

### 2.1. Jackson Creek Watershed Topography.

The Jackson Creek watershed is located on the lower northwest side of the Bear Creek basin, and enters Bear Creek about two miles northeast of Central Point, Oregon (see map of Jackson Creek watershed). Jackson Creek extends about 12 miles from its confluence at Bear Creek into the Siskiyou Mountain crest to the west.

Topography in the upper watershed has a profound influence on vegetation and water flow with very predictable contrasts. For example, steep topography creates aspect differences, namely north and south facing slopes. Vegetation on southerly aspects is adapted to warmer and dryer conditions, differing from that of northerly aspects with cooler temperature, less direct solar radiation and greater moisture availability. The upslope is forested mountainous topography, and historically, the valley floor was characterized by savanna grasslands interspersed by striated (multiple-interconnected-parallel) stream channels on the valley floor.

The Jackson Creek subbasin is 16,139 acres in size, and is characterized by forest, agricultural lands, residential and commercial lands, and the municipalities of Jacksonville and Central Point. Maximum relief in the watershed is 2,634 feet, and the average slope is about 12 degrees in the foothills. The mean elevation of the Jackson Creek watershed is 2,004 feet. The area of the catchment above 3,000 feet elevation comprises about 11 percent of the drainage. Mean annual precipitation for the watershed is slightly less than 635 mm (25 inches).

**Table 2.1. Characteristics of the Jackson Creek Watershed.**

### Spatial Features:

<b>Area:</b> 25 Sq. miles	<b>Conveyance:</b> Canals 8.5 miles	<b>Wetlands:</b> 61 wetlands $\geq 1$ Acre;
	Roads 77 miles	10+wetlands $\leq 1$
Acre	Streams 35 miles	

**Land use/Zoning Characteristics :**

Aggregate	222 A.	Private Land holdings	14,626 A.
Commercial	2 A.	BLM Landholding	1,309 A.
Farm	4,267 A.	USFS Landholding	256 A.
Forest	7,924 A.		
Industrial	17 A.		
Rural	2,048 A.		
Suburban	1,105 A.		
City	565 A.		

**Table 2.2. Physical Features of the Jackson Creek Watershed.**

<b>Drainage Area</b>	<b>16,191 acres</b>	<b>65.3 sq. km..</b>
<b>Stream Length</b>	<b>64,300 feet</b>	<b>19.6 km.</b>
<b>Maximum Relief</b>	<b>2,634 feet</b>	<b>803 m.</b>

<b>Mean Slope</b>	<b>20.7 percent</b>	<b>11.7 degrees</b>
<b>Average Aspect</b>	<b>111.6 degrees</b>	
<b>Mean Elevation</b>	<b>2,004 feet</b>	<b>611 m.</b>
<b>Mean Annual Precipitation</b>	<b>25 inches</b>	<b>634 mm.</b>

### **2.1.1. Climate.**

Southwest Oregon has some of the most contrasting climatic regimes in the Northwest. The marine climate at Oregon's coast changes eastward to the dry, warm interior, which has a continental-like climate. A large transition occurs north to south, from the mild, moist climate of northwest Oregon to the Mediterranean climate of central California.

The Jackson Creek watershed is situated in a dry hot climatic portion of this region, within the eastern Siskiyou Mountains. The Bear Creek valley into which this watershed drains is the warmest and driest interior valley in western Oregon. Precipitation in the Bear Creek valley is much lower (about 10 inches lower) than the nearby valley at Grants Pass, about 12-15 inches lower than the Umpqua Valley near Roseburg, and at least 35 inches lower than at Cave Junction (about 60 miles downstream on the Rogue River), and with more extremes in temperature than neighboring valleys.

Mean rainfall for Medford between 1928-1999 is 18.98 inches (the maximum rainfall occurred in 1996 at 31.41 inches, and the minimum rainfall occurred in 1959 at 10.42 inches. Average rainfall for the Bear Creek subbasin from 1985-1994 (which was a drought cycle) was 14.24 inches. Annual rainfall from 1995-2000 was 22.5 in.

1985	10.69 (inches)	1990	13.50 (inches)	1995	21.77 (inches)
1986	17.07	1991	14.50	1996	31.41
1987	14.78	1992	14.98	1997	17.93
1988	13.70	1993	16.60	1998	28.72
1989	14.50	1994	12.10	1999	16.50
				2000	18.81

(Source: Medford NOAA office)

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