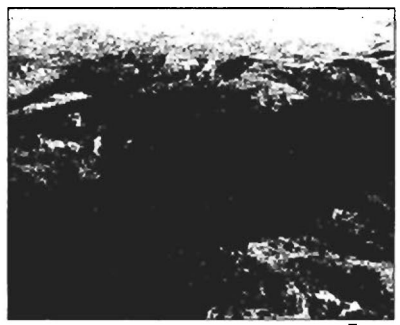
Dixie National Forest
Powell Ranger District

Fall 2002

Background

The Sanford Fire resulted from the escape of two prescribed burns that were ignited in April and May of 2002. The Sanford and Adams Head prescribed burns were approved in 2001 and 2002, respectively, for the purpose of reducing accumulated fuels, improving vegetation conditions, and habitat for wildlife on 2,500 acres.

When the burns were ignited, short and long-term weather conditions were favorable for achieving the desired results. Both burns progressed as expected creating a mosaic of burns, partial burns, and non-burns across the landscape.



A mosaic of burned and unburned tion was planned for the Sanford and Adams Head prescribed burns.

On Friday, May 31, increasing temperatures, low humidities and high winds caused the Sanford prescribed burn to jump its planned containment line. The fire was declared a wildfire, and suppression efforts began. On Saturday, June 8, the Adams Head and Sanford prescribed burns joined, fueled by high winds. The fire area was then referred to as the Sanford Fire.

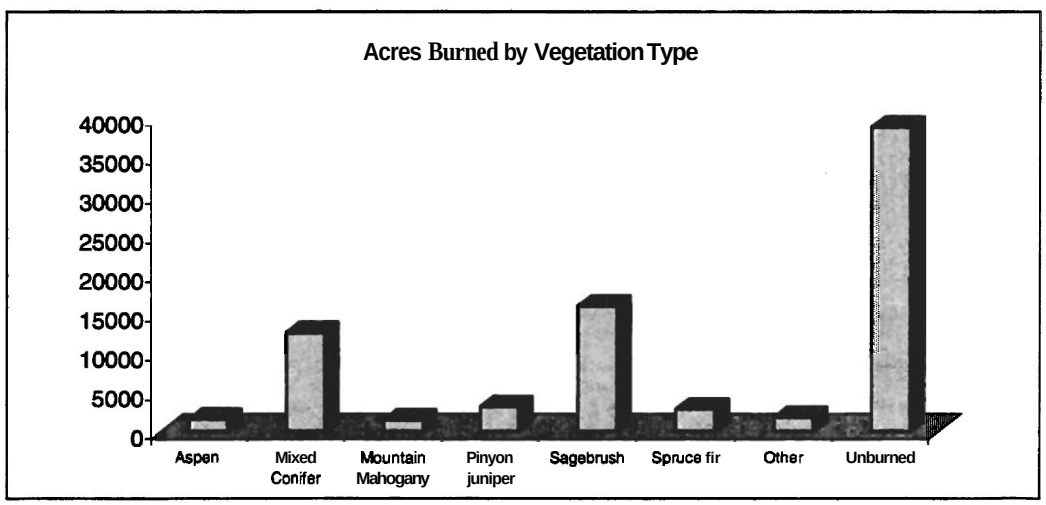
Fire suppression efforts focused on protecting private lands, keeping the fire from spreading into timber stands on Mt. Dutton, and minimizing fire activity in the Deep Creek drainage. With the exception of Deep Creek, efforts to protect these resources and limit the fire spread was successful.

Fire Facts

- Adams Head and Sanford prescribed fires ignited in April and May 2002
- The Sanford Fire resulted from high wind events pushing the two prescribed fires together
- Total area within the prescribed burn and wildfire boundary— 78,000 acres
- 50% of the area was unburned
- 5% of the area burned at low intensity
- 35% of the area burned at moderate intensity
- 10% of the area burned at high intensity
- 41% of the burn was sagebrush
- 32% of the burn was mixed conifer
- 8% of the burn was pinyon/juniper
- 4% of the burn was aspen

Fire Effects

On July 1, the Sanford Fire was declared contained. The total amount of land within the perimeter of the Sanford Fire and the two prescribed burns is 78,000 acres. Although this number is used to describe the size of the fire, it includes land that is unburned and burned. An assessment of the fires intensity indicates the following: 7457 acres (10%) burned at high severity; 27,381 acres (35%) burned at moderate severity; 3945 acres burned at low severity (5%); and 39,144 acres (50%) were unburned.



Vegetation

Aspen have already begun to resprout in many areas of the burn

Sagebrush will likely become reestablished through seeds that are already present in the soil. In areas that burned extremely hot, or where there were no natural seed sources available, some seeding by hand or aerial application will occur.

Aspen was present throughout the burned area as "pure stands" or interspersed with conifers. Although the fire killed many aspen trees, it also enhanced aspen reproduction. Like other disturbances, fire stimulates the growth of suckers from the aspen's extensive root system. In many instances the fire left behind bare mineral soil and removed taller plants - conditions perfect for aspen seedlings to take root.

Areas of mixed conifer, spruce fir and Ponderosa pine will take much longer to become reestablished. These trees do no resprout but instead rely upon seed being blown in from adjacent timber stands or transported by animals, or planted to become established.

15,423 acres of mixed conifer and spruce fir were burned. Opportunities to harvest this material, however, are limited as most of these forested areas are either in inventoried roadless areas, occur on steep slopes, or have species of low economic value.

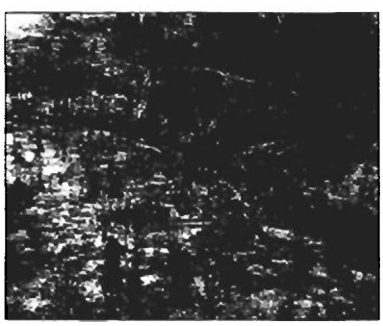
Soil and Water

"Forest Service personnel are working with the Utah Division of Wildlife Resources and other partners to evaluate the effects of the fire and on long-term monitoring needs"

A team of resource specialists evaluated these areas immediately after the fire to determine what actions should be taken to help address any emergency situations that could occur as a result of the fire. Based on their findings, log erosion barriers were installed in the Deep Creek drainage and grass seed was applied to 600 acres in the Deep and Deer Creek drainages. The purpose of these treatments was to reduce the amount of soil movement to streams with important fishery and recreation values.

Fisheries

Perhaps the greatest impact of the Sanford Fire was observed in the Deep Creek drainage at the northeast end of the fire. Deep Creek is home to a remnant population of native Bonneville cutthroat trout and has been used as a source for transplanting elsewhere. Since much of the drainage was burned at a high intensity, fisheries biologists felt that the population was at risk of being eliminated if runoff from thunderstorms occurred before vegetation could become established. On June 21, 218 fish were captured and relocated to another stream nearby. On July 18 a substantial thunderstorm event occurred over the drainage. By all indications the Bonneville cutthroat fishery would not have survived the effects of such an event.



Home to native Bonneville cutthroat trout, the Deep Creek drainage burned with high intensity

Once the stream systems stabilize, the Bonneville cutthroat trout that were moved will be transplanted back into Deep Creek. In addition, several other streams within the burned area have also been identified as potential transplant sites. Over time, the population in Deep Creek will increase and 'surplus" fish will be used to repopulate the other streams.

Unfortunately, the thunderstorm event that took place on July 23 had an impact on the fishery in the East Fork Sevier River. Dead fish were observed from the confluence of Deer Creek through the Black Canyon area of the East Fork. Species killed by the flow of ash-laden water include brown trout, suckers, sculpin and a variety of other non-game species. It is anticipated that these sections of stream will repopulate naturally from species moving back into the area. The Utah Division of Wldlife Resources will also stock the affected sections with fingerling brown trout to help reestablish this important fishery.

Wildlife

Even during a wildfire most wildlife species are able to escape. The greater impact is often due to the changes in vegetation and habitat after a fire. Important wildlife species that use the Sanford Fire area include mule deer, elk. turkey, black bear, mountain lion, and blue grouse. Many of the larger game species have already returned to the fire area to forage on the nutritious sprouts of aspen, grasses, forbs and brush that have already begun to grown.

Some sagebrush, grass and forb seeding in key wildlife areas is planned for the fall of 2002. Approximately 7,600 acres will be aerially seeded in cooperation with the Utah Division of Wildlife Resources, and the Forest Service. The seeding is intended to restore native ecosystems where natural seed sources have disappeared.

Deer and elk are already browsing on newly sprouted vegetation

Recreation/Access

Although the Sanford fire area was closed during the burn and fire suppression efforts, the area is now open to travel. Regulations prohibiting vehicles from traveling off roads (as shown on the Forest Travel Map) will continue. Although there are some areas where off road use is permitted. we would encourage users to stay on establish roadways in order to allow plants to recover.

Long-term Restoration and Monitoring

Although the Sanford Fire affected many resources, it must be remembered that fire in the west has always played an important role in shaping the landscape, the vegetation upon it, and the animals that live in it Often times the first reaction following a wildfire is to 'get in and fix it" rather than letting nature take its course. While some emergency measures may be necessary to protect valuable resources, other restoration actions must be carefully considered before being implemented. Often times these actions are not effective, increase damage, or delay recovery.

"Many game species have returned to the burn to forage on nutritious sprouts of aspen, forbs, and grass"

The Forest Service is working with other agencies, researchers, and partners to develop a long-term restoration and monitoring plan for the Sanford Fire area. This effort will help identify and prioritize additional actions that might be implemented over the next 5 to 1 0 years.

Fire as a Management Tool

The controlled use of fire (prescribed burns) is a very valuable tool for resource managers. Each year the Dixie National Forest treats approximately 8,000 acres with prescribed burns. The burns are ignited after careful consideration of public and firefighter safety, weather, and probability of meeting the burn objectives. These objectives vary by project but are generally for the purpose of reducing fuels and the risk of a wildfire, improving wildlife habitat, or restoring vegetation to more healthy conditions.

Unfortunately the smoke that comes along with prescribed burns can be irritating and intrusive to citizens living in nearby communities. At times weather conditions may cause smoke to drift into communities. Whenever possible, we will try to reduce the amount of smoke created by prescribed burns and its impacts to citizens.

Although no more prescribed burns are scheduled on the Powell Ranger District for the remainder of 2002, we will be using fire as a management tool again in 2003 if conditions are suitable. We will keep you informed of our plans prior to burning. If you have any questions regarding the Sanford Fire or any burns planned for next year. please contact Carl Guillette, District Ranger at 225 E Center St, Panguitch UT 84759 or 435-676-9300.