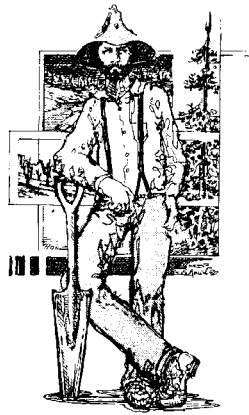


**ECOLOGICAL CLASSIFICATION
UPPER BLACKFOOT RIVER BASIN
MONTANA**

Prepared for:

**Sevenup-Pete Joint Venture
Helena, Montana**



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EXECUTIVE SUMMARY

An ecological classification was conducted for the upper Blackfoot River basin in northwest Montana. The basin is 308,552 acres with a stream network totaling about 993 linear miles. The ecological classification provides a framework and descriptive attributes from which interpretations regarding habitats and the effects of land uses can be interpreted. The classification focuses on streams. The specific purpose was to classify stream reaches so that treatment and reference sites could be selected for monitoring of aquatic/fisheries resources.

The framework is an ecological classification that facilitates analysis from several perspectives. Hierarchical levels include ecoregion, geologic district, landtype association, valley-bottom landtype, valley-bottom type (VBT), state (i.e. condition class), reach and riparian vegetation type.

The upper Blackfoot River basin falls within two ecoregions: 1) Northern Rockies; and 2) Montana Valley and Foothill Prairies. Two geologic districts were identified: 1) Metasedimentary rock is dominant throughout most of the project area; and 2) Volcanic rock is prevalent along the southeast border of the project area. The Helena National Forest identified 14 regional landtype associations based on parent material, landform, soil and habitat. These regional landtype associations were grouped into four general landtype classes: 1) Metasedimentary glacial lands; 2) metasedimentary fluvial lands; 3) volcanic glacial lands (minor extent); and 4) volcanic fluvial lands. Landtypes were by the Helena National Forest, but are not discussed - only the valley-bottom landtype, which includes riverine/riparian habitat, is presented. The valley-bottom landtype was stratified into 12 valley-bottom types (VBTs). Six (6) condition classes (i.e. states) were identified for target streams. Reaches, consisting of a discrete combination of VBT, state and stream order, were also identified for target streams. Riparian vegetation types were mapped for the Blackfoot River and the lower parts of Landers Fork, Copper Creek, Hardscrabble Creek, Alice Creek and Cadotte Creek.

A Geographical Information System (GIS) was used to compile hierarchical map layers, plot maps and to output map data summaries. Maps, descriptions and data summaries are provided for each hierarchical level. Digital GIS map layers have also been provided to the Sevenup-Pete Joint Venture.