

**CLASSIFICATION AND INVENTORY
OF
RIVERINE/RIPARIAN HABITAT
FIVE MILE CREEK BASIN
UMATILLA NATIONAL FOREST, OREGON**

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September 1992

EXECUTIVE SUMMARY

Classification and inventory of riverine/riparian habitat (RRH) was conducted in the watershed of Fivemile Creek, an order 4 tributary of Camas Creek, which flows to the North Fork John Day River, in northeastern Oregon. The emphasis of the classification was to identify riparian (vegetation) types. Vegetation types were nested in a hierarchical classification. This hierarchical classification can be used to compare RRH in Fivemile basin to that of other watersheds with similar ecological potential. The hierarchical classification was also used to assess the condition of RRH within the Fivemile basin relative to a progression of states (i.e. condition classes), ranging from near natural to severely impacted. Products of the inventory include maps and a data base listing the area, perimeter and attributes of each map delineation.

The Fivemile basin is 50.4 square miles and contains 89.3 linear miles of stream, of which 25.8 linear miles are perennial. The basin falls entirely within the Blue Mountain Ecoregion, the Basalt Geologic District and the Fluvial Landtype Association. The valley-bottom landtype, where the vast majority of RRH occurs, comprises only 1.9 square miles (3.8 percent) of the basin. The valley-bottom landtype was divided into five valley-bottom types (VBTs) that include areas of relatively distinctive ecological potential. A progression of states (i.e. condition classes) was identified for each VBT. VBTs, states and vegetation types were mapped from 1:12,000 scale aerial photos coupled with on-site descriptions. A geographical information system (GIS) was used to compile map information. An average condition rating was calculated for each VBT and for the entire basin. Results indicate that the RRH in Fivemile basin is in "fair" condition.

Relationships between VBT, state and the distribution of vegetation types were also evaluated. Differences in the distribution of vegetation types were apparent both for different VBTs and for different states of the same VBT.

Recommendations to preserve and/or enhance RRH in Fivemile basin are:

1. Prioritize restoration and management applications from the headwaters (top priority) down. Enhancement of basins and low-gradient canyons in the heads of drainages will reduce peak flows and increase flow duration and thus improve restoration potential of lower reaches.
2. Address incised (state 3) basins in Balsinger and North Jones Prairies. Headcutting of these incised channels will drain large areas of wet meadow. These will probably require a structural solution. Shallow lateral headcuts into wet organic meadows Matlock Prairie should also be addressed, but can probably be handled through management (e.g. reduce livestock use).
3. Stabilize the headcut below the diversion structure at the lower end of Balsinger Prairie. The headcut will eventually cut under or around the diversion structure and through Balsinger Prairie, resulting in drainage of extensive meadows.