

CHAPTER 1 - WATERSHED CHARACTERIZATION

The Middle North Umpqua watershed analysis area is located within the larger Umpqua River Basin, Douglas County, Oregon. It encompasses a stretch of the North Umpqua River extending from Swamp Creek to Horseshoe Bend, covering an area of 53,312 acres.

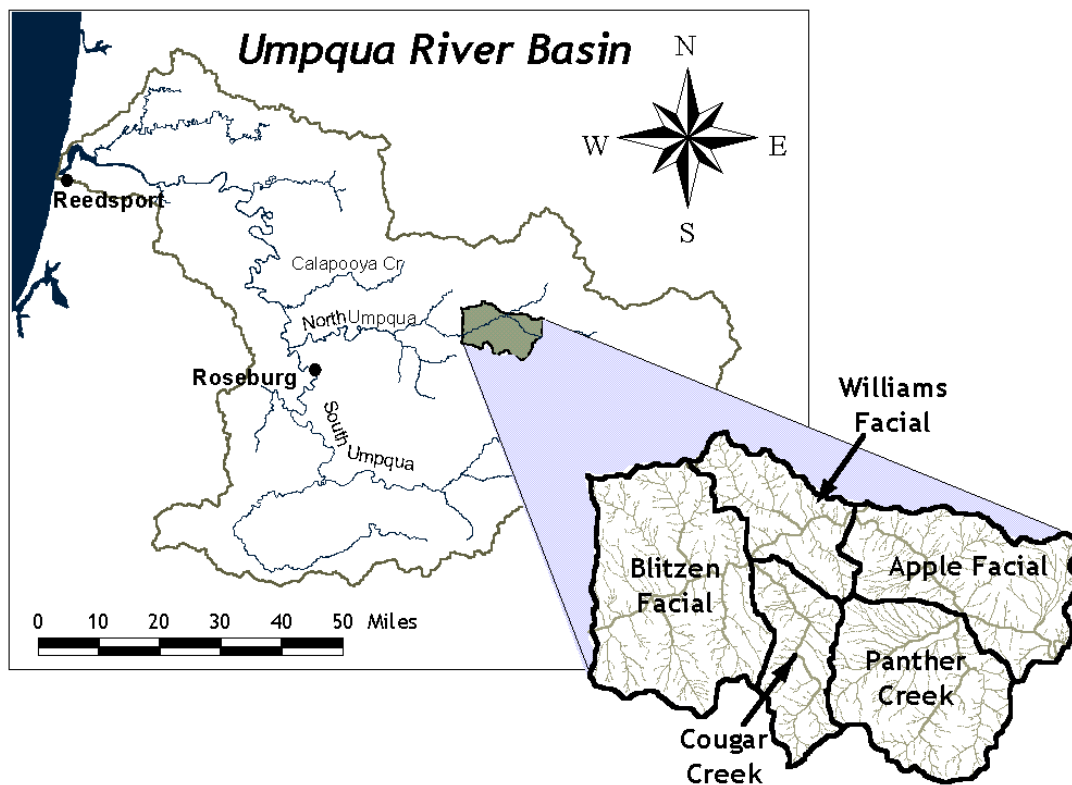


FIGURE 1. Location of the Middle North Umpqua watershed analysis area.

Five sixth-field subwatersheds make up the analysis area, three of which are called “face drainages”. Running through the middle of the analysis area, from east to west, is the Wild and Scenic North Umpqua River Corridor.

GEOLOGIC HISTORY

The unique diversity of tree species and other vegetation in southwestern Oregon is the result of its geologic past (Atzet and Wheeler 1982). The Western Cascades sub-province is old, being thrust above sea level before most of Oregon. The land was formed from complex folds, intrusions and islands of many different metamorphosed, sedimentary and volcanic rocks of different ages. Each parent rock produced a variety of soils, habitats and plant communities.

Climate changes over the last several thousand years allowed migrations of plants from both warmer (California and the Sierras) and cooler climates (northern Oregon). There was little glaciation in this province, and it served as a refuge for migrant species during glacial periods (Atzet and Wheeler 1982). Approximately 9,000 years ago, after retreat of the glaciers, the climate was hotter and dryer than today, and the region was greatly affected by fire. Climate conditions similar to today have persisted for about 5,000 years, interrupted by a "Little Ice Age" from about 1300 to 1850 (Atzet and Wheeler 1982, Agee 1993).

NATURAL RESOURCES

Natural resources within the analysis area range from clean water, timber, recreation, fish, wildlife and others. The forests range from dry Douglas-fir and western hemlock to white and silver fir in the higher elevations. Sugar pine was noted along the river corridor. Forested landscape patterns were influenced by wildfire which occurred with regular frequency within the analysis area. Small dry, rocky openings punctuated the forest especially along the steep slopes and ridgetops.

LAND OWNERSHIP

Ninety-six percent of the analysis area is publicly-owned land managed by the US Forest Service (Umpqua National Forest). A small portion of the analysis area (1%) occurs on the Swift Water Resource Area, managed by the Bureau of Land Management. The remaining three percent of the watershed is privately owned.

LAND MANAGEMENT ALLOCATIONS

Under current federal land management plans, the public land within the analysis area is divided into three broad land allocations:

- **Matrix (30,307 ac.)** - Focus on timber harvesting
- **Congressionally Withdrawn (6,209 ac.)** - The Wild and Scenic River Corridor
- **Late-Successional Reserve (15,071 ac.)** - Protection of late-succession and old growth forest.

Riparian Reserves overlap all of these land allocations and cover approximately 31% of the analysis area. Other areas are administratively withdrawn or managed as roadless. These include the Limpy Natural Resource Area and the Williams Creek, Cougar Creek and Limpy Rock designated roadless areas. In addition, there are ten unmapped LSRs (approx. 100 acre each) scattered across the Matrix.

HUMAN USES

Human uses of the natural resources within the analysis dates back to around 10,000 years B.C. The Native Americans utilized the area for hunting, gathering and fishing. With Euro-American settlement of the lower river valleys in the 1850s, the land was taken from the Native Americans and put into private and public ownership. The watershed remained more or less remote and uninhabited with the exception of some miners and homesteaders. Homesteaders raised livestock and trapped wolf and cougar for bounties. Some small amount of tree harvesting occurred to provide building materials and firewood for these inhabitants. The nearest commercial lumber mill was approx. # miles down the river at Glide in 1870. In 1886, sugar pine (common along the river) brought \$25 per thousand board feet and was sought after.

The forest service began managing in 1908 with the mission to protect the forest. After World War II, new technologies facilitated logging, reforestation, and fire suppression. This resulted in dramatic changes to the forest landscape, stand structure and species composition.

Today, recreation is the most common human activity within the analysis area. The wild and scenic river corridor provides whitewater rafting and a world renowned fisheries. Hunting, hiking, mountain biking and horseback riding are common activities. Highway 138, constructed in 1940 provides a widely used corridor for travel between the valley and recreational activities.

Other minor human uses include or have included placer mining (1870-1880), water withdrawals and special forest products.