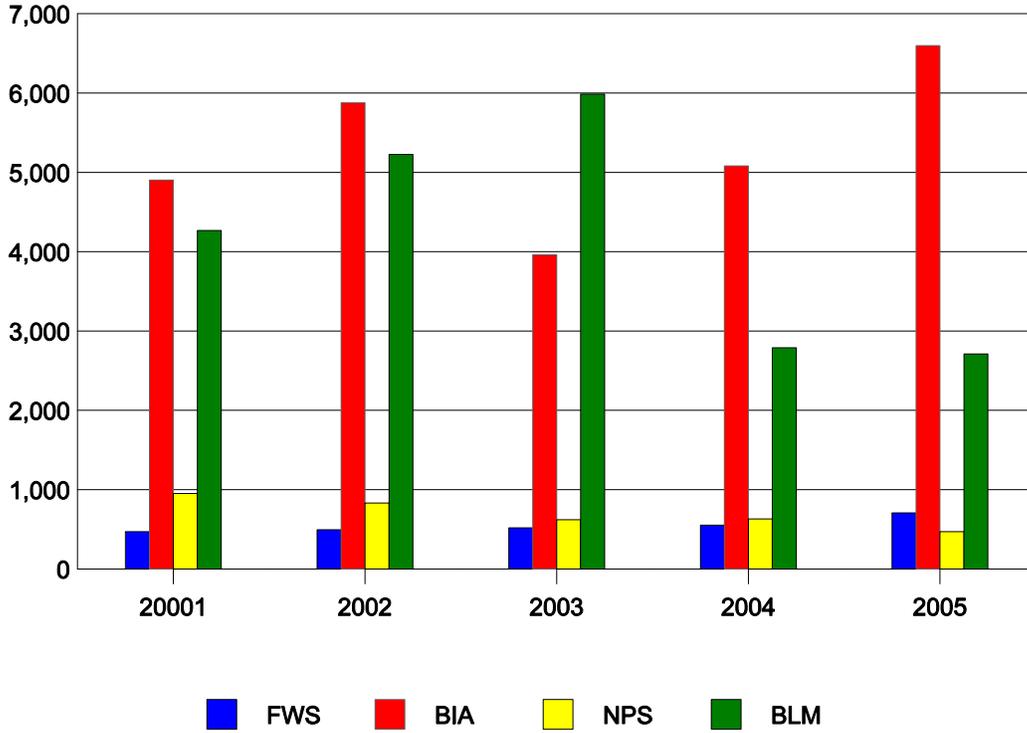
1996 - 2005



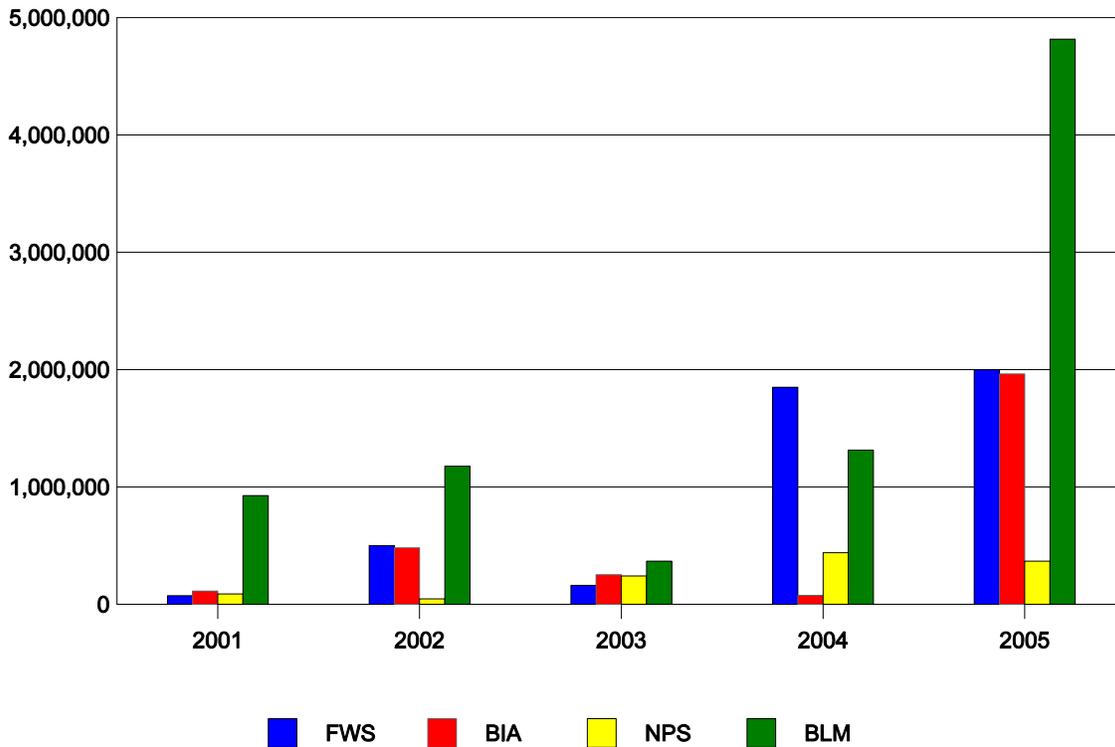
WUI = Wildland Urban Interface

DEPARTMENT OF THE INTERIOR 2001 - 2005

Number of Wildfires

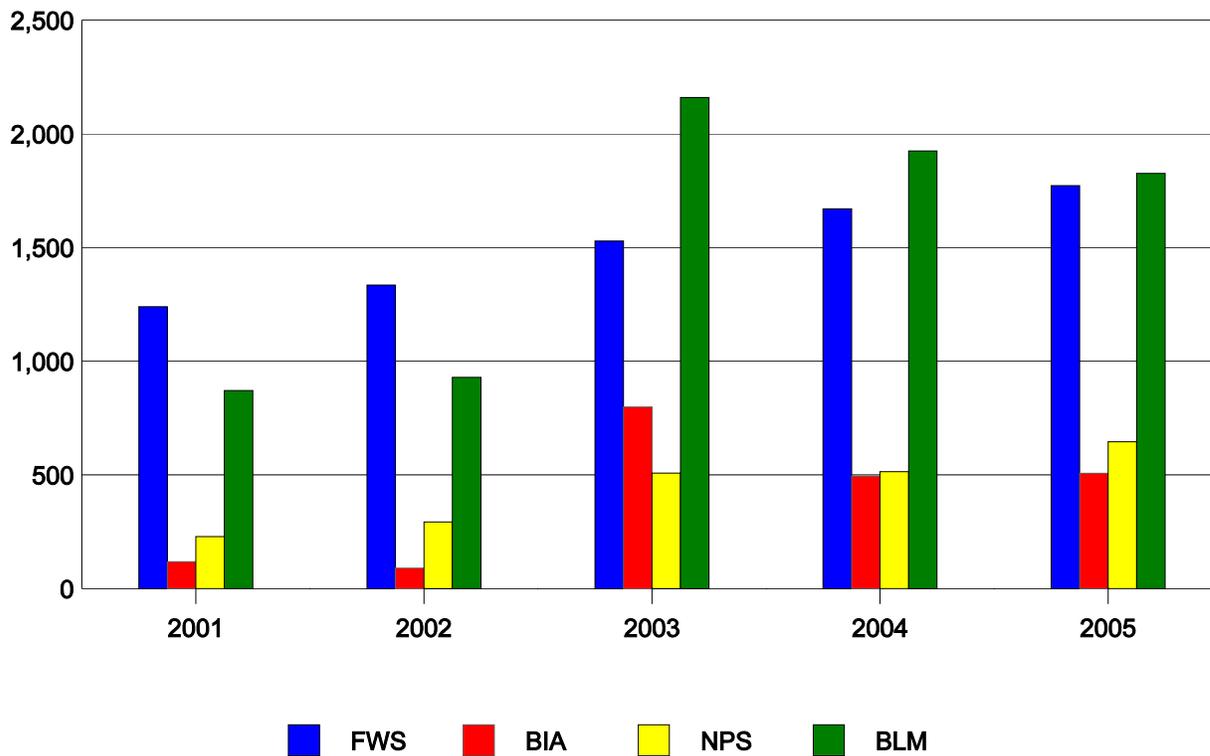


Number of Acres Burned

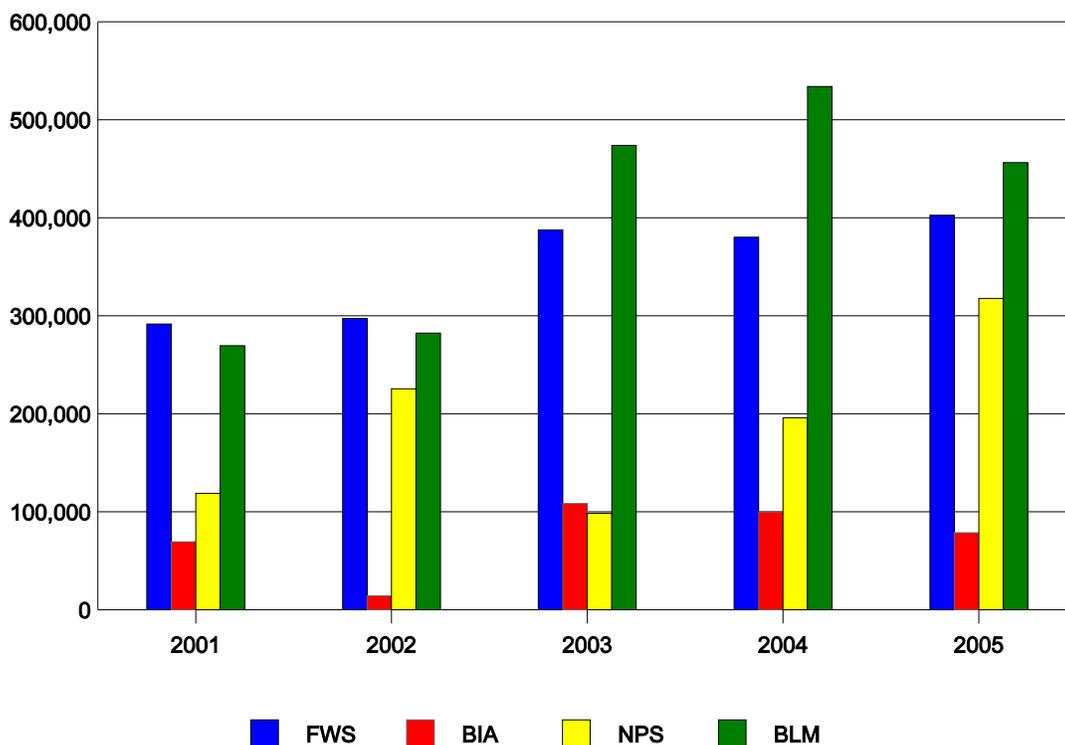


DEPARTMENT OF THE INTERIOR 2001- 2005

Number of Treatments



Acres Treated



Treatment statistics obtained from NFPORS