

Between Clarno and Spray are rocks from the Cretaceous Period (144-65mya). These rocks produce a moderate amount of invertebrate fossils (primarily shell fish (mollusks), though a few rare joint-legged creatures (arthropods) and even more rare vertebrates have been located). This same area produces some Pleistocene fossils (less than 2 mya) as well. The Prineville District office has on display a mammoth tusk removed from a creek within this area. Other Pleistocene fossils (bison) have been reported in the upper stretches of the South Fork John Day River. Pliocene fossils (5-2mya) also have been reported from the northern portions of the John Day basin near the Columbia River (Fremd et al. 1994; Orr and Orr 1999).

There are 155 known fossil localities on BLM managed lands in the John Day planning area that are co-managed, through interagency agreement, by the NPS/BLM. The majority of these localities are known to occur in rocks that produce or are highly likely to produce noteworthy examples of vertebrates, invertebrates and plant fossils. There are additional localities, some older and some younger, that are known but have not been recorded. There are, however, no known paleontology localities within the Baker RA portion of the planning area.

## TRENDS

The volcanic lava flows covered and preserved much of the older sediments in the John Day basin from erosion. The lava cap is the principal reason fossil resources and their geologic contexts are so well represented in the basin. Erosion is both friend and foe to fossil management. Erosion exposes fossils to the elements which begins a fairly rapid process of deterioration but also reveals them for study.

# PEOPLE TODAY IN THE JOHN DAY BASIN

The remainder of this chapter describes how people use the many resources of the John Day Basin. The initial discussion focuses on the Social and Economic Context then the discussion addresses a series of uses and management categories that are important considerations for the decisions to be made in during the John Day Basin RMP planning process.

## SOCIOECONOMIC CONTEXT

The planning area is primarily composed of three Oregon counties – Grant, Wheeler and Gilliam. Portions of several other counties also occur within the planning area to a much lesser extent: Baker, Jefferson, Umatilla, Sherman, Wasco and Morrow. Wheeler and Grant counties are contained almost entirely within the John Day Basin and draw their social and economic character from the planning area. Gilliam, Sherman, Wasco, Morrow and Umatilla counties include portions of the Interstate 84 corridor and benefit from the more diverse social and economic opportunities a thoroughfare of this nature offers. Jefferson County has closer social and economic affiliations with the Central Oregon area. The following description of the John Day Basin social and economic environment will focus more on the counties contained within the John Day Basin (Grant and Wheeler), that function within that geographic context. These counties reflect similar trends and values in the remaining counties that make up small portions of the planning area.