APPENDIX A – FIGURES AND TABLES

LIST OF FIGURES

Figure A-1. Waterbodies in the Little Blackfoot TPA included on the 2010 303(d) List. A-2
Figure A-2. Level IV Ecoregions in the Little Blackfoot TPA. A-8
Figure A-3. Elevation data for the Little Blackfoot TPA..... A-9
Figure A-4. Geology of the Little Blackfoot TPA..... A-10
Figure A-5. Distribution of erosion susceptibility in the Little Blackfoot TPA..... A-11
Figure A-6. Soil slope values for the Little Blackfoot TPA. A-12
Figure A-7. Surface hydrography of the Little Blackfoot TPA at 1:24000 and the USGS gage..... A-13
Figure A-8. Location of wells and those with water quality data based on the GWIC database..... A-14
Figure A-9. Distribution of average annual precipitation within the Little Blackfoot TPA. A-15
Figure A-10. Land cover distribution within the Little Blackfoot TPA from University of Montana..... A-16
Figure A-11. NLCD land cover distribution within the Little Blackfoot TPA..... A-17
Figure A-12. Fish species distribution within the Little Blackfoot TPA. A-18
Figure A-13. Population density within the Little Blackfoot TPA..... A-19
Figure A-14. Public land ownership within the Little Blackfoot TPA. A-20
Figure A-15. Land ownership and agricultural land use distribution within the Little Blackfoot TPA.... A-21
Figure A-16. Abandoned mines, NPDES permit locations, and septic system density within the Little Blackfoot TPA..... A-22
Figure A-17. Distribution of the Phosphoria Formation in the Elliston Mining District (indicated in pink). Copied from (Swanson, 1973)..... A-23
Figure A-18. Distribution of the Phosphoria Formation in the Garrison Mining District (indicated in pink). Copied from (Swanson, 1973)..... A-24

LIST OF TABLES

Table A-1. 2010 IR Impaired Waterbodies, Impairment Causes, Impaired Uses, and Impairment Cause Status in the Little Blackfoot TPA..... A-3

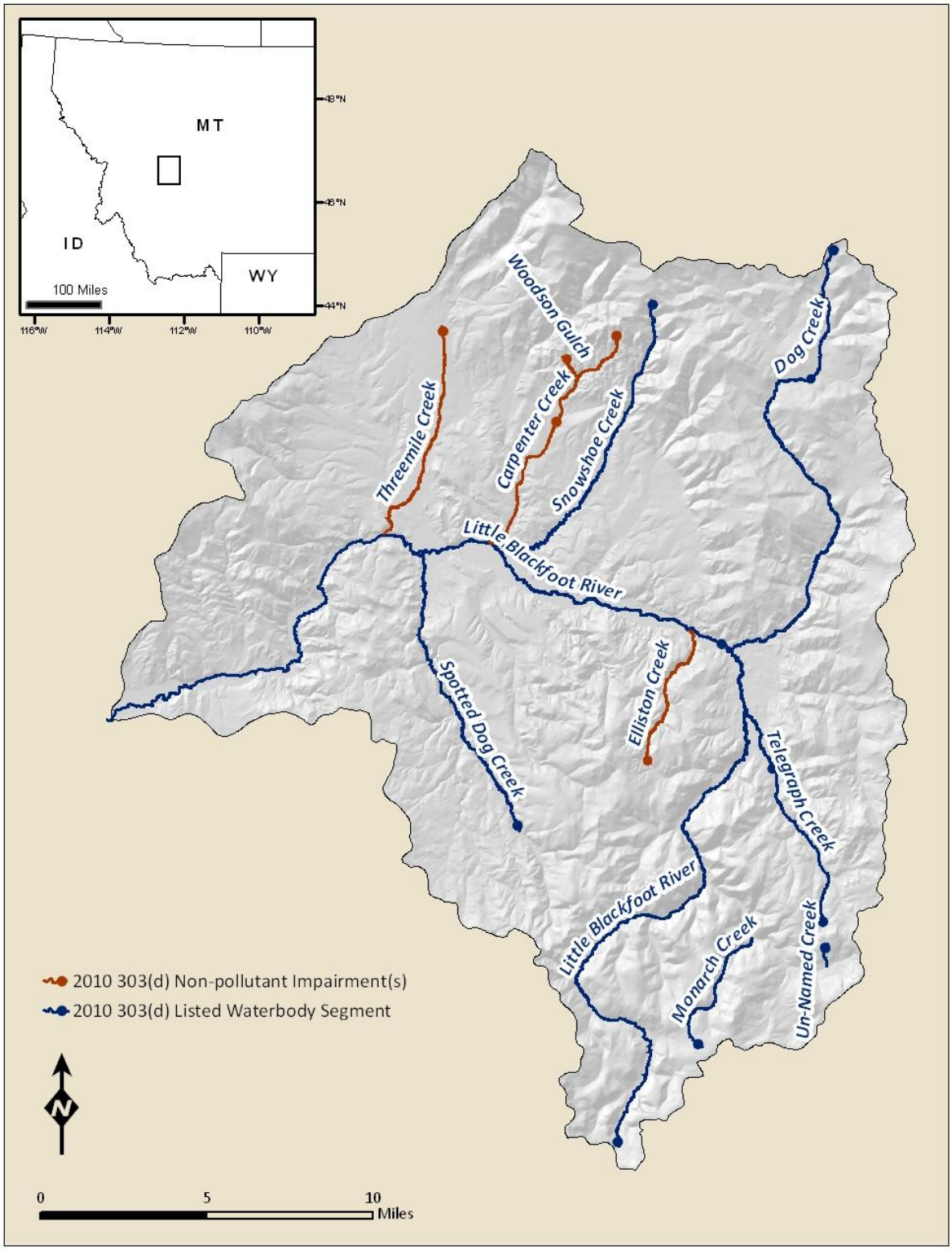

Figure A-1. Waterbodies in the Little Blackfoot TPA included on the 2010 303(d) List.

Table A-1. 2010 IR Impaired Waterbodies, Impairment Causes, Impaired Uses, and Impairment Cause Status in the Little Blackfoot TPA

Waterbody & Location Description	Waterbody ID	Impairment Cause	Pollutant Category	Impaired Use	Impairment Cause Status
CARPENTER CREEK, Basin Creek to mouth (Little Blackfoot River)	MT76G004_092	Alteration in stream-side or littoral vegetative covers	Not Applicable: Non-Pollutant	Aquatic Life, Cold Water Fishery	Addressed via restoration plan in this doc; not linked to a TMDL
		Other anthropogenic substrate alterations	Not Applicable: Non-Pollutant	Aquatic Life, Cold Water Fishery	Addressed via restoration plan in this doc; not linked to a TMDL
		Physical substrate habitat alterations	Not Applicable: Non-Pollutant	Aquatic Life, Cold Water Fishery	Addressed via restoration plan in this doc; not linked to a TMDL
CARPENTER CREEK, headwaters to Basin Creek	MT76G004_091	Alteration in stream-side or littoral vegetative covers	Not Applicable: Non-Pollutant	Aquatic Life, Cold Water Fishery	Addressed via restoration plan in this doc; not linked to a TMDL
		Other anthropogenic substrate alterations	Not Applicable: Non-Pollutant	Aquatic Life, Cold Water Fishery	Addressed via restoration plan in this doc; not linked to a TMDL
		Physical substrate habitat alterations	Not Applicable: Non-Pollutant	Aquatic Life, Cold Water Fishery, Primary Contact Recreation	Addressed via restoration plan in this doc; not linked to a TMDL
DOG CREEK, headwaters to Meadow Creek	MT76G004_071	Sedimentation/Siltation	Sediment	Aquatic Life, Cold Water Fishery, Primary Contact Recreation	Sediment TMDL contained in this document
		Alteration in stream-side or littoral vegetative covers	Not Applicable: Non-Pollutant	Aquatic Life, Cold Water Fishery, Primary Contact Recreation	Addressed by sediment TMDL in this document
		Arsenic	Metals	Aquatic Life, Cold Water Fishery	Metals TMDL contained in this document
		Lead	Metals	Aquatic Life, Cold Water Fishery	Metals TMDL contained in this document
		Zinc	Metals	Aquatic Life, Cold Water Fishery	Metals TMDL contained in this document
DOG CREEK, Meadow Creek to mouth (Little Blackfoot River)	MT76G004_072	Sedimentation/Siltation	Sediment	Aquatic Life, Cold Water Fishery	Sediment TMDL contained in this document
		Alteration in stream-side or littoral vegetative covers	Not Applicable: Non-Pollutant	Aquatic Life, Cold Water Fishery	Addressed by sediment and nutrient TMDLs in this document
		Nitrate/Nitrite	Nutrients	Aquatic Life, Cold Water Fishery	Not impaired based on updated assessment

Table A-1. 2010 IR Impaired Waterbodies, Impairment Causes, Impaired Uses, and Impairment Cause Status in the Little Blackfoot TPA

Waterbody & Location Description	Waterbody ID	Impairment Cause	Pollutant Category	Impaired Use	Impairment Cause Status
ELLISTON CREEK, headwaters to mouth (Little Blackfoot River)	MT76G004_040	Alteration in stream-side or littoral vegetative covers	Not Applicable: Non-Pollutant	Aquatic Life, Cold Water Fishery	Addressed by sediment and nutrient TMDLs in this document
LITTLE BLACKFOOT RIVER, Dog Creek to mouth (Clark Fork River)	MT76G004_010	Sedimentation/Siltation	Sediment	Aquatic Life, Cold Water Fishery	Sediment TMDL contained in this document
		Alteration in stream-side or littoral vegetative covers	Not Applicable: Non-Pollutant	Aquatic Life, Cold Water Fishery	Addressed by sediment and nutrient TMDLs in this document
		Low flow alterations	Not Applicable: Non-Pollutant	Aquatic Life, Cold Water Fishery, Primary Contact Recreation	Addressed via restoration plan in this doc; not linked to a TMDL
		Copper	Metals	Aquatic Life, Cold Water Fishery, Drinking Water	Not impaired based on updated assessment
		Lead	Metals	Aquatic Life, Cold Water Fishery, Drinking Water	Metals TMDL contained in this document
		Nitrate/Nitrite	Nutrients	Aquatic Life, Cold Water Fishery	Not impaired based on updated assessment
LITTLE BLACKFOOT RIVER, the headwaters to Dog Creek	MT76G004_020	Sedimentation/Siltation	Sediment	Aquatic Life, Cold Water Fishery	Sediment TMDL contained in this document
		Alteration in stream-side or littoral vegetative covers	Not Applicable: Non-Pollutant	Aquatic Life, Cold Water Fishery	Addressed by sediment TMDL in this document
		Arsenic	Metals	Aquatic Life, Cold Water Fishery	Metals TMDL contained in this document
		Cyanide	Metals	Aquatic Life, Cold Water Fishery	Metals TMDL contained in this document

Table A-1. 2010 IR Impaired Waterbodies, Impairment Causes, Impaired Uses, and Impairment Cause Status in the Little Blackfoot TPA

Waterbody & Location Description	Waterbody ID	Impairment Cause	Pollutant Category	Impaired Use	Impairment Cause Status
MONARCH CREEK, headwaters to mouth (Ontario Creek)	MT76G004_060	Arsenic	Metals	Aquatic Life, Cold Water Fishery, Primary Contact Recreation	Not impaired based on updated assessment
		Copper	Metals	Aquatic Life, Cold Water Fishery, Primary Contact Recreation	Metals TMDL contained in this document
		Lead	Metals	Aquatic Life, Cold Water Fishery, Primary Contact Recreation	Metals TMDL contained in this document
		Mercury	Metals	Aquatic Life, Cold Water Fishery, Primary Contact Recreation	Metals TMDL contained in this document
		pH	Metals	Aquatic Life, Cold Water Fishery, Primary Contact Recreation	Addressed by metals TMDLs in this document (surrogate)
		Selenium	Metals	Aquatic Life, Cold Water Fishery, Primary Contact Recreation	Not impaired based on updated assessment
SNOWSHOE CREEK, headwaters to mouth (Little Blackfoot River)	MT76G004_080	Sedimentation/Siltation	Sediment	Aquatic Life, Cold Water Fishery	Sediment TMDL contained in this document
		Alteration in stream-side or littoral vegetative covers	Not Applicable: Non-Pollutant	Aquatic Life, Cold Water Fishery	Addressed by sediment and nutrient TMDLs in this document
		Low flow alterations	Not Applicable: Non-Pollutant	Aquatic Life, Cold Water Fishery, Primary Contact Recreation	Addressed via restoration plan in this doc; not linked to a TMDL
		Nitrate/Nitrite	Nutrients	Aquatic Life, Cold Water Fishery, Primary Contact Recreation	Nitrate/Nitrite TMDL contained in this document

Table A-1. 2010 IR Impaired Waterbodies, Impairment Causes, Impaired Uses, and Impairment Cause Status in the Little Blackfoot TPA

Waterbody & Location Description	Waterbody ID	Impairment Cause	Pollutant Category	Impaired Use	Impairment Cause Status
SPOTTED DOG CREEK, forest boundary to mouth (Little Blackfoot River)	MT76G004_032	Sedimentation/Siltation	Sediment	Aquatic Life, Cold Water Fishery	Sediment TMDL contained in this document
		Alteration in stream-side or littoral vegetative covers	Not Applicable: Non-Pollutant	Aquatic Life, Cold Water Fishery	Addressed by sediment and nutrient TMDLs in this document
		Total Phosphorus	Nutrients	Aquatic Life, Cold Water Fishery	TP TMDL contained in this document
TELEGRAPH CREEK, Hahn Creek to mouth (Little Blackfoot River)	MT76G004_052	Lead	Metals	Drinking Water	Metals TMDL contained in this document
		Mercury	Metals	Drinking Water	Metals TMDL contained in this document
TELEGRAPH CREEK, headwaters to Hahn Creek	MT76G004_051	Sedimentation/Siltation	Sediment	Aquatic Life, Cold Water Fishery	Sediment TMDL contained in this document
		Alteration in stream-side or littoral vegetative covers		Aquatic Life, Cold Water Fishery	Addressed by sediment TMDL in this document
		Arsenic	Metals	Aquatic Life, Cold Water Fishery	Metals TMDL contained in this document
		Beryllium	Metals	Aquatic Life, Cold Water Fishery	Metals TMDL contained in this document
		Cadmium	Metals	Aquatic Life, Cold Water Fishery	Metals TMDL contained in this document
		Copper	Metals	Aquatic Life, Cold Water Fishery	Metals TMDL contained in this document
		Iron	Metals	Aquatic Life, Cold Water Fishery	Not impaired based on updated assessment
		Zinc	Metals	Aquatic Life, Cold Water Fishery	Metals TMDL contained in this document
THREEMILE CREEK, Quigley Ranch Reservoir to mouth (Little Blackfoot River)	MT76G004_112	Alteration in stream-side or littoral vegetative covers	Not Applicable: Non-Pollutant	Aquatic Life, Cold Water Fishery	Addressed by sediment and nutrient TMDLs in this document
		Low flow alterations	Not Applicable: Non-Pollutant	Aquatic Life, Cold Water Fishery, Primary Contact Recreation	Addressed via restoration plan in this doc; not linked to a TMDL

Table A-1. 2010 IR Impaired Waterbodies, Impairment Causes, Impaired Uses, and Impairment Cause Status in the Little Blackfoot TPA

Waterbody & Location Description	Waterbody ID	Impairment Cause	Pollutant Category	Impaired Use	Impairment Cause Status
UN-NAMED CREEK, headwaters to mouth (Ontario Creek), T8N R6W S27	MT76G006_010	Arsenic	Metals	Drinking Water	Metals TMDL contained in this document
		Cadmium	Metals	Aquatic Life, Cold Water Fishery	Metals TMDL contained in this document
		Copper	Metals	Aquatic Life, Cold Water Fishery	Metals TMDL contained in this document
		Lead	Metals	Aquatic Life, Cold Water Fishery	Metals TMDL contained in this document
		Mercury	Metals	Drinking Water	Metals TMDL contained in this document
		pH	Metals	Aquatic Life, Cold Water Fishery	Addressed by metals TMDLs in this document (surrogate)
		Zinc	Metals	Aquatic Life, Cold Water Fishery	Metals TMDL contained in this document
WOODSON GULCH, headwaters to mouth (Carpenter Creek)	MT76G004_100	Physical substrate habitat alterations	Not Applicable: Non-Pollutant	Aquatic Life, Cold Water Fishery, Primary Contact Recreation	Addressed via restoration plan in this doc; not linked to a TMDL

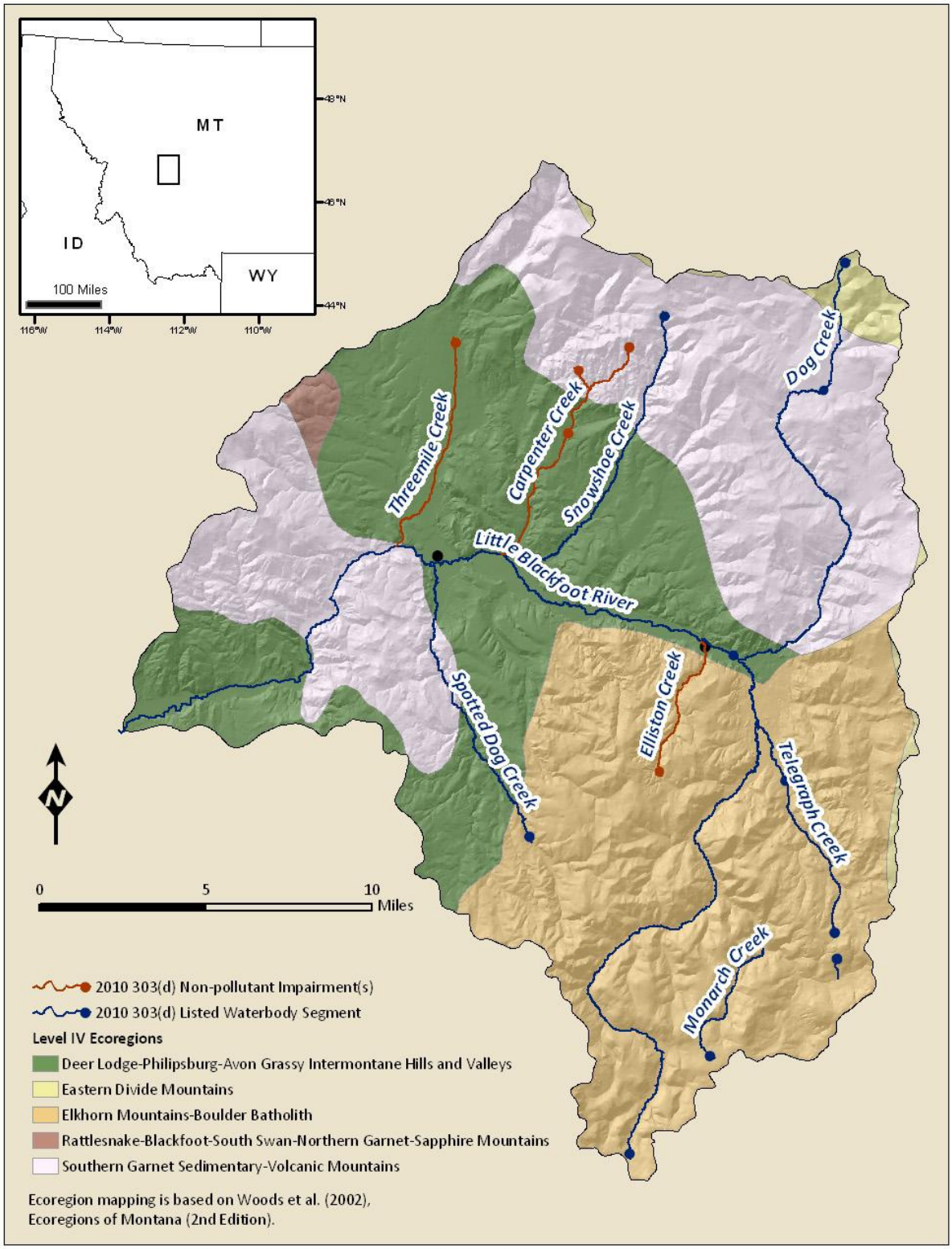

Figure A-2. Level IV Ecoregions in the Little Blackfoot TPA.

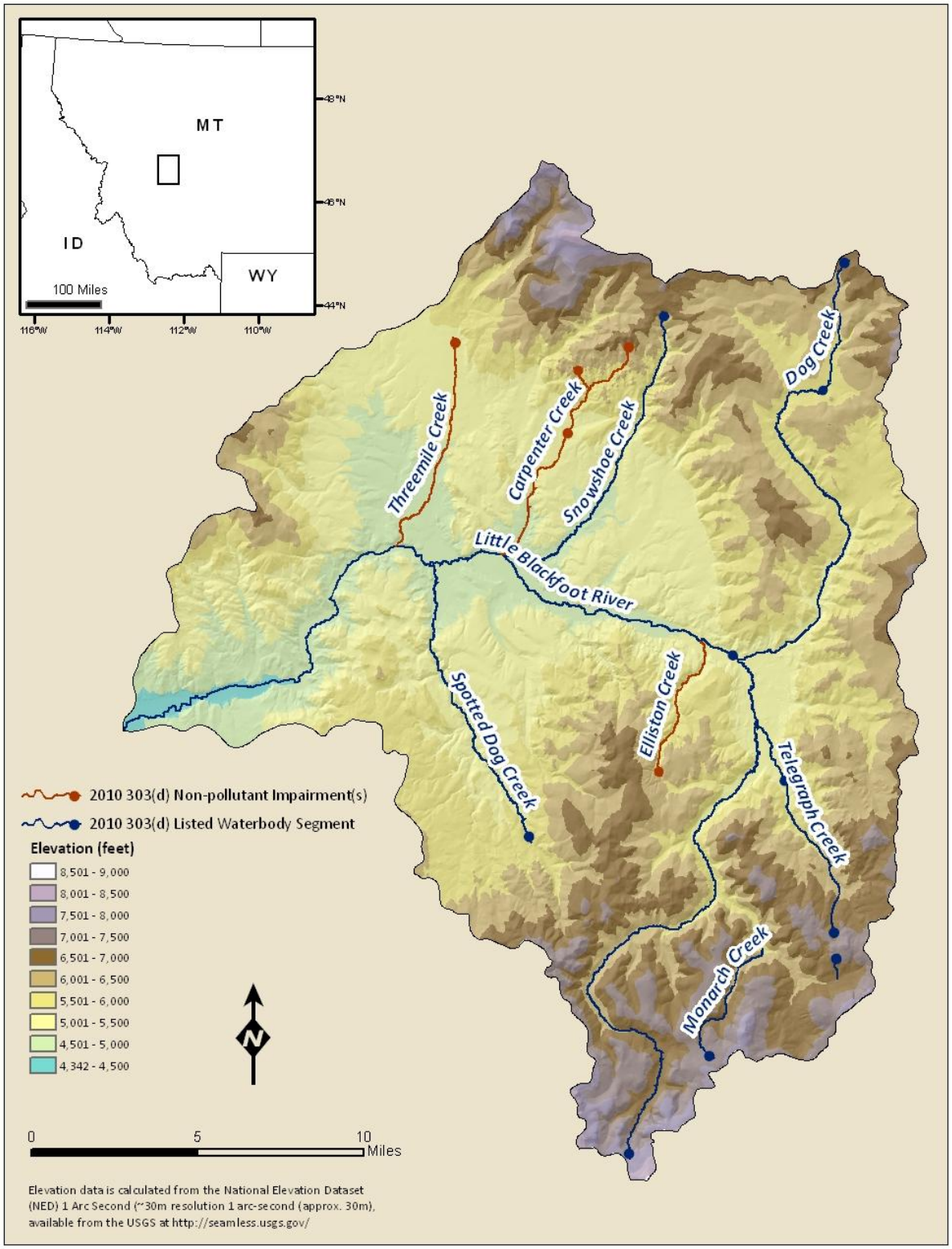

Figure A-3. Elevation data for the Little Blackfoot TPA.

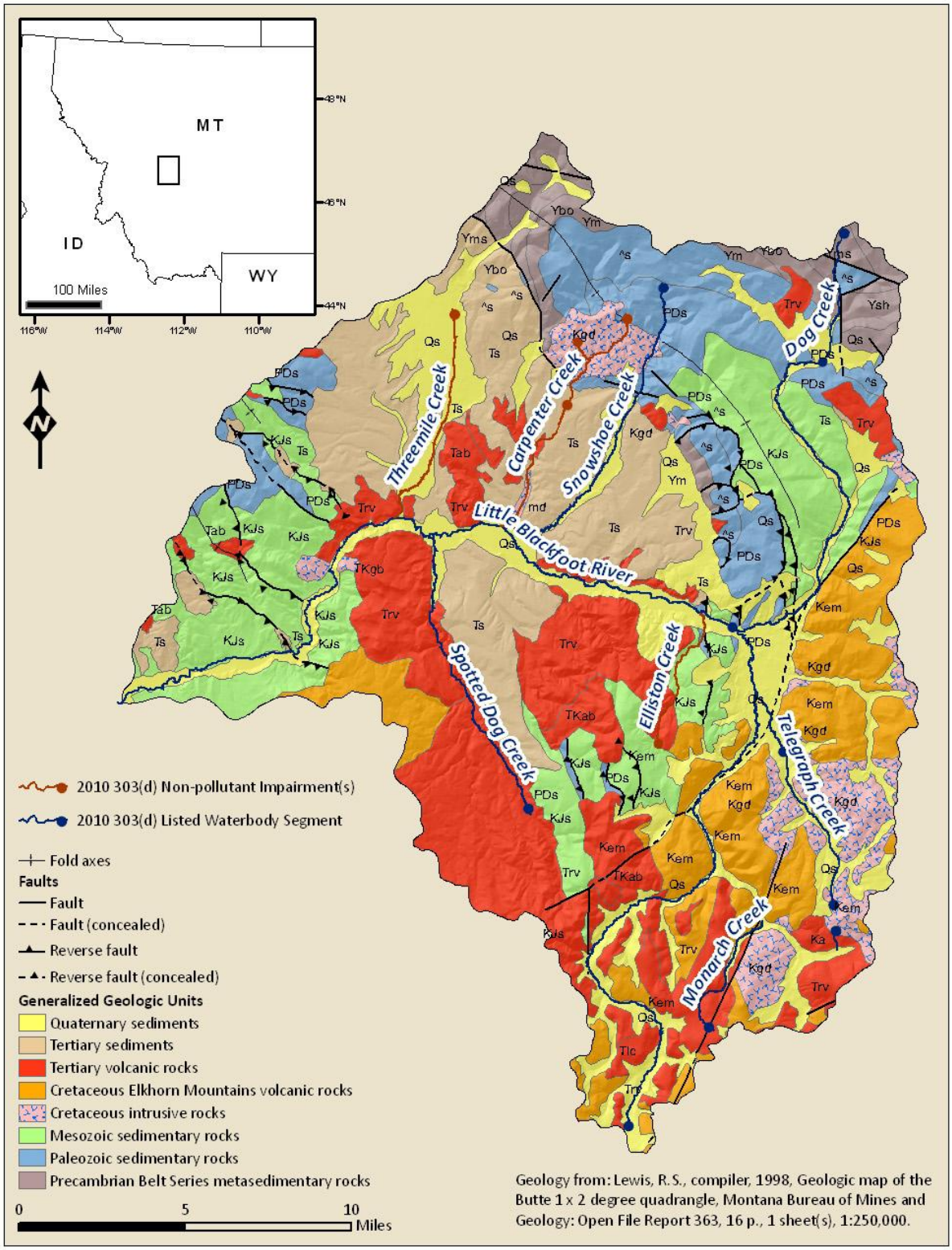

Figure A-4. Geology of the Little Blackfoot TPA.

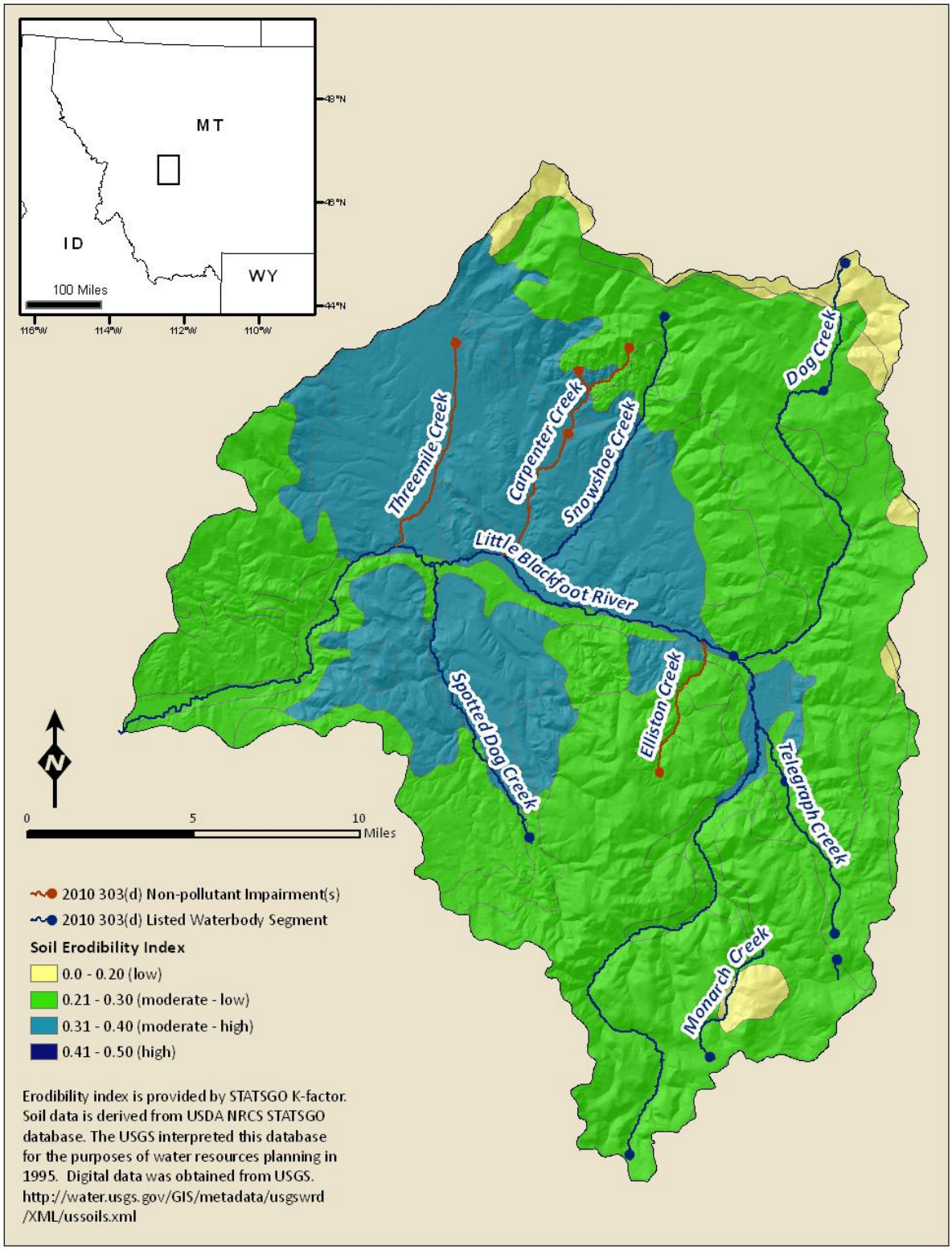

Figure A-5. Distribution of erosion susceptibility in the Little Blackfoot TPA.

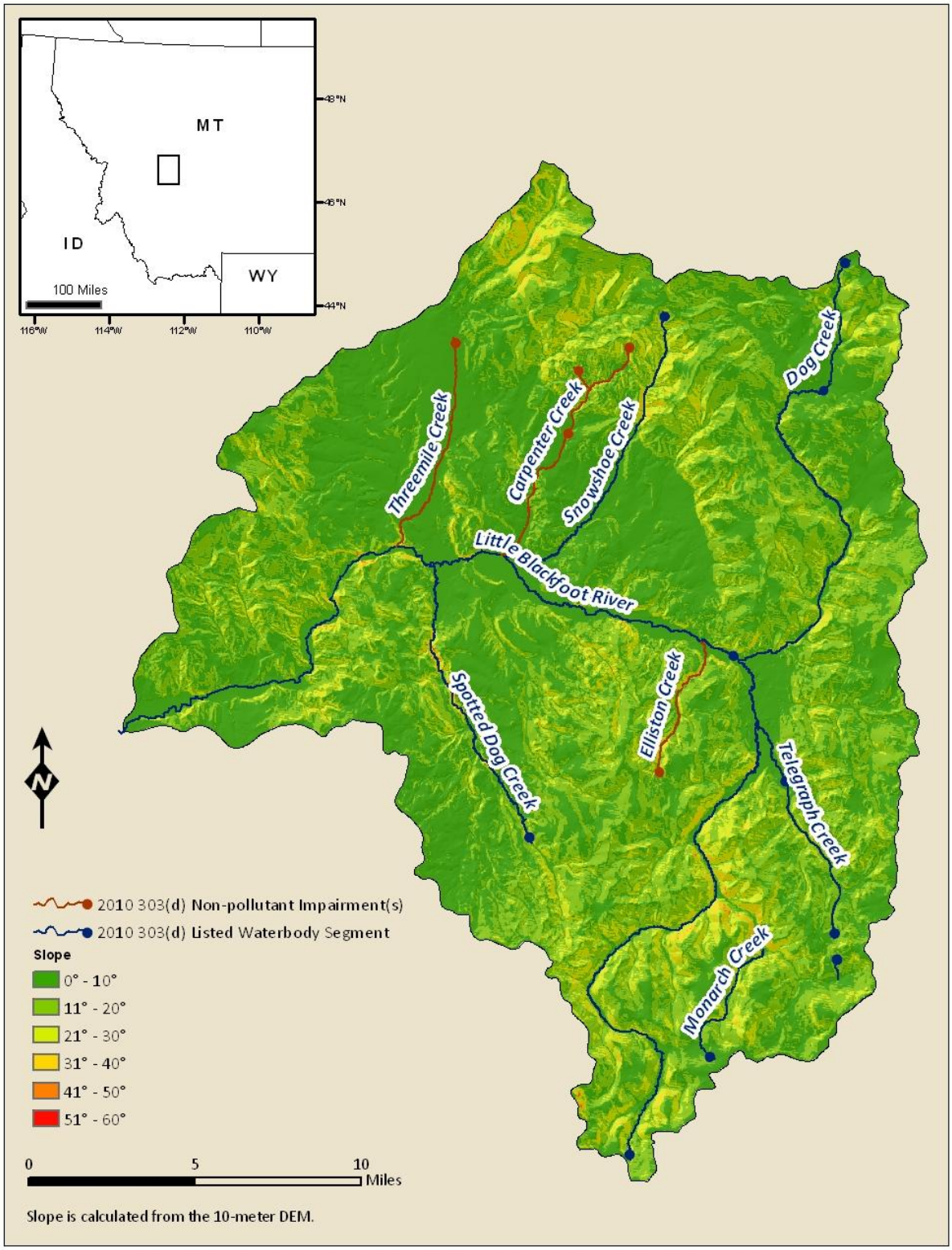

Figure A-6. Soil slope values for the Little Blackfoot TPA.

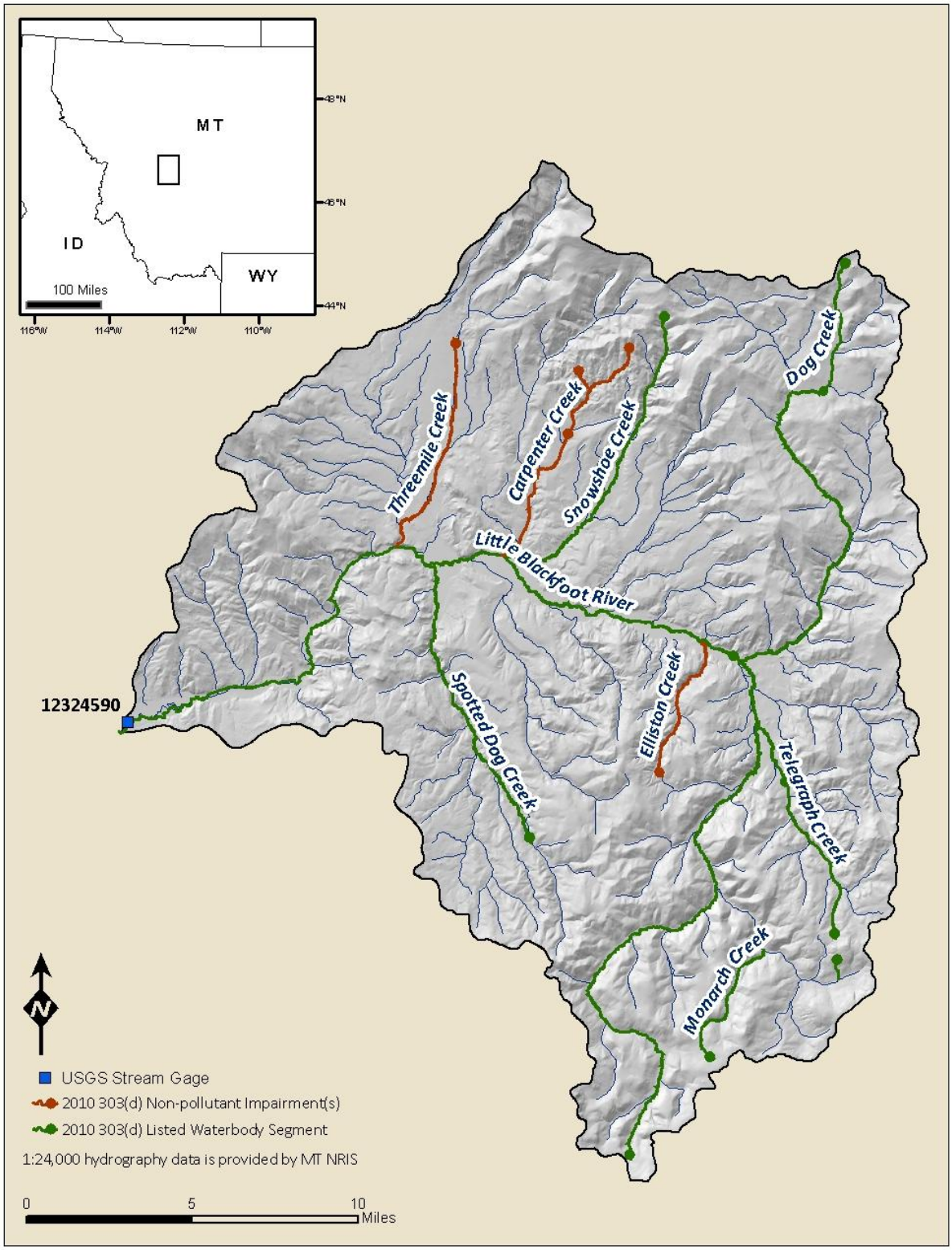

Figure A-7. Surface hydrography of the Little Blackfoot TPA at 1:24000 and the USGS gage.

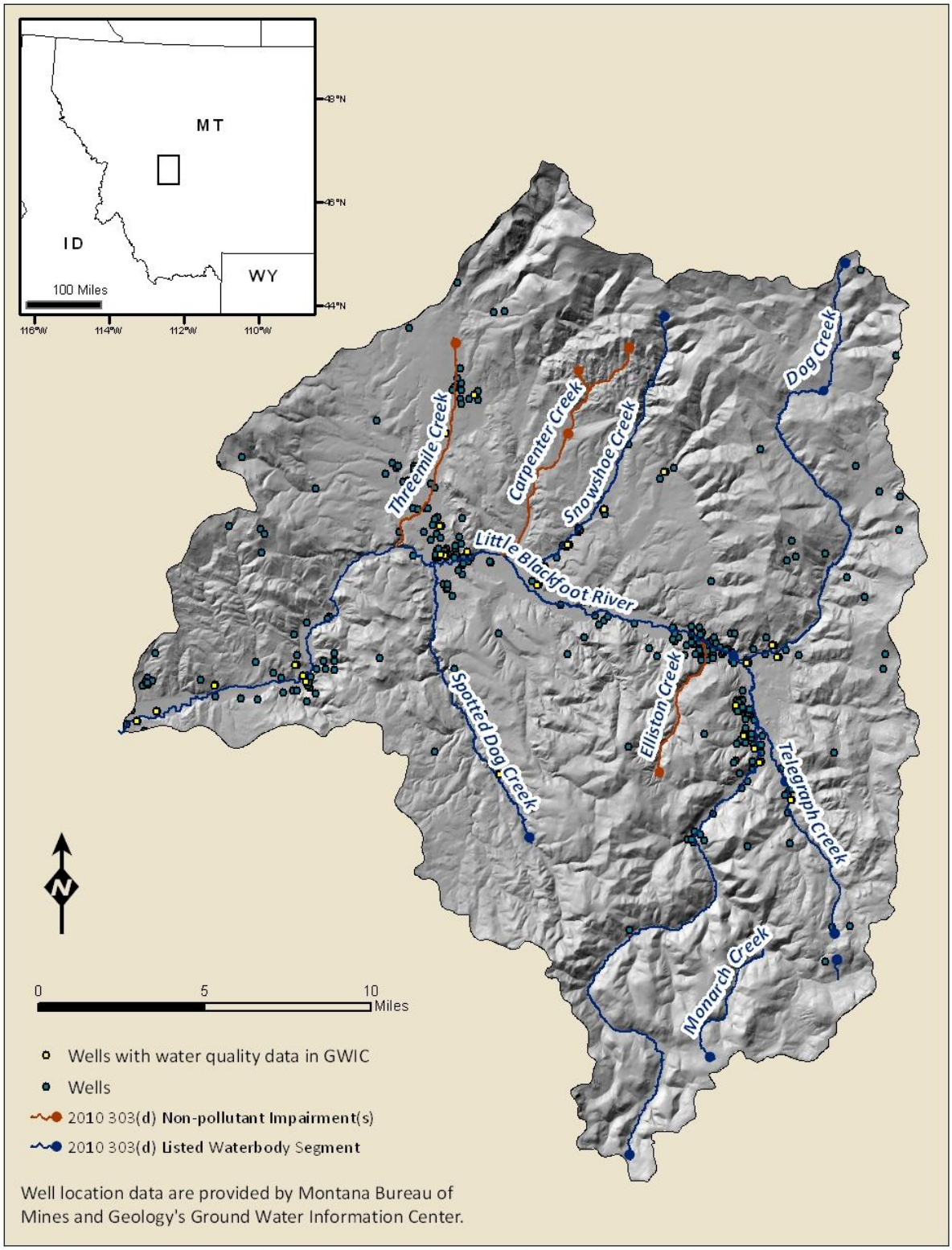

Figure A-8. Location of wells and those with water quality data based on the GWIC database.

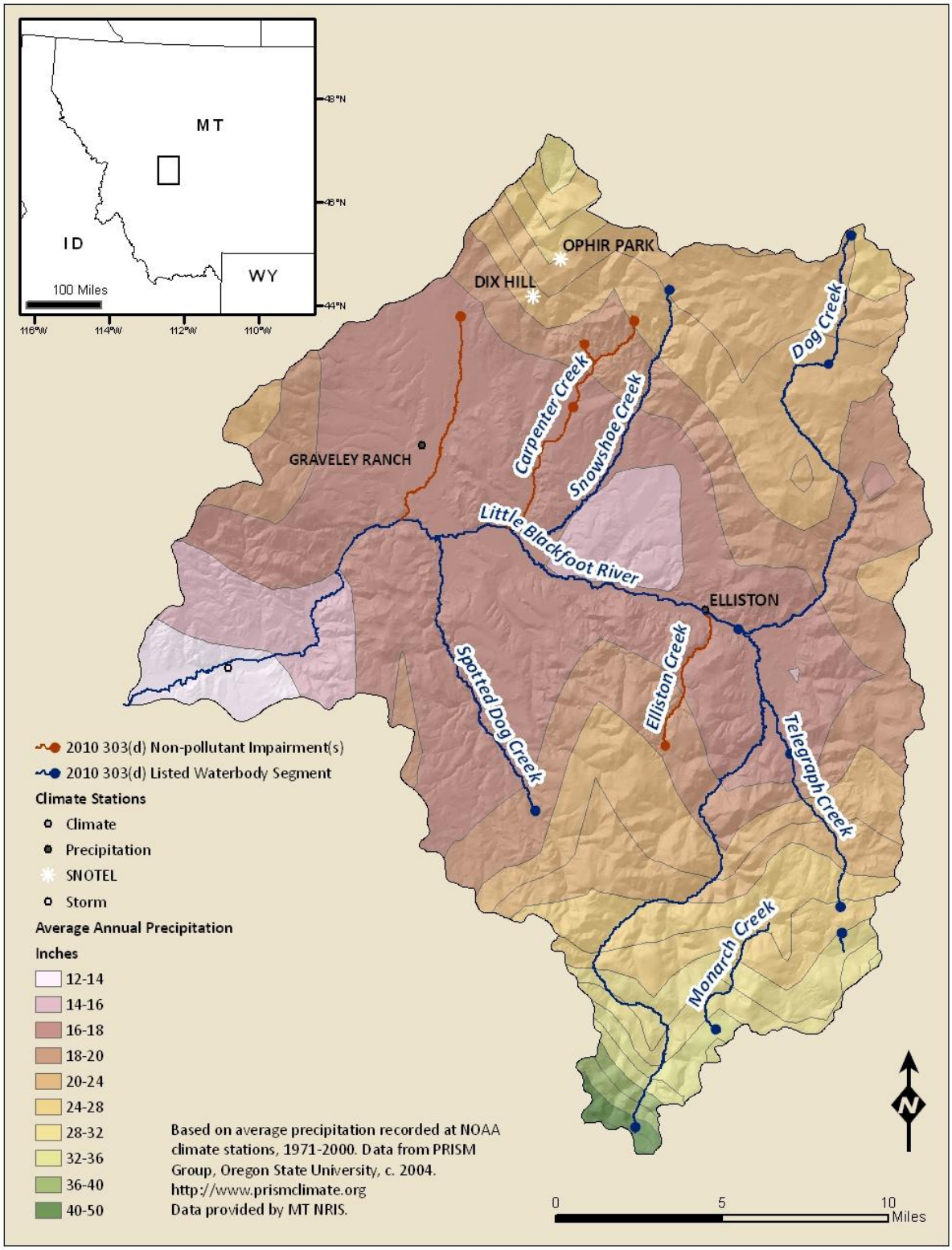

Figure A-9. Distribution of average annual precipitation within the Little Blackfoot TPA.

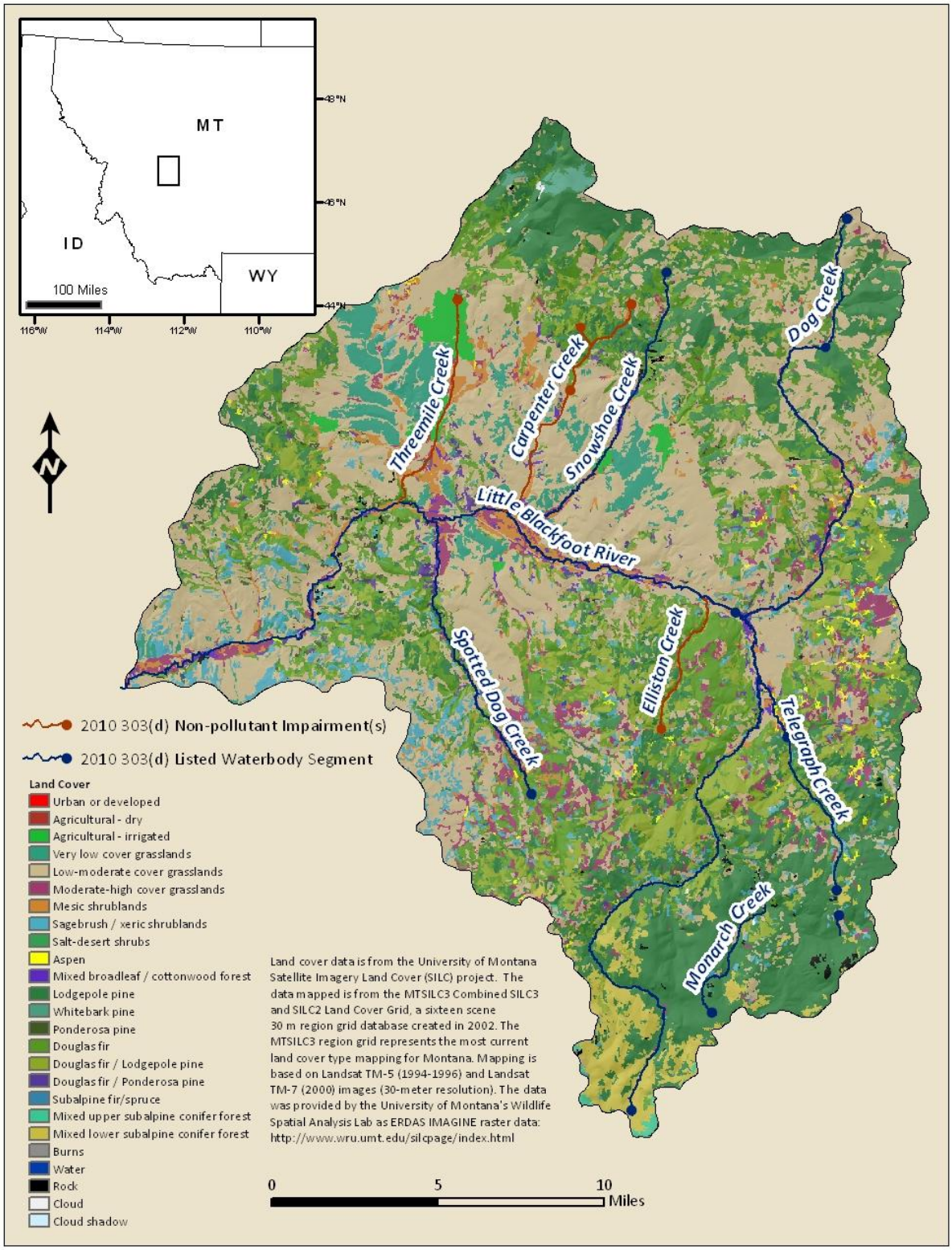

Figure A-10. Land cover distribution within the Little Blackfoot TPA from University of Montana.

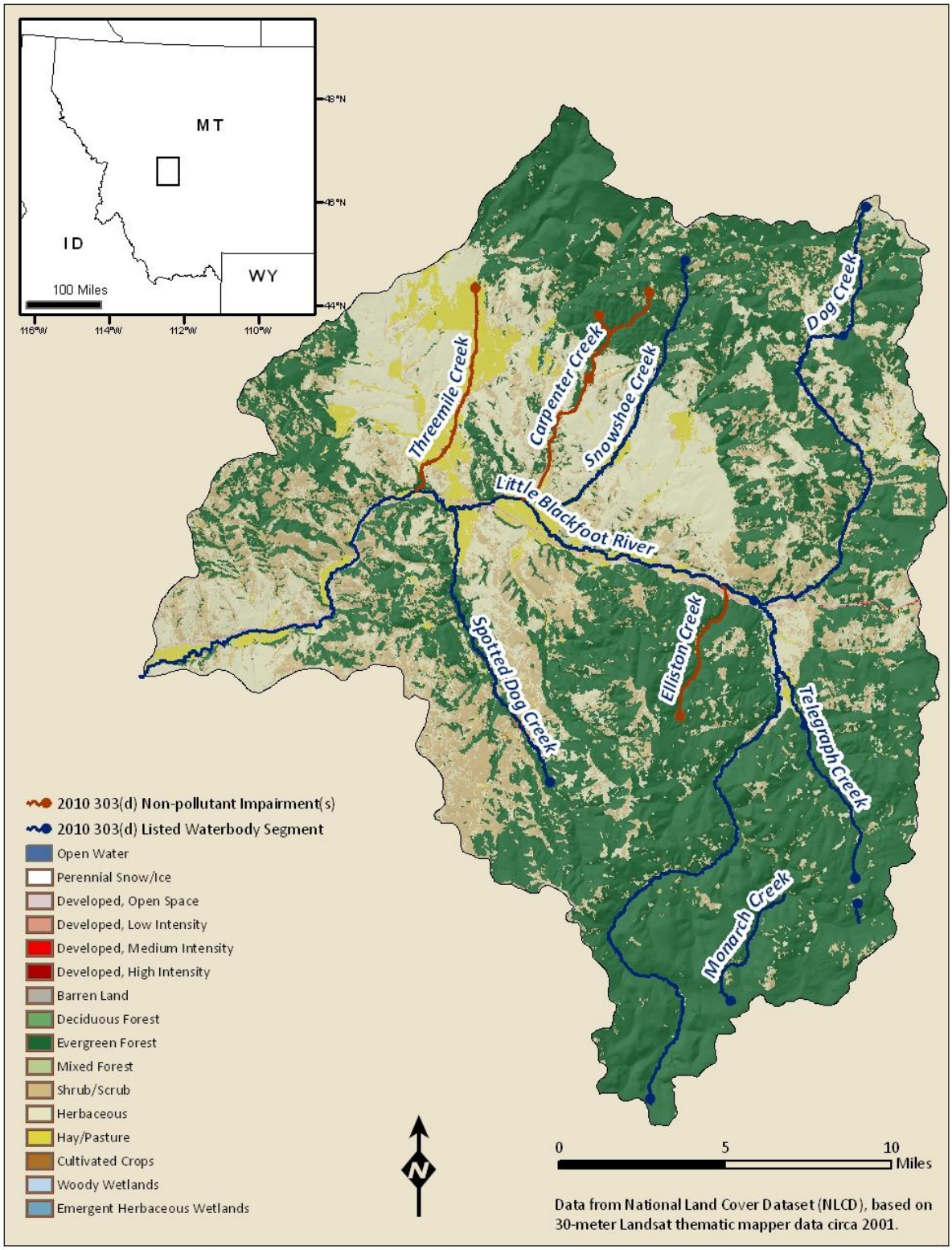

Figure A-11. NLCD land cover distribution within the Little Blackfoot TPA.

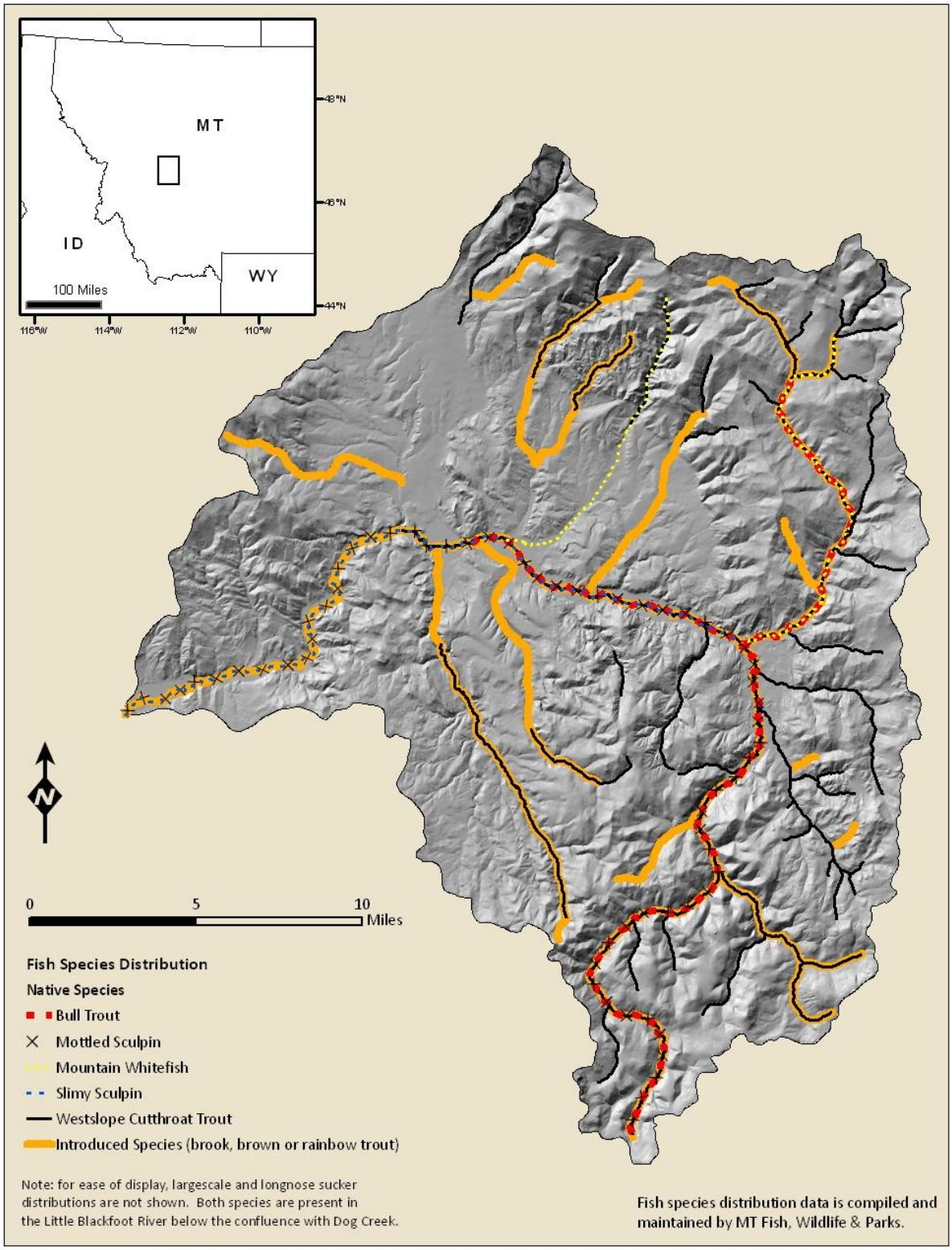

Figure A-12. Fish species distribution within the Little Blackfoot TPA.

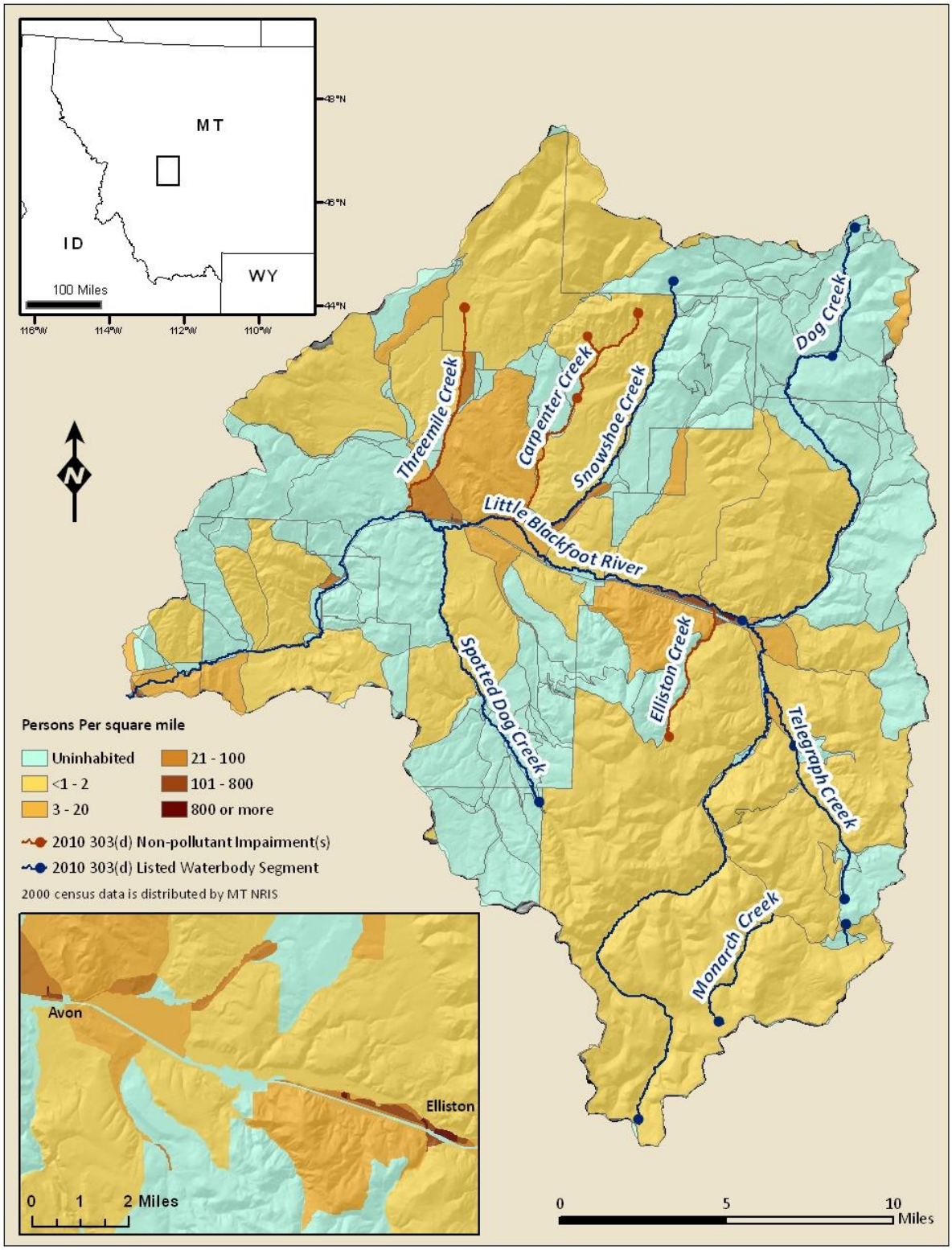

Figure A-13. Population density within the Little Blackfoot TPA.

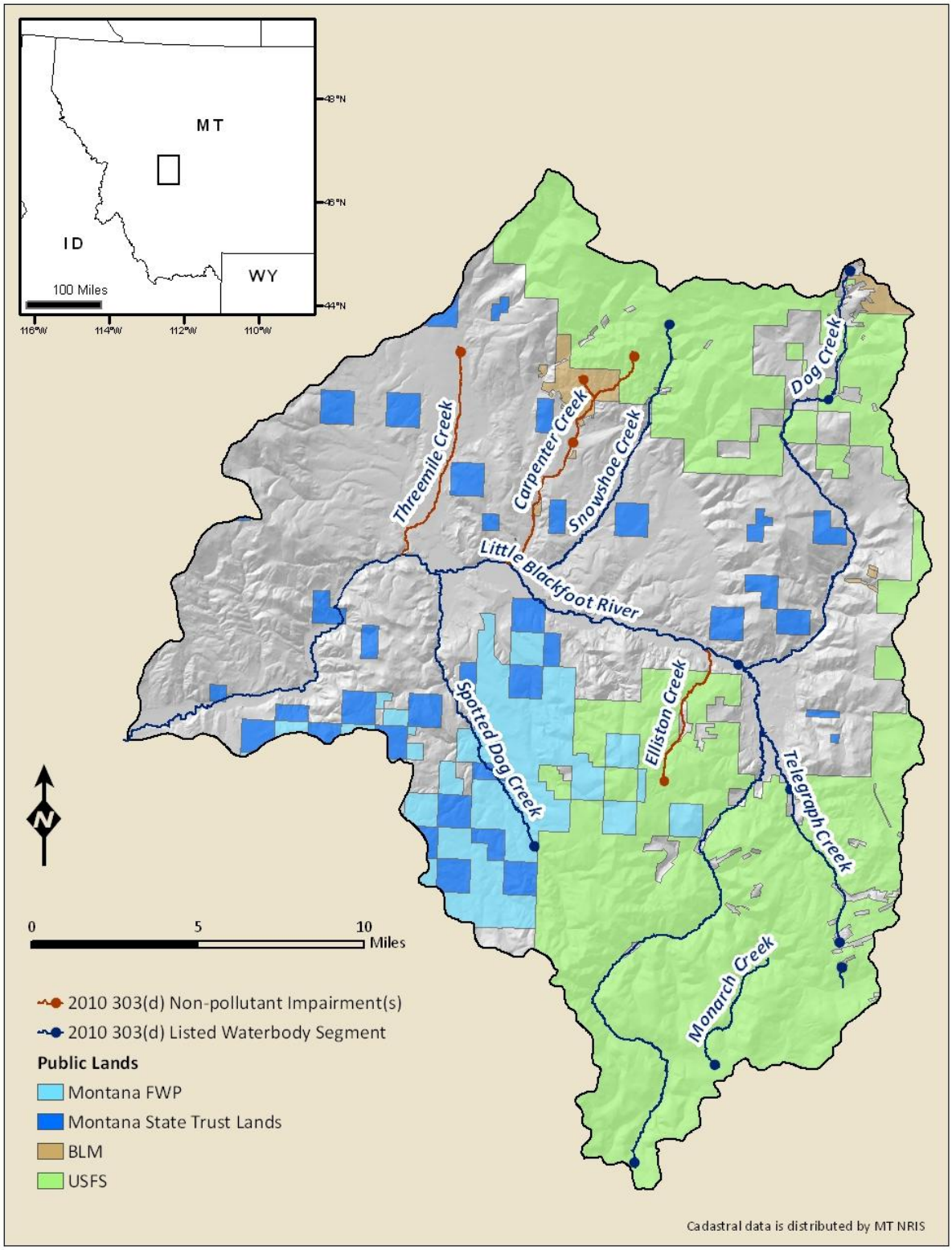

Figure A-14. Public land ownership within the Little Blackfoot TPA.

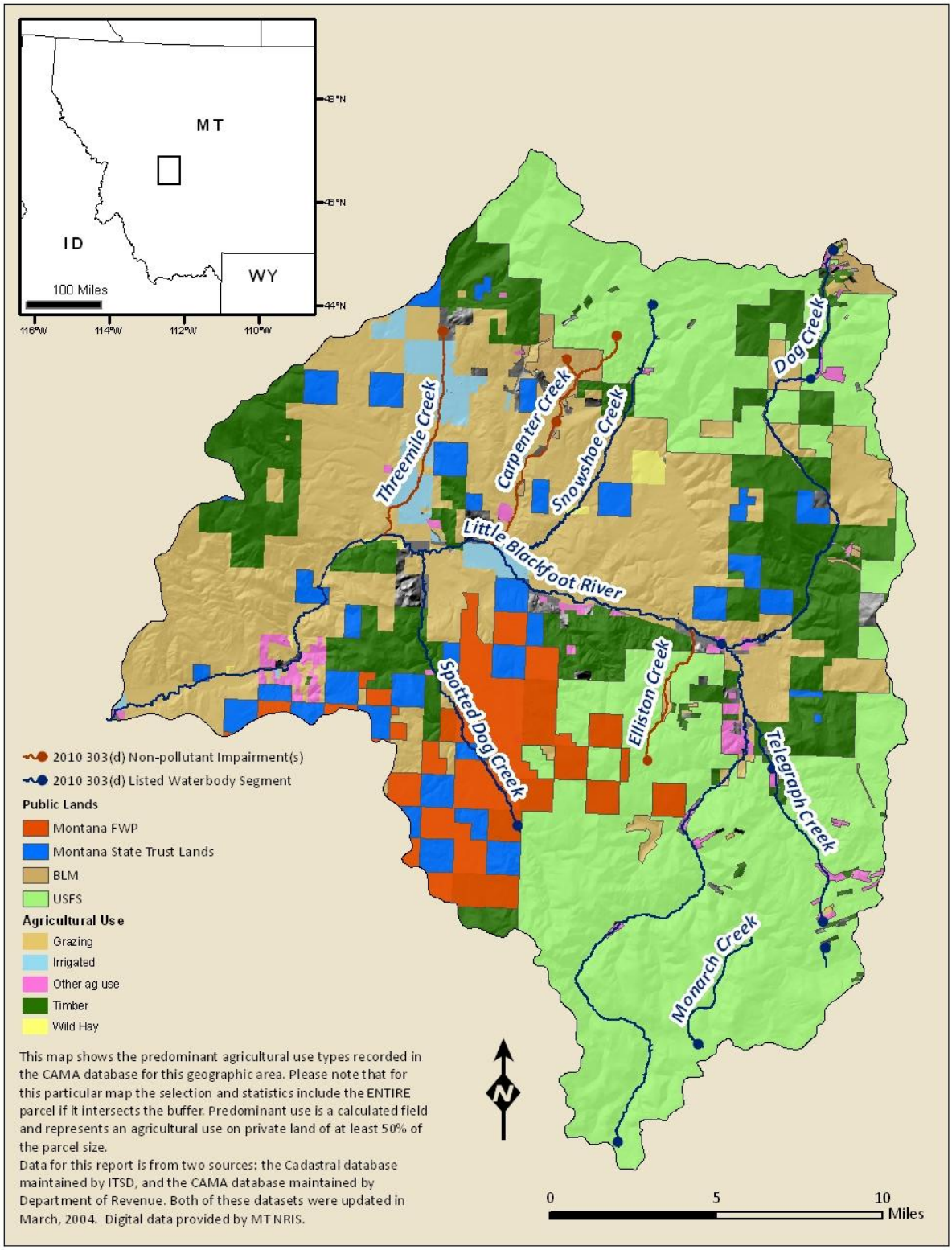

Figure A-15. Land ownership and agricultural land use distribution within the Little Blackfoot TPA.

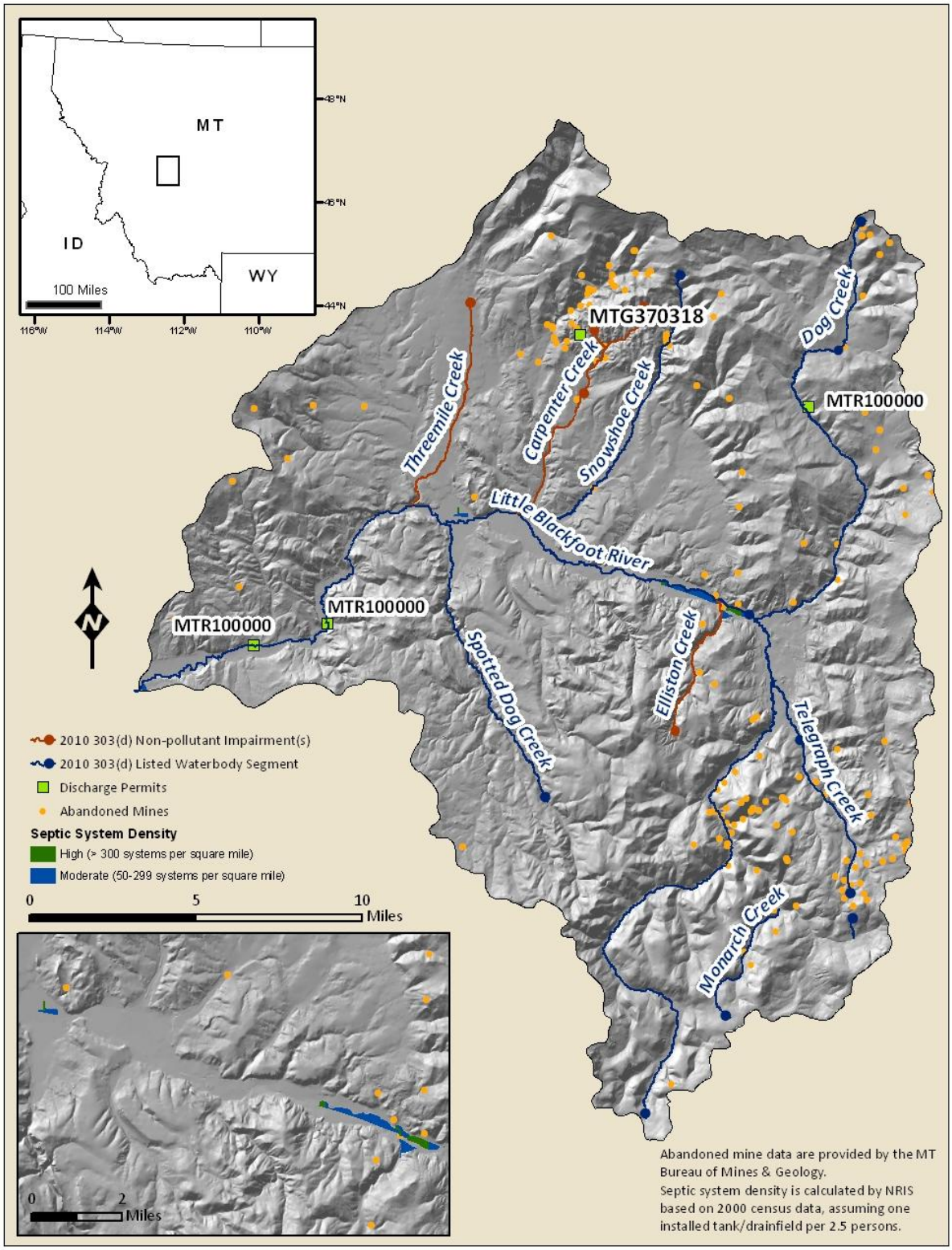

Figure A-16. Abandoned mines, NPDES permit locations, and septic system density within the Little Blackfoot TPA.

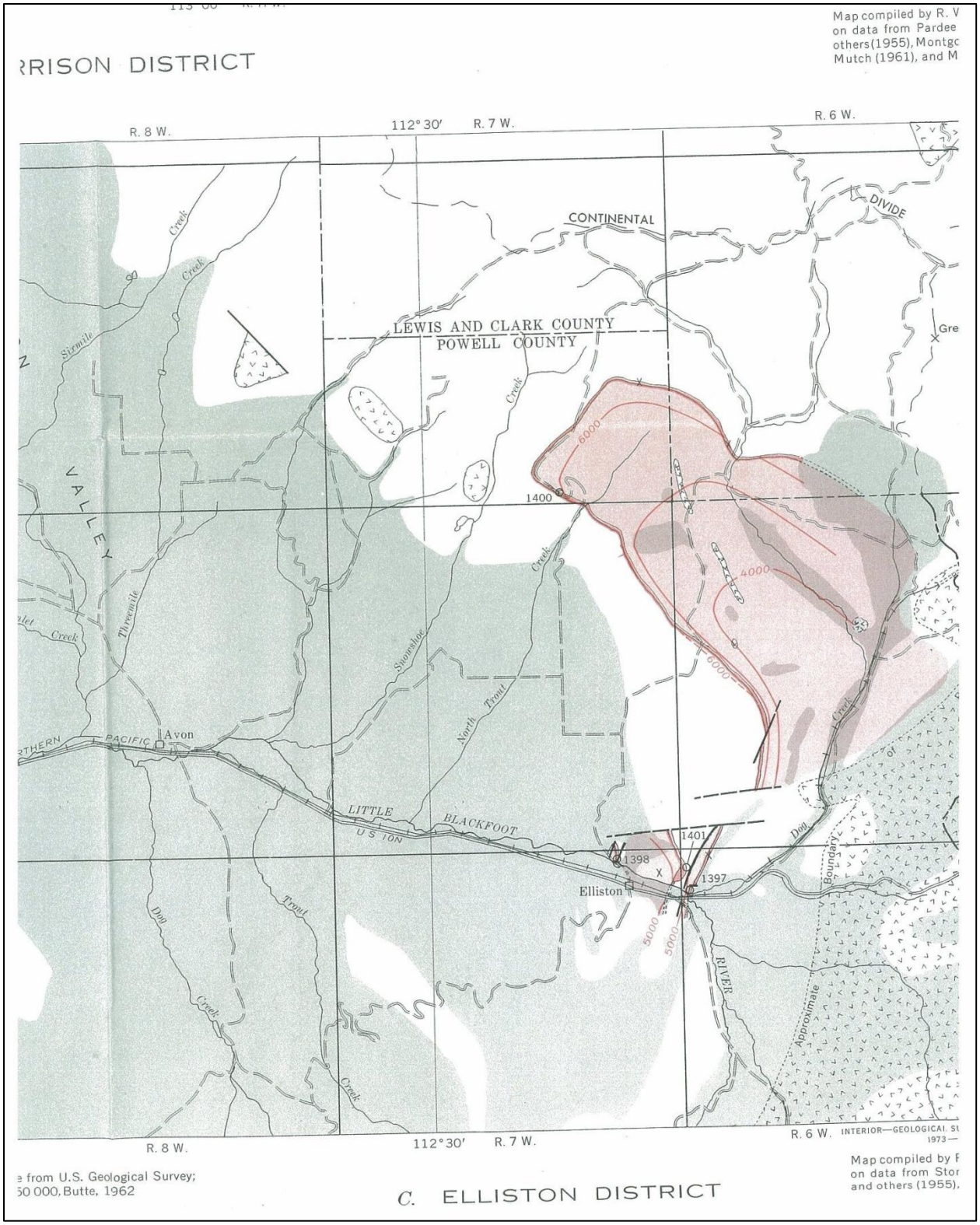

Figure A-17. Distribution of the Phosphoria Formation in the Elliston Mining District (indicated in pink). Copied from (Swanson, 1973).

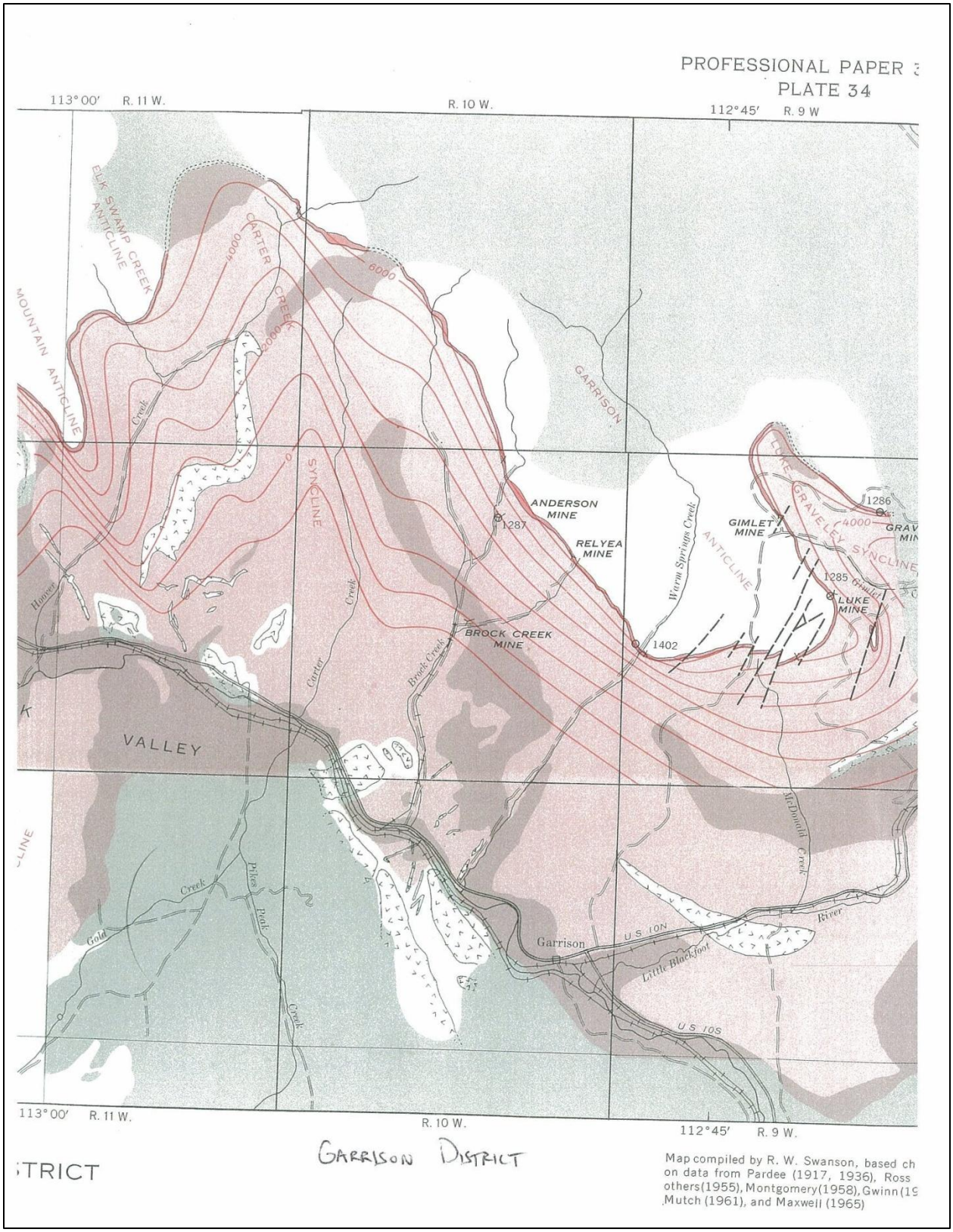

Figure A-18. Distribution of the Phosphoria Formation in the Garrison Mining District (indicated in pink). Copied from (Swanson, 1973).