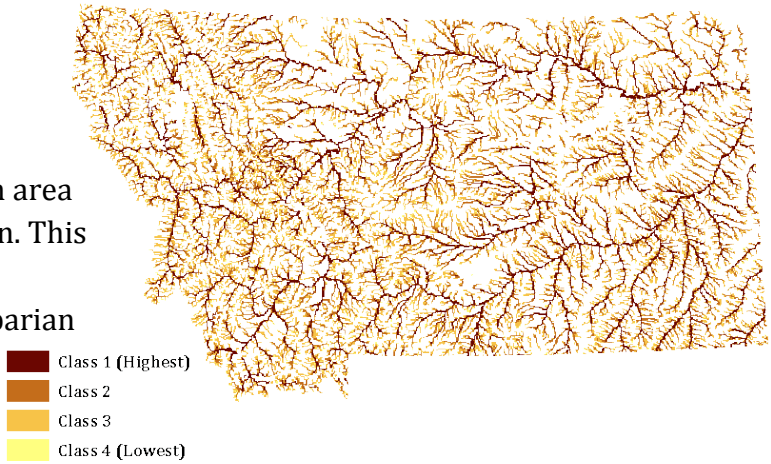
RIPARIAN AREAS



SUMMARY: The purpose of this layer is to represent total riparian area in Montana by square-mile section. This layer does not represent riparian condition or health, only area. Riparian areas serve as important sources of biodiversity and are not captured well in remotely-sensed data due to their size. We represented riparian corridors separately using this layer to capture the biodiversity that these unique habitats represent.

DATA SOURCES
- Survey data – counts or estimates
- Survey data – categorical (e.g. presence/absence)
- ✓ Expert opinion based on observation

DATA EXTRAPOLATION TECHNIQUE USED
- None
- Modeling of habitat-species associations (deductive)
- Statistical modeling (inductive)
- ✓ Extrapolation to habitat unit (e.g. stream section)
- Extrapolation based on expert opinion

DATA SOURCE(S) / QUALITY: FWP streams layer (based on National Hydrologic Dataset 1:100,000) and riparian mapping conducted by Montana Natural Heritage (MTNHP) program for submission to the National Wetlands Inventory (NWI).

METHODS: Streams with Strahler order > 1 were extracted from the FWP streams layer. A stratified random sample (order = stratum) of streams was examined relative to detailed riparian mapping from preliminary NWI data mapped by MTNHP. Using this sampling technique mean riparian buffer widths were determined for each Strahler stream order. Buffers were applied to all FWP streams in the hydrologic network to produce a layer of riparian corridors statewide. The riparian corridor layer was intersected with the Montana PLSS section layer to calculate total riparian area for each section in Montana. The metric presented is total riparian area per section. Riparian condition was not considered in this analysis.

CLASS	RANGE OF VALUES (acres)	PERCENT OF STATE
1 (Highest)	29 to 366	7 %
2	6.4 to 29	11 %
2	1.0 to 6.3	15 %
4 (Lowest)	0.1 to 0.9	3 %
No Class		63 %

FINAL CATEGORIZATION: Raw scores (total riparian area for section) were assigned into four categories by finding natural breaks in the data.

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