

3. Fire Year 1999

All Park Areas

Total acreage burned by all causes within the Parks during 1999 was 2,437 ha (6,019.1 ac). Of this total 14% were wildland fires which were unplanned fires started by humans or lightning. Human-caused fires are always suppressed while lightning-caused fires are evaluated to determine the appropriate management strategy. Some of these fires are allowed to burn for resource benefit, others are suppressed. Prescribed fires made up the bulk of the burning within the Parks during 1999. Prescribed burns are planned fires ignited under controlled conditions within defined burn units.

Wildland Fire (343 ha - 848 ac)

- Used for Resource Benefit (WFURB) (236 ha -581.9 acres) - Lightning caused, and actively managed to maintain natural ecosystem processes. Includes the large Williams fire near Cedar Grove (232 ha - 573 ac) and thirteen small fires (< 1.2 ha each totaling 3.6 ha - 8.9 ac).
- Suppressed (107 ha - 266.1 ac)
 - *Lighting Fires* - Lightning-caused fires, suppressed due to factors such as proximity to park boundary, unacceptable smoke impacts, unacceptable weather conditions, or competition for firefighting resources regionally or nationally. Includes five small fires totaling 1 ha (2.5 ac).
 - *Human-Caused Wildfires* - Unplanned and unwanted fires where various suppression tactics were used. These includes six small fires totaling 197 ha (263.6 ac).

Prescribed Fires - Prescribed fires are fires planned and ignited by NPS staff in designated areas to reduce hazardous fuels and/or restore natural conditions. During 1999 these included eleven fires totaling 2,094 ha (5,171.1 ac) (**Table 3-1**).

Table 3-1. Summary statistics for 1999 of area treated by each prescribed burn.

Units	Burn	Hectares (Acres)
Foothills	Ash Mountain	8.1 (20)
Cedar Grove	Maintenance	0.04 (0.1)
	Lewis Creek	1,107 (2,735)
Wuksachi	Halstead	356 (880)
Giant Forest	Hercules	67 (165)
	Restoration	0.81 (2)
Mineral King	Lookout	147 (363)
	Tar Gap	248 (613)
	Deadwood	159 (393)

Mineral King Project

The Mineral King Risk Reduction Project was initialized during March 1995 with inventory and monitoring field work and burn operations begun during the summer and fall [850 ha (2,100 ac) were burned in the Atwell Segment, **Fig. 2.1-2**]. No burns were conducted during 1996 due to the extent of resource demands during the summer of 1996 inside and outside the parks (more acres burned in the western USA than any year since 1920). The critical Redwood Segment, below and west of Atwell Mill, was burned during November 1997 [184 ha (455 ac)]. This completed the basic buffer of burned areas across the East Fork drainage (Atwell and Redwood Segments, and the Deer Creek Burn) which will provide better fire protection for Atwell, Cabin Cove, Silver City, and Mineral King from wildfires burning up out of the chaparral. Burning in the watershed during 1998 amounted to about 150 ha (371 ac) in two segments and in 1999 554 ha (1,369 ac) in three segments (**Fig. 3-1**).

Burn operations during 1999 took place in the Tar Gap area, Lookout Point/Conifer Ridge, and the Deadwood segments. In the Tar Gap area three subunits of the segment located above the Tar Gap Trail were burned. The subunits had well defined topographic barriers which allowed easy control. Because of the elevation and aspect, burns were carried out over a several week period extending from mid-August to early September. This ignition pattern permitted better control of smoke production and allowed the burns to be turned on-or-off depending on the Park's smoke-budget needs. Burning this portion of the Tar Gap segment also burned plots from several fire related studies in red fir forest (fire effects, red fir regeneration, Pitcher plots, and landscape analysis). Early ignition of forest on this aspect at this elevation is generally

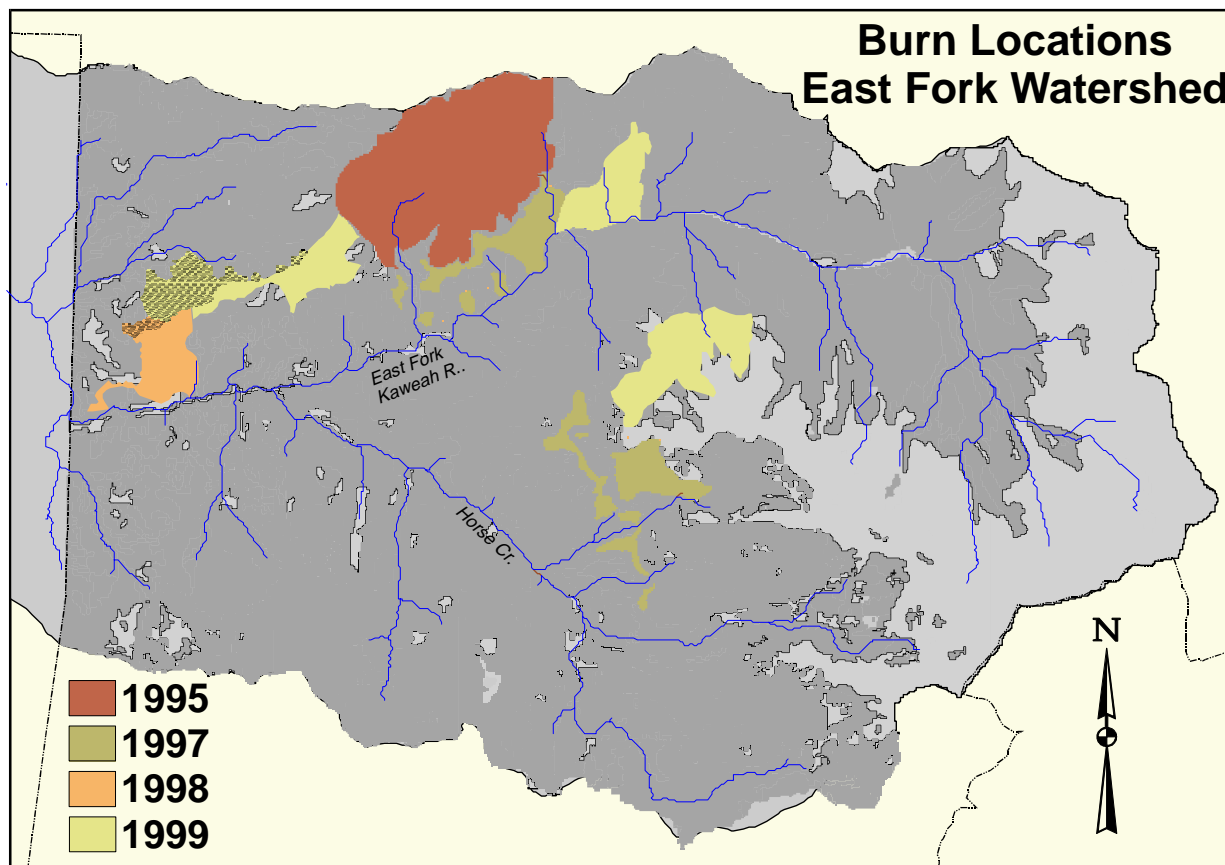


Figure 3-1. Locations of areas burned in the East Fork watershed from 1995 through 1999. Vegetated area within the Park is shown in dark grey. Areas burned by escaped prescribed fire are shown by hatching.



Figure 3-2. Fire in Newburn Plot located in north aspect red fir forest in the Tar Gap area. Photo shows typical fire behavior during late August burn.

needed for good burning conditions because as the sun angle declines in the fall the aspect cools rapidly and holds fuel moisture once precipitation occurs. Ignitions were begun within each subunit at the elevation where fuels roughly transitioned from moderate to light fuels. Light fuels in the upper portion of the subunits were not felt to require active ignition but were allowed to burn if fire carried into the area on its own. Total area burned in the three subunits was about 248 ha (613 ac). Ignitions in the Deadwood segment were begun in the late fall and were originally designed to blackline the western boundary of the unit. However, due to the heavy fuel load and the failure of winter rains to start until mid-January 2000 the fire continued to burn into the unit. Because it was within prescription and meeting burn objectives it was allowed to continue. As a result ~211 ha (~522 ac) of the lower half of the unit was burned. The remaining portions of the unit are scheduled to be completed during 2000.

The third segment, Lookout Point, was also ignited. The objective was to burn off of a hand line that had been constructed down Conifer Ridge that tied in with the 1995 Atwell burn on the upper end and the 1998 Lookout burn on the lower end. However, a slop-over burned into heavy fuels on the Oriole Lake side of the ridge (to the north). Minimal suppression efforts were required to manage the burn in this area. However, the escape continued to burn for a considerable length of time due the extremely late arrival of winter rains (January 17, 2000). Total area burned in the unit was 147 ha (363 ac).

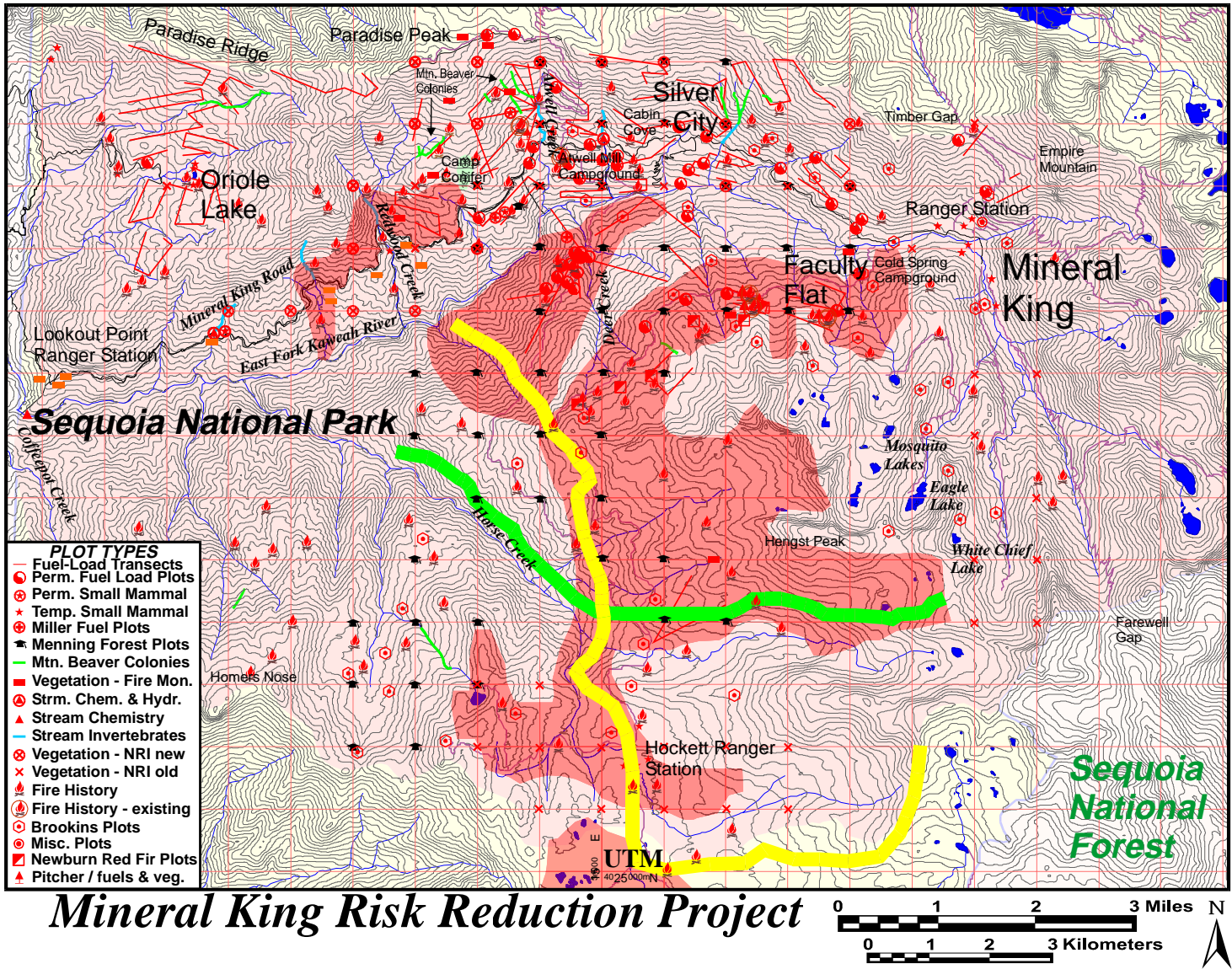


Figure 3-2. Location of all plots and transects sampled in the East Fork drainage.