U.S. Fish and Wildlife Service
Fire Activity Report

2008

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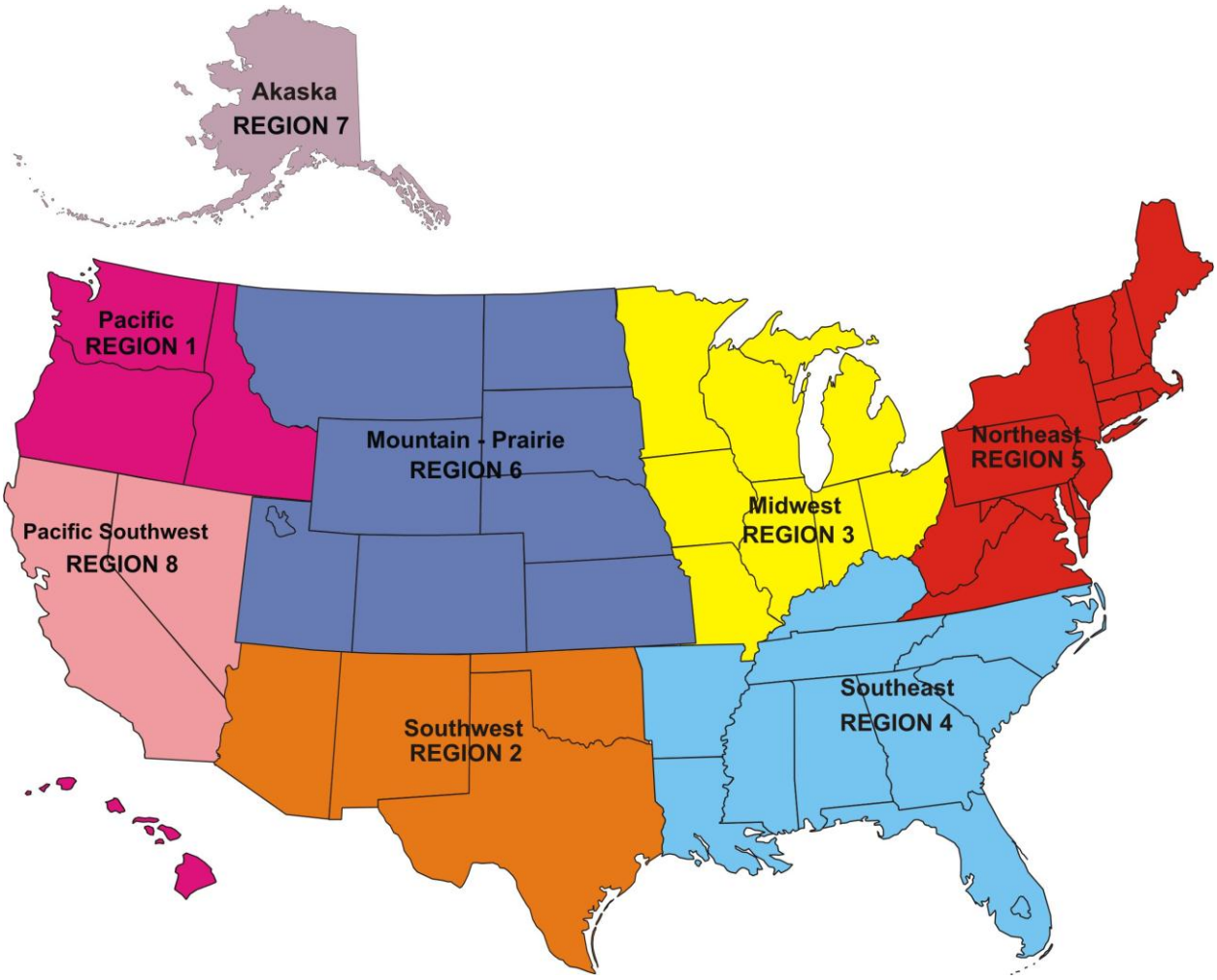


PACIFIC REGION

Season Overview
The Pacific Northwest experienced an average number of Type II incidents in Oregon and Washington. The Great Basin experienced a low number of large fires compared to recent years. Numerous Type 3, 4 and 5 fires occurred on FWS lands within the Region. In addition to suppressing fires on Service-managed lands, the Region actively provided interagency assistance both in and out of Region.

Wildland Fire Management
The heaviest area of suppression occurred at Mid Columbia River NWRC. 49 fires ignited with four extending beyond initial attack. These fires were all managed at the Type III level or lower complexity and contained after several burning periods. The Richland-based SEAT was utilized on all four of these incidents and was instrumental in their suppression. The SEAT also responded to fires on Interagency cooperator lands.

The four large fires in the Columbia Basin occurred in sage-steppe communities, and directly impacted pristine habitat. Three BAER plans for rehabilitation and stabilization were written for the impacted Refuge lands.

In 2008 the PNW geographic area celebrated the 20th anniversary of the Northwest Interagency Coordination Center. The PNW Multi-agency Coordinating (MAC) Group was activated for several weeks this summer conducting daily conference calls. Regional Office staff continued to participate on the Great Basin Coordinating Group and took part in conference calls and meetings. Region 1, 6 and 8 divided up participation on many of the Great Basin working teams to efficiently represent the need of the FWS in the geographic area.

Severity funds were requested on an interagency basis for Refuges in Washington and Oregon. Extended staffing levels were implemented for Sheldon-Hart Mountain, Malheur, Mid - Columbia, Little Pend Oreille, and Turnbull Refuges. A single engine air tanker (SEAT) was contracted to service Mid-Columbia, Columbia, and Hanford/Saddle Mountain NWRs and was stationed at Richland, Washington. Sheldon/Hart NWRC also requested a SEAT to be stationed at Lakeview Oregon. The two SEATs saw extensive action in Washington and Oregon including multiple large incidents on FWS and interagency lands.

Fuels Management
Fuels treatment accomplishments for Oregon, Washington, Idaho and Hawaii totaled 4,383 acres for Wildland Urban Interface (WUI) and 15,314 acres for Hazard Fuels Reduction (HFR). The Regional Fuels Program was significantly aided by the flexibility of the Region's FMOs lending their engines and crews to each other's Refuge as the need arose.

The Region's Prescribed Fire Module, based out of Turnbull NWR, was used extensively throughout the Region and once more proved to be a valuable asset completing mechanical and prescribed fire projects on various refuges.

Region 1 was successful in allocating 1.77 million dollars in fourth quarter HFPAS funds to hazardous fuels reduction projects to priority areas across the Region. Over 70 % of these funds were utilized to implement on the ground fuels reduction treatments through contracts. The balance was expended purchasing apparatus to continue prescribed fire and mechanical fuels reduction activities in a safe, efficient, and cost effective manner.

The Region was successful in meeting its contracting targets in 2008; well over 50% of WUI and HFR projects and acquisitions were accomplished through contracting.

FPA/Planning
The Regional Fire Planner was the geographic area lead in FPA for the five Federal land management agencies in the Pacific Northwest Area. The planner coordinated Fire Management Plan updates throughout the Region using the new Interagency FMP template.

Interagency and FWS Cooperation
Region 1 personnel filled critical positions on both National and Area IMT. The teams were dispatched to numerous fires throughout the west. In addition to IMT members, the Region was able to fill numerous orders for single resources, engines and hand crew members. Many of these resources spent a considerable amount of time assisting with suppression efforts in Northern California.

Region 1 personnel continued to serve on numerous national working groups as well as local working groups throughout the Pacific Northwest, Great Basin and Hawaiian Islands.

Regional Office personnel assisted in supporting other Regions and the larger Wildland fire community. The Region assisted the Fire Branch in an evaluation of large-long duration fires on FWS administered lands on the East coast at Pocossin NWR and Dismal Swamp NWR. The office also helped in the review of the unprecedented fires that occurred in Northern California during the fire season in 2008. This review is published on the Interagency Wildland Fire Lessons Learned Center

The Region continued funding and supervising the chief meteorologist position at the Pacific Northwest Coordination Center in Portland, Oregon. This position has been a benefit to all of the wildland fire organizations in Washington and Oregon.

The Pacific Region Refuges continued to be very active participants in Interagency Dispatch Offices throughout the Region. The Region assisted in staffing or funding five dispatch locations in Washington, Idaho, and Oregon.

Significant Personnel Changes
2008 brought change to the Regional office fire staff with retirements in several key positions. An excellent group of folks was selected to fill the Deputy RFMC, PFS, and fire operations specialist positions. The Region in collaboration with the National office established a shared fire outreach position to promote the visibility of the fire program, its activities and accomplishments.

Outreach
The new outreach coordinator was successful in highlighting many of the

accomplishments of the Region's fire management program. Many of these success stories were showcased on the FWS fire management *Hot News and Inside Fire Management* intranet web links.

Training and Development
The Region continued to host the nationally funded Blue Goose Crew. The crew had a second successful year providing a training venue for the professional development of FWS fire personnel in crew operations, fire suppression, and introductory leadership. The crew was able to hire a second supervisory position to assist with management and the development of the program. The crew was assigned to 11 incidents in four different states. Seven of the eleven incidents were extended attack, four were initial attack. The crew hosted 22 Agency detailers and facilitated training opportunities to work on position taskbooks for the following positions; FFT1, CRWB, ICT5, HECM, and FALB. In addition, the Columbia Basin Job Corps students received training and experience that could potentially aid in future employment. The crew was given great reviews by interagency partners. Regions 2 and 1 collectively utilized year end balances to purchase three new crew pickups that will increase crew travel efficiency, reduce fuel and maintenance costs, and greatly increase crew cohesion.

Regional personnel remained active cadre members for various training courses including S-620/S-520, RX-310, S-490, S-430, numerous 200 level local area courses, and High Reliability Organizations. The Region sponsored L-381 Incident Leadership. The course was well attended by FWS participants and also included students from other Federal and State land management agencies, as well as the local fire service. Hosting this critical supervisory course was made possible with the funding put forward by the National office. The Region also led a tour for other functional area staff to the Cold Springs Fire located on the Gifford Pinchot National Forest. The provided an excellent opportunity for non fire personnel to experience many of the aspects involved in large fire management.

Fire Management Leadership
The annual Project Leader/FMO meeting was a large success in 2008 making strides at fully integrating the fire program into Refuges. The group came together to evaluate the current fire management structure, identify roles and responsibilities, and develop strategic goals for future success.

Firefighter Safety
The 2008 firefighter safety and operations workshop was highlighted by an Interagency site visit to the Broughton Fire in the Columbia River Gorge. This rapidly expanding incident involved many jurisdictions, consisted of many hazards and safety concerns, and transitioned through three levels of management in a short period of time. This experience was an excellent learning opportunity for many of our developing incident commanders. Other key elements of the workshop included; a discussion on personal mindfulness and the effects of stress on decision making led by Dr. Kelly Oosterbaan, HRO and situational awareness during search and rescue operations was delivered by Devon Wells Hood River Fire Department and longtime Crag Rat,

and a presentation delivered by Dr. Larry Iverson focused on *Crew Cohesion*, a unit taken from L-481 IMT Leadership Course.

Looking Ahead In 2009 the Region will focus on providing better support to Refuges in the Hawaiian Islands, continue to develop fuel treatment priorities with existing fire programs, strengthen collaboration with Federal, State, and private partners, and remain dedicated to firefighter and public safety.

SOUTHWEST REGION

Introduction
The fire season for the Southwest Region in 2008 was overall slightly above average. The eastern portions of the region (Texas and Oklahoma) had an active season due to hot dry conditions. Both the South Texas and Balcones Fire Districts were in severity for considerable time. The western portion of the region (Arizona and New Mexico) generally experienced below average fire seasons due to cooler temperatures, late spring moisture events, and a strong monsoon season.

As in years past, personnel from R-2 Refuges provided assistance to both our in region neighbors and to national fire suppression efforts throughout the year. Nationally the 2008 fire season was relatively slow except for the large fire bust in California.

Personnel
The Regional Fire Management Coordinator position was filled by Loren DeRosear. His advancement into the RFMC position leaves the Fire Operation Specialist open. The developmental Fire Management Specialist position was also vacated when Jennifer Adams accepted a position with the FWS in Region-4. Recruitment to fill both positions is under way. Mark Kaib, Don Kearney, and Cameron Tongier make up the remainder of the 2008 R-2 fire management staff.

Operations
Relatively favorable weather and fuel conditions across the Region provided limited need for additional preparedness resources in 2008. The two exceptions were the South Texas and Balcones Fire Districts. South Texas started the year in severity and remained there until Hurricane Dolly delivered much needed moisture to the area. Central Texas had a dry winter and spring and missed most of the summer tropical depression moisture. Balcones was in severity through much of the summer. Fortunately in both areas there were no significant fires and crews were released as conditions moderated.

Refuge personnel responded to 81 wildfires on Service lands totaling over 11,300 acres. Fire personnel also responded to an additional 91 fires with a total count of 75,656 acres on adjacent incidents which threatened FWS refuges. FWS personnel also assisted our partner jurisdictions with controlling another 124 wildfires for over 38,000 acres. The most notable wild fires on Refuges were the 3,200 acre Unit 3 Fire on McFaddin NWR, the 2,682 acre Cow Trap Fire, and the 1,765 Smith Marsh Fire both on the San Bernard NWR.

Fire personnel from refuges throughout Region-2 and the regional Office assisted refuges along the Texas Gulf Coast with hurricane relief. Type3 incident command organizations were assembled and deployed to South Texas NWR (Laguna Acosta) to help with recovery from Hurricane Dolly and to the Chenier Plains NWRC (McFaddin and Anahuac) to assist with recovery from Hurricane Ike. Refuge/fire facilities and equipment were completely destroyed at McFaddin and severely damaged at Anahuac.

RX Fire/WUI
The Southwest Region-2 had an exceptional year in completing prescribed fires and fuel reduction projects. Burn conditions were favorable throughout the region most of the year. The region accomplished 119,422 acres in FY08 (61,867 acres in National Fire Plan, 57,555 acres in Non- National). This far exceeded the FY08 regional target of 39,000 acres. Total WUI acres for FY08 were 35,694. Total Hazard Fuels acres for FY08 were 83,725. There were no escape fires or loss time accident associated with RX fire in the region during FY08. In addition over 50% of project funds were obliged to contracts.

To better account for the true costs for fuels project the regional fire districts utilized the non-national fire portion of the NFPORS data base. Prescribed fire acres were divided between the national fire plan and non-national fire plan portions of the data base at roughly a 50/50 split. This reporting technique better captures the contributions of refuges and non-national fire plan funding that is present in all RX burns.

The Southwest Regional Office issued guidance towards the use of multi-year multi-unit burn plans. Many of the burn plans across Region-2 are already multi-unit. A number of fire districts in the region also have a multi-year programmatic burn plan in operation. Multi-year multi-unit burn plans will provide the fire districts greater operational flexibility and streamline the review and signature process. The guidance will assure we are meeting minimal acceptable requirements and standardized policy for prescribed fire planning as stated in the Interagency Prescribed Fire Planning and Implementation Procedures Guide.

The Southwest Region was an active partner in the Interagency SW Fire Use Training Academy. Regional Prescribed Fire Specialist Don Kearney is a member of the steering committee. Don and fire district personnel assist the academy by providing instructors to both spring and fall sessions. One R-2 firefighter attended and completed the fall session.

Burned Area Rehabilitation (BAR)
Five R-2 BAR projects were funded this fiscal year (2008) at the Lower Rio Grande Valley (2), Bosque Del Apache (1), Havasu (1), and Cibola (1), NWRs for approximately $1,750,000 dollars. Next year will be the final year of BAR funding for the larger projects at Bosque and Cibola NWRs. A new BAR plan project is in the final stages of development for Havasu NWR. These BAR projects are helping to reduce future wildfire threats, control non-native invasive species, and restore native wildlife habitat.

Research and Monitoring
Fire effects monitoring data collection and analysis continue at most of our larger fire districts. Several research proposals are in development for the Joint Fire Science Program and the regional Global Climate Change initiative.
New fire regime and prescribed fire effects study started with Refuge dollars at San Andres NWR.

Fire Planning
The Caddo Lake NWR FMP was completed. Cabeza Prieta and Kofa NWRs are newly drafted FMPs that should be in the final stages. These

Sonoran Desert Refuges historically burned very rarely if ever. In recent years unusually wet seasons combined with non-native species invasions have resulted in new fuel loads and anomalous fire activity, hence the need now for FMPs.

In the interest of incorporating many changes in interagency fire programs, including Fire Program Analysis (FPA), a new interagency Fire Management Plan (FMP) template was developed in late 2007. This proved to be timely for R-2 in that the majority of our FMPs were outdated and in need of the 5 year revision required by the National Fire Plan. In August of 2008 a final template was developed specifically for USFWS. Phase I of the Region-2 FMP process was to contract out reformation of 10 priority FMPs into the new Interagency FMP template. This was completed. The new reformatted FMPs were passed on to the field for review to be completed by a proposed deadline of December 31, 2008. Two of those plans, S.Texas and Witchita Mountains, are in the final draft stage for approval. Phase II of the contract is to reformat the remaining plans. This is underway. As 2008 comes to a close, 5 of the ten priority FMPs are near ready for signature. The remaining FMPs should be completed in early 2009.

FPA has been redeveloped and implemented in a phased deployment and deadline system. All Fire Planning Units (FPUs) have been engaged as of the end of the year and are on schedule for meeting the proposed deadlines. R-2 has two "early-adopter" FPUs with refuge land, with only one of these having a significant fire budget. The method of deployment of FPA has proven to be very frustrating for the field and perceived to be poorly handled at the national level. It is clearly not a completed product but is being implemented and pushed into the field causing a great deal of man hours trying to negotiate a system still under development with the inherent threat of affecting our budget.

The fire planner Cameron Tongier continues to provide GIS and Remote Sensing support to the field and is coordinating a regional approach to LANDFIRE data correction. The Regional Office continues helping coordinate monitoring efforts in the Southwest Region Fire program

FY08 Budget

Region 2 is an active partner with many interagency groups. The Region participates with the Fire Use Training Academy (FUTA) in Albuquerque, NM. The region contributes to their operating budget and also assists FUTA by providing Fire personnel as instructors. Region 2 contributes funds and participates with other federal and state agencies through interagency smoke management agreements. Region-2 contributions in 2008 to the FWS Blue Goose training crew enabled them to secure new equipment. Contributions through regional support allowed for computer upgrades throughout Region 2. In FY08 six separate Oklahoma and Texas RFDs were funded out of the RFA program. Total RFA funding for R-2 was $70,860. The Region also exceeded the 50% target goal for project dollars being contracted.

MIDWEST REGION

The year 2008, will be remembered in Region 3 as the year of extremes. The region experienced some of the most consistently "extreme" weather related events and patterns not seen in decades and in some cases, never before experienced in recorded history. Weather is always our single most dynamic variable affecting the fire program but the degree and longevity of this years events were unparalleled.

The year started with record snowfall during the Winter and early Spring in the Northern States of Minnesota and Wisconsin. For instance, Leopold Wetland Management District (WMD), Portage, WI, received over two times their normal snowfall amount during this period. Their normal snowfall is approximately 30.2 inches from November to January, this year they recorded 58.2 inches in this time, essentially double the normal amount(NWS). Adding in additional record snowfall from the Spring and they greatly exceeded all averages. Not to be outdone, Western MN, including the Detroit Lakes WMD recorded an enormous series of snowfall events during April. The Detroit lakes WMD office recorded the highest ever April snowfall at 32.0 inches. To put this in context, the previous record amount for just the month of April was 15.0 inches set in 1945. Thus, record snowfall across our Northern region on top of adequate soil moisture received the previous Fall, 2007, set the stage for a record setting Spring and early Summer season.

This indeed was the situation as we headed into June. Fire danger was low in most all areas. The states bordering the Upper Mississippi River (MN, WI, IA and IL) all had average or above soil moisture coupled with the afore mentioned record snowfall amounts and Spring rains adding to the precipitation totals. The mighty Mississippi could handle no more. Record flooding ensued in early June. Essentially all Upper Mississippi River and tributary refuges were under water. This was the largest flood seen in decades. On June 14, 2008, the USDA made this news release, "Flooding in Iowa has now exceeded that which occurred in the "100 year flood"of 1993." This was the most devastating flood seen in years. Many refuges such as Port Louisa NWR in Iowa, never were able to dry out and conduct prescribed burns in their bottomland areas. The only burning they conducted was on high ground later in the year. This flooded stage continued in many areas along the Upper Mississippi well into July even as the rest of the region began to dry out. As an example, the Great River NWR, Annada, MO, continued to boat into their refuge headquarters the last weeks of July. The flooding was severe and widespread in its effects.

Amazingly how fast the onslaught of flooding, was the equal rapidness of the drying and drawdown of the Mississippi River. While certain refuge areas remained flooded causing much resource damage, grief, and inconvenience, the majority of the region became very dry. The National Weather Service reported that August was drier than normal for the Midwest and the driest since 2003. Many areas within the region received less than 50% of their normal precipitation for the month of August.

The record flood stage of the Mississippi River gave way to a record low water flow negatively impacting normal river flow and navigational barge and shipping traffic as recorded by the US Army Corps of Engineers, (August 2008). However, the flood to excessively dry cycle was not done. Record amounts of precipitation in September fell in the states of IA, IL, and MO contributing to yet another round of flooding in the Upper Mississippi river. So, flooding to drought to flooding, it was indeed a difficult year up and down the mighty Mississippi.

With such difficult weather to contend with, it was a challenge to meet prescribed burn objectives. Owing to the resourcefulness of the regions fire staff, the region exceeded burn targets. A total of 577 fuel treatments were conducted totaling 79,960 acres within region 3. The zone breakdown for accomplishments is as follows. West Zone (MN) completed 294 prescribed burns for 44,353 acres. Of this total, 123 were WUI projects totaling 14,247 acres and 25 mechanical treatments, both WUI and Non-WUI for 859 acres. Interagency cooperation and sharing of resources contributed greatly to the accomplishments of these large targets. Assisting were prescribed fire detailers and equipment from FWS stations in Alaska, Oregon, Texas, New Mexico, Wisconsin, Missouri, Iowa, and NPS Fire Use Modules from Buffalo River and the Black Hills, were very effective in assisting during the spring prescribed fire season. The East Zone (IN, Lower MI, OH and WI) completed 87 prescribed burns for over 15,000 acres along with 1083 acres of mechanical fuels treatment comprising 88% of the regional total. The South Zone (IA, IL and MO) completed 138 prescribed burns totaling 11,777 acres. Of this total, 5,172 acres were WUI acres and 6,605 acres non-WUI. In the Upper Peninsula of Michigan, Seney NWR accomplished 12 prescribed burns for 3,135 acres. It was another successful year of accomplishing burn targets safely, effectively and for reducing hazardous fuels and for restoring and maintaining critical habitats within the region.

For 2008, there were 25 wildfires which burned approximately 1130 acres within Region 3. It was not a severe wildfire year throughout much of the region given the abundant soil moisture and precipitation that was received through the normal fire season. Staff from the region assisted on a multitude of all-risk assignments including Hurricanes Gustav and Ike. Big Oaks NWR in Indiana suffered widespread timber damage from the aftermath of Hurricane Gustav. To assist the refuge in reopening roads and storm cleanup, Tom Zellmer, Zone FMO from Wisconsin led a sawyer contingent to Big Oaks as they assisted the refuge in recovering from the storm damage. Additional regional FWS resources were mobilized to fire assignments in California, Virgina, Georgia, Texas, Nevada, Idaho, Arizona, Oregon, and Washington. Region 3 once again actively supported and participated in the Blue Goose Type 1 FWS fire crew stationed in Moses Lake, WA by detailing seven personnel to this crew for an excellent fire training experience. This has proven to be an outstanding crew program for the FWS.

As noted earlier, the region reduced our zone coverage from four zones to three. In order to reduce costs and improve efficiencies, the Central Zone comprised

of Wisconsin is now combined with the former East Zone of MI, OH and IN. Steve Nurse, has now assumed the duties as the Interagency Fire Management Officer for the Upper Peninsula of Michigan, Fire Management Unit (UP MI FMU) located at the U.S. Forest Service Supervisors Office in Escanaba, MI. To date, this has proven to be a highly effective and beneficial reorganization for the regional fire program. The South Zone (IA, IL, MO), and West Zone (MN), remain unchanged.

Progress and accomplishment continues to be made in the regions Private Lands Burning Program. Of significant note was the hiring of the FWS first Regional Prescribed Fire Specialist in the Partners for Wildlife Program. This position is included in the Regional Fire Organizational chart under the East Zone FMO, but is funded through the Partners Program. This position has garnered much interest nationally as other regions seek to build and expand their own Partners Programs.

Region 3 has been a leader and proactive in biomass and bio-fuels utilization for many years. With our wealth of forested refuges and Wetland management Districts, unwanted woody fuel has been a continuous problem to deal with. We are proud to announce that Joel Kemm, Prescribed Fire Specialist at St. Croix Wetland Management District received the 2008 Interior Environmental Achievement Award for Bio-Energy and Habitat Restoration on the St. Croix WMD. Congratulations to Joel on this impressive accomplishment. Joel led the way in innovative marketing and utilization of unwanted biomass on the WMD as habitat restoration required the removal of these woody invaders. Joels' solutions have paved the way for many other locations to use his information and knowledge in developing their own biomass removal and utilization program.

The joint Region 3 and Region 5 FWS and USGS Cattail Marsh Study project has continued onward. Several impressive cattail burns were conducted on the Leopold WMD, Uihlein WPA in 2008. This has been a long term study with each and every monitored burn of these cattail units providing additional data for our knowledge and understanding in reducing cattail and restoring these valuable marshes.

Excellent progress continues to be made on our fire ecology studies within the region. At Sherburne NWR, the age structure and vegetation field work has been completed for the fire dendrochronology study. With a dearth of viable historic fire scars to examine, reconstructing the fire return interval or fire regime has been very difficult. We have impressive vegetation age structure and composition data but will most likely pursue other methodology on reconstructing the fire regime. The final report on the study results will be produced in the near future. We are proud to announce that our Joint Fire Science project at Seney NWR, on "Restoration based fuel reduction recommendations for mixed pine forests of Upper Michigan" has successfully been completed. The several year project included impressive data collection and analysis efforts in reconstructing the historic fire regime in both the wilderness and non-wilderness areas of the Seney NWR including pre - and post - European settlement, and post refuge

establishment fire regimes, fuel loadings, forest composition and structure. Dr. Drobyshev, et al; did an outstanding job and he has produced several impressive research papers with these results. Our third dendrochronology study entitled "The Effect of Fire on Multiple Arboreal Species in the Eastern Deciduous Forest" seeks to uncover the burn history on Big Oaks NWR by modeling and testing the reconstruction of the fire history for the refuge along with documenting the historical range of variability of fire to settlement times in a deciduous forest. This study is continuing and has been extended into 2009 with a planned completion date later in the year. Additionally, we are continuing with the research on our other fire ecology study; " Influence of fire in grassland areas on the herpetofaunal communities of Big Oaks NWR". We look to completing these studies in the coming year with some impressive research results and papers to further our science based fire management within the region.

The ever popular Rural Fire Assistance (RFA) Program returned in 2008. $298,189.00 were distributed to 44 individual rural fire departments. This has been a very successful program for assisting our local fire departments adjacent to NWR's and WMD's in expanding their fire fighting capabilities along with providing a great public outreach educational tool that expands our network of local firefighters available to respond to rural incidents.

Region 3 has long maintained a strong public outreach program and this continued in 2008. Fire staff participated in numerous events including staffing an impressive fire management program display at the Pheasants Forever Sport show and convention in St Paul, MN during January, 2008. This has proven to be an excellent venue for public outreach.

Region 3 personnel have continued to participate nationally and regionally in FPA and LANDFIRE workshops. The Southern Wisconsin FPU is the only FPA FPU with FWS participating as an Early Adopter. It has been challenging with program changes and modifications but excellent progress continues to be made in advancing, testing and troubleshooting map inputs in refining fire risk and contributing to more accurate model outputs.

In conclusion, 2008 was a superb year of accomplishment given the incredible weather related challenges presented to the Region 3 fire program. We welcome the New Year along with the new challenges and opportunities it offers us in 2009.

SOUTHEAST REGION

The Southeast Region (Region 4) had 136 wildfires covering 50,368 acres in 2008. The largest fire occurred at the Pocosin Lakes NWR and totaled 41,134 acres. There were 324 mechanical fuel treatments for 6,652 acres and 301 prescribed fire treatments for 140,854 acres. This totaled 625 treatments for 147,506 acres, which once again exceeded the regional target.

Dry conditions affected spring RX burning. Resources were scarce due to severity commitments or helping on the larger fires in the Region. The situation presented challenges for managers in balancing the prescribed burning and wildland fire suppression programs.

The majority of the regions wildfires took place in LA and NC. The total was 151. Fifteen of which became project fires, while all the others were less than 100 acres, controlled during initial attack, or support to other federal agencies and states. Of the 151 fires, the total amount on private lands that threatened refuges was 36. The amount of wildfires in 2008 was a slight decrease over the 2007 numbers.

The Southeast Region of The US Fish and Wildlife Service lies within the Southern Area Geographical Area. Overall, temperatures were cooler than average for the year (Texas warmer) with the prevailing moderate severe to extreme drought conditions in the Southeast decreasing by more than 40% by the end of the year. Puerto Rico, Georgia, and Florida fires started prior to our official fire season and continued until July and some into August. Cabo Rojo, Vieques, and Culebra NWRs had numerous fires in the spring, but not to the extent of fires that were incurred in 2006.

Despite challenges presented by dry conditions and wildfire occurrence, five top producing stations (Sabine, St. Marks, Merritt Island, Arthur R. Marshall Loxahatchee, and Carolina Sandhills NWRs) prescribed burned over 88,968 acres this year. These refuges accounted for 63% of the Refuge's RX acreage and 32% of the number of burns.

In previous years multiple southeastern states applied for and received FEMA fire assistance grants in the spring and fall fire seasons. This year, only Texas applied for a fire grant. There were no requests for storm related FEMA disaster assistance this year.

The region acquired and distributed $303,000.00 in Rural Fire Assistance Grant funds and $82,000.00 in Ready Reserve funds. These funds were utilized across the region and the Caribbean for purchase of personal protective equipment, basic wildland fire training, and additional training to bolster the type 3 incident response capabilities of local resources.

DISTRICT 1

North Carolina Refuges had mild to moderate fire danger conditions during the fall, winter, and early spring of 2008. Firefighters around District 1 spent a lot of time staffing under wildfire severity conditions for much of this time, therefore little opportunity for prescribed burning. Much of this time was used to

refurbish old firebreaks and cut new ones, including the seven-mile-long Evans Road firebreak. Eight of the nine refuges in NC Refuges had mechanical and chemical treatments to reduce hazardous fuels. A total of 96 projects were completed for a total of 1,832 acres of mechanical and chemical treatments. This year only 1,909 acres of prescribed burns were completed. 2008 was a first that the mechanical and chemical treated acres almost equaled the burned acres.

When the Evans Road Fire struck on June 1, firefighters from District 1, including all the Pocosin Lakes Fire Crew cooperated with the NC Forest Service to provide initial and extended attack on the fire. On June 3, it appeared that the fire was close to containment, when it spotted across the lines and took off towards the Lake Phelps Community. Firefighters from the FWS and NC Forest Service were able to stop the fire on the Evans Road Firebreak, (which was refurbished earlier in the year) and prevent it from reaching the Lake Phelps Community, however the fire made a major run across the Pocosin Lakes NWR and onto private lands to the northeast of Lake Phelps where it was stopped in agricultural lands. The Evans Road Wildfire quickly became the largest fire at the time which eventually became 41,060 acres in size and took all summer to control.
The difficulty of suppressing this fire was primarily due to the depth it burned into the peat soils across the refuge and especially on private property where the soils were most severely drained. An unprecedented large-scale water movement effort was made to transport 2.2 billion gallons of water 37 miles across the landscape to suppress the deeply burning organic soils. As of October, the Evans Road Fire was declared controlled but not out. There is still fire burning in the organic soils on the Evans Road Wildfire.

Even while the Evans Road Wildfire was being fought at Pocosin Lakes NWR and surrounding lands, other fires occurred on surrounding refuges. On June 7, the South 1 Fire started at Great Dismal Swamp NWR just 70 miles north of the Evans Road Wildfire. Although GDSNWR is administered out of Region 5, they have historically turned to NC Refuges for personnel and equipment support. NC Refuges provided helicopter support initially and sent firefighters with flex tracked fire tractors, engines and a GeoBoy brush cutter to assist in the suppression efforts. Like the Evans Road Fire, the South 1 Fire was characterized by deeply burning organic soils (peat) with great difficulty in suppressing the fire. It lasted most of the summer as well, pouring out smoke across the landscape along with the Evans Road Fire.

Thirty two other fires occurred in 2008 in NC Refuges, including the Callahan Creek Fire at Alligator River NWR and the Intercoastal waterway fire at Pocosin Lakes which occurred during peak fire activity periods during the Evans Road and the South 1 Fires. Both fires, which had potential to become large project fires, were suppressed with assistance from a helicopter contracted by District 1 and stationed at Alligator River NWR

The fire internship program at Alligator River NWR is in its fifth year and has proven highly successful in providing excellent training and experience to a select field of interns, while providing much needed firefighters to the refuges.

This fire internship program is the only one in the Southeastern Region at this time. This program is highly recommended. It not only provides training and experience to personnel interested in making fire a career, but it has greatly enhanced the pool of qualified applicants to the vacant Forestry Technician firefighter positions for NC Refuges.

Fire Management Planning and Fire Program Analysis took a huge amount of time this year. The Pocosin Lakes Fire Management Plan was completed in October, and the Draft Alligator River NWR Fire Management Plan was completed November. The Mattamuskeet Refuge Complex Fire Management Plan (including Swanquarter and Cedar Island NWR's) was contracted for conversion to the new plan format and remains to be updated early next year.

DISTRICT 2

2008 will be remembered as a year of change and of much planning for Savannah Coastal Refuges. Thankfully there were no major fire or hurricane impacts to the district. The fire district had a relatively early start in prescribed burning efforts, starting impoundment burning in the southern refuges in early October. Despite continued concerns of drought, and some wind storm damage on Carolina Sandhills NWR, the numbers of acres burned were on target with usual historical levels.

Assistance was provided to and received from the following entities for prescribed burning: National Park Service, Kings Mountain, The Nature Conservancy of North Carolina, The Nature Conservancy of South Carolina, South Carolina State Parks, South Carolina Department of Natural Resources, BLM, and USFWS fire personnel from Region 3, and 6. Six local fire departments provided AD assistance. Even though drought conditions were prevalent, wildfire occurrence was down, with less than five fires responded to in the fire district. The fire district was significantly understaffed due to vacant positions, and due to this, our usual numbers for regional and national support was down from standard averages.

Countless hours were invested in new Fire Management Plans for the Savannah Coastal Refuge Complex and for the Carolina Sandhills-Pee Dee Refuge Complex. Final drafts are nearing completion for the South Carolina Lowcountry Refuge Complex and the National Fish Hatcheries of Bears Bluff, Orangeburg, and Bo Ginn.

In "routine" fire management activities, the fire staff was successful in completing all data calls for the Fire Planning Analysis (FPA) project. FPA once again required exhaustive cooperative efforts of fire modeling with our closest federal partners, the USDA Forest Service and the National Park Service.

The new interagency MOU for fire response was initiated and is nearing final signature. It is the first new agreement for SC in nearly a dozen years. Work commenced on revision and renewal of the Georgia statewide agreement as well.

The South Carolina Lowcountry Fire Council continued its cooperative work efforts and outreach for wildland urban

interface concerns and projects, targeting select communities for dry hydrant installation. The SC Lowcountry Fire Council continues to utilize the Interagency Firewise Mobile Trailer. This trailer is equipped with an interactive display screen and houses a number of educational displays devoted to wildland urban interface issues.

WUI projects were implemented and completed at ACE Basin, Savannah, and Wassaw National Wildlife Refuges.

DISTRICT 3

Prescribed Fire/Mechanical Treatments:

No prescribed fire acres were accomplished on Okefenokee NWR due to the fires of 2007 burning nearly the entire refuge. Refuge fire staff and exclusive use helicopter assisted other refuges and agencies with prescribed burning in Florida, Georgia, Alabama and South Carolina.

Piedmont NWR prescribed burned 10,430 acres and 2,047 acres of mechanical fuels were accomplished.

Wildland Fire Response:

Okefenokee NWR: Post fire rehab projects continued throughout the year including road repair, invasive species surveys and boundary surveys. Six fires were reported on the refuge for approximately 20 acres.

Piedmont NWR: One fire was reported for approximately one acre.

Fourteen different responders from Okefenokee and Piedmont assisted with interagency wildland fire suppression assists for a total of 400 staff days.

All Risk Response:

Staff and equipment from Okefenokee responded to hurricanes Gustav and Ike for a total of 60 staff days.

The emergency response vehicle building was completed in 2008. This building houses the Southeast Region's all risk incident response law enforcement and command trailers.

DISTRICT 4

District 4 underwent a Regional Fire Program Management Review.

A new administrative building for Fire/Forestry programs was completed at Lower Suwannee Refuge. The shop yard at the St. Marks work center has more than tripled in size providing much needed space for the heavy equipment. The whole compound is also now fenced to provide security of vehicles, equipment, buildings and volunteer residence sites.

St. Marks NWR also assisted the Florida Division of Forestry (FL-DOF)on four wildfires. Two of these wildfires were on adjacent lands owned by The Nature Conservancy. Lower Suwannee also assisted FL-DOF on two additional wildfires.

A group of 6 students from National Interagency Prescribed Fire Training Center who came from Mexico, Guatemala and Honduras spent the day at St. Marks NWR to get information on our fire management operations both prescribed fire and wildfire.

St. Marks NWR assisted US Forest Service on Apalachicola and Ocala NFs with several wildfire incidents.

In cooperation with the visitor services group, St. Marks fire management produced a grocery bag with a Firewise message to be given out to educators and various other public to help spread the Firewise message.

DISTRICT 5
Merritt Island NWR responded and assisted with district fire personnel and the regional helicopter providing suppression support actions to The Florida Division of Forestry on three wildfires, including the Brevard County Fire Complex which burned over 12,500 acres destroyed 40 primary residences and damaged another 267. They also provided suppression support with personnel and the helicopter to the Ocala National Forest on two assist, including the Tracy Fire for 1,100 acres.

Jon Wallace provided support to the Southern Area Coordination Center (SACC) with the Southern Area Spring Risk Assessment and the Hurricane Ike post fuels assessment. He also provided the long-term assessment for both the Evans Road and South 1 Fires.

DISTRICT 6
Florida Panther NWR spent 35 days in Severity during May and June. Resources from Alligator River and Pocosin Lakes supported them with a Type 6 Engine and Module during this time. The Caribbean NWRs were busy again this year with 86 wildfires.

Tropical Storm Fay came ashore August 19th just south of Naples, but did minimal damage to the area – mostly heavy rainfall

Fire Resources from District 6 assisted with two fires on state land, one in the Golden Gate Estates which destroyed three permanent residences and numerous outbuildings and the other at the Fakahatchee Strand State Preserve.

DISTRICT 7
The Gulf Coast NWR Complex had one of the best growing season prescribed burn projects in its history, and for the year logged over 6,000 total acres on the Mississippi Sandhill Crane NWR (MS-MSR) alone.

MS Sandhill Crane assisted the National Park Service, Gulf Islands National Seashore in a 60-acre burn, and the Nature Conservatory on a 288-acre burn.

The Gulf Coast Complex had several other interagency projects that had been accomplished this year. They continued to make progress incorporating part-time firefighters into their wildland fire program. Most of the individuals were County Volunteer Fire Dept. (VFD) Members.

The project 25 Radio System was installed at Mississippi Sandhill Crane, Grand Bay, and Bon Secour NWRs, linking all three refuges in the Gulf Coast Complex.

The Fire Compound that serves the Southwest Louisiana National Wildlife Refuge Complex (Sabine NWR, Cameron Prairie NWR, Lacassine NWR, Shell Keys NWR) was completed on September 11, 2008, two days before Hurricane Ike made landfall. The facility includes a bunkhouse that will sleep 15 to 20 individuals and a four-bay shop building.

HURRICANE SEASON

The 2008 Atlantic Hurricane Season officially came to a close on November 30, marking the end of a season that produced a record number of consecutive storms to strike the United States and ranks as one of the more active seasons in the 64 years since comprehensive records began.

For the first time on record, six consecutive tropical cyclones (Dolly, Edouard, Fay, Gustav, Hanna and Ike) made landfall on the U.S. mainland and a record three major hurricanes (Gustav, Ike and Paloma) struck Cuba. This is also the first Atlantic season to have a major hurricane (Category 3) form in five consecutive months (July: Bertha, August: Gustav, September: Ike, October: Omar, November: Paloma).

The formation of Hurricane Ike was amazingly large. The bands of this storm reached out to the Florida panhandle as it approached landfall to Galveston, Texas. Hurricane Ike was a category 3 when it hit landfall. Texas received some significant damage to their coastal areas.

INCIDENT RESPONSE VEHICLES

The four Southeast Region Fish and Wildlife Service Incident Management Response trucks and trailers were used for Hurricane Ike in Louisiana. The response vehicles suited the needs of the incident and are utilized to conduct a multitude of tasks. The vehicles are designed to deploy as self-contained units while conducting emergency response operations, and sustain a crew of up to 12 personnel for up to a week to 10 days without refueling or restocking. The largest trucks maintain crew supplies for two weeks with a 100-gallon fuel tank and storage for 100 gallons of potable water. All of the trucks feature a work station for two and those with communications capabilities include cell phone boosters, remote communication systems using satellite technology, and telescoping antennas to instantly set up radio communication in a disaster area.

Due to these great resources we were more effective in responding to an incident and sustain a safe emergency response.

NORTHEAST REGION

Drought conditions throughout the Southeastern US deepened over the winter of 2007-08. Refuge personnel assisted with early season wildfires in Western Virginia, and with several large fires near Great Dismal Swamp which occurred with a high wind event in mid-February. Dry conditions, combined with high temperature/low humidity days in early June, helped fuel the South 1 wildfire on Great Dismal Swamp. The fire started June 9 when a piece of contract logging equipment caught on fire in a cedar salvage area. The fire escaped initial attack, and required two type 2 incident management teams, and successive type 3 organizations, as it continued to burn through the summer months. The South 1 fire was declared out on October 7, after burning 4884 acres. At 121 days, it is the longest duration, most expensive fire in Virginia state history. Great Dismal Swamp also experienced 4 other fires within the refuge boundaries, and 5 fires within its threat zone, in 2008.

Suppression activity in the remainder of the region was unremarkable. In spite of continued drought conditions from June through October, Chesapeake Marshlands NWR Complex experienced only one wildfire on refuge lands in 2008, when a lightning start burned about 5 acres of forest in August. A total of 7 wildfires burning 1,931 acres on adjacent private and cooperative State lands were responded to by Ches Marshlands fire personnel and equipment during the marsh burning season of January through March. With the exception of several long term study areas being burned out of sequence, these fires did little damage. Ten wildfires on refuges in Long Island and New Jersey accounted for 13 acres total. Three wildfires totaling 8 acres occurred on Service lands in New England. Fire staff and equipment operators from Moosehorn also assisted the State of Maine on the 133 acre Robbinston fire. Just outside of Moosehorn's threat boundary, this fire had a lot of potential due to adverse winds and slash as the major fuel. The other off-unit assist was to the White Mountain National Forest, where an Engine plus a squad from Moosehorn pulled two duty shifts. It should be mentioned that considerable personnel and equipment support were provided throughout the summer by all Region5 fire management zones to the South 1 fire at Great Dismal Swamp.

Prescribed burning accomplishments for 2008 included 8,498 acres at Chesapeake Marshlands NWR Complex and cooperative state lands. In the VA-WV fire management zone, Great Dismal Swamp NWR fire resources provided leadership or assistance to treat over 6,500 acres with prescribed fire on three refuges, two national parks, one national forest, four TNC preserves, five state natural areas, one state park, and two private properties. Limited fire management staff in the NJ-PA-NY zone treated 292 acres with fire with partners New Jersey Forest Fire Service, New York DEC Rangers, and the TNC-Long Island fire team, and provided burn team assistance to New England refuges as well as the Park Service. 737 acres were treated with fire in the New England zone, including a large aerial

ignition burn on Noman's Island NWR off the Massachusetts coast.

An additional 1,000 acres in the Region were treated with mechanical fuel reduction methods and 3,676 acres were treated chemically (fiscal year 2008). Region 5 accomplished 125% of its target acres in 2008. The large mechanical project at Great Dismal Swamp NWR concluded, with the three year Atlantic white cedar salvage work treating a total of 1100 acres. Whole tree chipping operations continued in pond pine pocosin areas on the refuge. Hardwood was removed from pine areas to restore the ecosystem and create habitat suitable for Red-cockaded Woodpecker reintroduction. To date, 900 acres have been treated. Both projects resulted in habitat improvement and restoration, while at the same time providing large-scale biomass utilization.

Several wildfire risk assessments and/or mitigation plans were in various stages of completion at the conclusion of 2008. A contracted risk assessment for Cape May NWR in New Jersey was completed, and another contracted Community Wildfire Protection Plan associated with Mashpee NWR at Eastern Massachusetts Complex was finalized in late summer. Treatment projects as a result of this Plan were identified, and work with cooperators to execute the Plan's recommendations began for 2009 implementation. WUI Specialist Gerald Vickers arranged an initial risk assessment for the Timberline community adjacent to Canaan Valley NWR, and drafted assessments for beach communities adjacent to Prime Hook NWR.

Region 5 personnel served on numerous details throughout the nation during the 2008 fire season. WUI Specialist Gerald Vickers served 59 days total including two Type 1 Safety Officer assignments on the Gap Fire in California and the Cascade Fire in Montana, additional assignments as SOF2 in Texas, Virginia, and California, and an ICT4 detail in Oklahoma. WUI Specialist Bob Harris served as Support Dispatcher on a detail in Yreka, California and Supervisory Dispatcher on assignment to the Eastern Area Coordination Center in Minnesota. Fuels Coordinator Steven Hubner worked several details as Crew Boss and TFLD trainee on both western and regional incidents. Catherine Hibbard went on five assignments as Public Information Officer Type 2 trainee for the South 1 Fire in Virginia (twice), the Little Cuba Fire in Virginia, and two FEMA assignments in Texas (fire prevention and Hurricane Ike), completing her PIO2 task book and becoming fully qualified after taking S420. Blackwater Dispatcher Mary Elliott was detailed to the Eastern Area Coordination Center in Minnesota for a Support Dispatcher assignment. NJ-PA-NY Zone FMO Mike Durfee served as Planning Section Chief Type 2 trainee on assignments in California and Montana.

Training provided by Region 5 fire personnel included S-215 provided by WUI staff at the Virginia Wildfire Academy, D-310 Support Dispatcher assisted by Blackwater NWR Fire Program Assistant Mary Elliott in Illinois, and "Train the Trainer" T336 Fire Simulations in Wisconsin with Gerald Vickers as Unit Instructor. Individual fire program staff served either as lead or unit instructors for

various other courses including RX-310, RX-410, S-130/190, S-131, S-133, S-290, and several RT-130 sessions.

The Rural Fire Assistance program funded 26 grants totaling $168,000 in 2008.

Fire Management Plan development has been a major focus. Most of the contracted FMPs/EA's were drafted, reviewed and edited in 2008, with four of the Plans being approved by the Regional Director by the end of 2008. Eight others were in final draft form and will be approved early in 2009. Seven additional Plans were being developed in-house by FMOs or regional fire staff at the conclusion of 2008.

Regional Fire Planner Rick Vollick served as FPU leads for NJ and New England-NY planning units (FPU). With the development of the new FPA tool, NJ FPU is a prototype – providing insight and testing of the various FPA components under development. As Region 5 representative to the Firebase Working Group, Vollick attended working meetings and participated in conference calls. In addition, Rick served as the focal point for the Region's RAWS program, ensuring databases were edited and station maintenance requirements met. There are 15 "fixed" RAWS stations scattered throughout the region, and 3 portables (or QD) units. Servicing and maintenance requirements continued to be met via annual contractual agreement with Forest Technology Systems. This contract was renewed in October for the 2009 maintenance cycle.

Regional Fire Biologist Laura Mitchell assisted staff at Great Dismal Swamp NWR in preparing a Burned Area Rehabilitation (BAR) Plan, to ameliorate the effects of the South One Fire. The Fire Biologist served as a GISS and Natural Resources advisor during the incident, assisting refuge staff in assessing and mapping the damages wrought by the fire and suppression operations, and recommending immediate actions to abate these effects. The Fire Biologist then assisted the refuge in developing a severity assessment map across the burned area, and convened a group of natural resource consultants (two fire ecologists, an Atlantic White Cedar specialist, a soil scientist, and a wetland scientist), to advise refuge staff on restoring severely damaged habitats, particularly Atlantic White Cedar stands. The Fire Biologist wrote a BAR plan on behalf of the refuge, who submitted it, successfully, for $299,000 of BAR funds.

The Region 5 fire program continued to support fire science activities at Blackwater NWR, where the refuge is engaged in monitoring fire effects on vegetation and secretive marsh birds. The fire program contributed funds, as well as staff time from the Fire Biologist, to assist with spot-mapping, nest searching, and vegetation surveys. Another study by USGS addressed the effects of prescribed fire on marsh elevation and marsh loss. When completed, these studies will evaluate nutrient and carbon storage and release during fire activity. Finally, an adaptive management process to address the effects of wildland fire on wetland loss at Blackwater NWR was initiated in October 2007 and continued into 2008. A series of meetings with refuge partners and the science community was held to evaluate past studies, and set guidelines

to determine the fire rotation that will best promote marsh vegetation growth as well as protect important wildlife resources in the refuge marshes.

Organizational and personnel changes continued to affect the Region5 fire program in 2008. The MD-DE Zone FMO position at Chesapeake Marshlands NWR Complex remained vacant until mid-October, when KellyAnn Gorman reported for duty. Ms. Gorman transferred from the National Park Service at Shenandoah N.P. Charles (Cody) Daniels, an employee with the Virginia Department of Forestry, was hired at Great Dismal Swamp NWR as a career seasonal Forestry Technician. Maine fire staff at Sunkhaze Meadows NWR were reassigned to Moosehorn NWR due to the closing of the Sunkhaze Meadows refuge office in Old Town. With the resignation of Wes Hatch in 2007, and the transfer of Chad Becker to Region 1, the Moosehorn fire program now consists of PFS John Meister and Forestry Techs Brett Gore and Brandon Harriman. Finally, WUI Specialist Bob Harris retired December 31 after 30 years of service with the U.S. Forest Service in Tennessee and the Fish and Wildlife Service in Maine.

The Region 5 fire program trained 45 new AmeriCorps firefighters (38% female, 6% African-American, 2% Hispanic, 2% Asian) in 2008 using a $5K special funding allocation from the national Fire Management Branch in Boise to assist with the purchase of training materials. These firefighters participated on prescribed fires at Blackwater NWR, Rappahannock River Valley NWR, Shenandoah NP, Virginia Division of Natural Heritage, and Maryland Natural Heritage Program. Corps members participated on wildfires in Virginia including the South 1 fire at the Great Dismal Swamp NWR, Maryland, California, and Oregon. Because of their volunteer status, Corps members are not paid under the AD emergency firefighter pay plan. As a result, 2008 salary savings attributed to AmeriCorps firefighters was $57,513 on wildfires, and $12,494 on prescribed fires.

Region 5 submitted a detailed Implementation Plan in October in response to the November 2007 Fire Management Branch review of the regional fire management program. In consultation with FMOs and others in the program, we developed strategies to address the 37 recommendations in the final report from the Branch.

The Large Fire Cost Review for the South 1 Fire was conducted by Jeff Whitney's NEMO Team during the week of October 29-31. The Team's draft report of findings was provided to the RFMC and Great Dismal Swamp NWR Project Leader for comment in November, with our preliminary response going back to the Branch in December. The report was very favorable overall, with commendations for a number of areas where cost savings were realized. As of December 31 no further word had been heard from the Branch on this report.

The regional fire outreach budget for FY2008 was $43,750.00, with $35,000.00 allocated for salaries and $8,750.00 for projects. These funds were fully expended to cover nearly half the salary of Terri Edwards through a cross-program agreement with the Office of

External Affairs to complete regional outreach efforts during 2008. Terri Edwards and Catherine Hibbard served as the primary and alternate regional members, respectively, of the National Fire Outreach Team. One or both of them participated in all scheduled conference calls and team meetings during the year, and completed tasks assigned by the team. Products produced during the year included a new *Fire Management in the Northeast* brochure (25,000 copies distributed throughout the region), and a national FWS *Keeping Fire On Our Side* 2009 pocket calendar which Terri helped to develop, and which Region 5 produced and distributed. Terri also submitted regional fire success stories for posting to the national fire website, and worked with national outreach staff on regional fire stories submitted for publication in Fish and Wildlife News.

Besides serving as alternate R5 representative on the FWS Fire Outreach Team, and participation on the Southern Area Type 2 Incident Management Team as Public Information Officer, Catherine represents the Service on the NWCG Fire Education Working Team. She also serves on the executive committee for Partners in Fire Education, an interagency initiative to develop an educational campaign on the role of fire.

MOUNTAIN-PRAIRIE REGION

Highlights
2008 was busy year for the Region 6 (R6) fire management program. Once again, fuels treatment targets were exceeded and R6 personnel provided support to the interagency fire suppression efforts during a busy western wildfire season, which started early in California. No major wildfire activity occurred on Service lands within the region but droughty conditions hampered prescribed burning accomplishments on Refuges in the northern Great Plains.

R6 began a new Business Unit operating structure for Refuges in 2008. The Units perform business functions for multiple Refuges consolidated under the Unit similar to the method R6 has used for fire program management using the Fire District concept. Each Unit contains a "Fire Business Specialist" who provides expertise and support for our consolidated fire programs managed by our District Fire Management Officers (FMO).

FWS staff from NIFC conducted a formal review of the R6 Fire Management Program in May. Overall, the program received a good checkup. The review team did identify a number of commendations, findings, and recommendations which are being studied by the Region in an effort to ever-improve an expanding R6 fire program.

In November the R6 fire management program held the annual FMO regional meeting at the Regional Office in Lakewood, CO. The meeting was well attended by our District FMOs and provided them with an opportunity to share and discuss important topics and meet new Regional Director, Steve Guertin.

Zone Highlights -- Mountain Zone
The Northern Rockies experienced a mild fire season with 2008 starting with good moisture that continued through the fire season. The FWS had no extended severity requests for the first time since 2001, however there were extended Type 3 fire events at the Charles M. Russell NWR (CMR) and Ouray NWR. There were 12 wildfires for roughly 2713 wildfire acres on FWS lands. There were approximately 2710 FWS and 2,170 mutual aid/assist wildfire acres burned this year in the Mountain zone.

2008 was another record year for prescribed fire within the Mountain Zone. Roughly 12,575 acres were treated in thirty three burns on twelve refuges in 2008. An early dry spring with good burning conditions allowed for an early prescribed fire season that carried through the fall. All burns were spring or early summer burns except at Red Rock Lakes, Arapaho, and Bear River Migratory Bird Refuge where we utilized fall burning.

The Zone participated in a number of activities related to implementing the National Fire Plan including updating refuge Fire Management Plans. Fire Program Analysis became active again for all refuges in the Zone in 2008. Zone WUI program accomplishments included the completion of six prescribed burns for roughly 450 acres treated and continued planning for at

least eight additional projects. The Firewise Nature Trail/Education project was completed at Creston National Fish Hatchery in cooperation with Montana DNRC and other volunteers in the Kalispell area.

Zone Highlights -- Prairie Zone

The 2008 fire season presented many weather-related challenges across the Great Plains states. Varying degrees of drought existed throughout the spring prescribed burning season across western Kansas, western Nebraska, and western South Dakota; with the greatest effects of extreme drought occurring in western and central portions of North Dakota. The effects of the drought in North Dakota and local burning restrictions resulted in a 63% decrease in the average number of acres treated in North Dakota. A false sense of green-up and situational awareness regarding drought conditions also contributed to the escape of a prescribed burn at Long Lake NWR.

On May 14, a prescribed fire at Long Lake NWR escaped and burned 301 acres of Service land and another 356 acres of private land for a total of 657 acres. A significant factor that contributed to the escape of the Long Lake unit G-4c prescribed burn was the conflicting indices based upon unreliable weather, the lack of situational awareness regarding local drought conditions, and a mindset that conditions were not critical enough to take mitigation actions and everything was business as normal. Meanwhile, many of the other districts in the zone battled windy wet weather and above normal precipitation along the eastern edge of the Prairie Zone.

The Northern Great Plains, Fire Use Module was put together in 2008 by North & South Dakota National Park Service and U.S. Fish & Wildlife Service employees to assist Parks, Refuges and other agencies with prescribed fire projects in southern states prior to the start of the burn season in the Dakotas. The Module consisted of 6 personnel from Knife River Indian Village NHS, Wind Cave NP, Audubon NWR and Des Lacs NWR, was coordinated by the NPS Midwest Regional Fuels Management Specialist and dispatched out of the Great Plains Dispatch in Rapid City, SD.

In 2008 the Mid-Plains Interagency Handcrew was mobilized four times, with the last call-out coming late in November to a wildfire in Colorado. The crew continues to be recognized for it outstanding performance, and was featured in the latest issue of Inside Fire Management.

Redistricting, reorganization, and realignment of the fire districts continued in 2008 with the merger of the Eastern Kansas District and Mid Plains District. Combined the district is still retains its name as Mid Plains District.

A Service First Agreement was established with the National Park Service. Under this agreement the Mid Plains District will manage fire activities on NPS lands in Kansas. The implementation of this agreement during the 2008 calendar year produced three treatments which totaled approximately 150 acres on three different National Parks.

The development of cooperative agreements between the Department of

Defense Army Corps of Engineers and FWS contributed to the implementation of four fuel treatments on DOD lands in ND and Kansas. Two with the Garrison Project Office, one near Williston, ND and one with the Tulsa District for Wilson Lake Project in central Kansas. The combined interagency prescribed burns totaled about 535 acres.

FWS Partners program teamed up with TNC in 2008 in a cooperative effort to reintroduce fire to restore native tall grass prairie private lands. A total of 19 treatments totaling approximately 1,290 acres were treated on private lands in NE South Dakota.

District FMO's throughout the Zone spent much of there time during the winter months developing draft FMP for all FWS in the zones.

National Fire Plan fuels treatment accomplishments in the Zone included the completion of 139 Hazard fuel reduction projects totaling about 24,830 acres and 34 Wildland Urban Interface fuel reduction projects totaling 5,090 acres.

Service personnel responded to a total of 45 wildfires which consumed almost 3,425 acres of refuge lands in KS, NE, SD, and ND.

The number of orders processed through NDC was well below average this year. NDC filled 145 resource orders to support suppression efforts in 8 different states. NDC filled 2 crew requests, 57 Engine/Water Tender requests and 84 overhead requests to support fires burning in the Pacific Northwest. Large fire occurrence throughout the rest of the country was slow due to minimal or average activity.

Personnel and Organization

The Mountain Zone hired one vacant position and advertised one new position this year with the regional reorganization that occurred. Dale Pfau filled the vacated Mountain West District Fire Technician position that was vacated by Kevin Beck more than a year ago. A Prescribed Fire Specialist (PFS) position has been flown and will be located at the Alamosa/Monte Vista complex for the San Luis Valley Interagency effort.

Personnel moves in the Prairie Zone included: Fenn Wimberly, District FMO at Flint Hills NWR, accepted a position with the NPS in Arkansas, Jason Wagner was promoted from the Fire Program Technician at Long Lake NWR to the PFS position at Crescent Lake, and Nathan Hawkaluk, PFS at Waubay NWR, accepted and Refuge Operations Specialist position at CMR.

R6 began hosting the Assistant Intelligence Coordinator position in the Rocky Mountain Coordination Center (RMCC). The position is funded by interagency contributions and was filled in April. Sandy Nelson transferred to RMCC from the BLM in Alaska to fill the position, which also serves as the Executive Business Manager for the Rocky Mountain Coordinating Group.

ALASKA REGION

The region experienced a significant void in 2008 with the passing of Gene Long, Regional Fire Management Coordinator, who worked diligently at his job right up until the week of his death. He has been, and will continue to be missed.

Many thanks to Alan Carter, Region 5, Steve Jakala, Region 3, Bob Rebarchik, Region 6, and Doug Newbould, Region 7 for assisting the region in detailing into the vacant Coordinators position. They shared their expertise with the regions fire staff and returned home with a better understanding of the Region 7's fire program.

Key vacancies were filled in the region, Sid Hall, Northwest Area Fire Management Officer for Koyukuk/Nowitna and Selawik refuges, located in Galena, Alaska and Brad Reed as the Regional Wildland Urban Interface Coordinator in Anchorage. We wish Bob Lambrecth a great retirement and thank him for his many years of service to the FWS fire organization.

The Alaska 2008 fire season was a relatively quiet year with one of the lowest acres burned on record. Below normal temperatures, general cloudiness along with frequent wetting rains combined to prevent fire ignitions or subdued fire behavior when fires did occur. In spite of these conditions FWS did have 36 fires for 57,419 acres burned. There were a few areas where fires succeeded and met land and resource management objectives for wildland fire use. Over half of the acres burned in the State of Alaska this season occurred on FWS lands within the Fairbanks District. The regions Wildland Fire Use acres accounted for over 90% of the services acres. Although fire sizes were not large the fires burned slower and deeper into the duff layers.

Fire operations for the Kanuti, Arctic and Yukon Flats refuges (Fairbanks District) became centralized to the Kanuti refuge. Fire Management Specialist Sam Patten was moved from Yukon Flats refuge and is now organized under the Kanuti Organization. The fire management organization will be stationed under Kanuti management but will still service all three refuges.

Planning

The Draft Revised CCP and Environmental Impact Statement for the Kenai NWR were completed, public meetings were held in Anchorage, Soldotna and Homer, and the public comment period ended in September 2008. The Record of Decision is expected in FY09.

The Southwest Area Refuges FWS FMO has been assisting with editing, reviewing, and revising the assigned fire management sections of the Innoko and Togiak CCP`s this year. The Innoko CCP will be signed and authorized for use in early 2009. The Togiak CCP is in the final internal review process right now with the expectation that it could be operational by late 2009. The FMO also completed the Southwest Area Refuges Preparedness Plan for fire management operations. The preparedness plan spelled out who was the duty officer for the FWS Refuges and the protocols for the suppression providers to follow with

contacting the FWS FMO and Line Officers at our refuges for fire operations. The FWS FMO assisted the regional fire staff with the new Togiak NWR Fire Management Plan in 2008. Their Fire Management Plan is in the final stages of revisions and corrections and we expect that it will be in place for the upcoming fire season in 2009.

NW refuges assisted Stevens Village and Venetie village in development of community wildfire protection Plan. Stevens village was completed and Venetie is in draft.

A hazardous fuels assessment was conducted in Ruby in July by Ben Pratt (AFS) and Sid Hall (FWS). A stake holder's meeting with community members was held in August to share the results of the assessment and recommended treatments. Work was started on a Community Wildfire Protection Plan (CWPP) for the village of Ruby. Environmental analysis was started for the proposed project, and budgets and timelines developed for the proposed treatments. The Galena CWPP was finalized and will be presented to the community during the winter of 2008-2009.

Several interagency planning efforts were initiated in 2008 and are continuing in FY09, including: a statewide interagency master fire management agreement and annual operating plan, a south-central Alaska Coastal Area interagency fire management agreement and annual operating plan, and a Kenai Interagency Dispatch Center agreement and annual operating plan and a Tok Area annual operating plan. Refuge managers and fire management officers, regional fire staff are and have been involved to some degree in each of these planning efforts.

The 2001 Kenai Refuge Fire Management Plan is being revised and formatted into the new interagency template and will be completed early in FY09. The Kodiak NWR Fire Management Plan will be drafted after completion of the Kenai FMP.

Updating of the Tetlin Refuge Fire Management Plan (2001) was postponed until after release of public draft of the Refuge CCP and release of the new Interagency Fire Management Plan Template, in order to streamline the planning process. The plan will be finished in 2008. The Tok CWPP was completed and signed cooperatively by Tetlin NWR, the community of Tok, and AKDNR Tok Area Division of Forestry.

Equipment

T300 Bobcat Skid Steer Tracked Loader and a Fecon Tree Shear (attachment for Bobcat Skid Steer)as purchased with Hazard Fuel Funds in FY08, to provide a long-term, low cost alternative to force account chain saw tree felling or expensive service contracts. It will be used primarily to maintain FireWise landscapes around Refuge administrative sites and other values at risk. It may also be used to complete hazard fuel reduction treatments on other Alaskan Refuges such as Tetlin NWR.

Fuels, Wildland Urban Interface, Prescribed Fire

The NW area refuges conducted four WUI Projects: 1) Initiated Stevens Village WUI project (Feb. 2008); 2) closed out Evansville WUI Project (June 2008); 3) continued Beaver Village WUI Project (Aug. 2008); and 4) provided

Firewise Treatment to Canvasback Lake FWS Admin Cabin (Sept. 2008).

The Stevens Village FWS WUI project was initiated in 2008**.** This is a jointly funded project with BIA. This thinning project is designed to construct a shaded fuels break, including a cleared fire lane, northeast of the village. Actual field work began in late August 2008.

The Bettles/Evansville FWS WUI fuels reduction project was finished with the completion of 12 additional target mechanical acres by Evansville thinning/fire crew in spring 2008.

The FWS continued the Beaver village WUI project with Firewise thinning, brush slash piling, and related hazard fuels reduction work (October 2007 – September 2008). The local thinning crew installed three fuels breaks at Beaver in 2007-2008 to connect grassy lakebeds treated in 2006 with prescribed fire near the village

In order to reduce wildland fire risk at the FWS administrative site on Canvas Lake a fire Firewise thinning was conducted at Canvasback Lake cabin on the Yukon Flats Refuge, after consultations with Fairbanks FWS biological staff. Field work around the cabin involved removing encroaching brush, cutting up dead and downed spruce, thinning smaller trees, and removing danger trees (senescent aspen and dead spruce) from the vicinity of the cabin.

Wildland Urban Interface Moose Pens completed burning of three acres of black spruce slash piles and 13 acres of black spruce slash were machine-piled for future burning. Four acres of black and white spruce burned in slash piles at the following administrative sites, Refuge Headquarters, the Outdoor Education Center, Dolly Varden Campground, Rainbow Lake Campground and at Brown's Lake.

Fire Education, Prevention & Mitigation

There were two human-caused wildfires on the Kenai NWR in 2008, only one of which could be classified as misuse or mismanagement of an outdoor fire (e.g., escaped or abandoned campfire, debris burning, etc). This statistic confirms the short-term trend of a reduction in human-caused fire starts on the Refuge.

The Southwest Area Refuges FWS FMO worked with the McGrath Division of Forestry (Fire) and the Alaska Fire Service Fire Management Staff in 2008 to initiate and coordinate a combined interagency fire prevention and outreach project to reach southwest area villages within and adjacent to the Innoko and Yukon Delta Refuges.

FWS fire outreach representative, organized AWFCG (State, AFS, FWS) Prevention and Education working group on Public Service Announcements. Interacted with and established contacts with local Fairbanks agency PIO's regarding collection of Local, Regional, Statewide and National Wildland Fire PSA's (March 2008). There were 91 PSA's assembled for the workgroup.

Outreach

Kenai refuge has maintained a news column in the Outdoor Section of the local newspaper, The Peninsula Clarion, for ten years now. The Refuge fire management program submitted three

articles for publication in the Refuge Notebook in 2008.

Kenai refuge fire personnel routinely contact Refuge visitors during prevention patrols on the road system, in the campgrounds and at visitor centers. Annually, Refuge fire managers participate in outreach activities at special events, including the Kenai Peninsula Sports Show in Soldotna, the Kenai Peninsula State Fair in Ninilchik, and during National Wildlife Refuge Week festivities.

Assistance Agreement with AKDNR Tok Area Division of Forestry was modified to include 30 acres of fuels reduction work around Tok senior citizens' homes. By FY08 end, the planning phase of the project was completed.

Region 7 Participated in the Alaska Forum on the Environment Conference, Anchorage, Alaska. Staffed the AWFCG Fire Outreach booth making contacts with representatives of seventeen Alaska towns and villages discussing Firewise and Wildland Urban Interface issues.

The FWS Yukon Flats article was published in the Fall 2008 YFNWR Newsletter. The article focuses on the startup of the Stevens Village FWS WUI/Wildland Fire Risk Reduction/Prescribed Fire Project and is written in "plain text" for village readers. The article contains a photograph of the new firebreak under construction east of the Stevens Village airport in Sept. 2008.

FWS was requested by Arctic and Stevens Village to participate in fire education activity/fire outreach/safety training/village WUI planning assessment. The Stevens Village visit included discussions on site with the Stevens Village crew boss supervising the actual fuels reduction project on the ground and with the cooperating BIA Fuels Coordinator sharing supervision of the project.

Fire Effects / Monitoring / Ecology

The regional fire ecologist took the lead on updating the Region's fire-related research priorities then led an interagency effort to establish fire research priorities for the Alaska Wildland Fire Research Committee (AWFCG). The internal agency priorities are used to guide our involvement on research projects on Refuge lands and to encourage universities and others to pursue research topics of interest to our programs while the interagency priorities help the AWFCG coordinate interagency support and lobbying power for topics of importance to fire management throughout Alaska.

In February, 40 FWS employees participated in a workshop to learn about the landscape simulation model, Boreal ALFRESCO, that was developed to model the effects of climate change on vegetation and fire occurrence on the boreal forest. Twenty biologists and fire management officers learned how the model worked with hands-on workshops where they were able to test the simulation on their refuges. A similar workshop was held in March for approximately 25 interagency participants from our partner agencies. In May, a statewide summary report "Projected Vegetation and Fire Regime Response to Future Climate Change in

Alaska" was produced for FWS and posted on the university website at: http://www.snap.uaf.edu/downloads/reports-boreal-alfresco

Several years of field work focused on using the nationally recognized methodology for applying satellite remote sensing to map burn severity was completed with the publication of a Journal of Wildland Fire publication in August Vol 17 (4). The article "Evaluating the ability of the difference Normalized Burn Ratio (dNBR) to predict ecologically significant burn severity in Alaskan boreal forests" identifies issues with the reliability of this remote sensing tool. Given the wide-spread availability of burn severity maps based on dNBR provided by the Monitoring Trends in Burn Severity program, we encourage refuge staff to be cautious in making decisions based on these maps unless they can complete field validation.

The region co-led an interagency effort with the NPS to complete and print a "Fuel model guide to Alaska vegetation". This document includes a crosswalk between the different vegetation groups in Alaska using the widely accepted Viereck Classification system, and the 40 Scott and Burgan fuel models, the original 13 national fuel models and the Canadian fuel models. Each vegetation group includes photos, a brief description of the group, identification of the primary carrier of fire and fire behavior comments following the pattern of the Scott and Burgan publication. The document can be downloaded from Http://fire.ak.blm.gov/administration/awfcg_committees.php

A field trip was conducted in late July to the Bonanza Creek fire with Marlene Eno-Hendren (AFS), Bob Lambrecht and Sid Hall to familiarize the new FMO with the monitoring plots and protocols. A field trip was also conducted to the Coffee Can West fire with Esther Horschel (AFS), Bob Lambrecht and Sid Hall in late August to view fire behavior in a sub-surface ground fire that had persisted through a very cool moist summer.

The FWS FMO is assisting the USDA Forest Service Alaska Region State & Private Forestry Forest Health Protection with insect and disease monitoring plots for the Larch Sawfly on the Innoko NWR (since 2007 to the present).

Wildland Fire

FWS managed 22 fires resources benefits accomplishing management objectives on 32,555.acres . There were 14 wildland fires burning 24, 861 acres.

No wildland fires occurred on the Innoko, Togiak or Tetlin, Selawik and Nowitna Refuges in 2008. There were 9 wildland fires that was suppressed or monitored on the Yukon Delta NWR during this fire season for a total of 547 acres burned. Although the acres are lower than average for this the number of starts was higher than average for Yukon Delta.

PACIFIC SOUTHWEST REGION

Fire Season Overview
The year 2008 was unprecedented in the Region's fire activity and fuels management. Continued drought and record setting ERCs, combined with a major lightning event, created the perfect storm. In June, approximately 1,000 wildfires broke out around northern California and seven counties were declared a state of emergency by the President of the United States

Much of the state was blanketed in smoke throughout the summer. As the fire season slowed in one part of the state, the fall Santa Anna winds pushed wildfires through several counties in southern California. In total there were over 8,000 wildfires in California (1.2 million acres) and over 400 wildfires in Nevada (70,000 acres).

The mere 47 permanent fire employees and eleven fire engines in the Region helped with numerous state and national fire incidents as well as suppressing over 65 wildfires on or threatening refuge properties. Firefighter and public safety has and continues to be priority number one.

Regional Highlights
2008 can best be described as a year of support and partnerships. Support came at a national level with supplemental funding for special wildland- urban interface projects, support for new fire apparatus and a regional program review. The fire management zones supported each other with staffing and equipment for wildfires, fuels management projects and outreach. The zones supported the regional office during the program review and by participating on regional and interagency committees.

A spectacular list of collateral fire staff provided support to local, state and national incident management teams including BAER, Fire Use and Type I, II and III incidents. Special thanks should be given to our regional public affairs staff and field office biologists and the Region 1 Archeologist, Jorie Clark, for their support in public outreach and education efforts including workshops and best management practices (BMPs) developed for private land fuel reduction projects.

In December, the Region had its first fire program review. Representatives from the Service's National Fire Program and other regions interviewed Region 8 fire and refuge staff and toured a site at the Sacramento National Wildlife Refuge Complex. The Region was given commendations on topics such as interagency support and coordination and recommendations to improve GIS capabilities and on-site administrative support.

The Region continued its strong interagency involvement including participation on the California Wildfire Coordinating Group, California Fire Alliance, California Fire Safe Council, California Interagency Prevention Committee, Great Basin Coordinating Group, North East Air Alliance, Southern Oregon Fuels Committee, Nevada Fire Board and other task groups and committees.

Fire outreach and education efforts were supported at the regional and local level through numerous partnerships with refuge, community and interagency partners. Highlights include regional involvement supporting the California Department of Fish and Game to provide public information about fire impacts to wildlife during the northern California fire storm and zone fire program support in numerous refuge outreach events.

Region 8 had a very successful year in fuels management including the allocation and implementation of numerous community assistance grants funded through DOI supplemental wildland-urban interface funds for California. Interagency and community collaboration and planning is a priority throughout the Region.

Accomplishments Summary

- $241,680 spent on hazardous fuels projects treating around 30,000 acres on refuge lands.
- $391,644 spent on wildland-urban interface projects treating around 9,000 acres on refuge lands.
- Around $2.3 million of supplemental WUI funding for special projects on and off-refuge lands.
- $651,250 spent on WUI/Community Assistance grants for planning, outreach and fuels treatment.
    - Funded/coordinated three county-wide interagency workshops and BMP documents for community wildfire protection plan projects (private lands).
- $56,000 spent on rural fire assistance grants with emphasis on training volunteer fire departments.
- $1,568,610 spent on burned area emergency stabilization and rehabilitation on 5,500 acres of refuge lands.

Fire Management Zone Highlights

Klamath Basin FMZ*: Southern Oregon, northern California's Modoc plateau and north coas - Dave Goheen, FMO*

This year the Zone had nearly twice the number of wildfires (13 wildfires) on or threatening refuge lands with almost ten-times the acreage burned (1,049 acres) than last year. Two peat fires required substantial commitment of Zone fire resources, lasting from August to September. Even in a busy fire season the Zone was able to use prescribed fire to treat just over 28,000 acres on six different refuges and implement a wildland urban interface project removing juniper with mechanical treatments. Fire personnel also assisted other agencies with their fuel reduction projects including the Bureau of Land Management's Lakeview District pile burns.

Klamath Zone fire personnel supported numerous cooperators on fire planning, air quality and fire suppression teams. Fire personnel assisted with several refuge Comprehensive Conservation Plans, worked with the Bureau of Reclamation on lease land issues and participated on the North East Air Alliance to address smoke issues. Fire personnel were on assignment to several large fires throughout the region. An engine crew and overhead were sent to the South Texas NWR Complex to assist with their wildfire suppression efforts near the border. The Zone also provided an engine module for three tours to the Southern Oregon/Northeast California Task Force which covered several national forests and two Geographic Areas.

Klamath Zone fire personnel and collateral employees assisted in various capacities to incident management teams. Prescribed Fire Specialist, Ruth Johnson, worked with a local Type III team as a Resource Unit Leader, The Arcata Fish & Wildlife Office Biologist, John Hunter, worked as a Field Observer on several large fires in the region and the Klamath Falls Fish & Wildlife Office Biologist Trish Roninger worked as an Aerial Observer during the major lightning fires in northern California.

Zone fire personnel work closely with refuge public affairs staff in getting fire messages out to the public and provided outreach materials and assistance during the Tulelake Migratory Bird Festival in May and the Tulelake Fair in September. There was strong coordination and outreach in response to three unauthorized debris burns with escaped onto the Tulelake NWR and warning letters and a citation were issued to lessees.

California North Central Valley FMZ (Sacramento Zone): *Northern California Sacramento Valley - Dale Shippelhoute, FMO*

There were a few more wildfires on or threatening refuge lands (15 fires) and nearly ten-times the acreage burned (approximately 225 acres) than last year in the Sacramento Zone. This year the Zone employed a new Type 3 engine which was of great assistance with the increased fire management activities. Zone fire personnel also supported 35 off-unit incidents in single resource and overhead positions. There were 15 collateral fire personnel trained and available to help throughout the year and worked during preparedness levels 4 and 5. With this additional support the Zone was able to contribute at least one fire engine to off-unit fires during much of the summer.

This was a successful year for the Sacramento Zone's prescribed fire program. A total of 19 prescribed fires were completed for over 1,180 acres- the highest number recorded for the Sacramento NWR Complex. Fire personnel were also able to assist with four other partner prescribed fires including Cal Fire Tehama-Glenn Unit, Whiskeytown National Park and the Glenn-Codora Volunteer Fire Department. The Zone utilized partnerships and contracts to implement mechanical treatments in high priority wildland-urban interface areas including work with California Conservation Corp crews and goats herds. The goat grazing projects were such a success in both fuel reduction and community interest that local, state and national media clamored for interviews with fire and refuge staff.

Sacramento Zone fire personnel were involved with many intra-agency and interagency fire planning, training and outreach efforts. Fire staff participated in refuge comprehensive conservation plan efforts, the national environmental policy act process and in fire planning analysis workshops. The Zone was very active in supporting rural fire department training throughout Glenn County with special recognition to Fire Captain Mark Rakestraw. Fire personnel also worked with interagency partners on education and outreach projects such as the Return of the Salmon Festival, Youth Outdoor Adventures (refuge site visit with USFS partners) and sponsoring field trips to the refuge for Humboldt State Fire Use classes.

California South Central Valley FMZ (San Luis Zone): *San Joaquin Valley,*

Bay Area and California Central Coast. Peter Kelly, FMO

This year had fewer wildfires on or threatening refuge lands within the Zone, but fires were larger in size including an approximately 500 acre wildfire at the San Joaquin River NWR. It was a long fire season but the Zone was still able to accomplish nearly 4,000 acres of fuels reduction with emphasis on prescribed fire. When comparing the 2007 to the 2008 Fire Activity Report, the San Luis Zone had more involvement in wildfires, more refuge lands impacted by fire, more fuels projects completed, and a greater number of task books completed.

The Zone employed a new Type 3 Engine this year and fire personnel conducted initial attack on 14 wildfires totaling 756 acres on or threatening refuge lands. The San Luis Zone managed a large fire on the San Joaquin River NWR (580 acres) which burned mostly restored riparian habitat. A BAER proposal was submitted and restoration funds will be available in the fiscal year 2009 budget.

Fire personnel were dispatched as overhead to nine off-zone fire assignments and engines were dispatched to 24 off-station fire assignments. Collateral fire staff (law enforcement and biologists) participated in wildfire prevention and suppression activities including San Luis NWRC Wildlife Biologist, Ken Griggs, supported BAER team assignments to the Southern California wildfires and as a GIS Specialist on a type 1 Incident Management Team.

The San Luis Zone completed 31 fuels projects totaling 3,831 acres: 17 prescribed fires ranging in size from 10 to 600 acres and totaling 3,201 acres; 14 projects mechanical fuel reductions involving mowing, disking and spraying totaling 630 acres.

Interagency coordination was emphasized through support of a prescribed fire on the Sierra National Forest and coordination with the San Joaquin Air Quality Control District during prescribed burning. Several cooperative agreements were developed to enhance fire prevention, education and mitigation at remote refuges along the central coast (Antioch Dunes and Ellicott Slough NWRs). The Diablo Fire Council was supported through technical assistance and funding to develop a county-wide community wildfire protection plan and best management practices guide for project managers and homeowners.

The Zone fire program supported refuge monitoring and research efforts at a number of sites including prescribed fires studies and effects to the Long Billed Curlew, and collected baseline data for the East Bear Creek unit and for a unique plant called the iodine bush. A graduate student from California State University – Stanislaus is conducting a second order fire effects investigation on use of a burn site on the East Bear Creek unit by wildlife.

Fire personnel helped design an interpretative panel for the San Luis Refuge auto tour route (fire as an ecological process) and conducted public outreach efforts at the Crane Day Festival, held at the Merced National Wildlife Refuge and other venues in the county.

Southern California FMZ: *Inland and Coast - Bill Molumby, FMO*

It was a moderate fire season for the Zone with 37 fires on or threatening refuge lands; more fire starts but much less refuge acreage burned than last year. The fire on Bitter Creek NWR was kept to a minimal size due in great part to the refuge fuel break and interagency fire support. Zone fire personnel and collateral employees were very active in supporting off-unit and interagency fire incidents. Zone Fire Management Officer, Bill Molumby, was on assignment three times as a Type 1 Incident Commander with team members including Field WUI Coordinator, James Roberts, as a GIS Specialist. Zone Fire Administrative Officer, Merriam Aranzanso assisted South Ops in Extended Dispatch. Zone Assistance Fire Management Office, Larry Wade, was on one fire as a Type 3 Incident Commander and Zone engine crews supported up to 40 incidents throughout the zone and region.

2008 brought completion of 22 BAER projects totaling around $750,000 after the devastating wildfires of 2007. Eleven of the treatments address infrastructure, facilities and plan implementation while the other five emphasize invasive species, erosion and habitat management.

It was a tremendously busy year for wildland urban interface and hazardous fuels projects. Zone engine crews participated in eight interagency prescribed burns, one of which was to improve habitat at the Sonny Bono Salton Sea NWR. The Zone received approximately $1.5 million in supplemental WUI funding to support collaborative and priority projects including the development of community wildfire protection plans, county-wide community chipping programs, invasive species removal, fuel break projects and technical staff support (contracted GIS Specialist and Biological Science Technician). The Zone treated over 1,600 acres for wildland urban interface and or hazardous fuels objectives.

The Zone was strongly involved with interagency and community fire planning, training and outreach. Zone and refuge staff participates on the Border Agency Fire Council of San Diego County and lead two subcommittees. Fire personnel support four local fire safe councils located throughout the zone and have funded a number of community assistance grants through the California Fire Safe Council. Zone fire staff and Engine Captain, Jim Mitchell, lead a number of training efforts including S-231, S-190, S-130, I-100 and a multi-casualty drill with interagency partners.

Zone fire personnel were actively involved in a number of outreach efforts including several of the Burn Institute's fund raisers, the Firefighters Night at the Padres event and Fire Expo which is one of the largest events coordinated with the Burn Institute.

The highly anticipated ground-breaking for the San Diego NWRC Interagency Fire Station started in the summer of 2008 and is scheduled for completion in late-2009 or early-2010.

Nevada FMZ*: State of Nevada - Glenn Gibson, FMO*

This year the Nevada Zone had double the wildfire activity with fourteen fires on or threatening refuge properties. The fire season started in January with a fire at Stillwater NWR and ended with no injuries or accidents. Fires also occurred at the Ash Meadows, Ruby Lake,

Pahranagat and Desert NWRs (all < 50 acres in size). The Zone partnered in interagency fire restrictions that went into effect for southern Nevada NWRs starting in May and ending in September.

The big news this year was a doubling of the Zone fire organization. Tim Rash accepted the Assistant Fire Management Officer position and began work in Fallon, Nevada, at the Stillwater NWR.

One of the great successes in 2008 was the development of a new interagency resource for the Wildland Fire Community! The Nevada Zone assisted with training approximately 40 firefighters, primarily from Clark County's Fire Explorer program. Partners included USFS- Humboldt Toiyabe; BLM-LasVegas; BLM-Carson City; BLM-Ely; BLM, Elko; US Navy (Fallon NAS); Paiute tribe (Fallon); and NPS-Lake Meade. The zone, assisted by interagency partners, was able to conduct around 20 prescribed burns treating over 2,500 acres of hazardous fuels and meeting habitat improvement objectives on refuge lands. In addition, the Zone planned, coordinated, and conducted a prescribed burn on tribal lands belonging to the Fallon-Paiute tribe and administered by the Stillwater NWR.

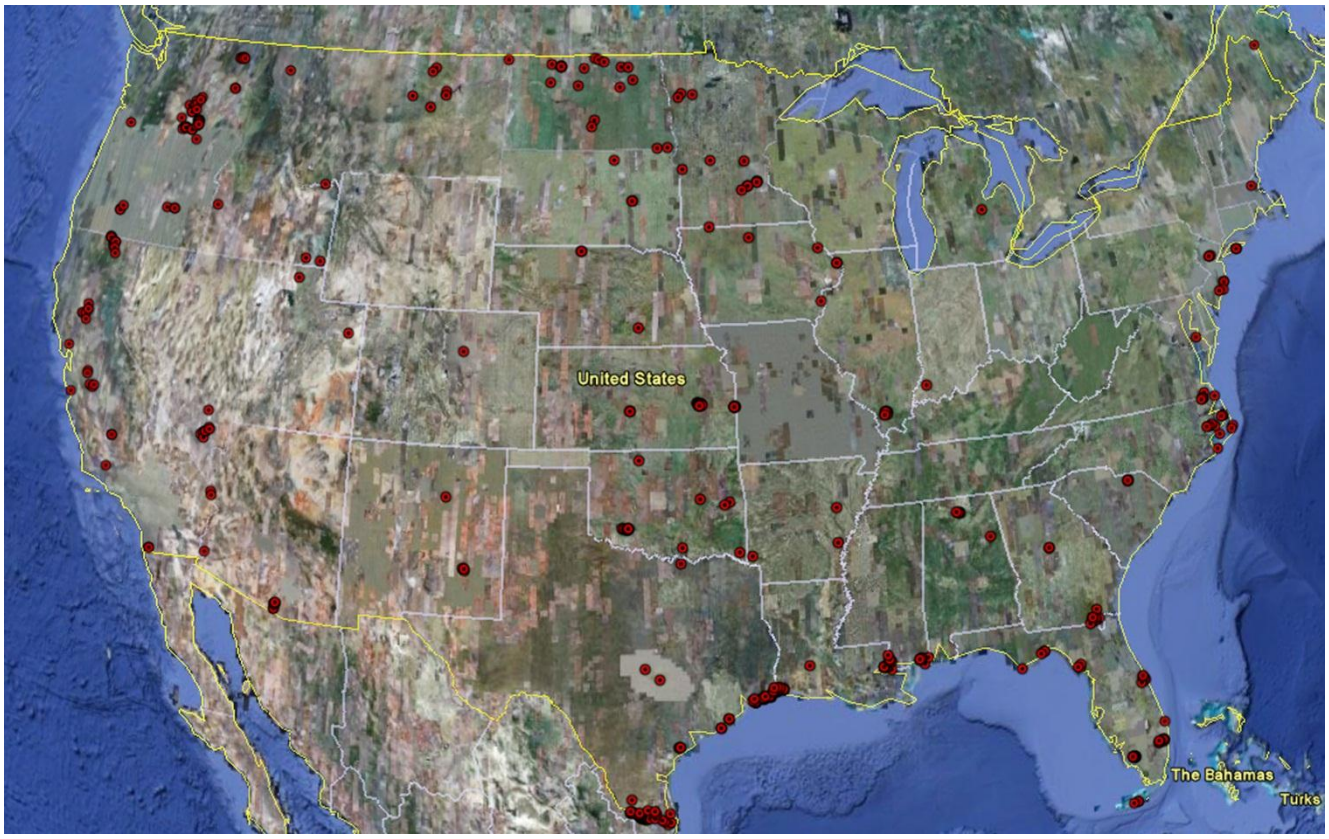
Mechanical hazard fuels reduction projects were conducted on Moapa Valley, Ash Meadows, Ruby Lake, and Pahranagat NWRs this year. One of these projects was at Upper Pahranagat Lake Campground where hazardous fuels had encroached on the camp sites creating a fire risk to nearby T& E habitat and private property. In June 2008, Zone fire personnel and the Refuge Manager reviewed the situation and developed a plan to address the problem. Using a youth conservation crop crew and Jim Doktor, a Refuge equipment operator, they spent several weeks focusing on fuel reduction around the campsites.

Our support for the interagency helitack program stationed in Las Vegas increased from one to two positions for the summer.

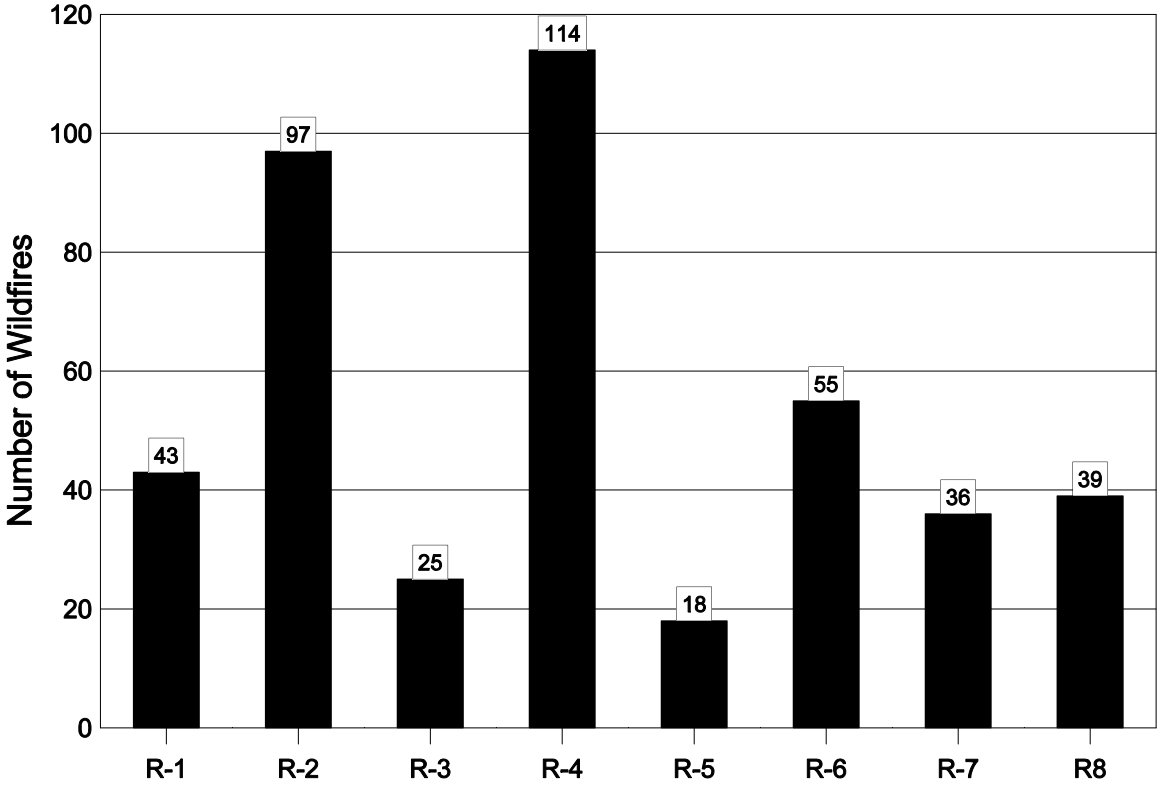
The Nevada zone entered into three new Interagency Agreements with partners who support our fire management program. One of these agreements will lead to a type 6 engine being stationed at Stillwater NWR, possibly as soon as the 2009 fire season. The engine will be provided by the BLM and will be staffed by both the BLM and the USFWS. Tim Rash, Nevada Fire Operations AFMO will supervise the crew.

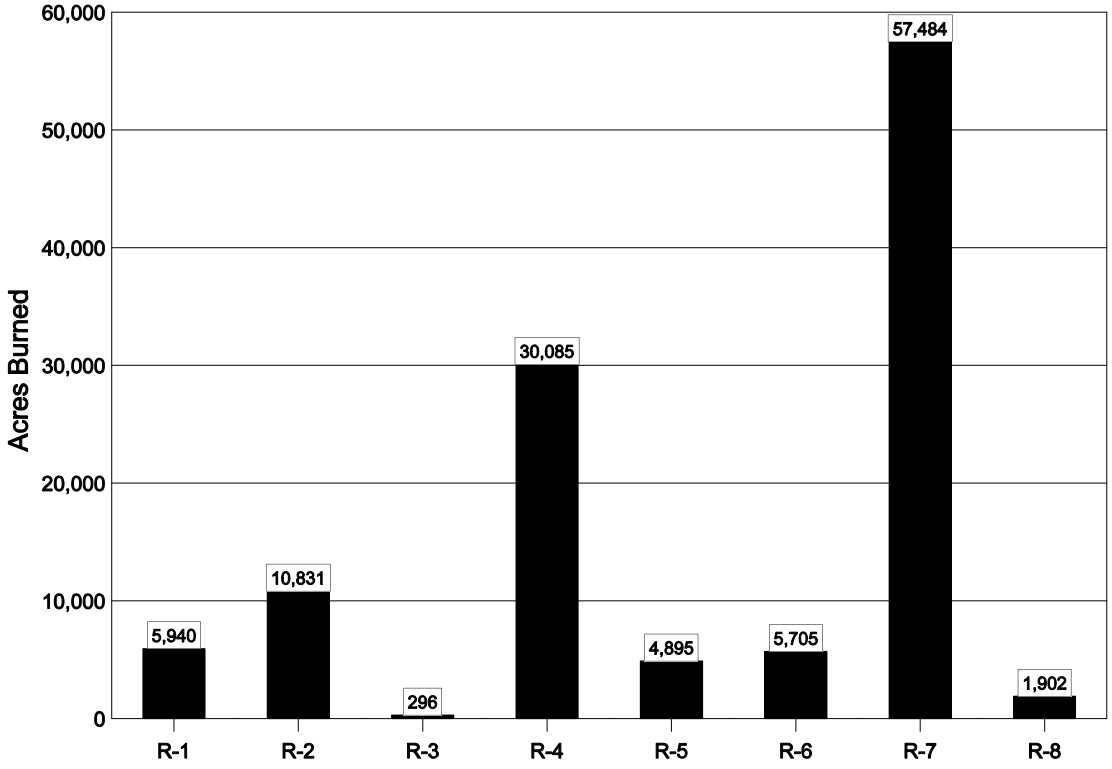
The Nevada fire zone was involved with two significant fire science projects in 2008. The first project was support of the Joint Fire Science Program and involves a project which will organize, streamline, and consolidate fuels treatment analysis tools. The study will continue into 2008. The second project also focused on the Ponderosa pine in the Sheep Range on Desert NWR. Samples of thirty pines were sent to the US Forest Service Genetic Laboratory for DNA analysis and comparison with the other samples from across the west. Study results this year show that the Ponderosa pine population in the Sheep Range is quite unique. DNA analysis indicates that the trees are not closely related to other Nevada pine, and are in fact, more closely related to northwest Montana and Oregon pine than to those in the Southwest US.

2008 WILDFIRE ACTIVITY



WILDFIRES
2008





WILDFIRES
by State
2008

State	# Fires	FWS Acres	Other Owner Acres	Total Acres
Alabama	5	3.7	223.0	226.7
Alaska	36	57,483.8		57,483.8
Arizona	11	740.2		740.2
Arkansas	3	2.8		2.8
California	26	1,644.7	5,397.6	7,042.3
Colorado	1	0.2		0.2
Florida	39	187.4	39.0	226.4
Georgia	10	31.2		31.2
Idaho	3	1.1		1.1
Illinois	7	74.6	9.0	83.6
Indiana	1	30.0		30.0
Iowa	3	37.5		37.5
Kansas	18	279.5	1,587.1	1,866.6
Louisiana	24	4,916.3	1,358.0	6,274.3
Maine	1	0.3		0.3
Maryland	1	5.5		5.5
Massachusetts	1	8.0		8.0
Michigan	1	1.2		1.2
Minnesota	13	153.1	824.0	977.1
Mississippi	7	3.8	75.0	78.8
Montana	9	2,220.7	20.0	2,240.7
Nebraska	3	2.1		2.1
Nevada	8	46.6		46.6
New Jersey	7	4.0		4.0
New Mexico	4	23.7		23.7
New York	3	8.9		8.9
North Carolina	15	24,768.7	16,424.0	41,192.7
North Dakota	19	2,695.6	380.6	3,076.2
Oklahoma	13	465.9	37.6	503.5

Oregon	18	1,042.8	0.5	1,043.3
Puerto Rico	11	157.1	44.0	201.1
South Carolina	3	118.2		118.2
South Dakota	3	14.3	75.5	89.8
Texas	69	9,601.2	641.3	10,242.5
Utah	2	492.2		492.2
Virginia	1	4,764.1	20.0	4,784.1
Washington	28	5,106.6	310.0	5,416.6
Total	**427**	**117,137.6**	**27,466.2**	**144,603.8**

WILDFIRES
Pacific Refuges

Refuge	# Fires	FWS Acres	Other Owner Acres	Total Acres
Bear Lake NWR	1	0.5		0.5
Cold Springs NWR	2	0.2		0.2
Columbia NWR	3	3,227.0	310.0	3,537.0
Deer Flat NWR	1	0.1		0.1
Hanford /Saddle Mtn. NWR	6	1,339.7		1,339.7
Little Pend Oreille NWR	5	0.7		0.7
Malheur NWR	3	257.0		257.0
McKay Creek NWR	1	1.1		1.1
McNary NWR	10	518.0		518.0
Oxford Slough Waterfowl	1	0.5		0.5
Ridgefield NWR	1	1.0		1.0
Turnbull NWR	2	0.2		0.2
Umatilla NWR	7	593.7		593.7
Total	**43**	**5,939.7**	**310.0**	**6,249.7**

WILDFIRES
Southwest Refuges

Refuge	# Fires	FWS Acres	Other Owner Acres	Total Acres
Anahuac NWR	2	641.3		641.3
Aransas NWR	1	15.0		15.0
Aransas/Matagorda Island NWRC	2	3.3		3.3
Balcones Canyonlands NWR	2	0.2		0.2
Bitter Lake NWR	3	23.1		23.1
Brazoria NWR	2	155.0		155.0
Buenos Aires NWR	7	377.0		377.0
Cibola NWR	1	35.0		35.0
Deep Fork NWR	1	20.0		20.0
Hagerman NWR	1	1.4	3.3	4.7
Havasu NWR	2	328.1		328.1
Imperial NWR	1	0.1		0.1
Laguna Atascosa NWR	1	3.0		3.0
Las Vegas NWR	1	0.6		0.6
Little River NWR	1	4.4	7.6	12.0
Lower Rio Grande NWR	34	516.6	254.0	770.6
McFaddin NWR	16	3,746.7	159.0	3,905.7
Salt Plains NWR	1	0.5		0.5
San Bernard NWR	2	4,447.0		4,447.0
Santa Ana NWR	2	3.5		3.5
Sequoyah NWR	2	45.0		45.0
Tishomingo NWR	1	5.0		5.0
Texas Point NWR	4	68.2	225.0	293.2
Wichita Mountains Wildlife Rfg	7	391.0	30.0	421.0
Total	**97**	**10,831.0**	**678.9**	**11,509.9**

WILDFIRES
Midwest Refuges

Refuge	# Fires	FWS Acres	Other Owner Acres	Total Acres
Crab Orchard NWR	5	4.6		4.6
Detroit Lakes WMD	2	136.0	171.0	307.0
Glacial Ridge NWR	1	1.0	619.0	620.0
Iowa WMD	1	25.0		25.0
Minnesota Valley NWR	6	0.6		0.6
Morris WMD	2	4.5		4.5
Patoka River NWR	1	30.0		30.0
Port Louisa NWR	1	4.0		4.0
Sherburne NWR	1	1.0		1.0
Shiawassee NWR	1	1.2		1.2
Upr MS River-McGreggor Dist	1	8.5		8.5
Upr MS River-Savanna Dist	2	70.0	9.0	79.0
Windom WMD	1	10.0	34.0	44.0
Total	**25**	**296.4**	**833.0**	**1,129.4**

WILDFIRES
Southeast Refuges

Refuge	# Fires	FWS Acres	Other Owner Acres	Total Acres
Alligator River NWR	5	13.5		13.5
ARM Loxahatchee NWR	9	156.8	39.0	195.8
Big Branch Marsh NWR	6	574.5	76.0	650.5
Bogue Chitto NWR	5	2.9	5.0	7.9
Cabo Rojo NWR	1	7.0		7.0
Cache River NWR	1	2.0		2.0
Carolina Sandhills NWR	3	118.2		118.2
Cedar Island NWR	1	3.0		3.0
D'Arbonne NWR	1	7.0		7.0
Florida Panther NWR	14	1.4		1.4
Grand Bay NWR	1	3.0	75.0	78.0
Hobe Sound NWR	1	1.0		1.0
Lacassine NWR	1	82.0		82.0
Laguna Cartagena NWR	1	11.1		11.1
Lower Suwannee NWR	3	16.5		16.5
Mackay Island NWR	1	0.5		0.5
Merritt Island NWR	4	9.0		9.0
MS Sandhill Crane NWR	5	0.6		0.6
Mtn. Longleaf NWR	1	2.0	223.0	225.0
National Key Deer Refuge	3	0.3		0.3
Okefenokee NWR	8	21.0		21.0
Piedmont NWR	2	10.2		10.2
Pocosin Lakes NWR	5	24,647.5	16,424.0	41,071.5
Pond Creek NWR	1	0.5		0.5
Sabine NWR	12	4,250.1	1,277.0	5,527.1
St. Johns NWR	1	2.0		2.0

St. Marks NWR	3	0.3		0.3
St. Vincent NWR	1	0.1		0.1
Vieques NWR	9	139.0	44.0	183.0
Wheeler NWR	4	1.7		1.7
White River NWR	1	0.3		0.3
Total	**114**	**30,085.0**	**18,163.0**	**48,248.0**

WILDFIRES
Northeast Refuges

Refuge	# Fires	FWS Acres	Other Owner Acres	Total Acres
Aroostook NWR	1	0.3		0.3
Cape May NWR	1	0.5		0.5
Chesapeake Marshlands NWRC	1	5.5		5.5
Edwin B. Forsythe NWR	3	2.5		2.5
Eastern Massachusetts NWRC	1	8.0		8.0
Great Dismal Swamp NWR	5	4,868.3	20.0	4,888.3
Great Swamp NWR	3	1.0		1.0
Long Island NWRC	3	8.9		8.9
Total	**18**	**4,895.0**	**20.0**	**4,915.0**

WILDFIRES
Mountain-Prairie Refuges

Refuge	# Fires	FWS Acres	Other Owner Acres	Total Acres
Bear River Migratory Bird Rfg.	1	0.2		0.2
Bowdoin NWR	2	0.2		0.2
Charles M. Russell NWR	4	1,028.6		1,028.6
Des Lacs NWR	2	7.7		7.7
Devils Lake WMD	4	318.8		318.8
Flint Hills NWR	11	264.3	1,513.0	1,777.3
Fort Niobrara NWR	2	1.1		1.1
Huron NWR	2	7.3	75.5	82.8
J. Clark Salyer NWR	5	1,874.3		1,874.3
Long Lake NWR	2	398.0	355.6	753.6
Lost Trail NWR	1	8.9		8.9
Marais Des Cygnes NWR	5	8.2	74.1	82.3
Medicine Lake NWR	1	20.0	20.0	40.0
Ouray NWR	1	492.0		492.0
Quivira NWR	2	7.0		7.0
Rainwater Basin WMD	1	1.0		1.0
Red Rock Lakes NWR	1	1,163.0		1,163.0
Rocky Mtn. Arsenal NWR	1	0.2		0.2
Sand Lake NWR	1	7.0		7.0
Tewaukon NWR	2	80.1		80.1
Upper Souris NWR	4	16.7	25.0	41.7
Total	**55**	**5,704.6**	**2,063.2**	**7,767.8**

WILDFIRES
Alaska Refuges

Refuge	# Fires	FWS Acres	Other Owner Acres	Total Acres
Arctic NWR	1	77.0		77.0
Innoko NWR	7	421.1		421.1
Kenai NWR	3	0.5		0.5
Koyuku NWR	3	2,541.0		2,541.0
Yukon Delta NWR	14	4,512.2		4,512.2
Yukon Flats NWR	8	49,932.0		49,932.0
Total	**36**	**57,483.8**	**0.0**	**57,483.8**

Fire Use fires are included.

WILDFIRES
Pacific Southwest Refuges

Refuge	# Fires	FWS Acres	Other Owner Acres	Total Acres
Bitter Creek NWR	1	80.0		80.0
Desert NWRC	7	45.6		45.6
Ellicott Slough NWR	1	1.0		1.0
Klamath Marsh NWR	3	210.5	0.5	211.0
Lower Klamath NWR	3	14.3		14.3
Pahranagat NWR	1	1.0		1.0
Pixley NWR	2	23.0		23.0
Sacramento NWR	1	0.1		0.1
Sacramento NWRC	2	1.1		1.1
Sacramento River NWR	3	1.1		1.1
San Diego NWRC	2	0.2		0.2
San Joaquin River NWR	2	581.0		581.0
San Luis NWR	3	107.0		107.0
Stone Lakes NWR	1	12.0		12.0
Tule Lake NWR	7	824.2	5,397.6	6,221.8
Total	**39**	**1,902.1**	**5,398.1**	**7,300.2**

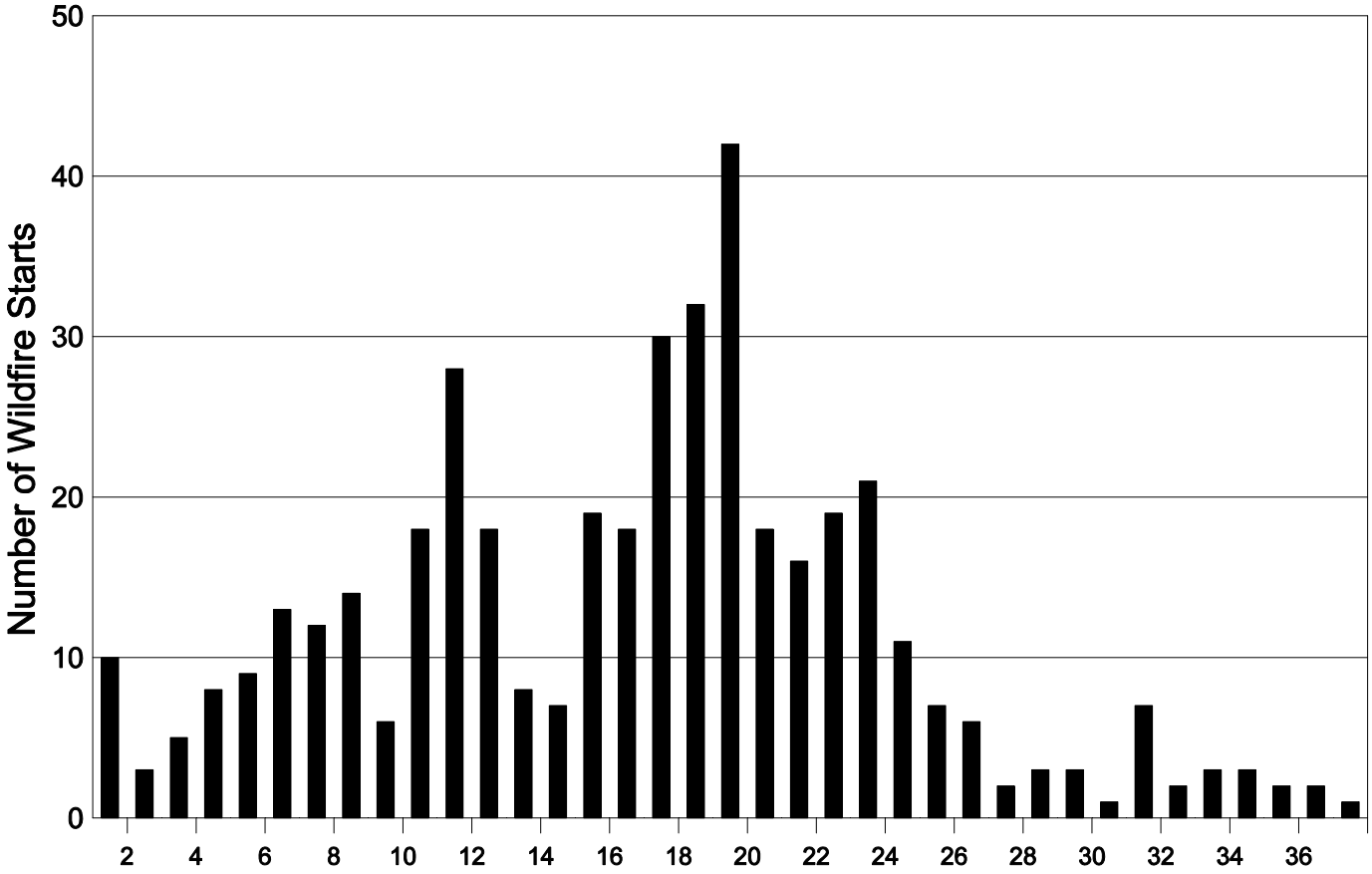
WILDFIRES by CAUSE
2008

Cause	# Fires	FWS Acres	Other Owner Acres	Total Acres
Natural	141	96,856.0	23,146.0	120,002.0
Debris/Vegetation Burn	51	1,837.4	2,176.5	4,013.9
Equipment Use	36	6,556.7	1,162.0	7,718.7
Exceeded RX (prescription)	3	1,788.5	0.5	1,789.0
Incendiary	42	4,531.5	393.0	4,924.5
Misuse of Fire	13	823.3	0.0	823.3
Open or Outdoor Fire	26	109.4	0.0	109.4
Smoking	3	0.9	0.0	0.9
Other Causes	39	1,378.4	355.6	1,734.0
Undetermined	70	3,253.9	227.6	3,481.5
Structure	3	1.6	5.0	6.6
TOTAL	**427**	**117,137.6**	**27,466.2**	**144,603.8**

WILDFIRES by SIZE CLASS
2008

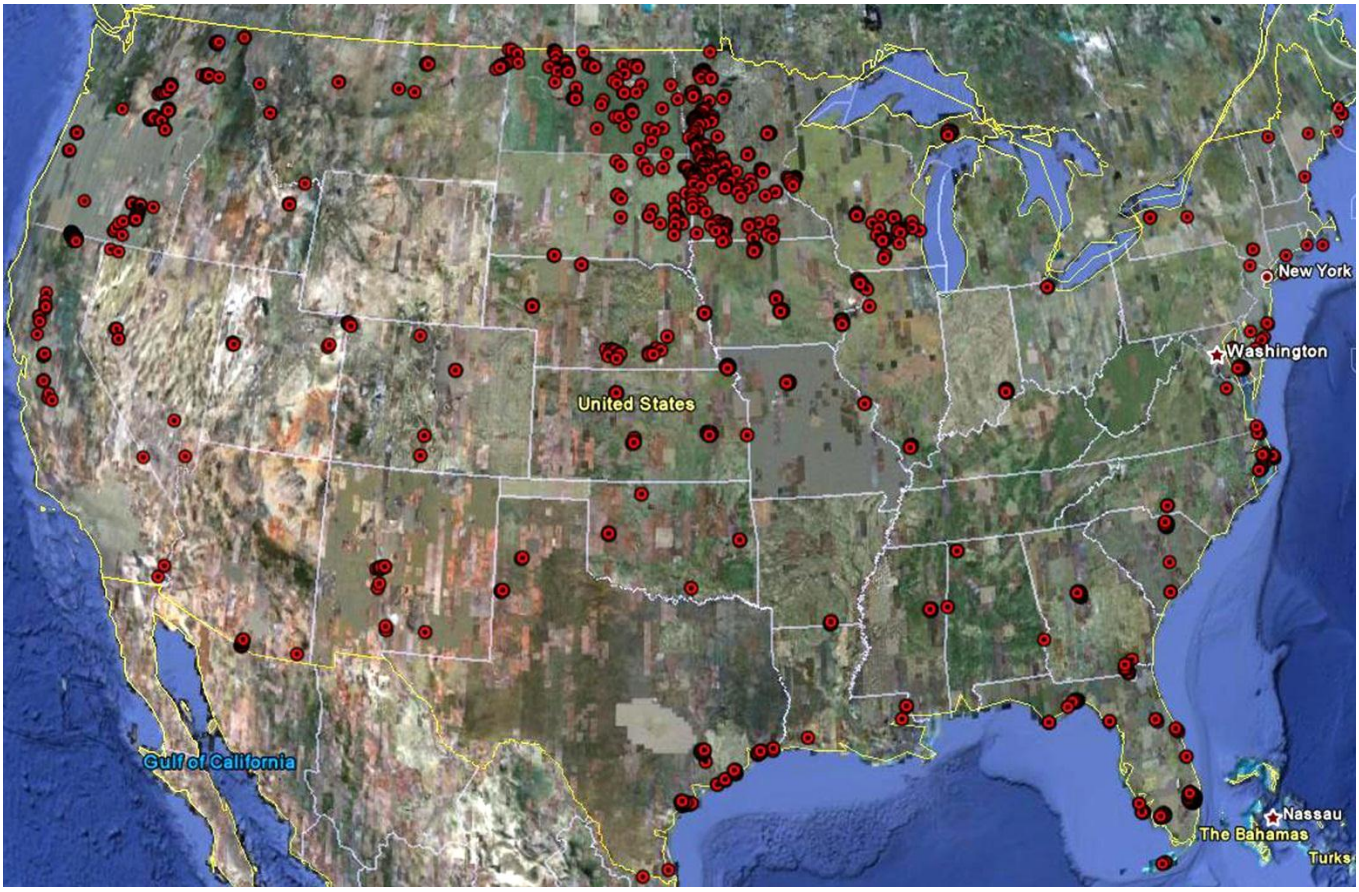
Size Class	# Fires	FWS Acres	Other Owner Acres	Total Acres
A (0 - .2)	125	14.3	0.1	14.4
B (.3 - 9.9)	171	419.7	1,648.0	2,067.7
C (10 - 99.9)	79	2,986.3	1,818.0	4,804.3
D (100 - 299.9)	18	2,686.7	1,353.5	4,040.2
E (300 - 999.9)	18	8,446.7	5,902.6	14,349.3
F (1000 - 4999.9)	12	29,319.9	320.0	29,639.9
G (5000 +)	4	73,264.0	16,424.0	89,688.0
TOTAL	**427**	**117,137.6**	**27,466.2**	**144,603.8**

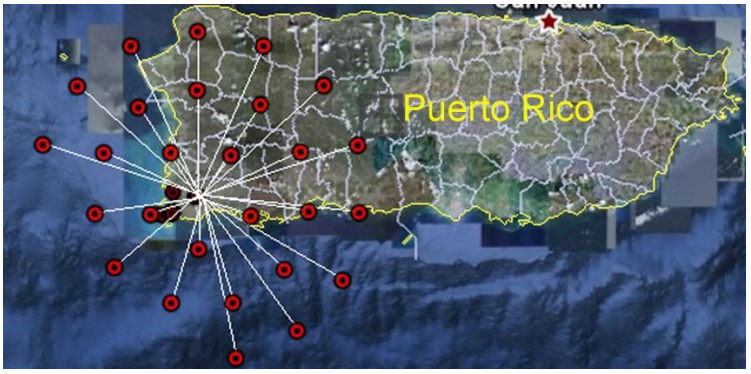
WILDFIRE STARTS - 2008
10-Day Period



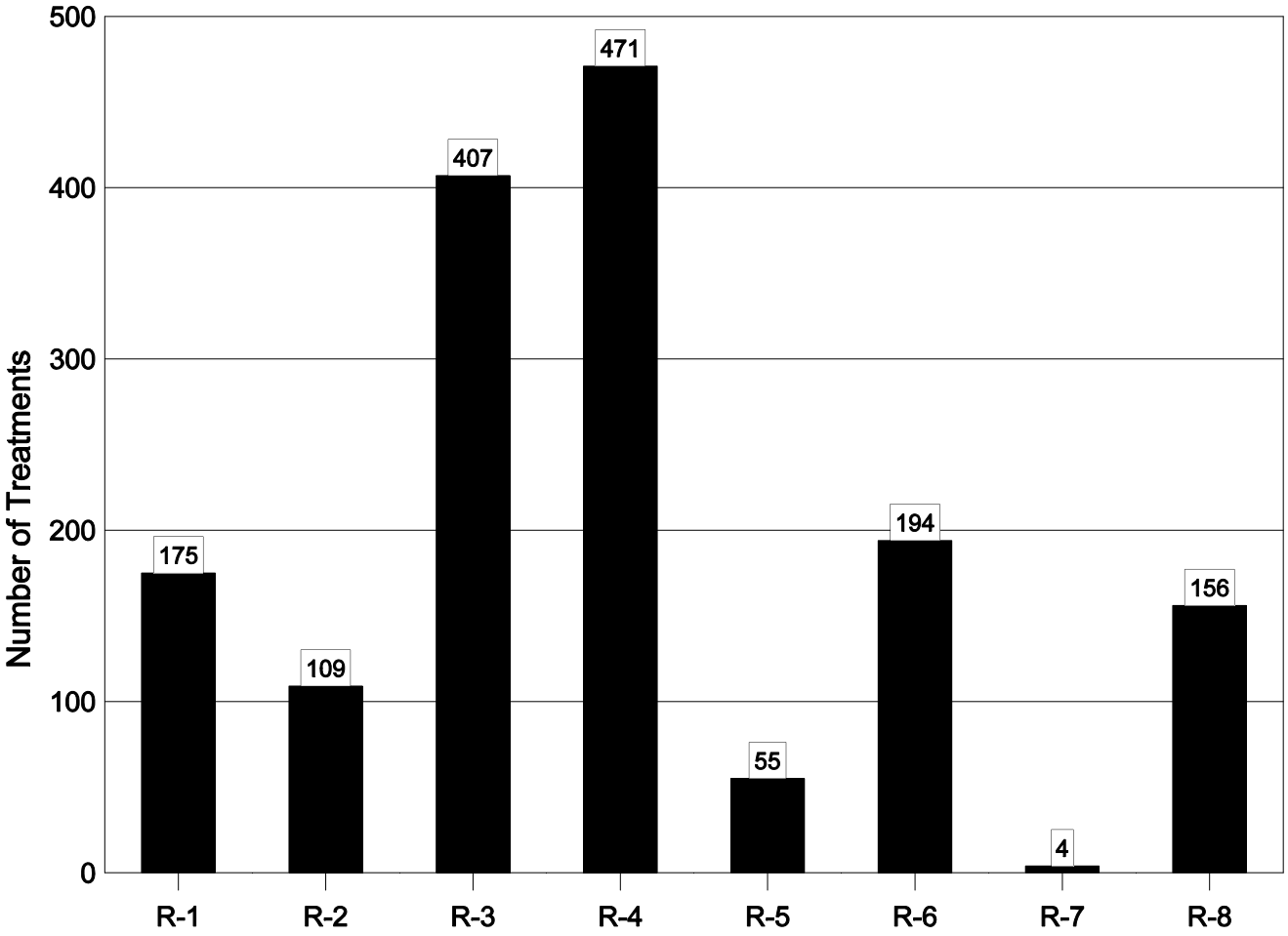
Period	Dates	Period	Dates	Period	Dates
1	Jan 01 - Jan 10	**13**	May 01 - May 10	**25**	Aug 29 - Sep 07
2	Jan 11 - Jan 20	**14**	May 11 - May 20	**26**	Sep 08 - Sep 17
3	Jan 21 - Jan 30	**15**	May 21 - May 30	**27**	Sep 18 - Sep 27
4	Jan 31 - Feb 09	**16**	May 31 - June 09	**28**	Sep 28 - Oct 07
5	Feb 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

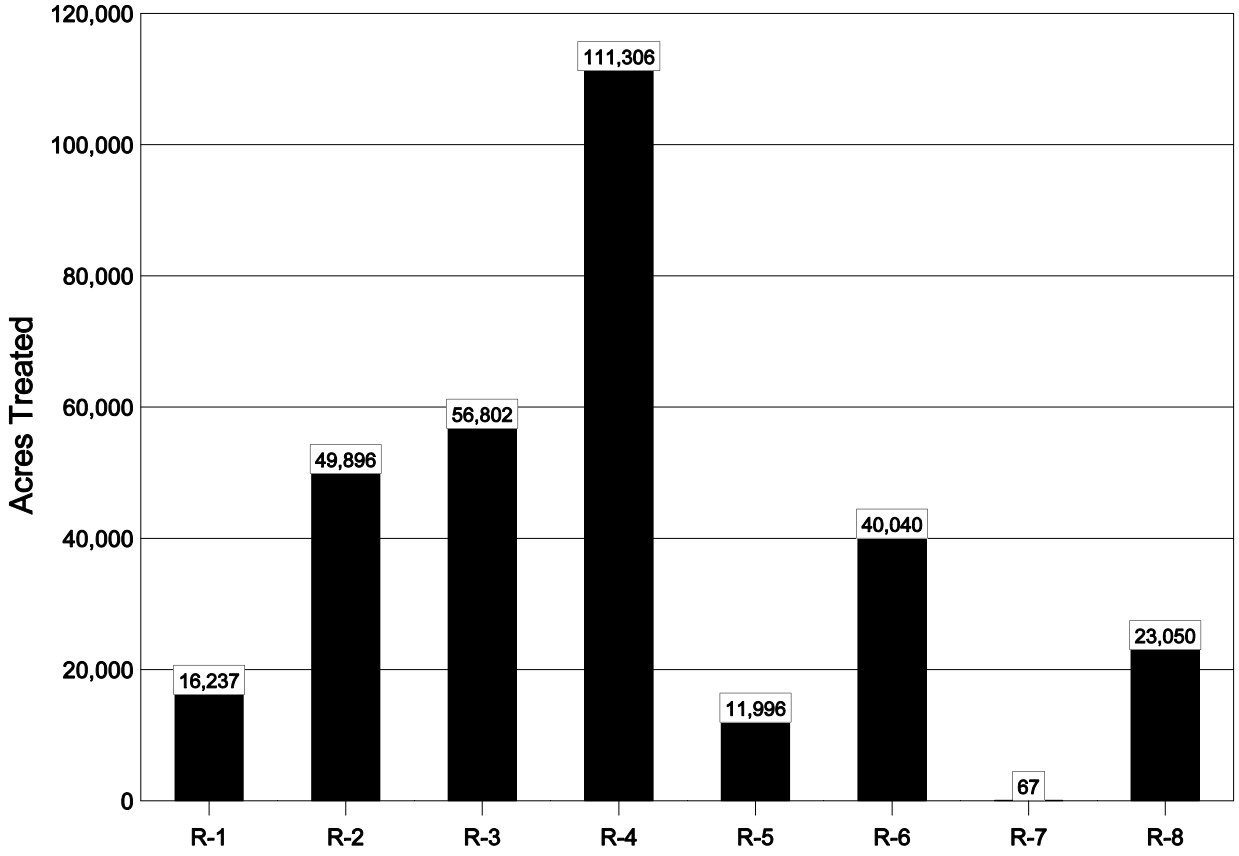
2008 NON-WUI TREATMENTS





NON-WUI TREATMENTS





NON-WUI TREATMENTS
by State
2008

State	# Fires	Rx Acres	Mech Acres	Other Acres	Total Acres
Alabama	4	302.0	315.0		617.0
Alaska	5	178.0	60.0		238.0
Arizona	13	11,823.0			11,823.0
Arkansas	5	1,355.0			1,355.0
California	117	17,617.0	425.0	312.0	18,354.0
Colorado	10	854.5	2.0		856.5
Connecticut	1	1.0			1.0
Delaware	2	28.0	121.0		149.0
Florida	300	37,082.0	1,027.0	53,862.0	91,971.0
Georgia	43	3,740.2	728.0		4,468.2
Idaho	7	147.0	25.0		172.0
Illinois	21	1,250.0	25.0		1,275.0
Indiana	11	7,419.0			7,419.0
Iowa	42	4,286.0			4,286.0
Kansas	33	6,579.5			6,579.5
Louisiana	5	221.1	2.0		223.1
Maine	7	3.0	208.7		211.7
Maryland	25	7,402.2	44.0	497.0	7,943.2
Massachusetts	1	640.0			640.0
Michigan	13	3,223.0	12.0		3,235.0
Minnesota	215	31,327.8	753.0		32,080.8
Mississippi	6	2,180.0			2,180.0
Missouri	33	1,437.0			1,437.0
Montana	26	10,506.9			10,506.9
Nebraska	25	3,153.0			3,153.0
Nevada	10	1,864.0	68.0		1,932.0
New Jersey	7	116.0	197.0	445.0	758.0
New Mexico	12	11,366.0			11,366.0
New York	8	127.0	588.0	165.0	880.0

North Carolina	31	727.0	156.4	104.0	987.4
North Dakota	70	11,555.0	47.0		11,602.0
Ohio	3	337.0			337.0
Oklahoma	8	1,550.0			1,550.0
Oregon	111	7,341.1	4,000.4	715.5	12,057.0
Puerto Rico	47	263.0	585.0		848.0
Rhode Island	1	14.5			14.5
South Carolina	30	8,656.0			8,656.0
South Dakota	28	5,056.0	1,305.0		6,361.0
Texas	76	25,037.7	119.0		25,156.7
Utah	6	1,056.0			1,056.0
Vermont	1		24.0		24.0
Virginia	2	375.0		1,000.0	1,375.0
Washington	86	1,783.6	2,314.0	2,674.0	6,771.6
Wisconsin	64	4,657.5	1,829.0		6,486.5
Total	**1,571**	**234,638.6**	**14,980.5**	**59,774.5**	**309,393.6**

Other Acres = The number of acres that have been treated by a method other than prescribed fire or mechanical.

NON-WUI TREATMENTS
Pacific Region

Refuge	Number	Rx Acres	Mech Acres	Other Acres	Total Acres
Baskett Slough NWR	9	8.0	334.0		342.0
Camas NWR	3	92.0	25.0		117.0
Cold Springs NWR	10	64.0	66.0	131.0	261.0
Columbia NWR	17	249.0	687.0	687.0	1,623.0
Conboy Lake NWR	1		20.0		20.0
Hanford Reach /Saddle Mtn	7	150.2	177.0	429.0	756.2
Hart Mtn Natl Antelope Refuge	5	1,623.0	38.6		1,661.6
Kootenai NWR	4	55.0			55.0
Little Pend Oreille NWR	21	552.3	20.0		572.3
Malheur NWR	34	1,810.0	3,412.0		5,222.0
McKay Creek NWR	3	20.0	6.0	30.0	56.0
McNary NWR	16	50.1	1,410.0	1,848.0	3,308.1
Sheldon NWR	2	928.0	18.0		946.0
Turnbull NWR	26	817.0			817.0
Umatilla NWR	11	6.1	22.8	264.5	293.4
William L Finley NWR	6	65.0	121.0		186.0
Total	**175**	**6,489.7**	**6,357.4**	**3,389.5**	**16,236.6**

Other Acres = The number of acres that have been treated by a method other than prescribed fire or mechanical.

NON-WUI TREATMENTS
Southwest Region

Refuge	Number	RX Acres	Mech Acres	Oth Acres	Total Acres
Anahuac NWR	1	57.0			57.0
Aransas NWR	15	6,658.0			6,658.0
Aransas/Matagorda Island NWRC	2	1,684.0			1,684.0
Attwater Prairie Chicken NWR	25	4,073.7	119.0		4,192.7
Big Boggy NWR	2	450.0			450.0
Bosque Del Apache NWR	3	110.0			110.0
Brazoria NWR	8	3,646.0			3,646.0
Buenos Aires NWR	10	11,782.0			11,782.0
Buffalo Lake NWR	2	752.0			752.0
Cibola NWR	1	20.0			20.0
Imperial NWR	1	1.0			1.0
Laguna Atoscosa NWR	1	200.0			200.0
Matagorda Island NWR	1	751.0			751.0
McFaddin NWR	1	20.0			20.0
Muleshoe NWR	5	1,545.0			1,545.0
Salt Plains NWR	1	550.0			550.0
San Andres NWR	2	7,749.0			7,749.0
San Bernard NWR	3	1,084.0			1,084.0
San Bernardino NWR	1	20.0			20.0
Santa Ana NWR	1	1.0			1.0
Sequoyah NWR	2	230.0			230.0
Sevilleta NWR	7	3,507.0			3,507.0
Tishomingo NWR	1	50.0			50.0
Texas Chenier Plain Rfgs Complx	9	4,116.0			4,116.0
Washita NWR	4	720.0			720.0

Total	**109**	**49,776.7**	**119.0**	**0.0**	**49,895.7**

Other Acres = The number of acres that have been treated by a method other than prescribed fire or mechanical.

NON-WUI TREATMENTS
Midwest Region

Refuge	Number	RX Acres	Mech Acres	Other Acres	Total Acres
Agassiz NWR	25	9,505.5	494.0		9,999.5
Big Oaks NWR	11	7,419.0			7,419.0
Big Stone NWR	7	1,021.0			1,021.0
Crab Orchard NWR	5	70.0			70.0
Crane Meadows NWR	2		8.0		8.0
Desoto NWR	6	121.0			121.0
Detroit Lakes WMD	30	3,143.0			3,143.0
Fergus Falls WMD	30	4,011.0			4,011.0
Fox River NWR	2	22.0			22.0
Glacial Ridge NWR	9	2,760.0			2,760.0
Hamden Slough NWR	3	329.0			329.0
Horicon NWR	20	1,715.5			1,715.5
Leopold WMD	22	1,306.0			1,306.0
Litchfield WMD	24	1,886.3			1,886.3
Minnesota Valley NWR	8	459.0			459.0
Morris WMD	37	4,930.0			4,930.0
Neal Smith NWR	20	2,973.0			2,973.0
Necedah NWR	7	186.0	1,524.0		1,710.0
Ottawa NWR	3	337.0			337.0
Port Louisa NWR	10	929.0			929.0
Rice Lake NWR	6	426.0	66.0		492.0
Rydell NWR	1	5.0			5.0
Seney NWR	13	3,223.0	12.0		3,235.0
Sherburne NWR	5	476.0	185.0		661.0
Squaw Creek NWR	24	978.0			978.0

St Croix WMD	13	1,428.0	305.0		1,733.0
Swan Lake NWR	9	459.0			459.0
Tamarac NWR	6	440.0			440.0
Two Rivers NWR	2	47.0			47.0
Union Slough NWR	11	509.0			509.0
Upper MS River-Savanna Dist.	14	1,133.0	25.0		1,158.0
Windom WMD	22	1,936.0			1,936.0
Total	**407**	**54,183.3**	**2,619.0**	**0.0**	**56,802.3**

Other Acres = The number of acres that have been treated by a method other than prescribed fire or mechanical.

NON-WUI TREATMENTS
Southeast Region

Refuge	Number	RX Acres	Mech Acres	Other Acres	Total Acres
Alligator River NWR	13	186.0	88.4	6.0	280.4
A.R.M. Loxahatchee NWR	206	14,325.0		53,862.0	68,187.0
Big Branch Marsh NWR	1		2.0		2.0
Bogue Chitto NWR	3	221.0			221.0
Cabo Rojo NWR	11	63.0	139.0		202.0
Carolina Sandhills NWR	27	8,345.0			8,345.0
Currituck NWR	1			4.0	4.0
E. F. Hollings Ace Basin NWR	2	310.0			310.0
Eufaula NWR	2	250.0	315.0		565.0
Felsenthal NWR	5	1,355.0			1,355.0
Florida Panther NWR	45	2,273.0	903.0		3,176.0
J. N. Ding Darling NWR	16		36.0		36.0
Key Cave NWR	2	52.0			52.0
Lacassine NWR	1	0.1			0.1
Laguna Cartagena NWR	36	200.0	446.0		646.0
Lake Woodruff NWR	3	3,054.0			3,054.0
Lower Suwannee NWR	2	460.0			460.0
Mackay Island NWR	2		6.0	75.0	81.0
Mattamuskeet NWR	7	1.0	62.0		63.0
Merritt Island NWR	6	1,894.0			1,894.0
National Key Deer Refuge	5		88.0		88.0
Noxubee NWR	6	2,180.0			2,180.0
Okefenokee NWR	8		6.0		6.0
Pea Island NWR	5			19.0	19.0
Pee Dee NWR	3	540.0			540.0
Piedmont NWR	35	3,740.2	722.0		4,462.2

Santee NWR	1	1.0			1.0
St. Marks NWR	14	13,154.0			13,154.0
St. Vincent NWR	3	1,922.0			1,922.0
Total	**471**	**54,526.3**	**2,813.4**	**53,966.0**	**111,305.7**

Other Acres = The number of acres that have been treated by a method other than prescribed fire or mechanical.

NON-WUI TREATMENTS
Northeast Region

Refuge	Number	RX Acres	Mech Acres	Other Acres	Total Acres
Back Bay NWR	1			1,000.0	1,000.0
Cape May NWR	2	41.0			41.0
Chesapeake Marshlands NWRC	24	7,382.2	44.0	302.0	7,728.2
Edwin B. Forsythe NWR	2	75.0	20.0	245.0	340.0
Eastern Massachusetts NWRC	1	640.0			640.0
Eastern Neck NWR	1	20.0		195.0	215.0
Eastern Virginia Rivers NWRC	1	375.0			375.0
Iroquois NWR	2	86.0			86.0
Long Island NWRC	4	15.0	109.0	165.0	289.0
Maine Coastal Islands NWR	1		21.9		21.9
Montezuma NWR	1	26.0	29.0		55.0
Moosehorn NWR	4	3.0	108.9		111.9
Prime Hook NWR	2	28.0	121.0		149.0
Rachel Carson NWR	1		5.5		5.5
Rhode Island NWRC	1	14.5			14.5
Silvio O. Conte Refuge	1		24.0		24.0
Shawangunk Grasslands NWR	1		450.0		450.0
Stewart B. McKinney NWR	1	1.0			1.0
Sunkhaze Meadows NWR	1		72.4		72.4
Supawna Meadows NWR	1			200.0	200.0
Wallkill River NWR	2		177.0		177.0
Total	**55**	**8,706.7**	**1,182.7**	**2,107.0**	**11,996.4**

Other Acres = The number of acres that have been treated by a method other than prescribed fire or mechanical.

NON-WUI TREATMENTS
Mountain-Prairie Region

Refuge	Number	RX Acres	Mech Acres	Other Acres	Total Acres
Alamosa NWR	1	88.0			88.0
Arapaho NWR	1	375.0			375.0
Arrowwood NWR	5	1,860.0			1,860.0
Arrowwood WMD	4	233.0			233.0
Audubon NWR	9	1,138.0			1,138.0
Baca NWR	1		2.0		2.0
Benton Lake NWR	2	2,631.0			2,631.0
Bowdoin NWR	5	2,440.7			2,440.7
Browns Park NWR	5	109.5			109.5
Charles M. Russell NWR	2	1,435.0			1,435.0
Chase Lake NWR	3	592.0			592.0
Chase Lake Prairie Proj. WMD	1	290.0			290.0
Crescent Lake NWR	3	410.0			410.0
Crosby WMD	3	398.0			398.0
Des Lacs NWR	7	1,065.0	37.0		1,102.0
Devils Lake WMD	10	1,593.0			1,593.0
Fish Springs NWR	4	862.0			862.0
Flint Hills NWR	20	1,631.5			1,631.5
Huron WMD	7	1,402.0	10.0		1,412.0
J. Clark Salyer NWR	7	923.0	10.0		933.0
Kirwin NWR	7	2,734.0			2,734.0
Kulm WMD	1	358.0			358.0
Lacreek NWR	2	1,400.0			1,400.0
Lee Metcalf NWR	2	13.0			13.0
Long Lake NWR	1	157.0			157.0

Lostwood WMD	2	548.0			548.0
Madison WMD	14	597.0	1,295.0		1,892.0
Marais Des Cygnes NWR	1	130.0			130.0
Medicine Lake NWR	13	3,745.0			3,745.0
National Bison Range	1	0.2			0.2
Ouray NWR	2	194.0			194.0
Quivira NWR	5	2,084.0			2,084.0
Rainwater Basin WMD	16	2,450.0			2,450.0
Red Rock Lakes NWR	1	242.0			242.0
Rocky Mtn. Arsenal NWR	2	282.0			282.0
Sand Lake NWR	4	1,443.0			1,443.0
Tewaukon NWR	2	787.0			787.0
Upper Souris NWR	11	1,255.0			1,255.0
Valentine NWR	2	218.0			218.0
Valley City WMD	4	358.0			358.0
Waubay NWR	1	214.0			214.0
Total	**194**	**38,685.9**	**1,354.0**	**0.0**	**40,039.9**

Other Acres = The number of acres that have been treated by a method other than prescribed fire or mechanical.

NON-WUI TREATMENTS
Alaska Region

Refuge	Number	RX Acres	Mech Acres	Other Acres	Total Acres
Kanuti NWR	1		58.0		58.0
Kenai NWR	2	7.0			7.0
Tetlin NWR	1		2.0		2.0
Total	**4**	**7.0**	**60.0**	**0.0**	**67.0**

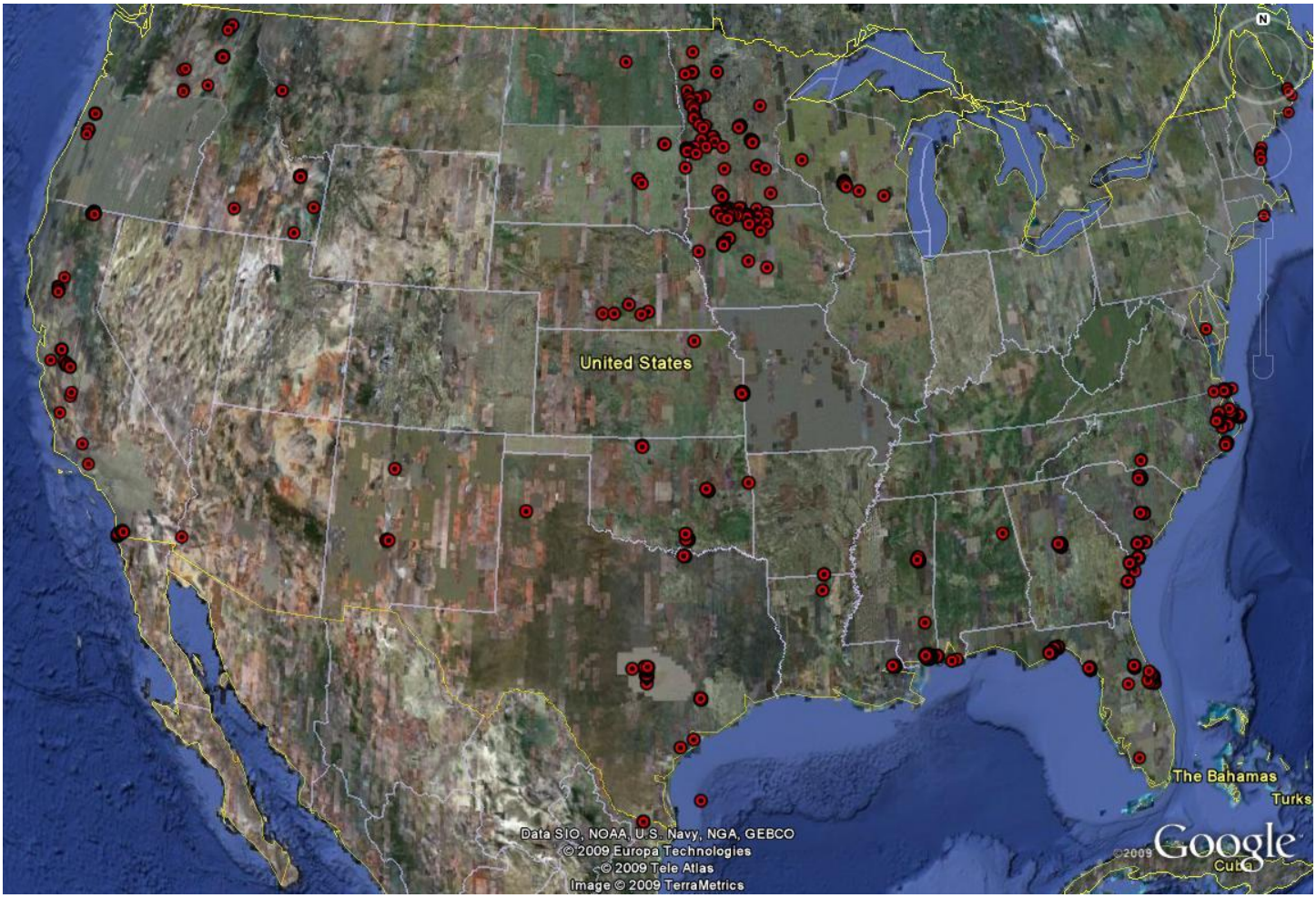
Other Acres = The number of acres that have been treated by a method other than prescribed fire or mechanical.

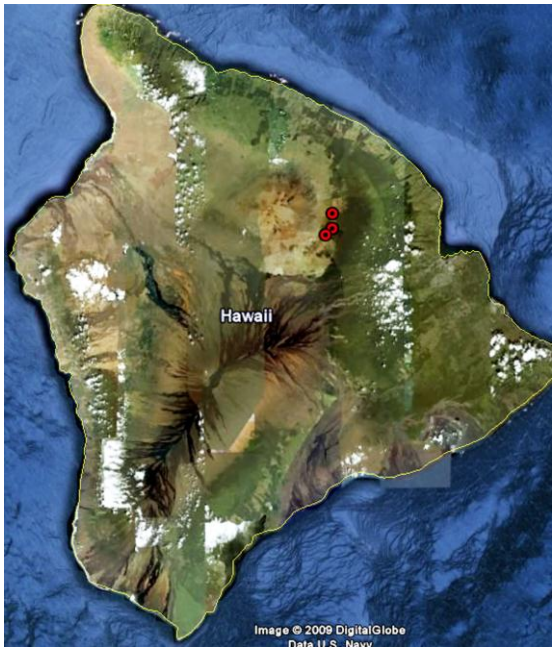
NON-WUI TREATMENTS
Pacific Southwest Region

Refuge	Number	Rx Acres	Mech Acres	Other Acres	Total Acres
Ash Meadows NWR	1		50.0		50.0
Klamath Marsh NWR	1	246.0			246.0
Lower Klamath NWR	63	13,213.0			13,213.0
Merced NWR	1		100.0		100.0
Moapa Valley NWR	1	23.0			23.0
Pahranagat NWR	1	3.0			3.0
Sacramento NWRC	9	167.0		82.0	249.0
Sacramento River NWR	3	2.0		7.0	9.0
San Joaquin River NWR	6		172.0		172.0
San Luis NWR	2		153.0		153.0
Stillwater NWR	5	910.0			910.0
Stone Lakes NWR	7			223.0	223.0
Tule Lake NWR	56	7,699.0			7,699.0
Total	**156**	**22,263.0**	**475.0**	**312.0**	**23,050.0**

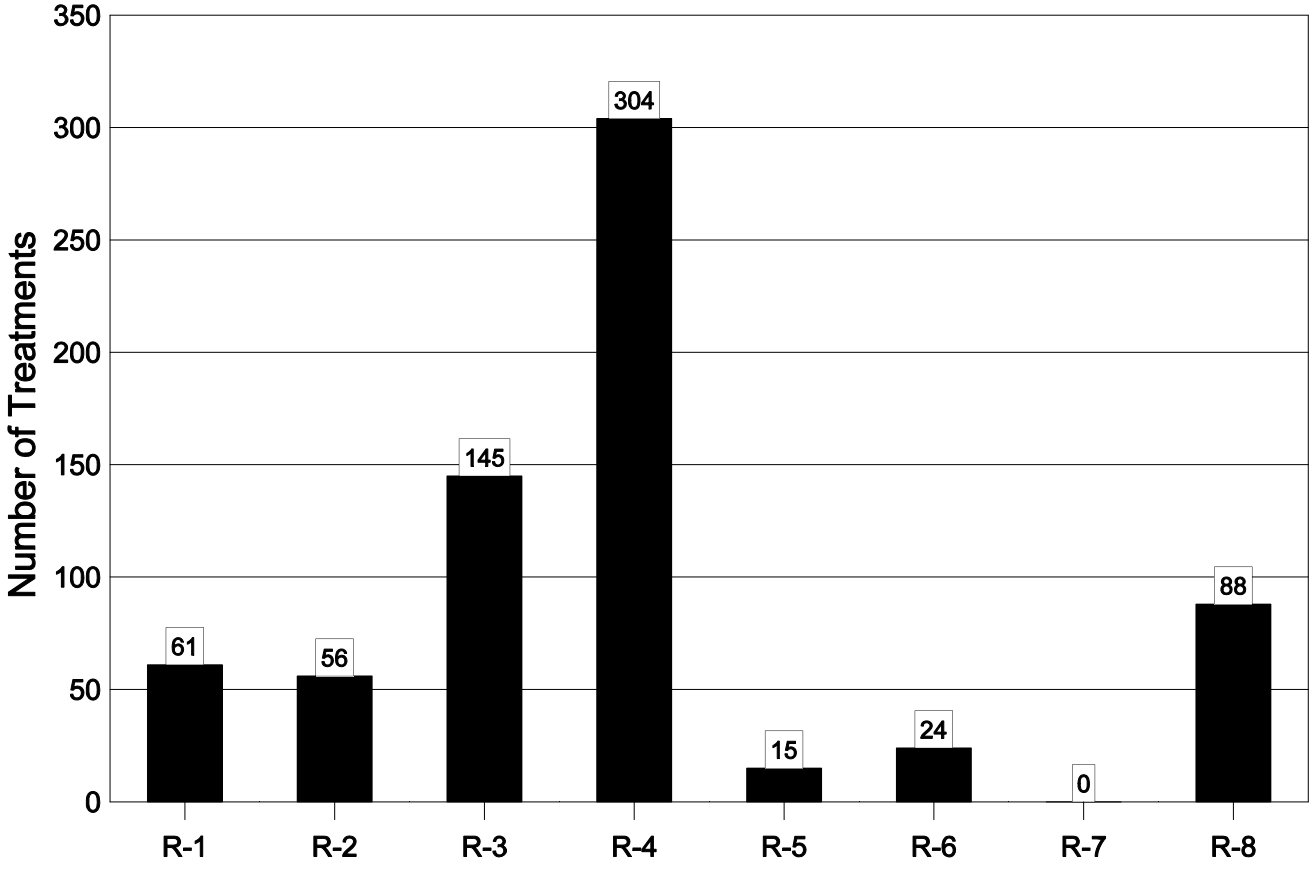
Other Acres = The number of acres that have been treated by a method other than prescribed fire or mechanical.

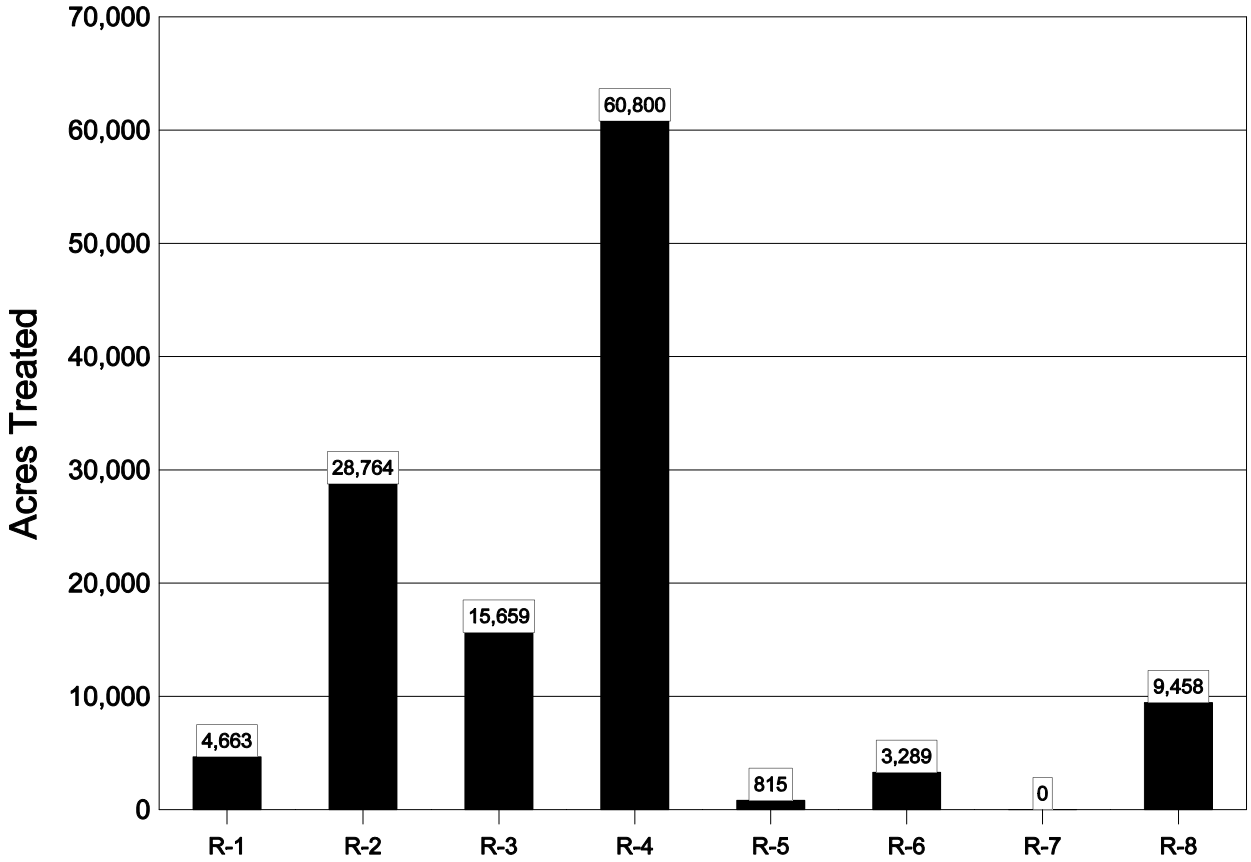
2008 WUI TREATMENTS





WILDLAND URBAN INTERFACE
Treatments - 2008





WUI TREATMENTS
by State
2008

State	Number	RX Acres	Mech Acres	Other Acres	Total Acres
Alabama	3	1,518.0	31.0		1,549.0
Arizona	1	280.0			280.0
Arkansas	2	740.0			740.0
California	88	8,824.0	594.0	40.0	9,458.0
Florida	58	29,190.0	84.2		29,274.2
Georgia	24	7,170.0	243.0		7,413.0
Hawaii	4		120.0		120.0
Idaho	8	510.0	650.0		1,160.0
Iowa	50	4,188.0	3.0		4,191.0
Kansas	10	1,274.0			1,274.0
Louisiana	9	763.0		1.0	764.0
Maine	10	79.3			79.3
Maryland	1	40.0			40.0
Minnesota	79	7,777.0	28.0		7,805.0
Mississippi	98	9,691.0	975.0		10,666.0
Montana	2	162.0			162.0
Nebraska	5	1,143.0			1,143.0
New Mexico	5	20,309.0			20,309.0
North Carolina	64	1,821.0	965.2	333.0	3,119.2
North Dakota	1	150.0			150.0
Oklahoma	16	3,863.0	3.0		3,866.0
Oregon	25	354.0	877.0		1,231.0
Rhode Island	2		77.0	53.5	130.5
South Carolina	46	7,274.5			7,274.5

South Dakota	6	555.0	5.0		560.0
Texas	34	3,903.0	400.5	5.0	4,308.5
Virginia	2	565.0			565.0
Washington	24	554.1	1,548.0	50.0	2,152.1
Wisconsin	16	3,436.0	227.0		3,663.0
Total	**693**	**116,133.9**	**6,830.9**	**482.5**	**123,447.3**

Other Acres = The number of acres that have been treated by a method other than prescribed fire or mechanical.

WUI TREATMENTS
Pacific Region

Refuge	Number	Rx Acres	Mech Acres	Other Acres	Total Acres
Baskett Slough NWR	10	125.0	290.0		415.0
Camas NWR	5	280.0	200.0		480.0
Columbia NWR	2	12.0			12.0
Grays Lake NWR	1	230.0			230.0
Hagerman NFH	1		50.0		50.0
Hakalau Forest NWR	3		110.0		110.0
Little Pend Oreille NWR	10	487.0	324.0		811.0
McNary NWR	2	25.1			25.1
Oahu NWR	1		10.0		10.0
Oxford Slough Waterfowl Area	1		400.0		400.0
Turnbull NWR	10	30.0	1,224.0	50.0	1,304.0
William L Finley NWR	15	229.0	587.0		816.0
Total	**61**	**1,418.1**	**3,195.0**	**50.0**	**4,663.1**

Other Acres = The number of acres that have been treated by a method other than prescribed fire or mechanical.

WUI TREATMENTS
Southwest Region

Refuge	Number	RX Acres	Mech Acres	Oth Acres	Total Acres
Aransas NWR	2	605.0			605.0
Attwater Prairie Chicken NWR	7	369.0			369.0
Balcones Canyonlands NWR	18	353.0	210.5		563.5
Bosque Del Apache NWR	5	20,309.0			20,309.0
Buffalo Lake NWR	1	484.0			484.0
Deep Fork NWR	4	1,133.0			1,133.0
Hagerman NWR	3	2,092.0			2,092.0
Havasu NWR	1	280.0			280.0
Lower Rio Grande Valley NWR	1		40.0		40.0
Ozark Plateau NWR	1	59.0			59.0
South Texas Refuges Complex	1			5.0	5.0
Salt Plains NWR	2	1,081.0			1,081.0
Santa Ana NWR	1		150.0		150.0
Tishomingo NFH	2	121.0			121.0
Tishomingo NWR	7	1,469.0	3.0		1,472.0
Total	**56**	**28,355.0**	**403.5**	**5.0**	**28,763.5**

Other Acres = The number of acres that have been treated by a method other than prescribed fire or mechanical.

WUI TREATMENTS
Midwest Region

Refuge	Number	RX Acres	Mech Acres	Other Acres	Total Acres
Agassiz NWR	1	91.0			91.0
Big Stone NWR	12	638.0			638.0
Crane Meadows NWR	6	291.0			291.0
Detroit Lakes WMD	8	707.0			707.0
Fergus Falls WMD	11	1,122.0	8.0		1,130.0
Iowa WMD	50	4,188.0	3.0		4,191.0
Leopold WMD	2	236.0			236.0
Litchfield WMD	1	97.0			97.0
Minnesota Valley NWR	5	665.0			665.0
Morris WMD	11	1,136.0	10.0		1,146.0
Necedah NWR	13	3,123.0	227.0		3,350.0
Rice Lake NWR	1	1,416.0			1,416.0
Rydell NWR	7	560.0			560.0
Sherburne NWR	9	705.0			705.0
St Croix WMD	1	77.0			77.0
Tamarac NWR	1	30.0			30.0
Windom WMD	6	319.0	10.0		329.0
Total	**145**	**15,401.0**	**258.0**	**0.0**	**15,659.0**

Other Acres = The number of acres that have been treated by a method other than prescribed fire or mechanical.

WUI TREATMENTS
Southeast Region

Refuge	Number	RX Acres	Mech Acres	Other Acres	Total Acres
Alligator River NWR	12		126.0	1.0	127.0
Big Branch Marsh NWR	8	653.0		1.0	654.0
Bon Secour NWR	2		31.0		31.0
Carolina Sandhills NWR	11	4,270.0			4,270.0
Cedar Island NWR	17		82.0		82.0
Currituck NWR	4	243.0	8.2		251.2
D'Arbonne NWR	1	110.0			110.0
E. F. Hollings Ace Basin NWR	10	1,418.0			1,418.0
Felsenthal NWR	2	740.0			740.0
Florida Panther NWR	1	479.0			479.0
Grand Bay NWR	6	47.0	26.0		73.0
Harris Neck NWR	7	398.0			398.0
Lake Woodruff NWR	8	1,085.0			1,085.0
Lower Suwannee NWR	7	2,625.0	13.2		2,638.2
Mackay Island NWR	4	4.0	1.0	325.0	330.0
Mattamuskett NWR	6	420.0	54.0		474.0
Merritt Island NWR	16	14,699.0	35.0		14,734.0
MS Sandhill Crane NWR	83	6,059.0	949.0		7,008.0
Mountain Longleaf NWR	1	1,518.0			1,518.0
Noxubee NWR	9	3,585.0			3,585.0
Pea Island NWR	7	1,059.0	2.0	7.0	1,068.0
Pee Dee NWR	2	95.0			95.0
Piedmont NWR	15	6,572.0	240.0		6,812.0
Pinckney Island NWR	11	625.0			625.0
Pocosin Lakes NWR	11		685.0		685.0

Santee NWR	7	245.0			245.0
Savannah-Pickney Refuges	8	916.5			916.5
St. Johns NWR	3	1,392.0			1,392.0
St. Marks NWR	23	8,910.0	36.0		8,946.0
Swanquarter NWR	1		7.0		7.0
Wassaw NWR	1		3.0		3.0
Total	**304**	**58,167.5**	**2,298.4**	**334.0**	**60,799.9**

Other Acres = The number of acres that have been treated by a method other than prescribed fire or mechanical.

WUI TREATMENTS
Northeast Region

Refuge	Number	RX Acres	Mech Acres	Other Acres	Total Acres
Back Bay NWR	1	540.0			540.0
Chesapeake Marshlands NWRC	1	40.0			40.0
Great Dismal Swamp NWR	1	25.0			25.0
Maine Coastal Islands NWR	1	10.7			10.7
Moosehorn NWR	4	36.8			36.8
Rachel Carson NWR	5	31.8			31.8
Rhode Island NWRC	2		77.0	53.5	130.5
Total	**15**	**684.3**	**77.0**	**53.5**	**814.8**

Other Acres = The number of acres that have been treated by a method other than prescribed fire or mechanical.

WUI TREATMENTS
Mountain-Prairie Region

Refuge	Number	RX Acres	Mech Acres	Other Acres	Total Acres
Devils Lake WMD	1	150.0			150.0
Huron WMD	3	148.0	5.0		153.0
Lee Metcalf NWR	2	162.0			162.0
Madison WMD	1	100.0			100.0
Marais Des Cygnes NWR	10	1,274.0			1,274.0
Rainwater Basin WMD	5	1,143.0			1,143.0
Waubay NWR	2	307.0			307.0
Total	**24**	**3,284.0**	**5.0**	**0.0**	**3,289.0**

Other Acres = The number of acres that have been treated by a method other than prescribed fire or mechanical.

WUI TREATMENTS
Alaska Region

Refuge	Number	RX Acres	Mech Acres	Other Acres	Total Acres
					0.0
					0.0
					0.0
Total	**0**	**0.0**	**0.0**	**0.0**	**0.0**

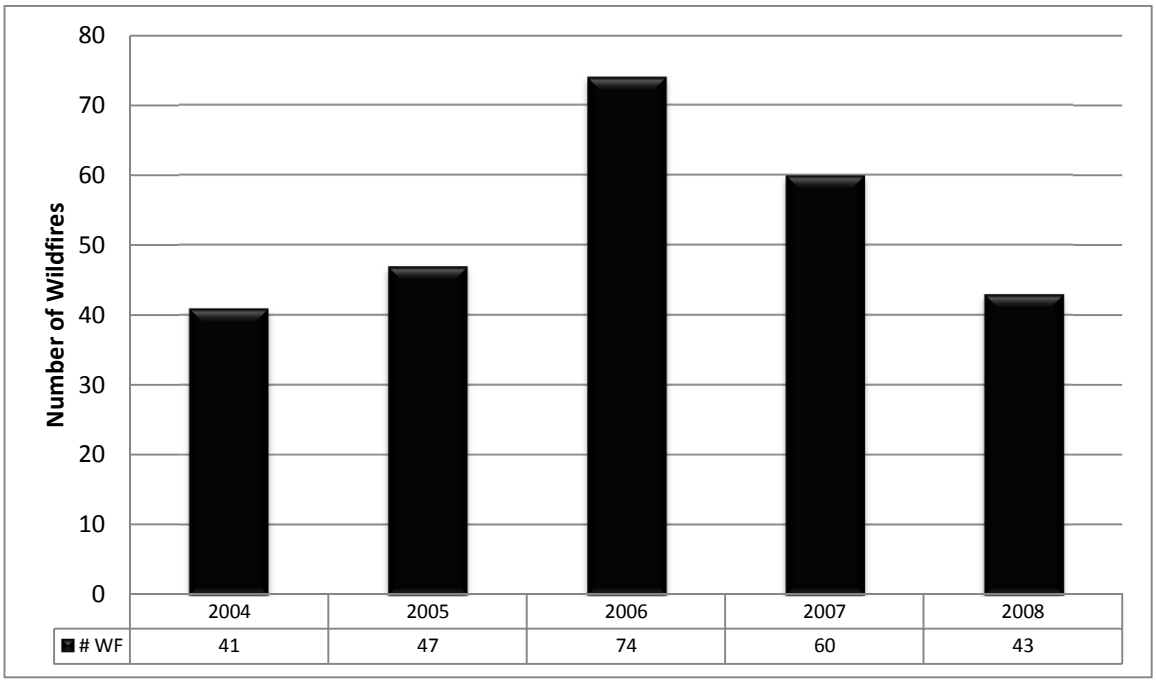
Other Acres = The number of acres that have been treated by a method other than prescribed fire or mechanical.

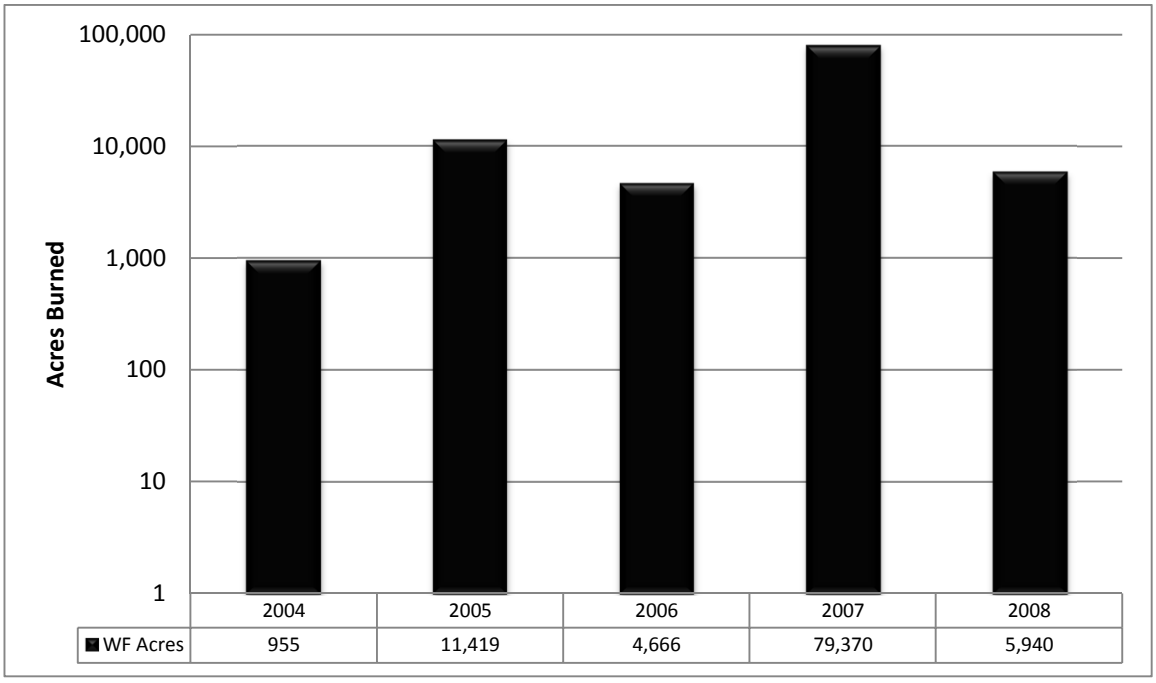
WUI TREATMENTS
Pacific Southwest Region

Refuge	Number	Rx Acres	Mech Acres	Other Acres	Total Acres
Bitter Creek NWR	1		90.0		90.0
Delevan NWR	6	356.0			356.0
Hopper Mountain NWR	1		10.0		10.0
Kern NWR	2	100.0	120.0		220.0
Merced NWR	6	1,115.0	75.0		1,190.0
Sacramento NWR	3	267.0			267.0
Sacramento River NWR	1	1.0			1.0
San Diego Bay NWR	6		66.0	35.0	101.0
San Diego NWR	11		221.0	5.0	226.0
San Joaquin River NWR	5	1,001.0			1,001.0
San Luis NWR	9	985.0	10.0		995.0
Tijuana Slough NWR	1		2.0		2.0
Tule Lake NWR	36	4,999.0			4,999.0
Total	**88**	**8,824.0**	**594.0**	**40.0**	**9,458.0**

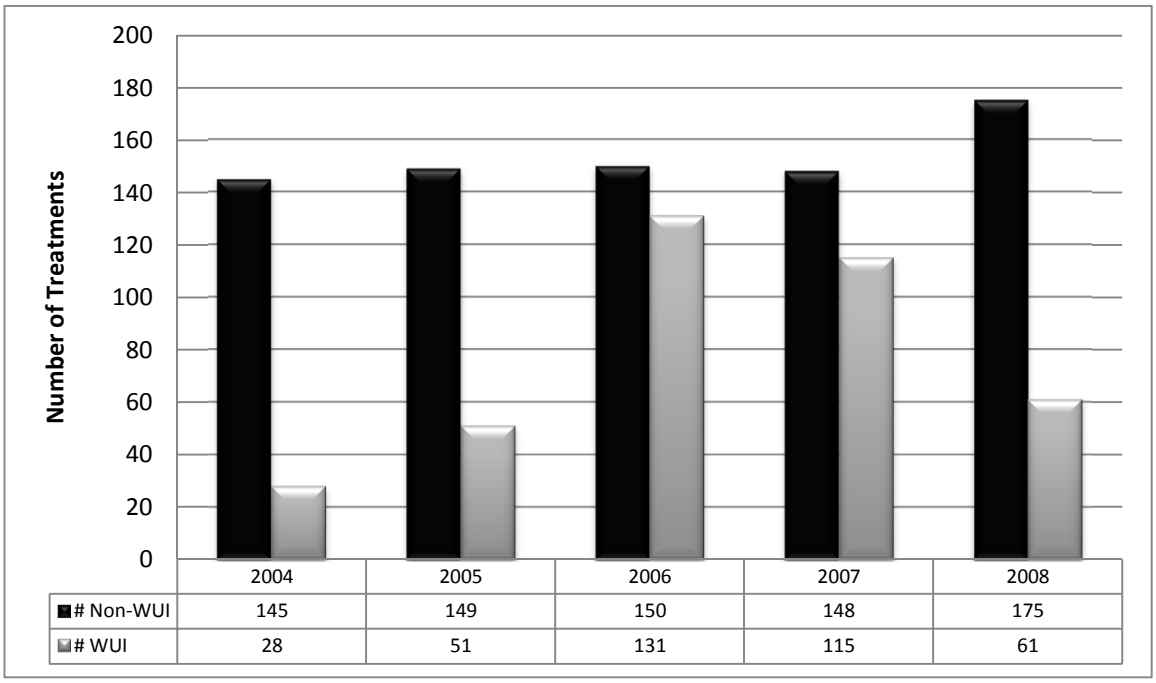
Other Acres = The number of acres that have been treated by a method other than prescribed fire or mechanical.

PACIFIC REGION
Wildfires
2004-2008

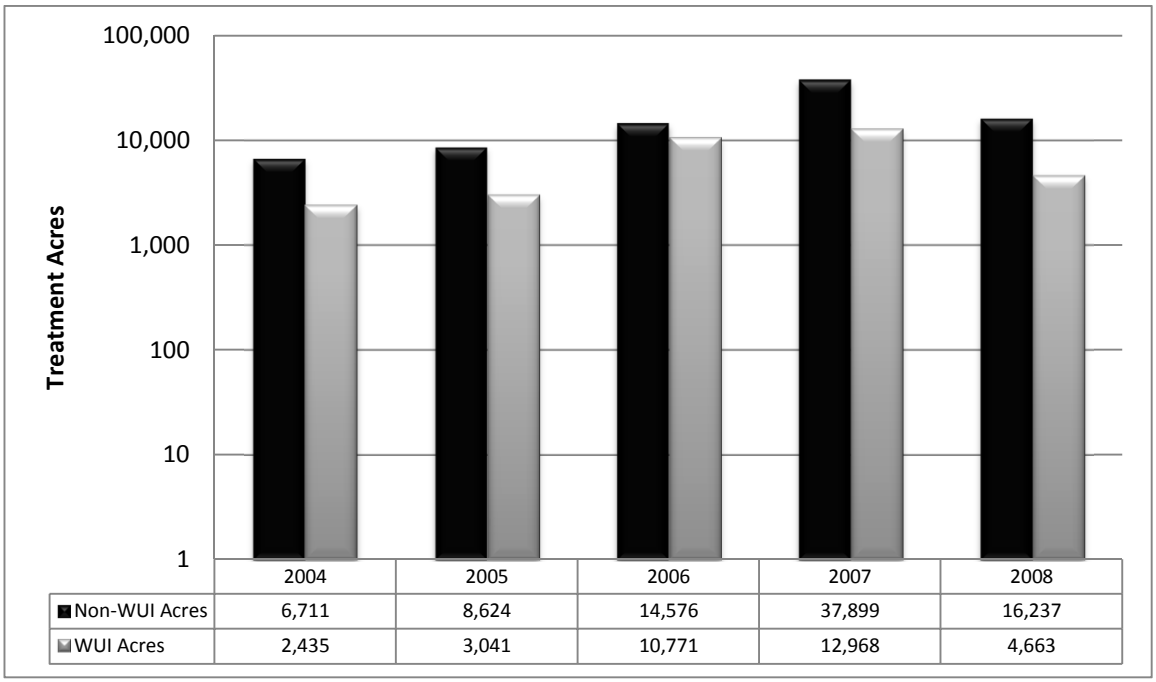




PACIFIC REGION
Treatments
2004-2008



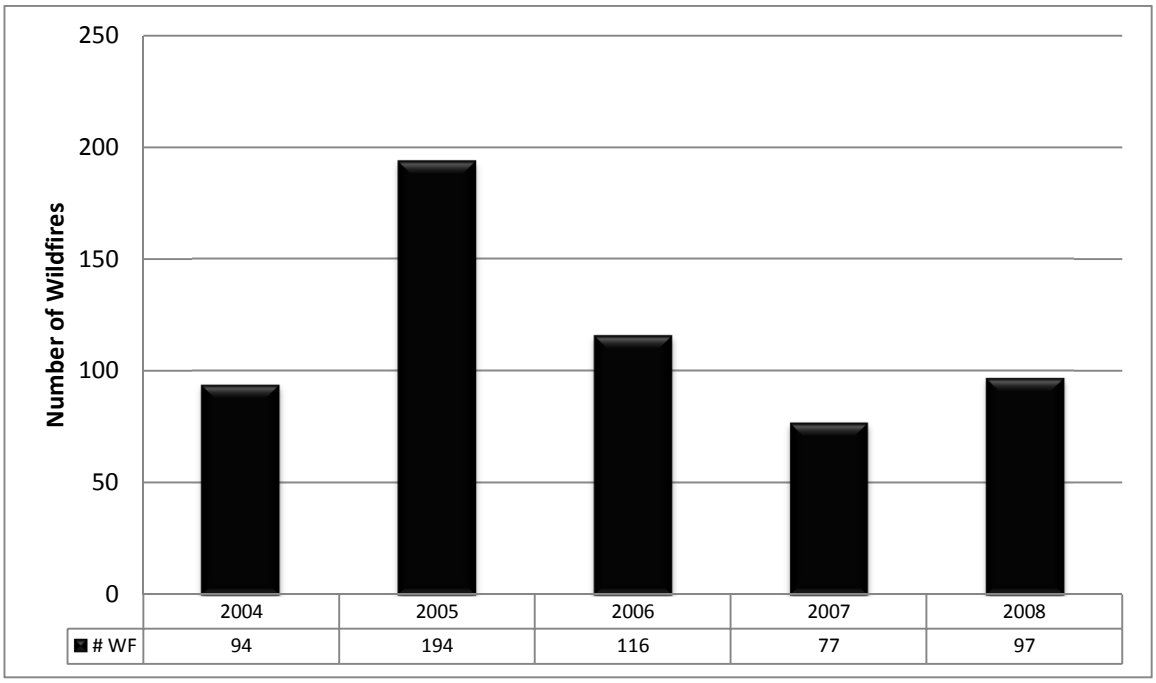
	2004	2005	2006	2007	2008
# Non-WUI	145	149	150	148	175
# WUI	28	51	131	115	61

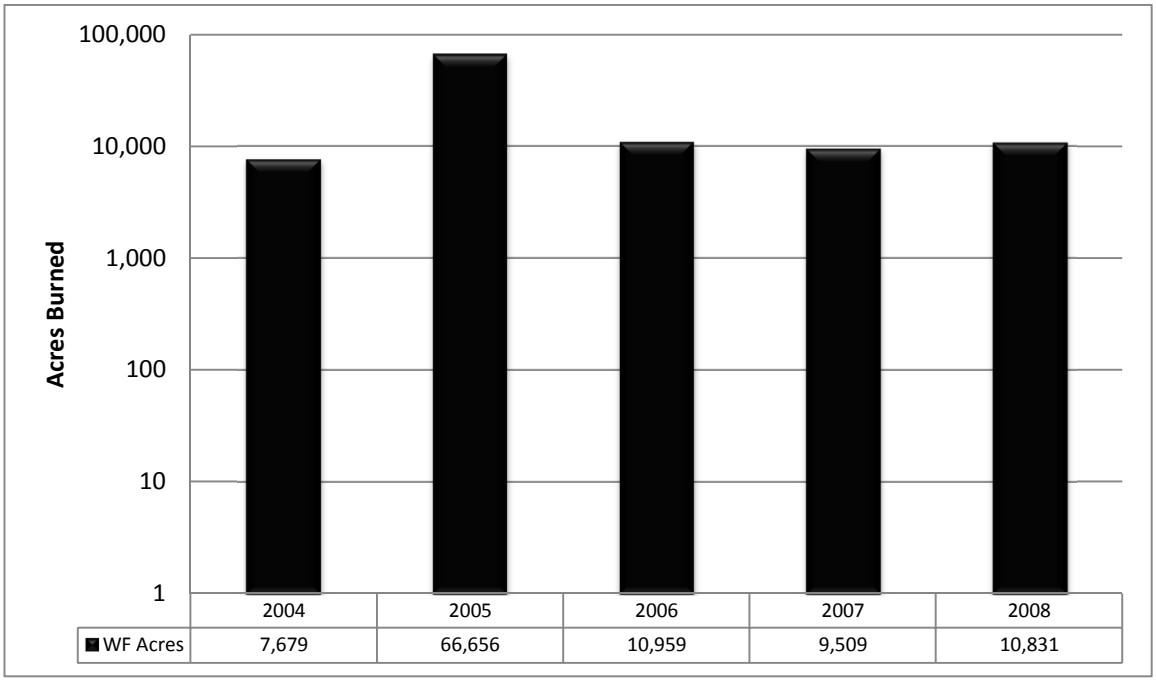


	2004	2005	2006	2007	2008
Non-WUI Acres	6,711	8,624	14,576	37,899	16,237
WUI Acres	2,435	3,041	10,771	12,968	4,663

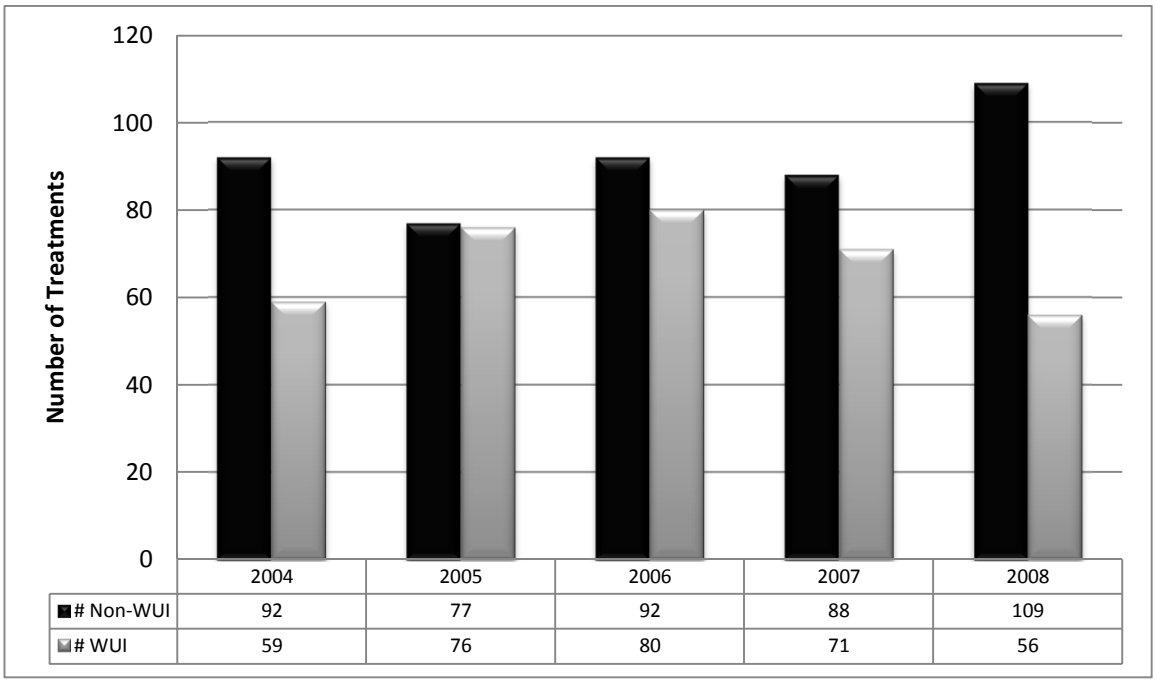
WUI = Wildland Urban Interface

SOUTHWEST REGION
Wildfires
2004-2008

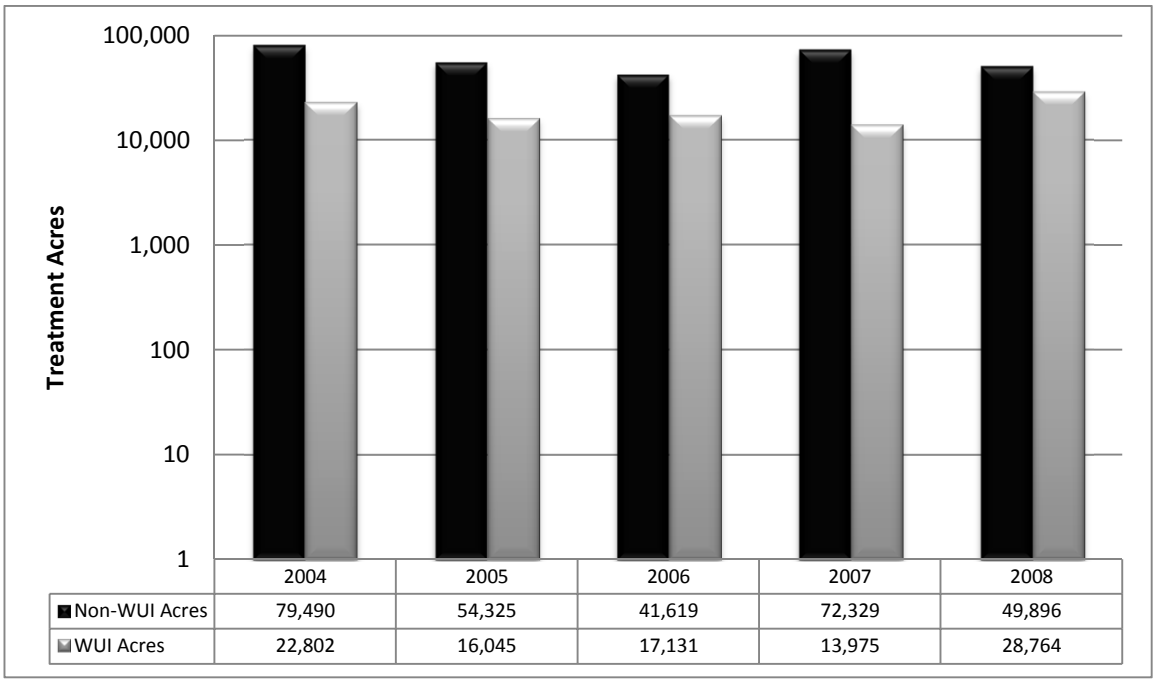




SOUTHWEST REGION
Treatments
2004-2008



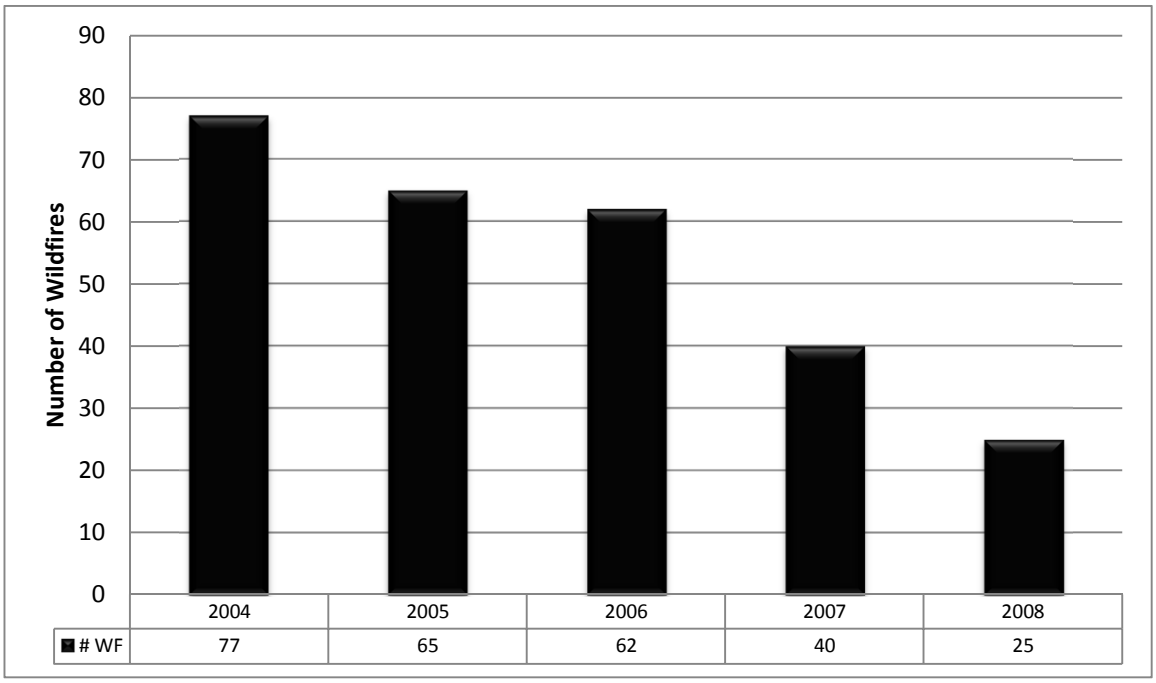
	2004	2005	2006	2007	2008
# Non-WUI	92	77	92	88	109
# WUI	59	76	80	71	56

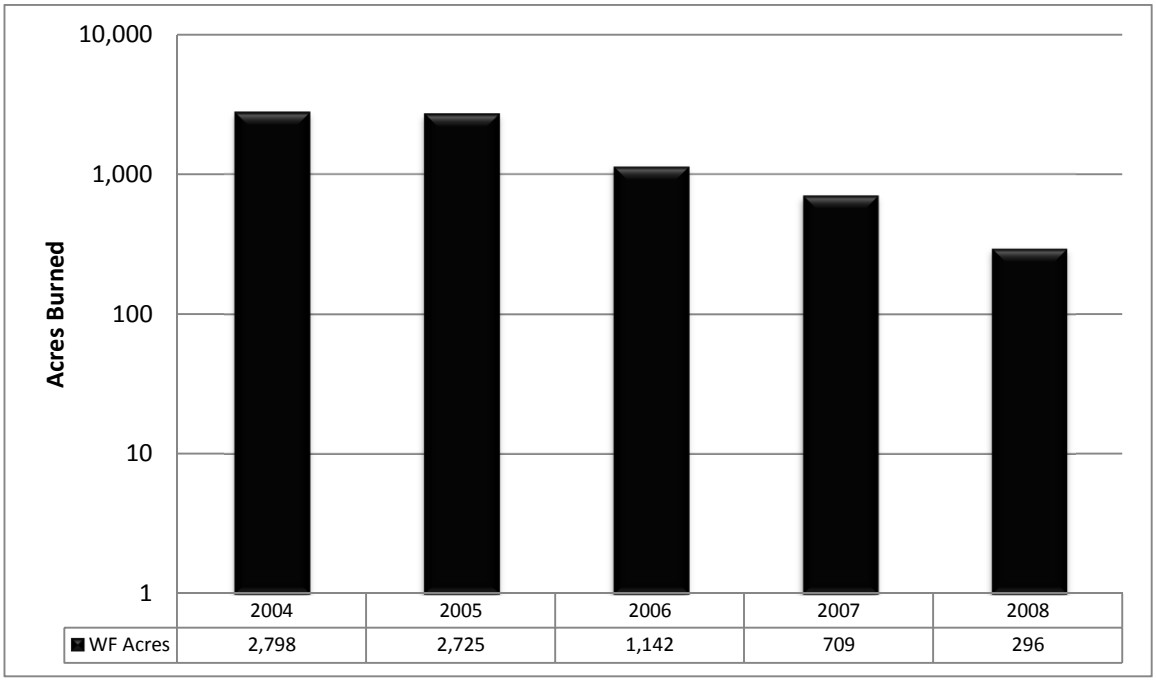


	2004	2005	2006	2007	2008
Non-WUI Acres	79,490	54,325	41,619	72,329	49,896
WUI Acres	22,802	16,045	17,131	13,975	28,764

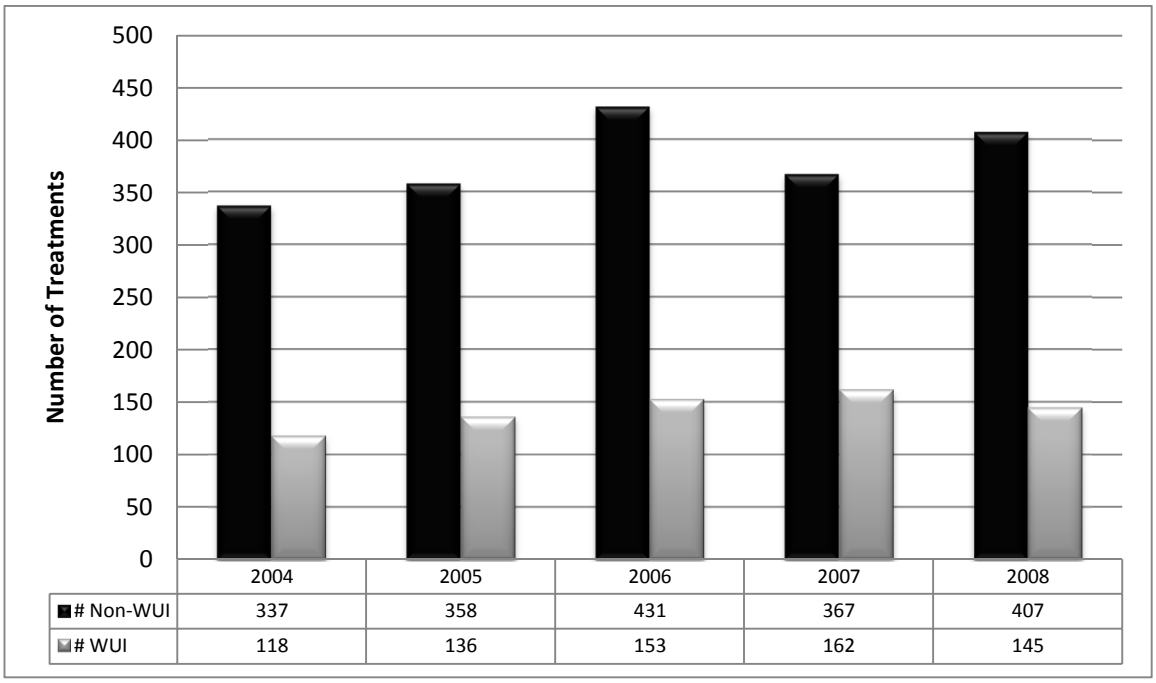
WUI = Wildland Urban Interface

MIDWEST REGION
Wildfires
2004-2008

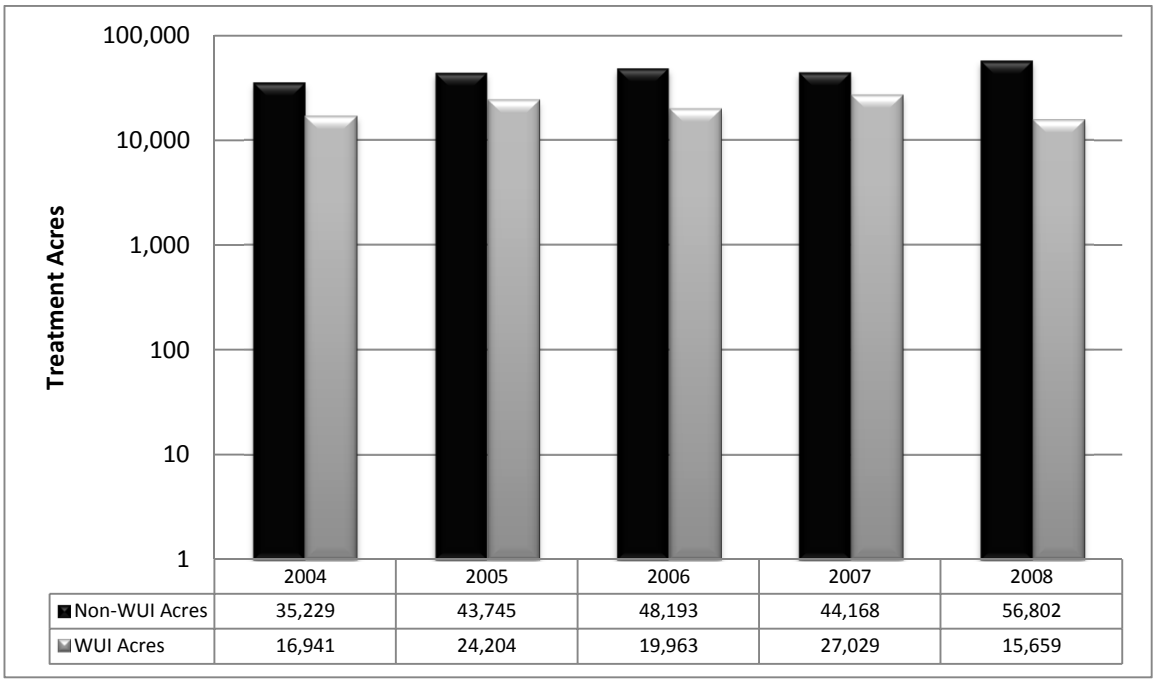




MIDWEST REGION
Treatments
2004-2008



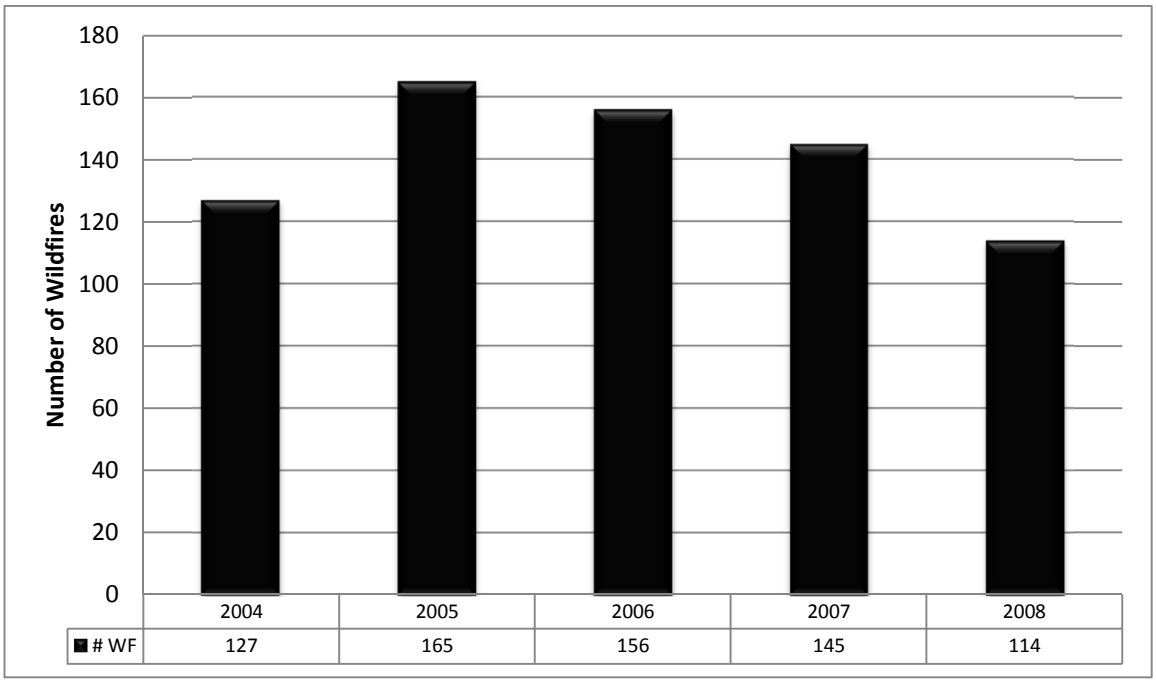
	2004	2005	2006	2007	2008
# Non-WUI	337	358	431	367	407
# WUI	118	136	153	162	145

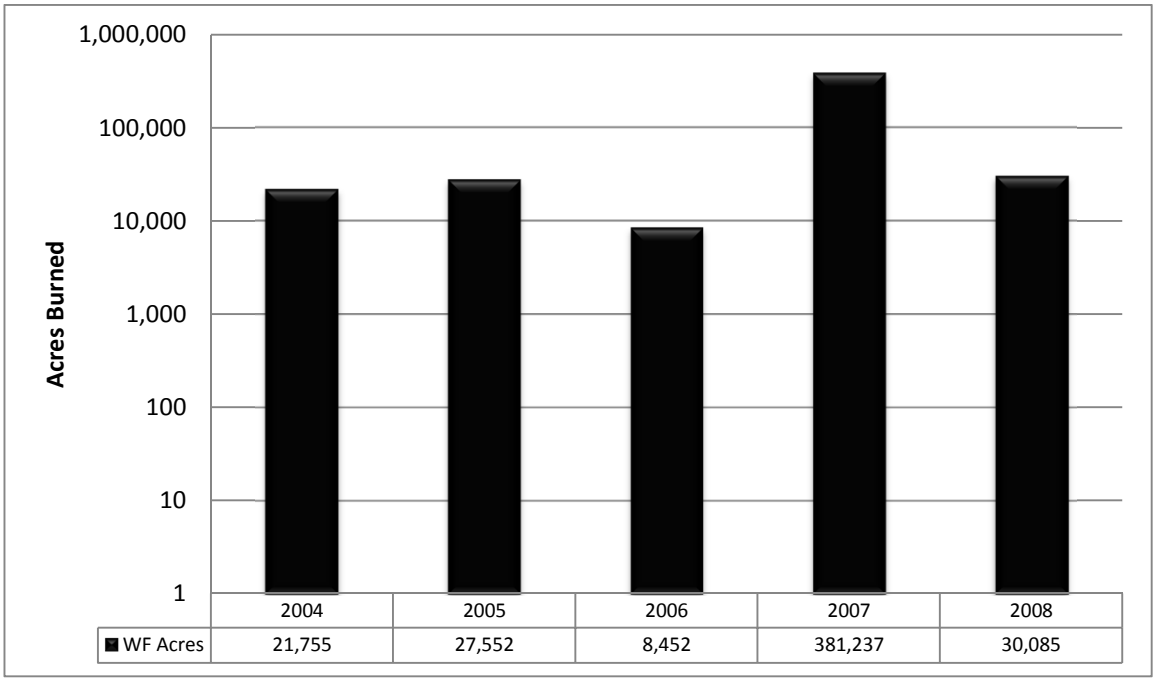


	2004	2005	2006	2007	2008
Non-WUI Acres	35,229	43,745	48,193	44,168	56,802
WUI Acres	16,941	24,204	19,963	27,029	15,659

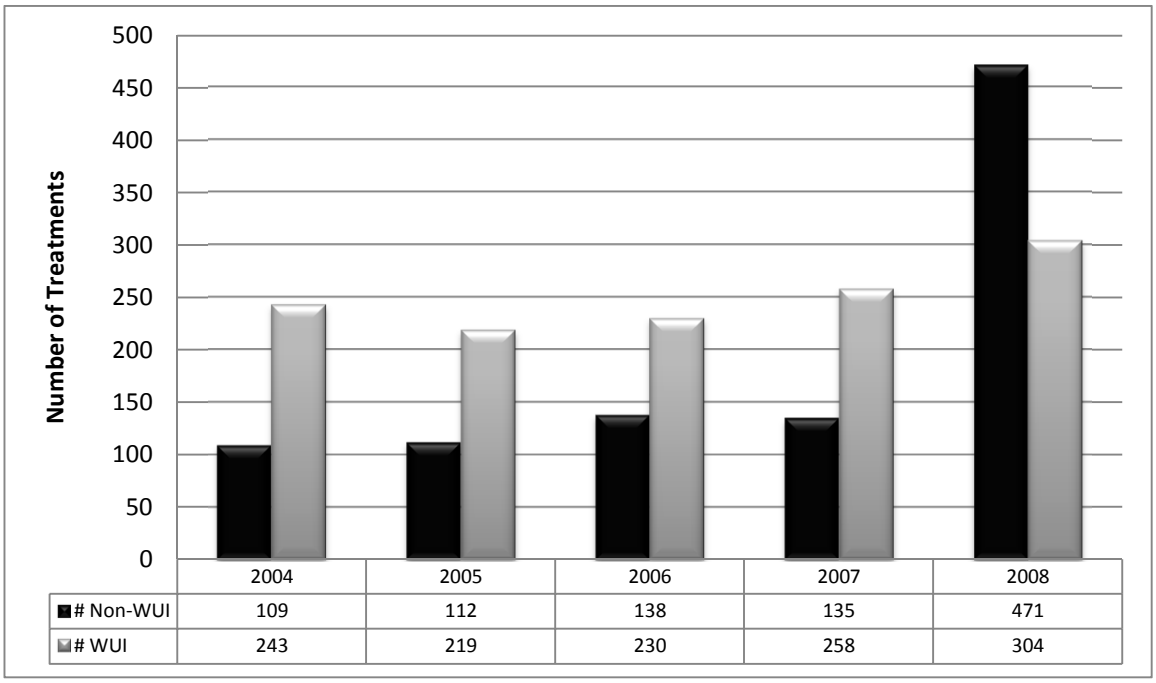
WUI = Wildland Urban Interface

SOUTHEAST REGION
Wildfires
2004-2008

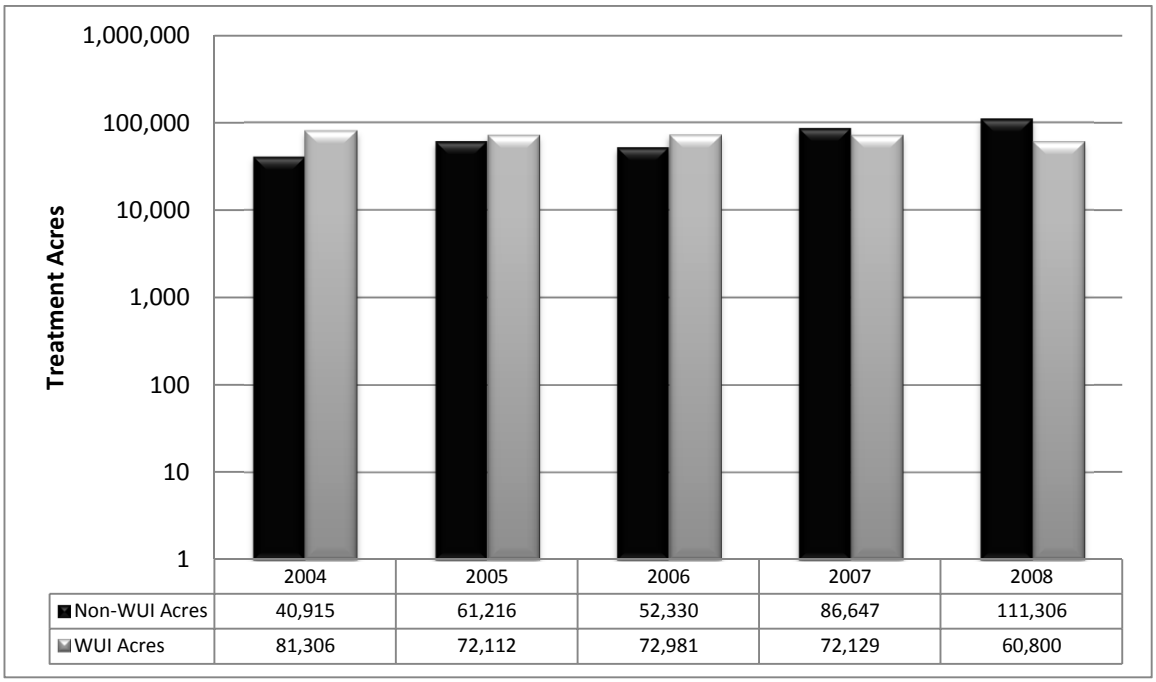




SOUTHEAST REGION
Treatments
2004-2008



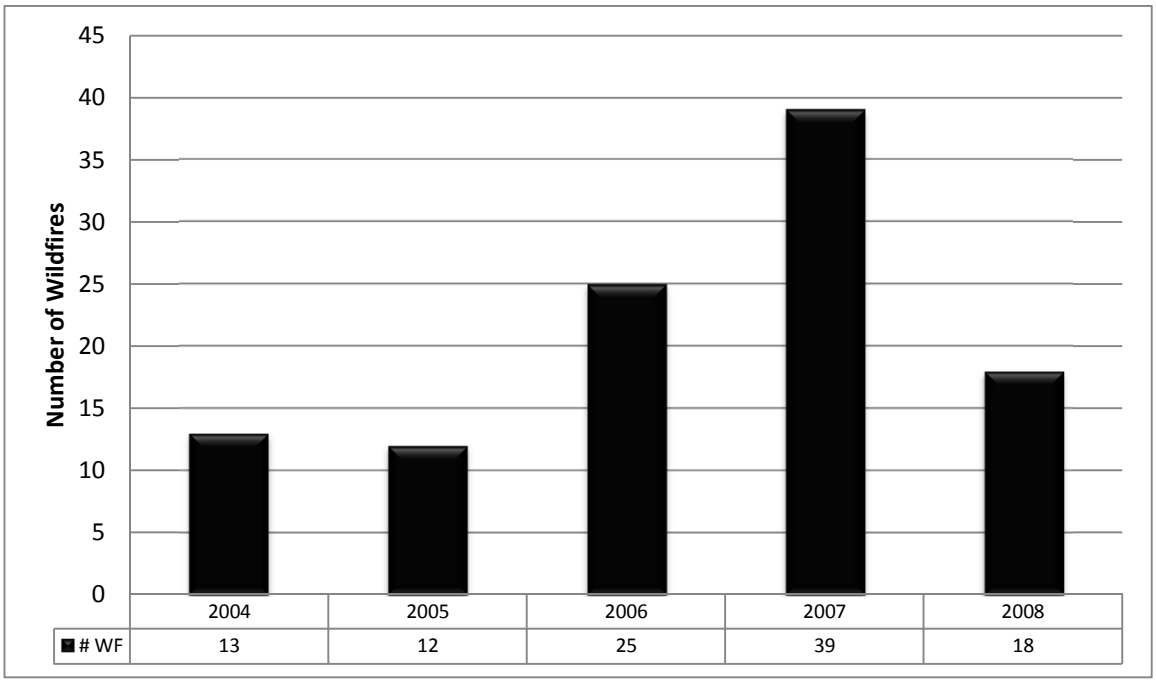
	2004	2005	2006	2007	2008
# Non-WUI	109	112	138	135	471
# WUI	243	219	230	258	304

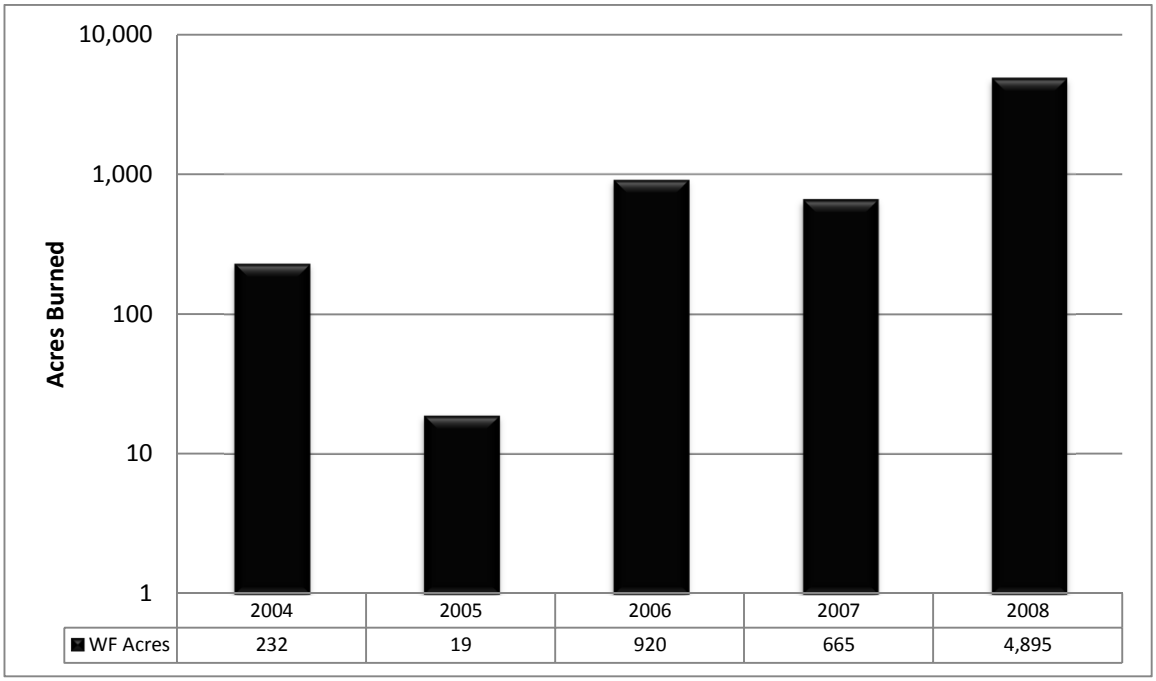


	2004	2005	2006	2007	2008
Non-WUI Acres	40,915	61,216	52,330	86,647	111,306
WUI Acres	81,306	72,112	72,981	72,129	60,800

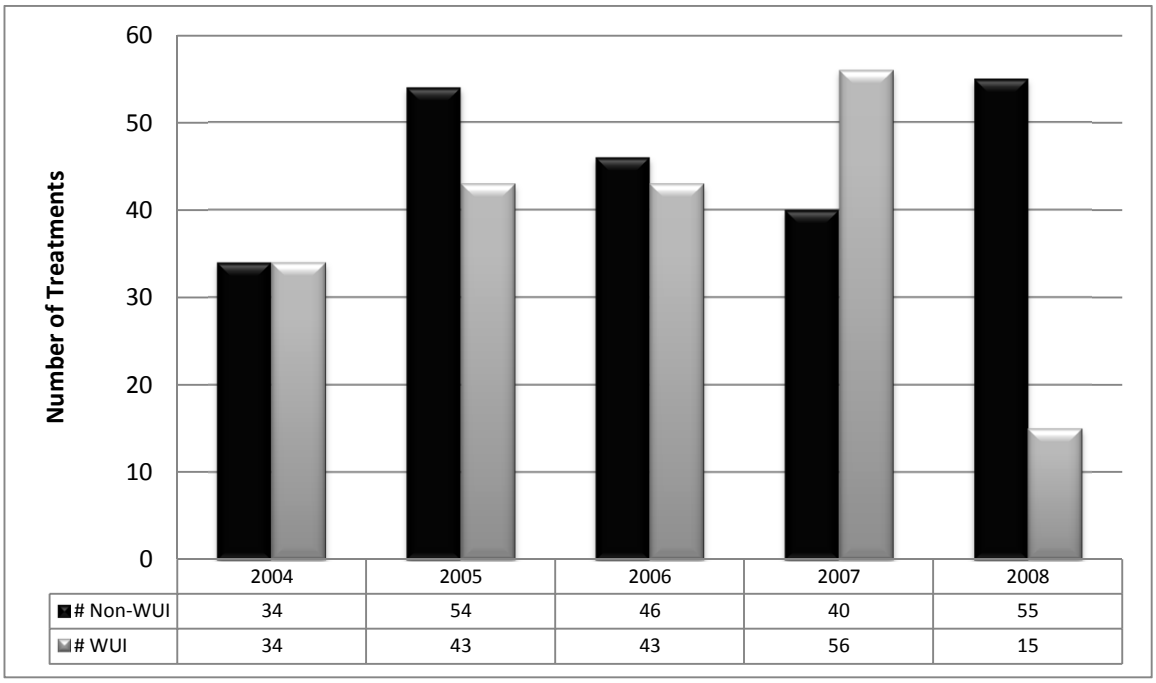
WUI = Wildland Urban Interface

NORTHEAST REGION
Wildfires
2004-2008

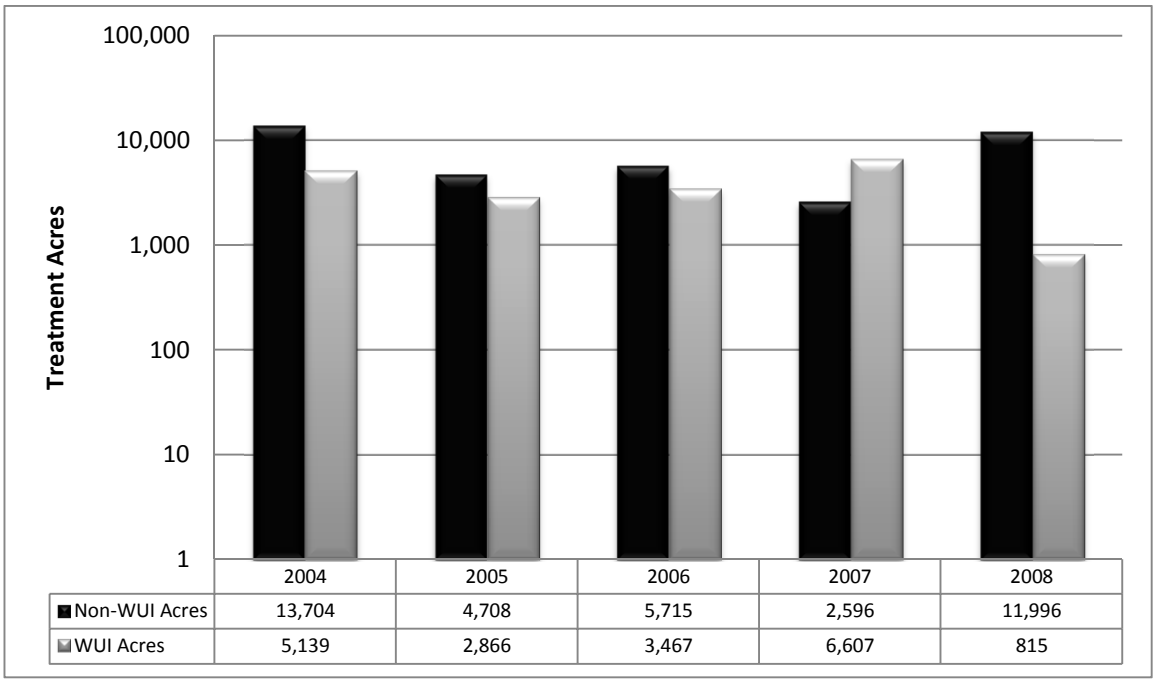




NORTHEAST REGION
Treatments
2004-2008



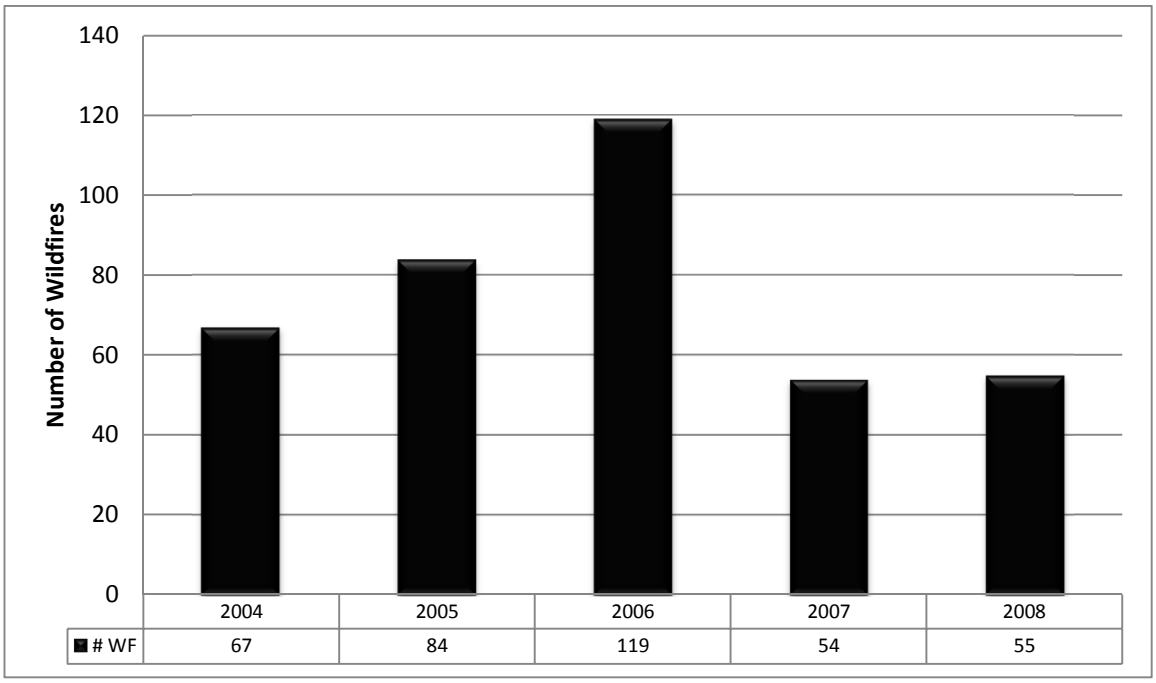
	2004	2005	2006	2007	2008
# Non-WUI	34	54	46	40	55
# WUI	34	43	43	56	15

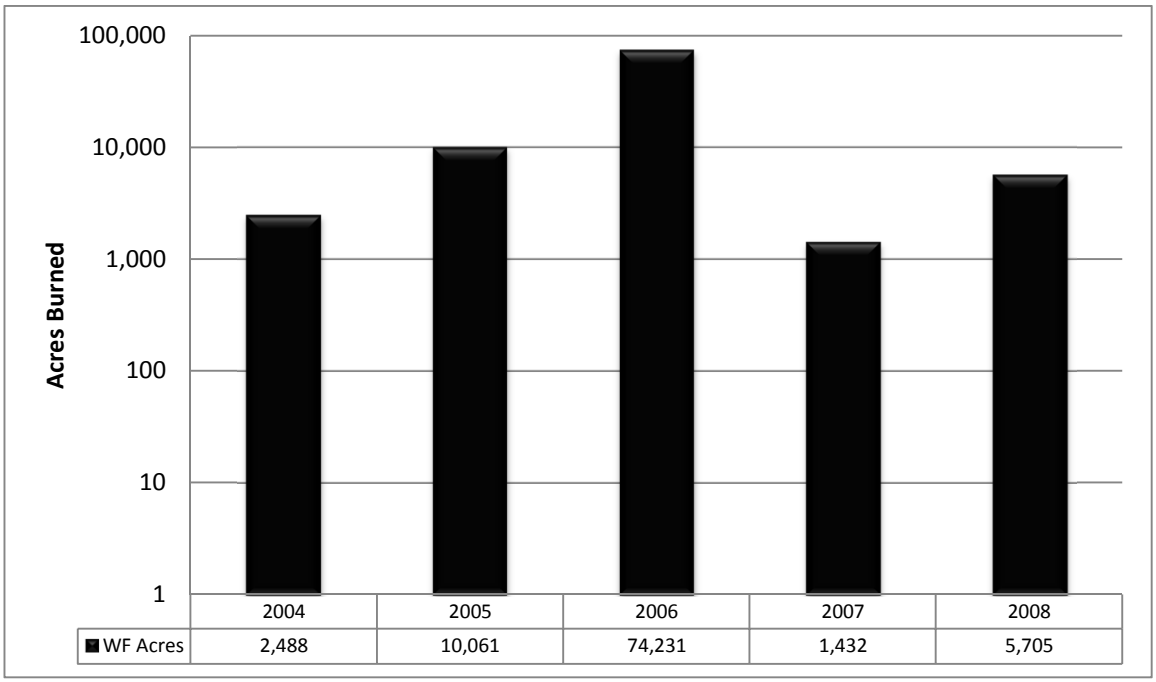


	2004	2005	2006	2007	2008
Non-WUI Acres	13,704	4,708	5,715	2,596	11,996
WUI Acres	5,139	2,866	3,467	6,607	815

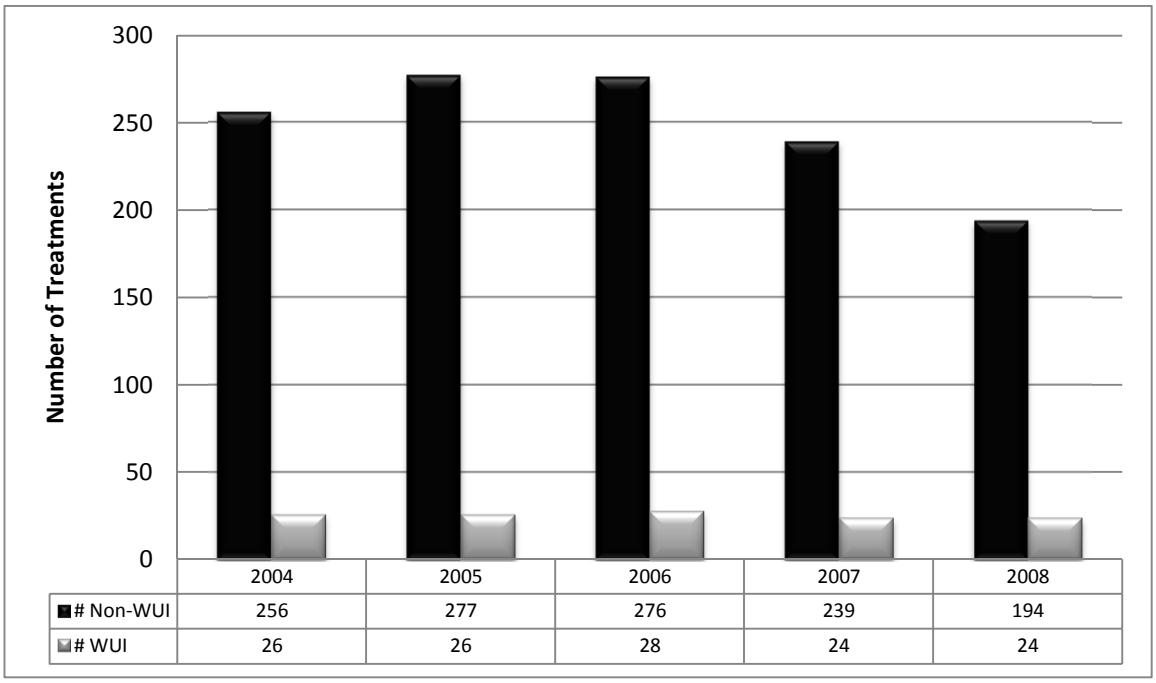
WUI = Wildland Urban Interface

MOUNTAIN - PRAIRIE REGION
Wildfires
2004-2008

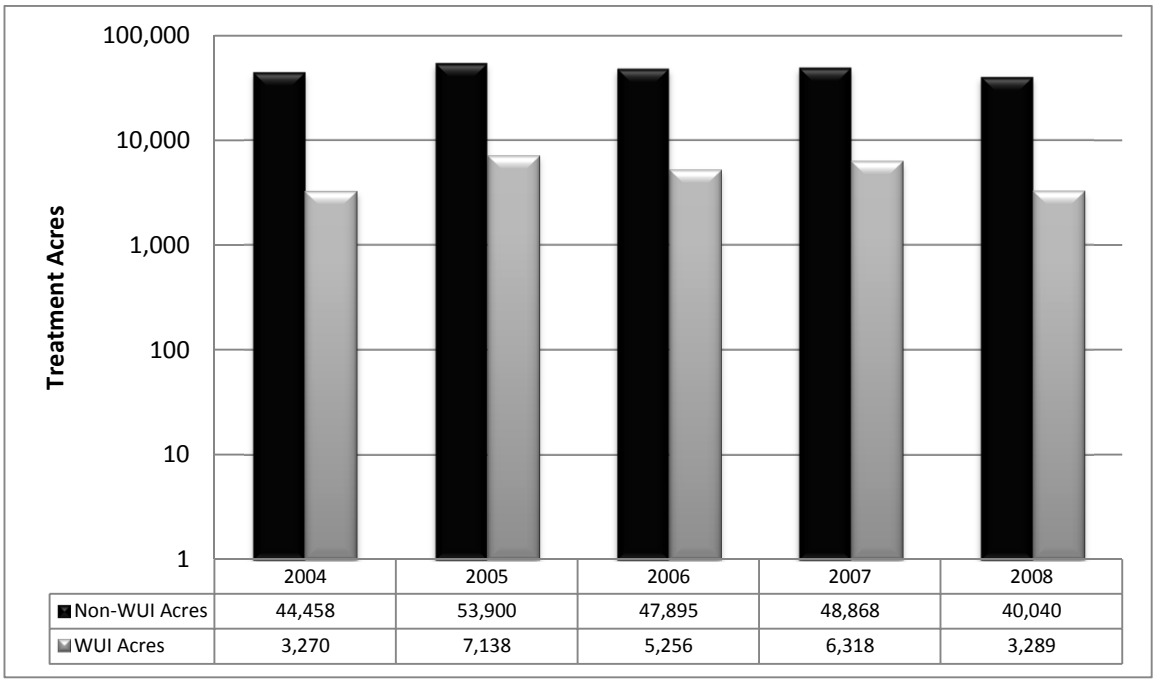




MOUNTAIN - PRAIRIE REGION
Treatments
2004-2008



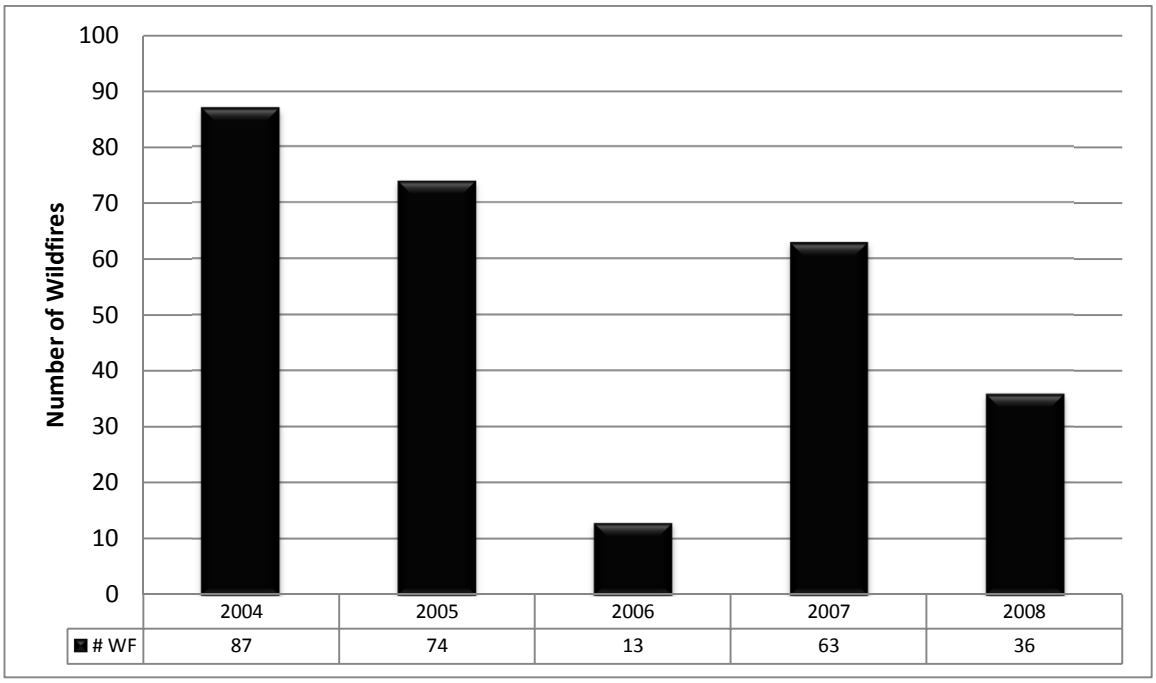
	2004	2005	2006	2007	2008
# Non-WUI	256	277	276	239	194
# WUI	26	26	28	24	24

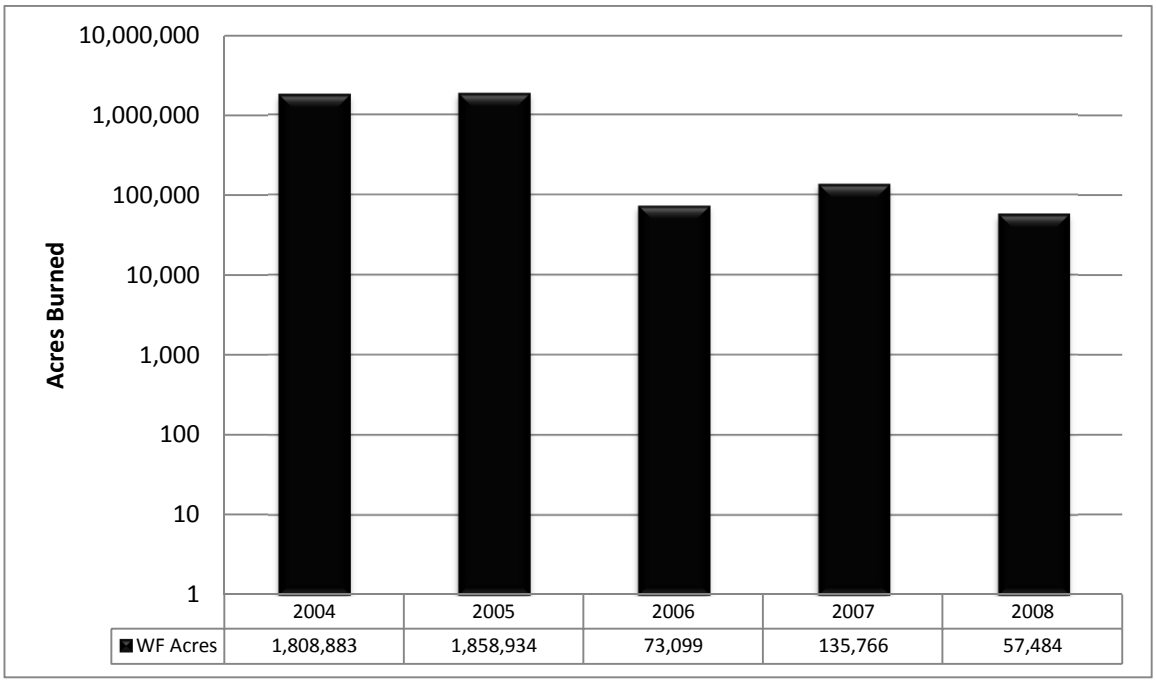


	2004	2005	2006	2007	2008
Non-WUI Acres	44,458	53,900	47,895	48,868	40,040
WUI Acres	3,270	7,138	5,256	6,318	3,289

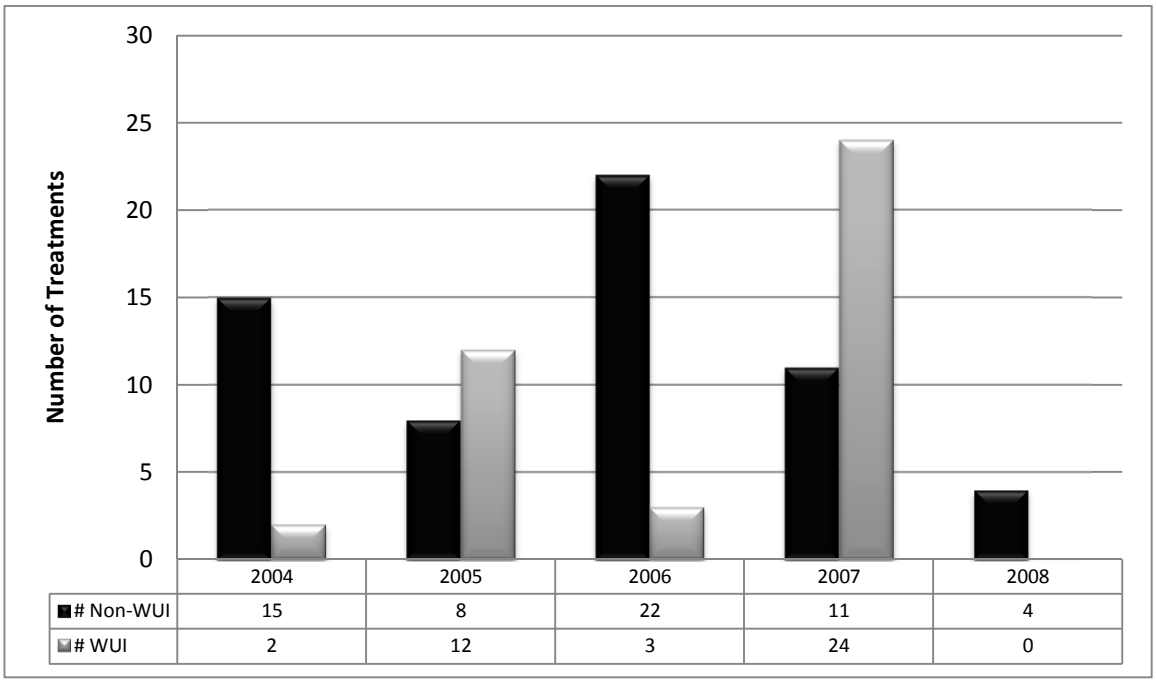
WUI = Wildland Urban Interface

ALASKA REGION
Wildfires
2004-2008

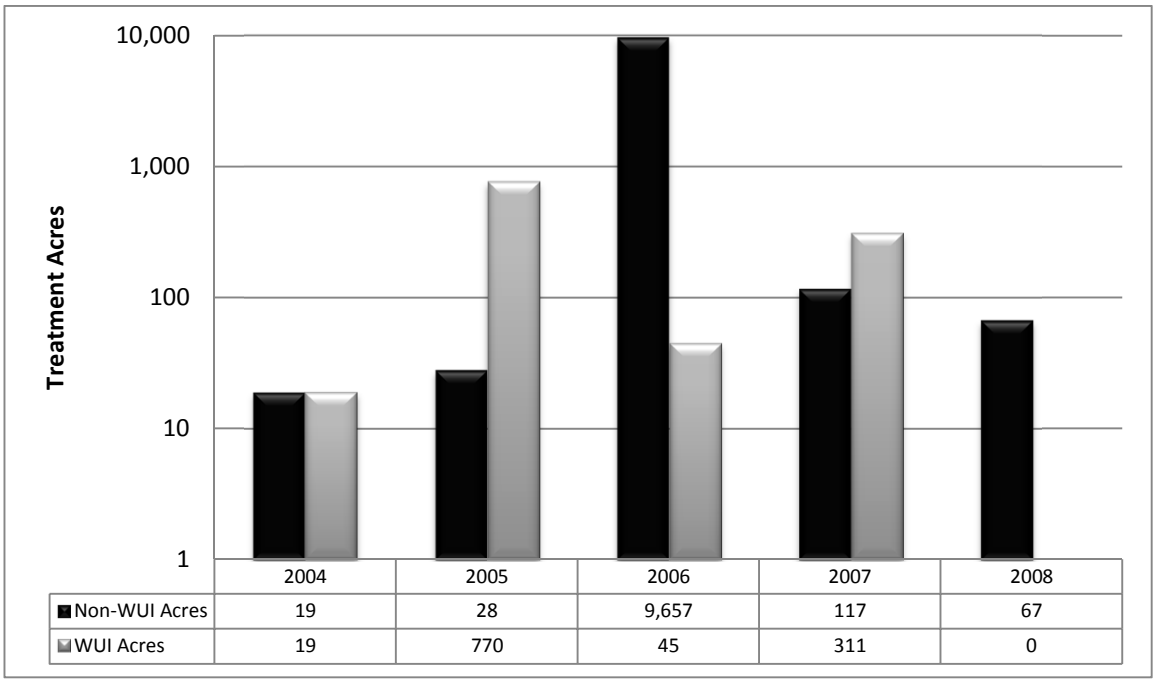




ALASKA REGION
Treatments
2004-2008



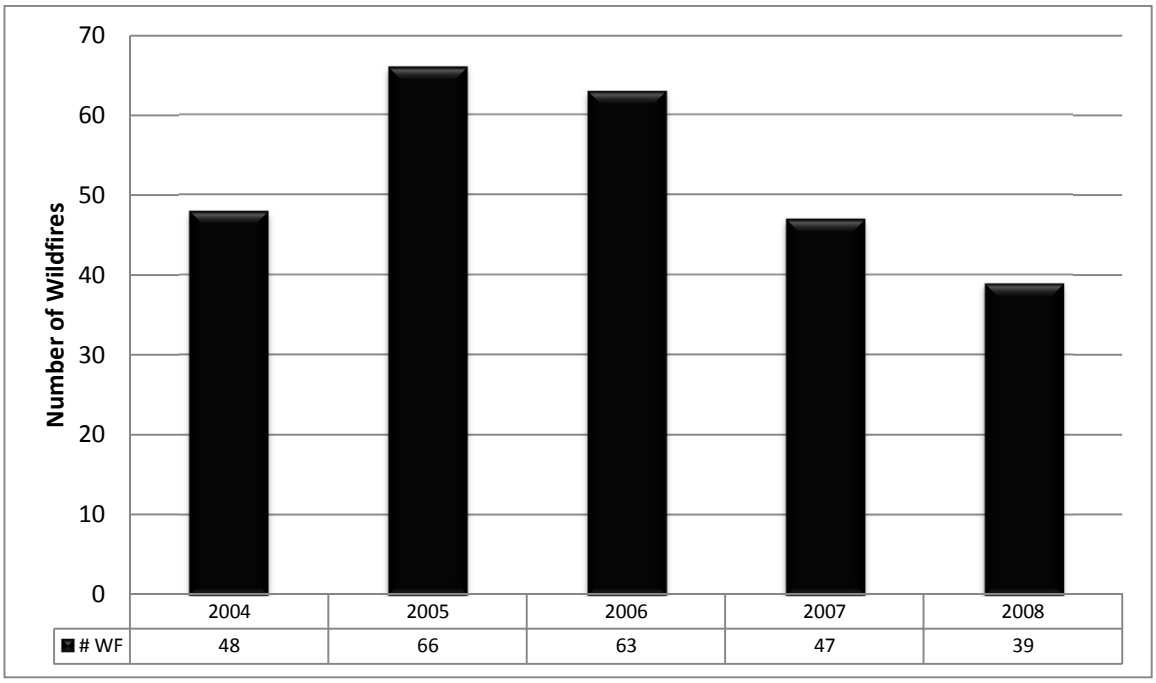
	2004	2005	2006	2007	2008
# Non-WUI	15	8	22	11	4
# WUI	2	12	3	24	0

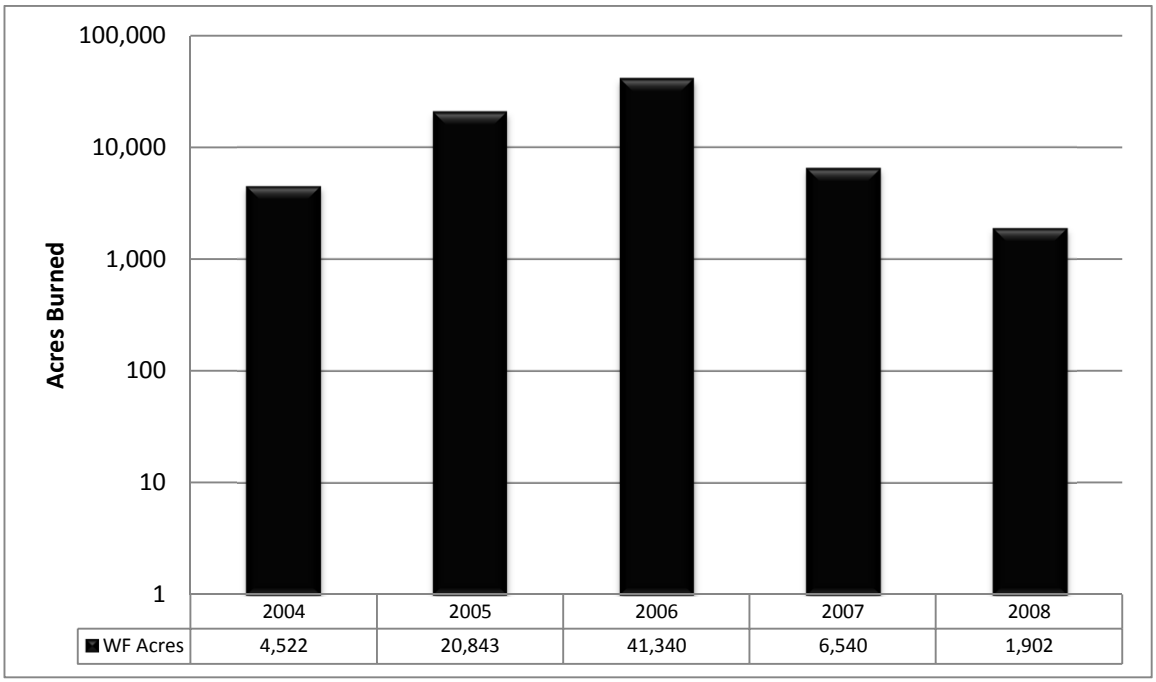


	2004	2005	2006	2007	2008
Non-WUI Acres	19	28	9,657	117	67
WUI Acres	19	770	45	311	0

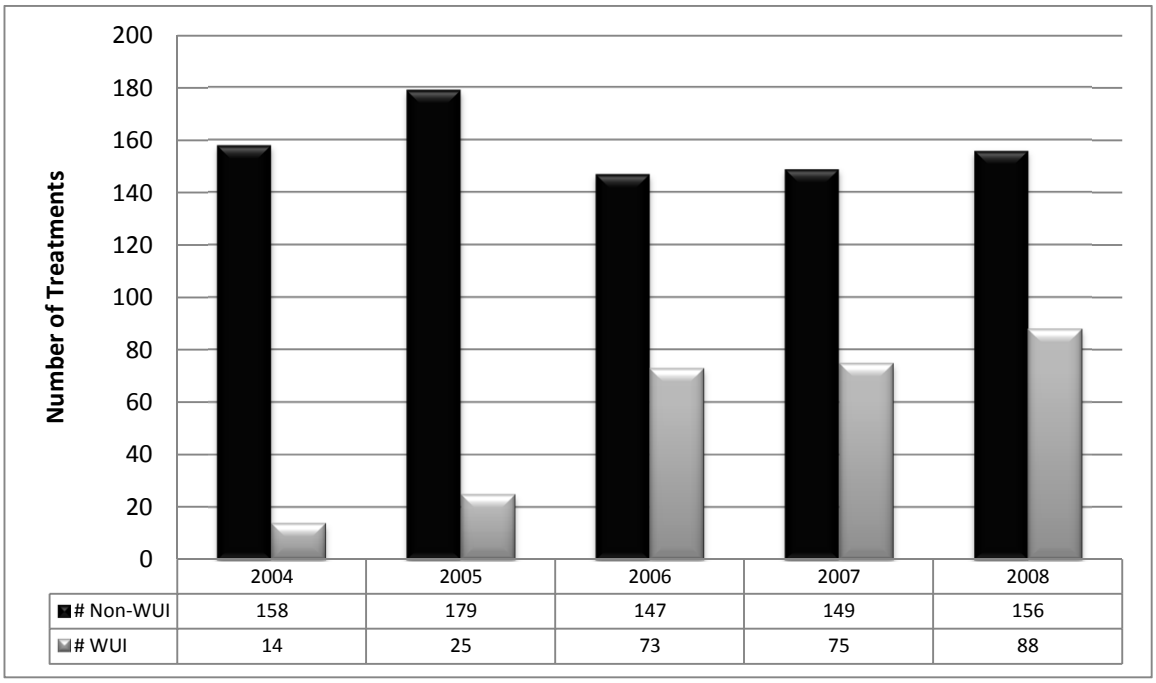
WUI = Wildland Urban Interface

CA/NV Operations
Wildfires
2004-2008

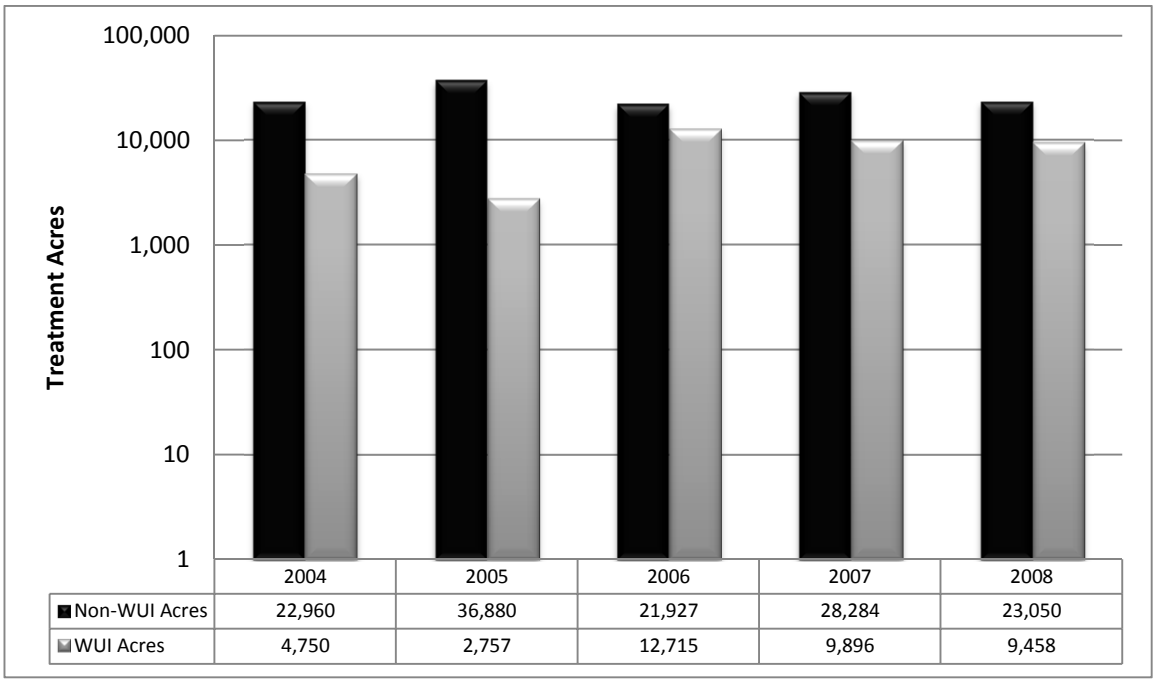




CA/NV Operations
Treatments
2004-2008



	2004	2005	2006	2007	2008
# Non-WUI	158	179	147	149	156
# WUI	14	25	73	75	88

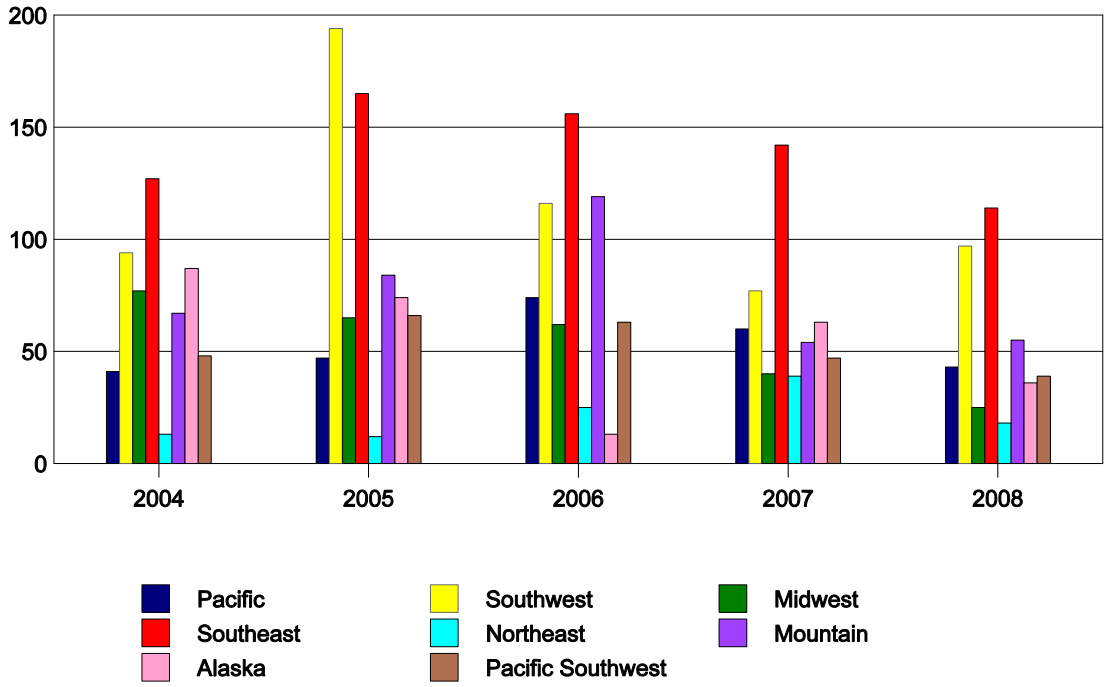


	2004	2005	2006	2007	2008
Non-WUI Acres	22,960	36,880	21,927	28,284	23,050
WUI Acres	4,750	2,757	12,715	9,896	9,458

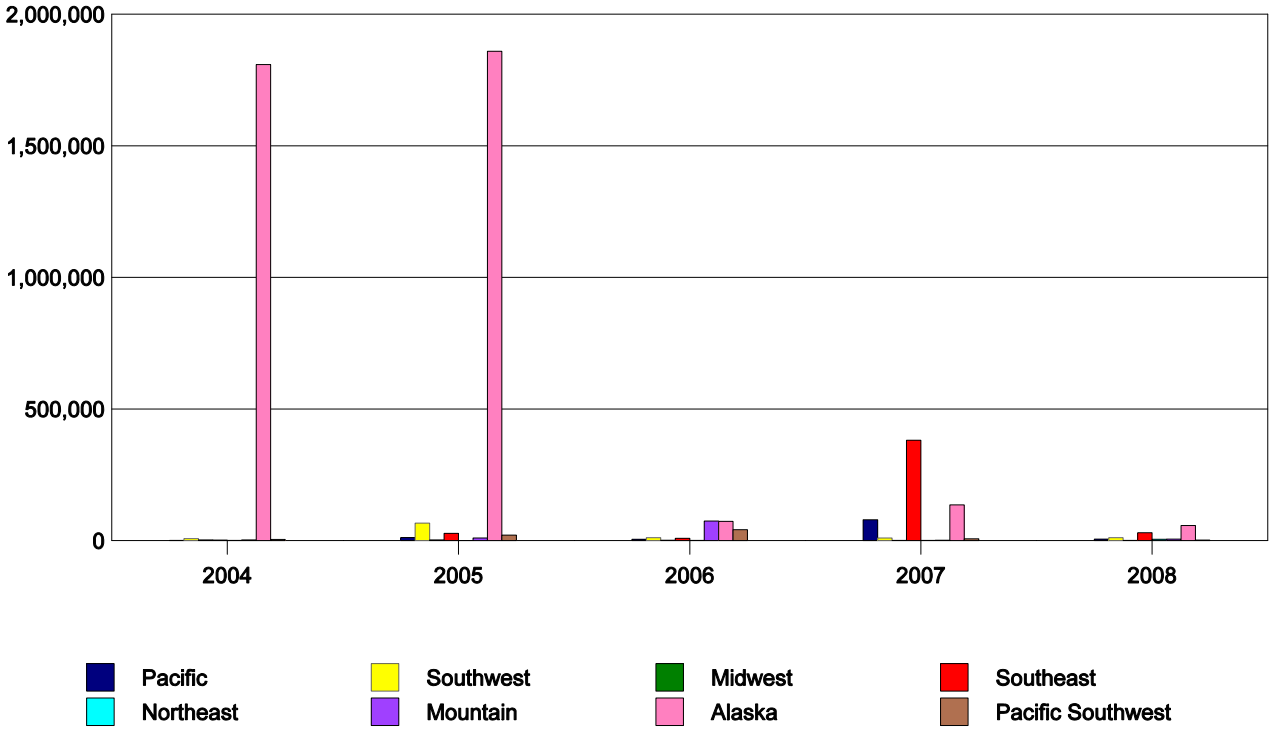
WUI = Wildland Urban Interface

WILDFIRES 2004 - 2008

Number of Wildfires

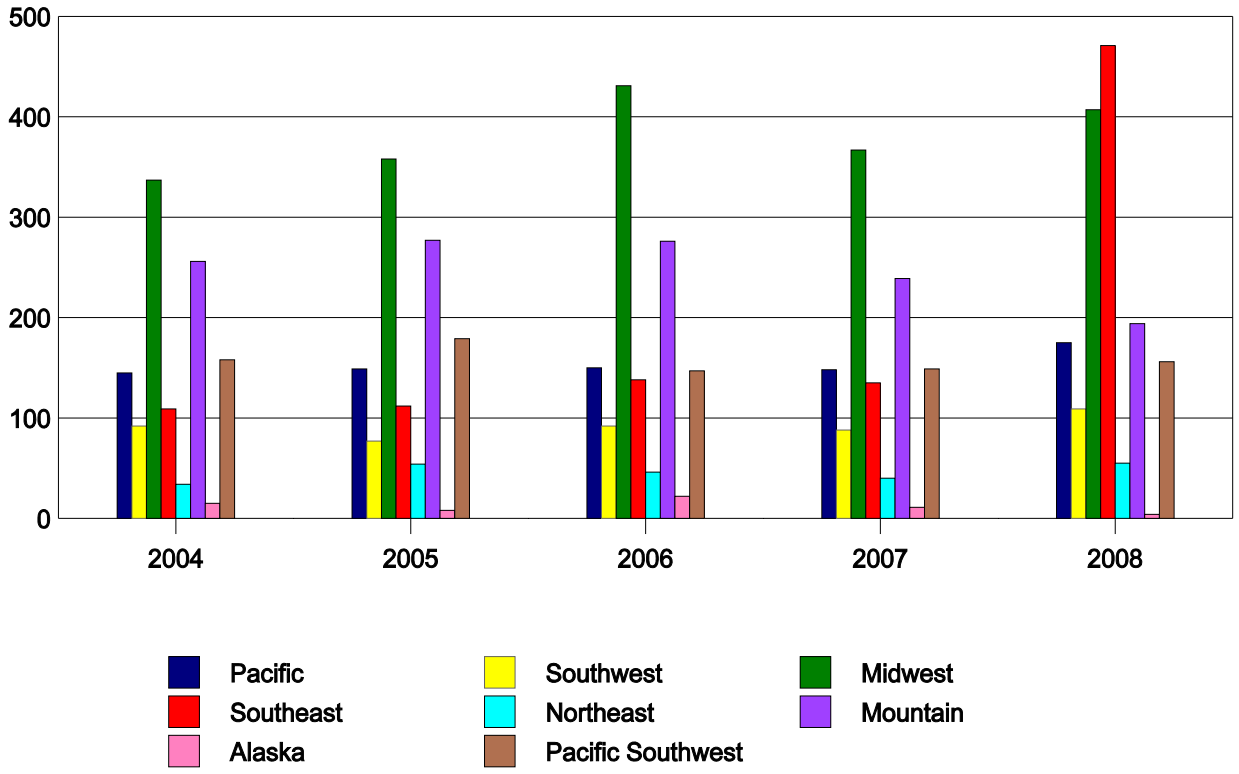


Number of Acres Burned

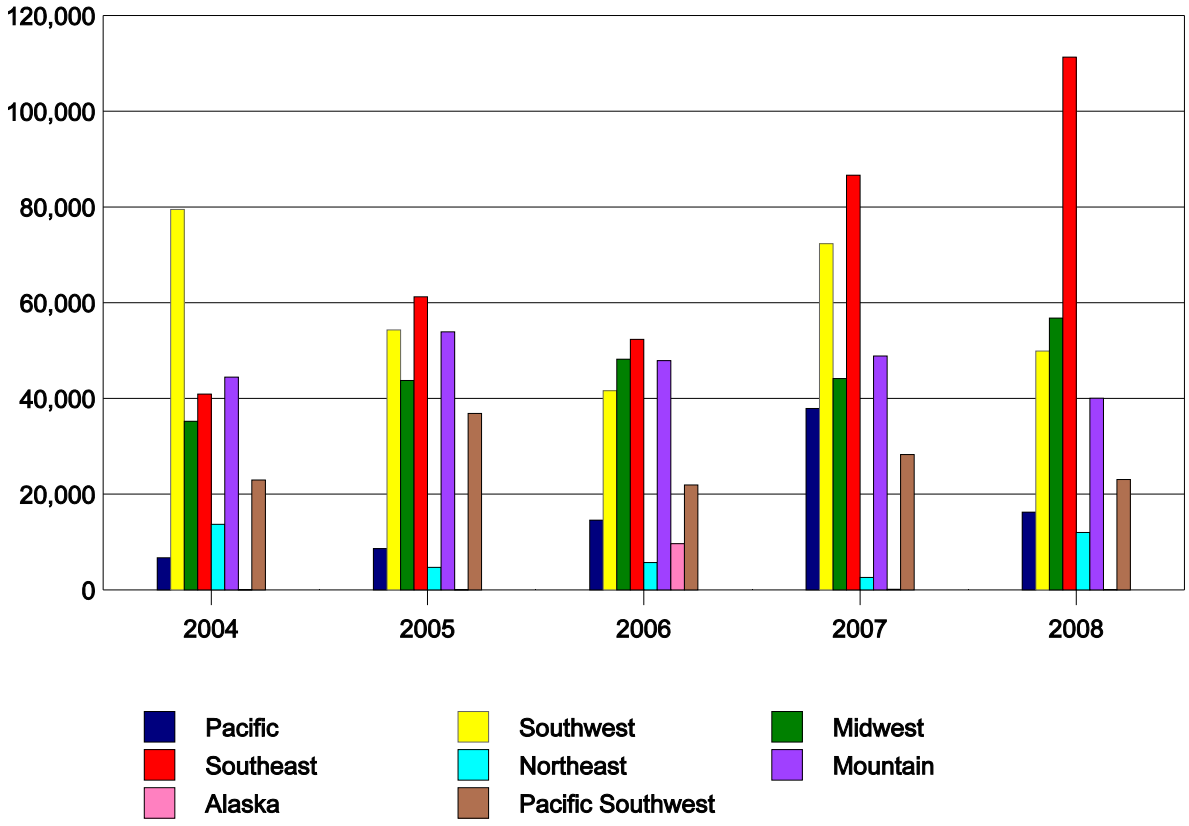


NON-WUI TREATMENTS 2004 - 2008

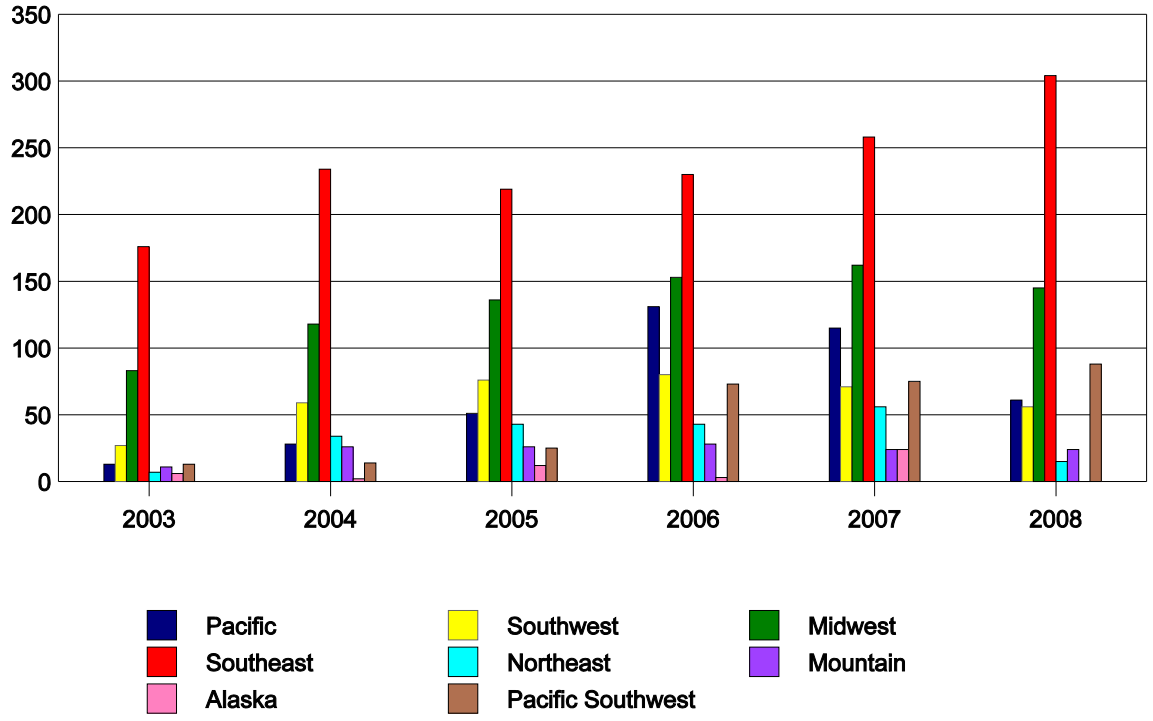
Number of Treatments



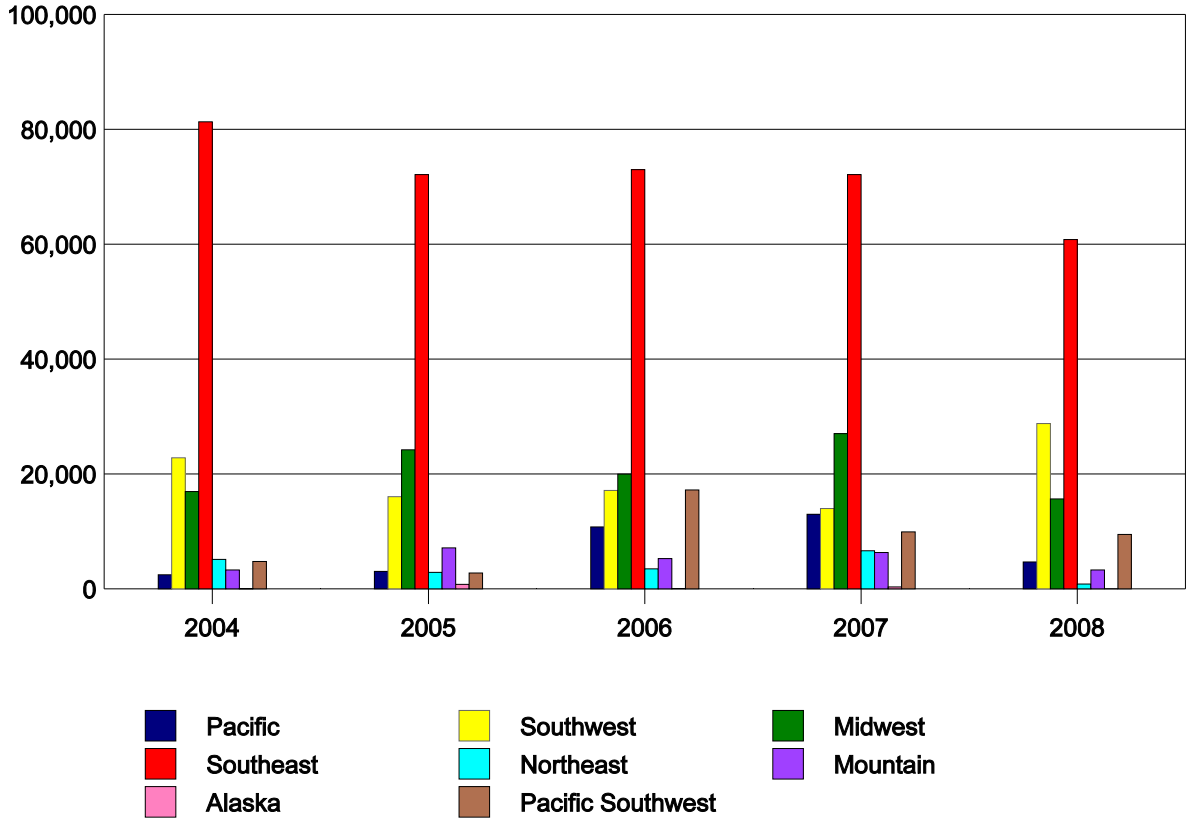
Number of Acres Treated



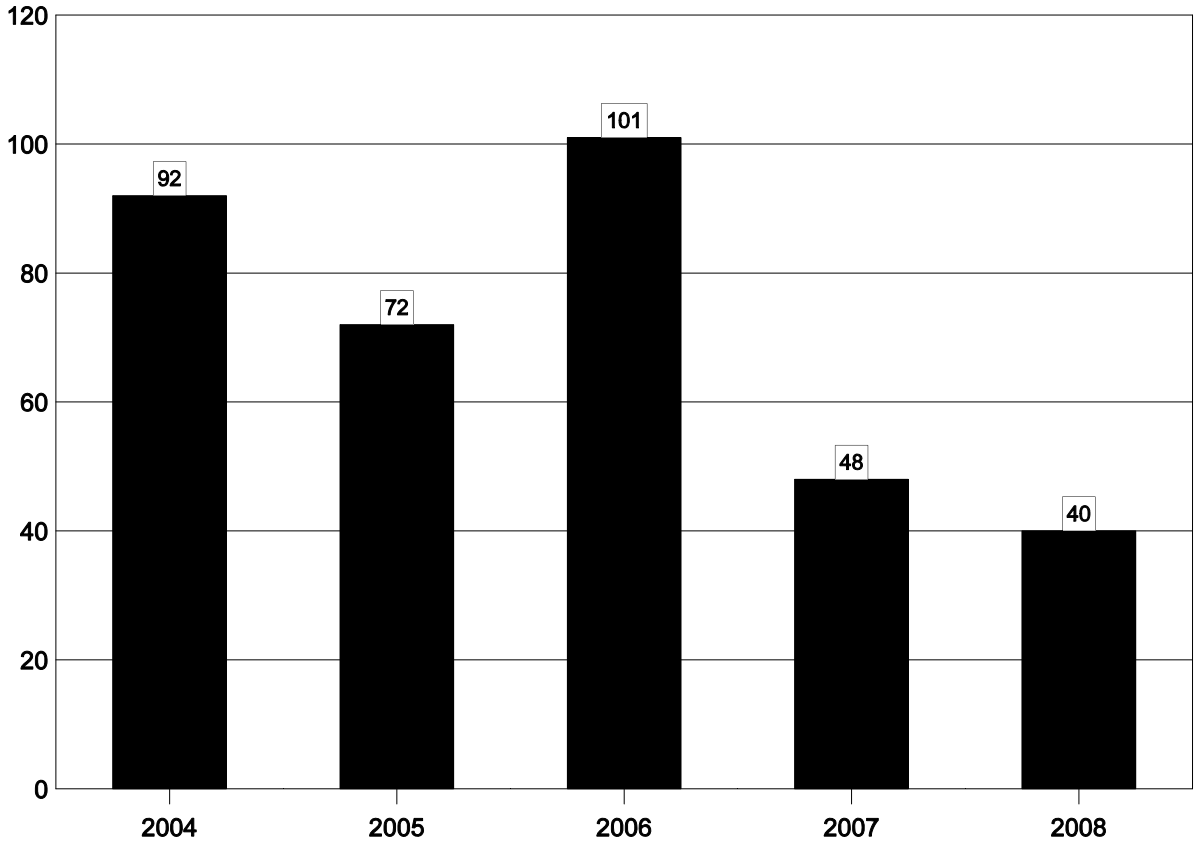
WUI TREATMENTS 2004 - 2008
Number of Treatments



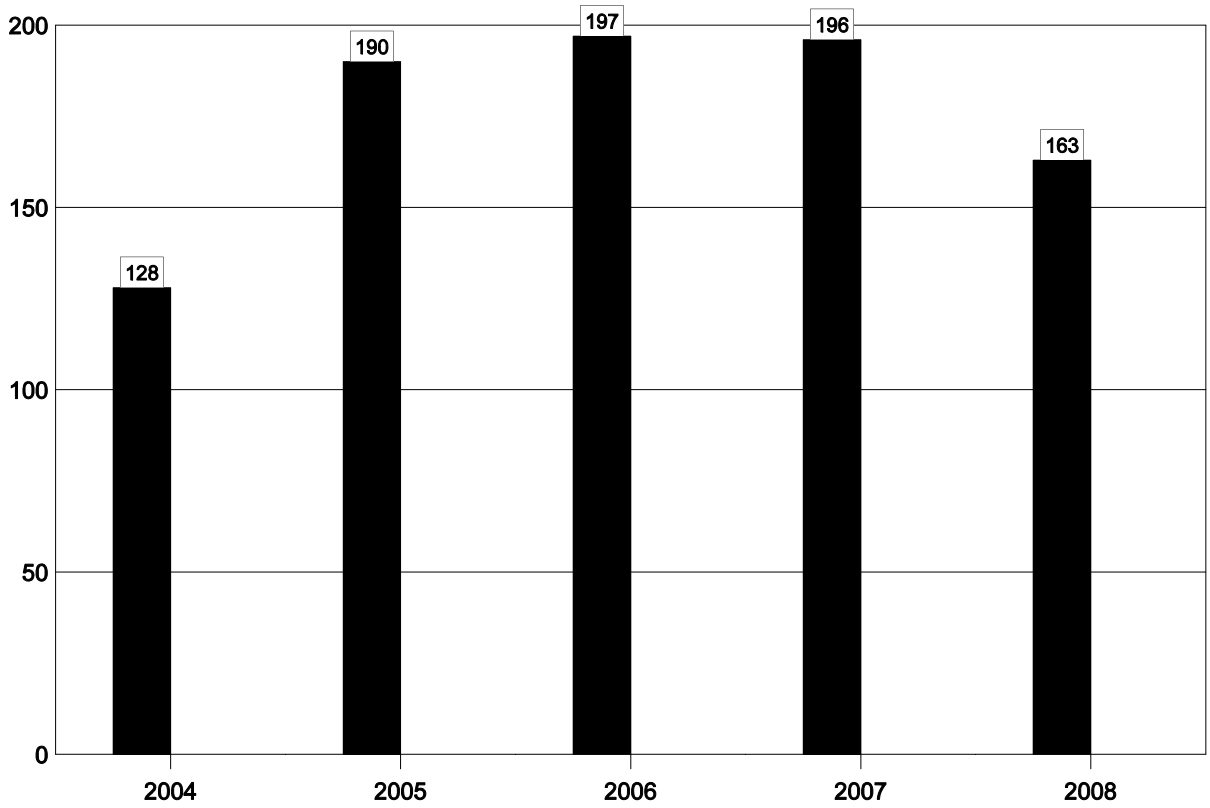
Number of Acres Treated



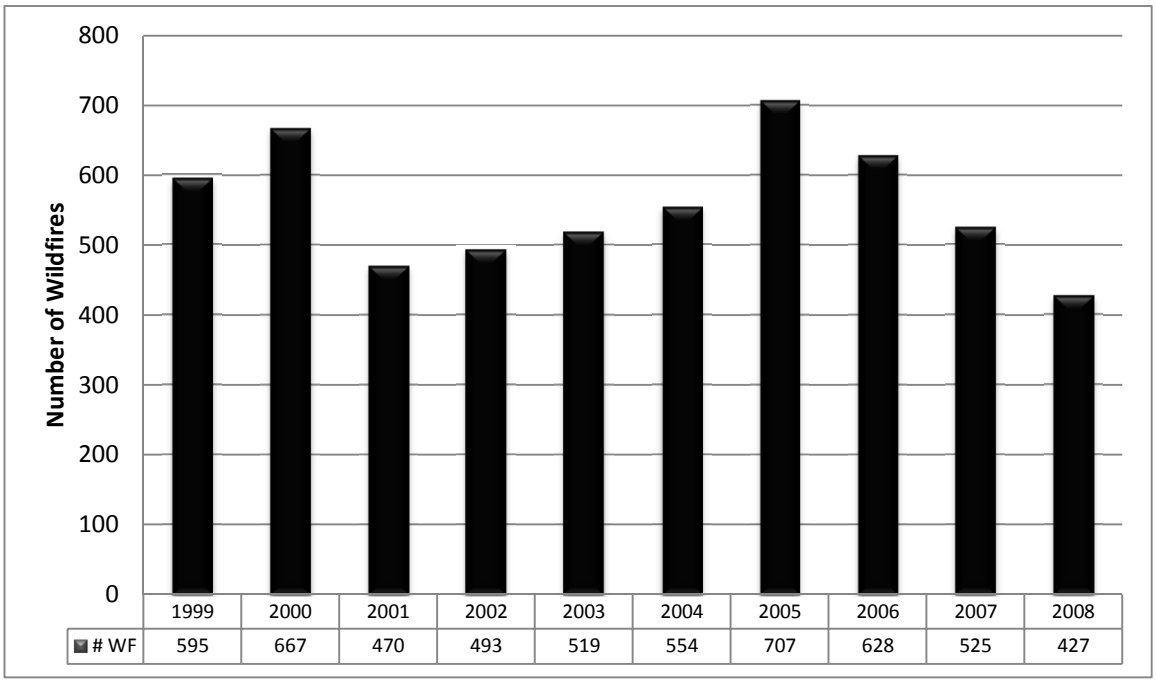
FALSE ALARMS 2004 - 2008

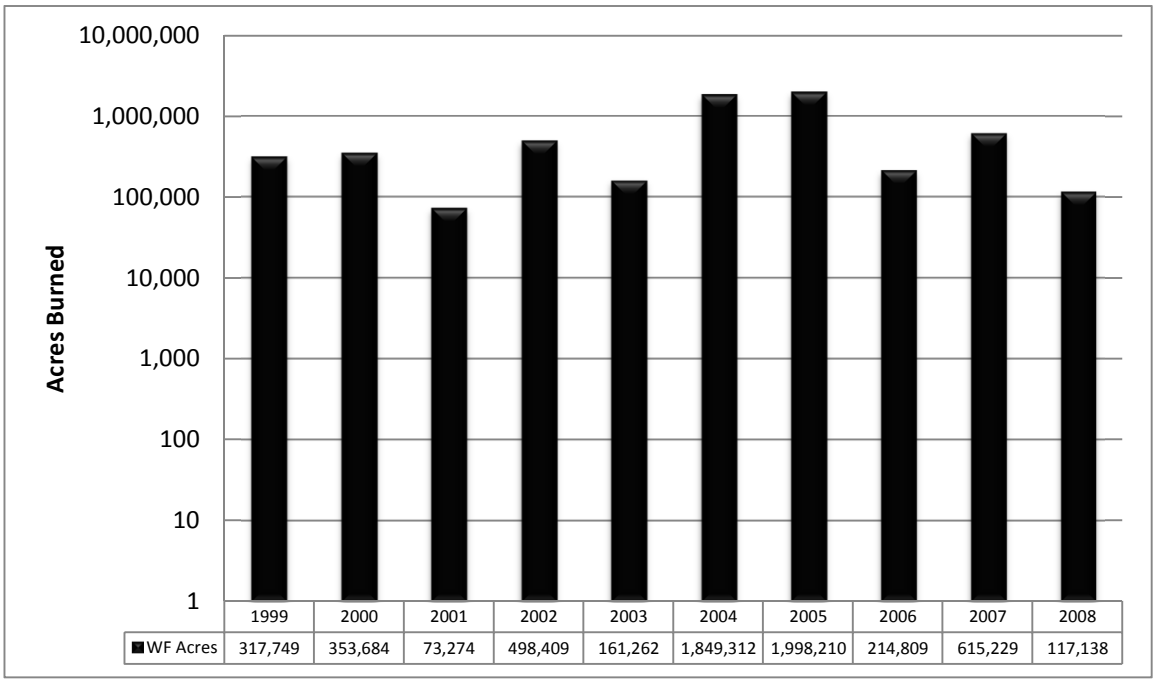


SUPPORT ACTIONS

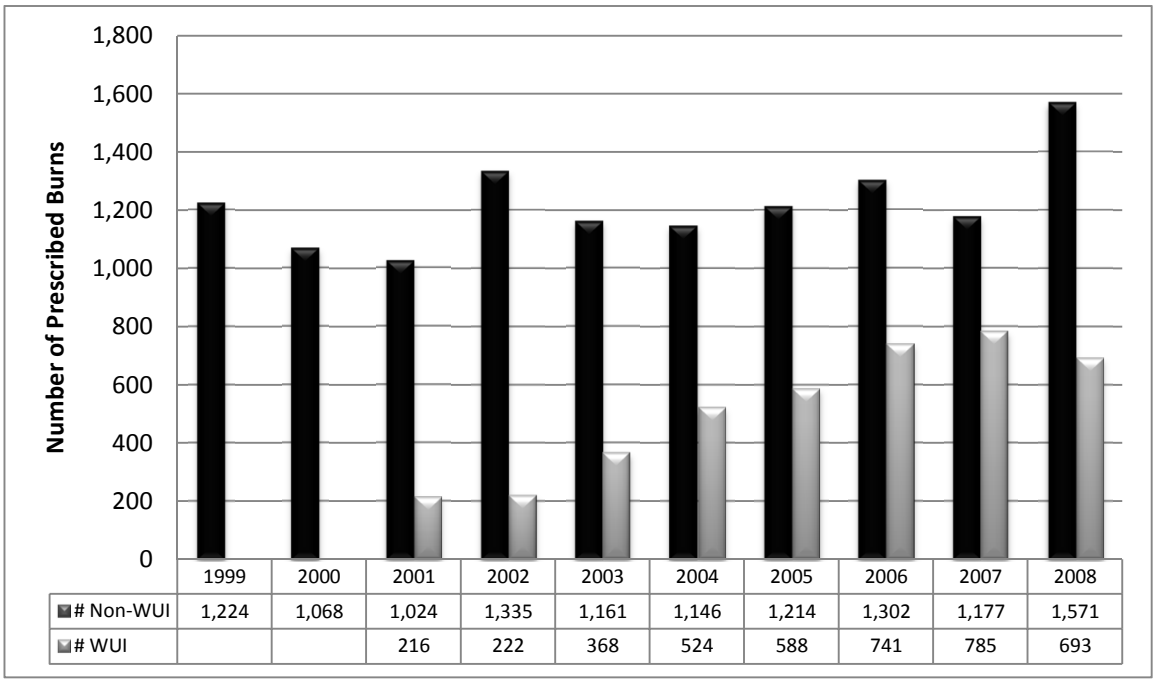


WILDFIRES
1999 - 2008

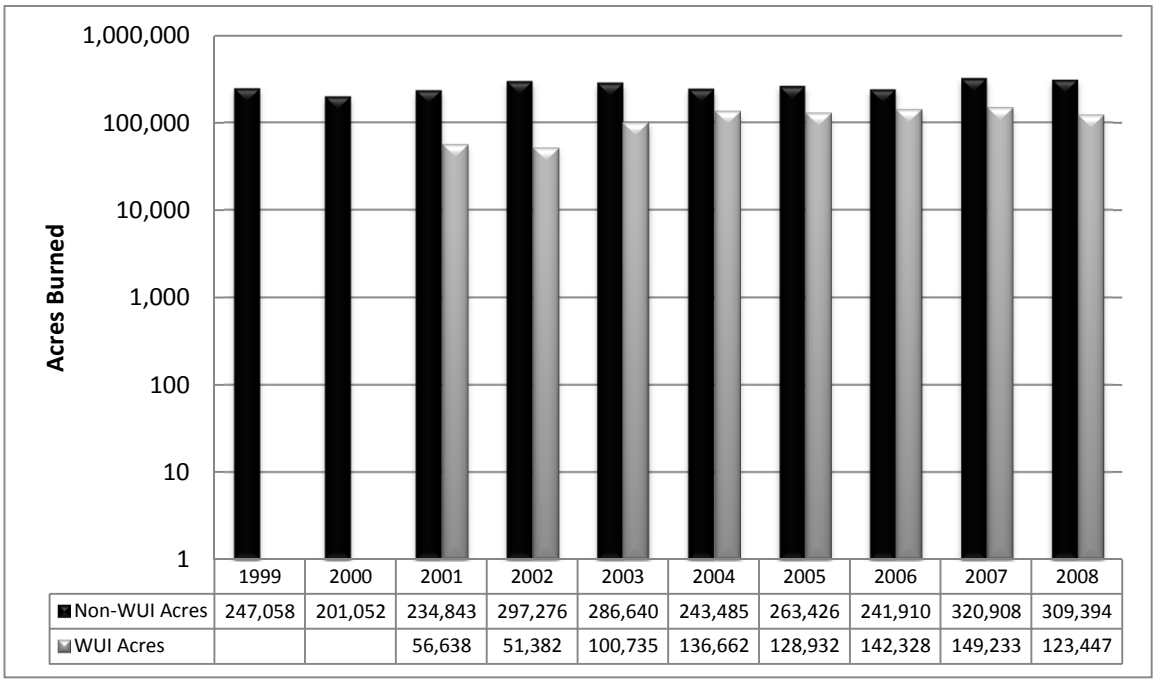




TREATMENTS
1999 - 2008



	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
# Non-WUI	1,224	1,068	1,024	1,335	1,161	1,146	1,214	1,302	1,177	1,571
# WUI			216	222	368	524	588	741	785	693

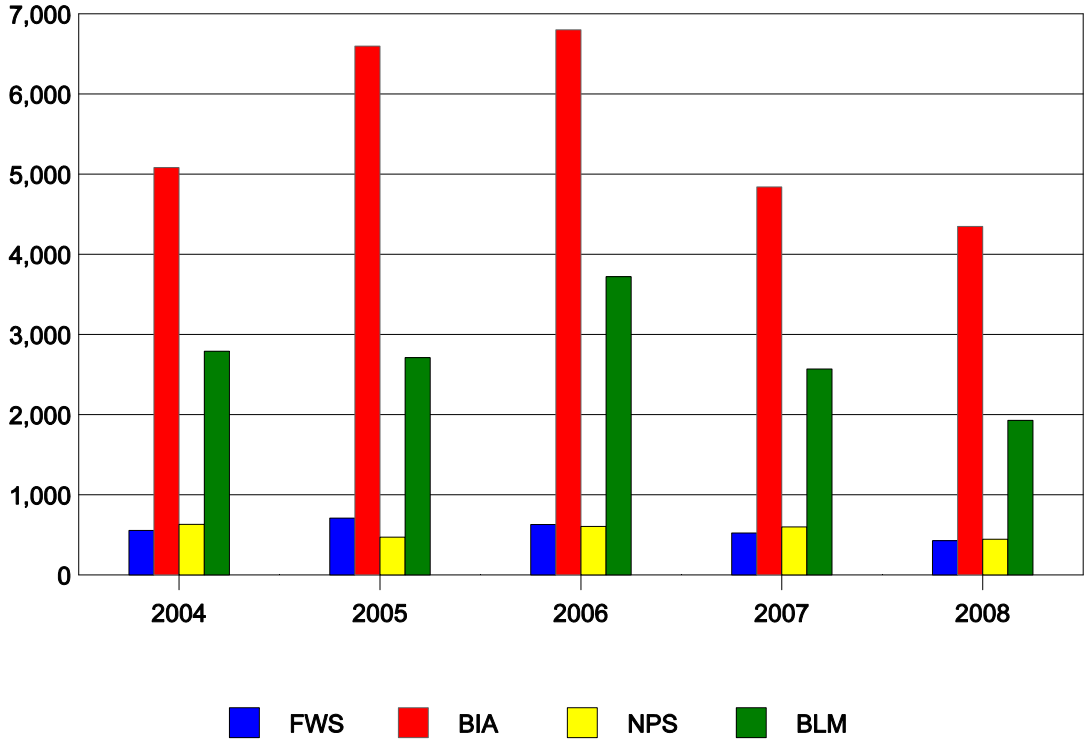


	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Non-WUI Acres	247,058	201,052	234,843	297,276	286,640	243,485	263,426	241,910	320,908	309,394
WUI Acres			56,638	51,382	100,735	136,662	128,932	142,328	149,233	123,447

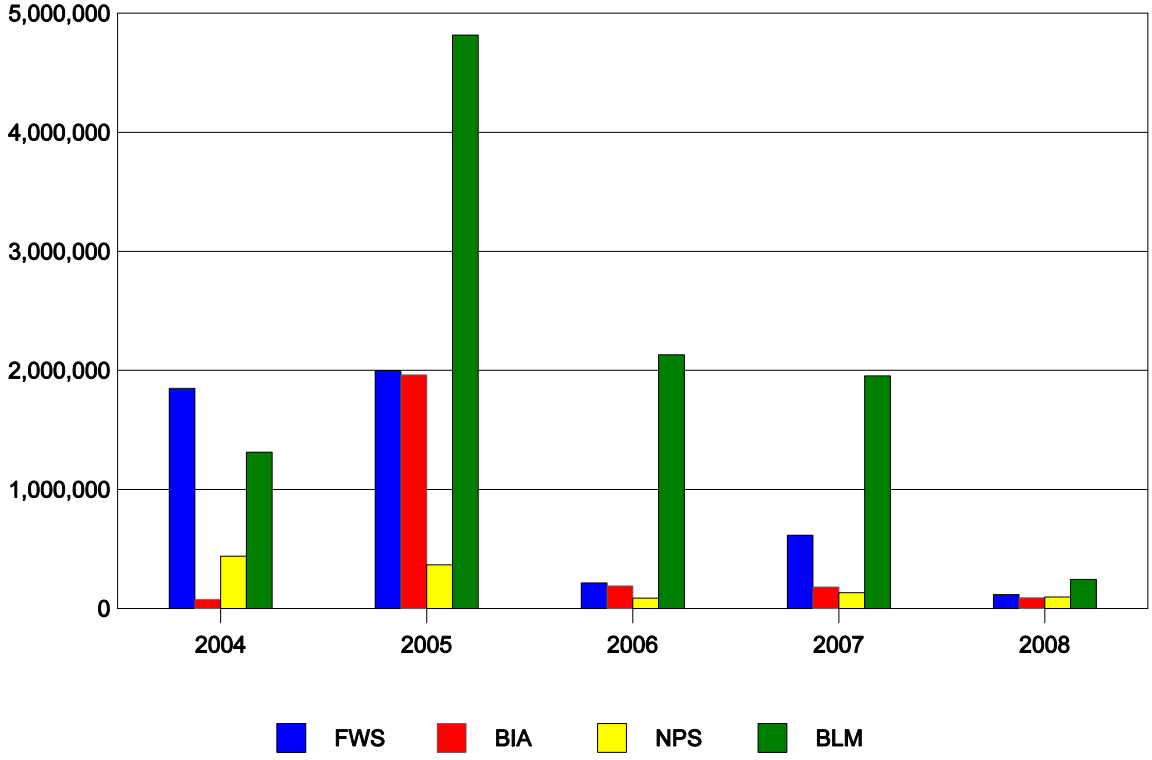
WUI = Wildland Urban Interface

DEPARTMENT OF THE INTERIOR 2004 - 2008

Number of Wildfires

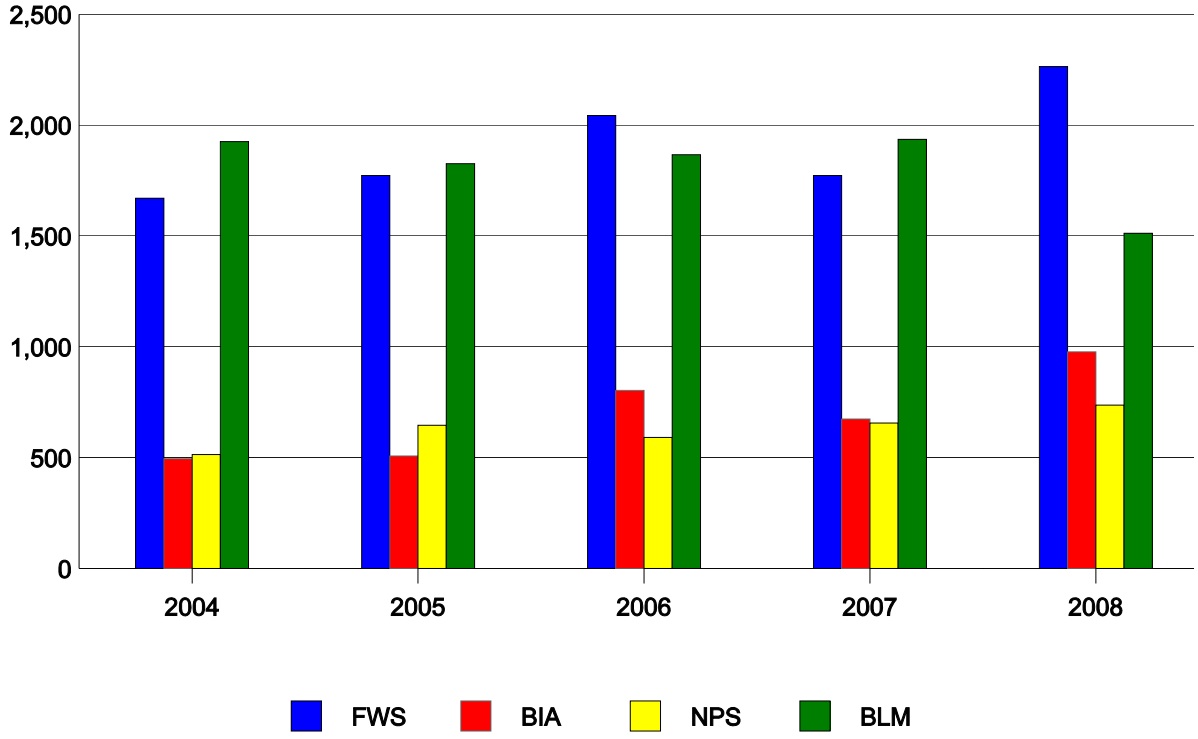


Number of Acres Burned

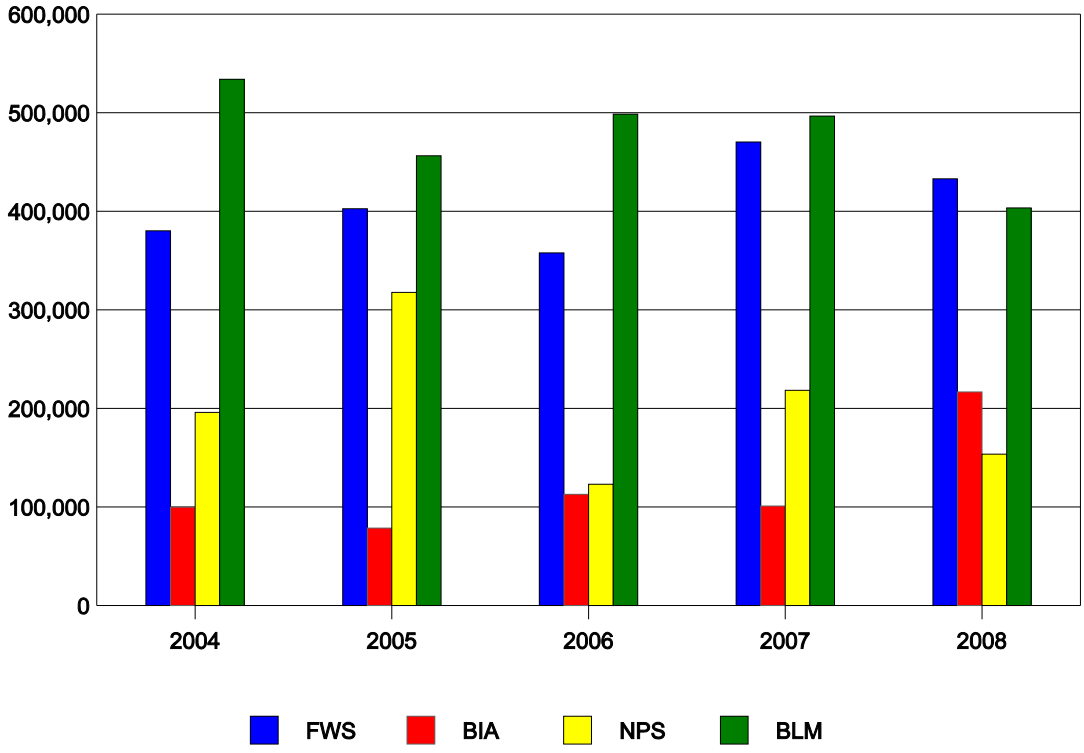


DEPARTMENT OF THE INTERIOR 2004 - 2008

Number of Treatments



Acres Treated



Treatment statistics obtained from NFPORS