

ECOLOGICAL CLASSIFICATION ROCK CREEK BASIN MONTANA

Prepared for:

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EXECUTIVE SUMMARY

An ecological classification was conducted for Rock Creek basin in western Montana. The watershed is 569,386 acres and includes about 1,885 linear miles of stream of which 761 linear miles is perennial. Broad-scale climatic classes (ecoregions), geologic districts consisting of similar parent materials and subsections denoting distinctive geomorphic character were identified for the entire basin. The focus of the classification was streams and the valley-bottoms in which they flowed. The valley-bottom landtype comprises about 78,059 acres (13.7 percent) of Rock Creek basin. The valley-bottom landtype was further stratified by subsection and within subsections by valley-form into 17 valley-bottom types. The classification was based on existing maps and interpretation of aerial photos -- no field reconnaissance or validation were conducted.

Results were used to identify 32 reaches where alluvial groundwater discharge to streams may occur, resulting in lower stream temperatures and conditions favorable to some aquatic vertebrates. It is anticipated that water temperature will be monitored in the vicinity of these sites.