

## APPENDIX A – TABLES AND FIGURES

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**Table A-1. Status of waterbody impairments in the TMDL planning areas within the Bitterroot watershed, based on the 2014 Integrated Report**

Waterbody & Location Description	Waterbody ID	Impairment Cause	TMDL Pollutant Category	Impairment Cause Status *
<sup>1</sup> <b>Ambrose Creek</b> , headwaters to mouth (Threemile Creek)	MT76H004_120	Nitrogen (Total)	Nutrients	Addressed by a TN TMDL in this document
		Phosphorus (Total)	Nutrients	Addressed by a TP TMDL in this document
		Physical substrate habitat alterations	Not Applicable; Non-Pollutant	Addressed by a sediment TMDL in a previous document (2011)
		Sedimentation/Siltation	Sediment	Addressed by a sediment TMDL in a previous document (2011)
<sup>1</sup> <b>Bass Creek</b> , Selway-Bitterroot Wilderness boundary to mouth (un-named channel of Bitterroot River)	MT76H004_010	Low flow alterations	Not Applicable; Non-Pollutant	Addressed in Section 8 of this document
		Nitrogen (Total)	Nutrients	Addressed by a TN TMDL in this document
		Phosphorus (Total)	Nutrients	Addressed by a TP TMDL in this document
		Sedimentation/Siltation	Sediment	Addressed by a sediment TMDL in a previous document (2011)
<sup>1</sup> <b>Bear Creek</b> , Selway-Bitterroot Wilderness boundary to mouth (Fred Burr Creek)	MT76H004_031	Low flow alterations	Not Applicable; Non-Pollutant	Addressed in Section 8 of this document
<sup>1</sup> <b>Bitterroot River</b> , East and West forks to Skalkaho Creek	MT76H001_010	Alteration in stream-side or littoral vegetative covers	Not Applicable; Non-Pollutant	Addressed in Section 8 of this document
<sup>1</sup> <b>Bitterroot River</b> , Skalkaho Creek to Eightmile Creek	MT76H001_020	Low flow alterations	Not Applicable; Non-Pollutant	Addressed in Section 8 of this document
		Sedimentation/Siltation	Sediment	Not impaired based on updated assessment
		Temperature, water	Temperature	Addressed by a temperature TMDL in a previous document (2011)
<sup>1</sup> <b>Bitterroot River</b> , Eightmile Creek to mouth (Clark Fork River)	MT76H001_030	Alteration in stream-side or littoral vegetative covers	Not Applicable; Non-Pollutant	Addressed by a temperature TMDL in a previous document (2011)
		Lead	Metals	Addressed by a lead TMDL in this document
		Sedimentation/Siltation	Sediment	Not impaired based on updated assessment
		Temperature, water	Temperature	Addressed by a temperature TMDL in a previous document (2011)
<sup>1</sup> <b>Blodgett Creek</b> , Selway-Bitterroot Wilderness boundary to mouth (Bitterroot River)	MT76H004_050	Low flow alterations	Not Applicable; Non-Pollutant	Addressed in Section 8 of this document
<sup>2</sup> <b>Buck Creek</b> , headwaters to mouth (West Fork Bitterroot)	MT76H003_070	Sedimentation/Siltation	Sediment	Addressed by a sediment TMDL in a previous document (2005)

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Waterbody & Location Description	Waterbody ID	Impairment Cause	TMDL Pollutant Category	Impairment Cause Status *
<sup>2</sup> <b>Ditch Creek</b> , headwaters to mouth (West Fork Bitterroot River)	MT76H003_060	Sedimentation/Siltation	Sediment	Addressed by a sediment TMDL in a previous document (2005)
<sup>2</sup> <b>East Fork Bitterroot River</b> , Anaconda-Pintlar Wilderness boundary to mouth (Bitterroot River)	MT76H002_010	Alteration in stream-side or littoral vegetative covers	Not Applicable; Non-Pollutant	Addressed by a sediment TMDL in a previous document (2005)
		Sedimentation/Siltation	Sediment	Addressed by a sediment TMDL in a previous document (2005)
		Temperature, water	Temperature	Addressed by a temperature TMDL in a previous document (2005)
<sup>3</sup> <b>East Fork Lolo Creek</b> , headwaters to mouth (Confluence with Lolo Creek)	MT76H005_040	Alteration in stream-side or littoral vegetative covers	Not Applicable; Non-Pollutant	Addressed by a sediment TMDL in a previous document (2003)
		Fish-Passage Barrier	Not Applicable; Non-Pollutant	Addressed by a sediment TMDL in a previous document (2003)
		Sedimentation/Siltation	Sediment	Addressed by a sediment TMDL in a previous document (2003)
<sup>2</sup> <b>Gilbert Creek</b> , headwaters to mouth (Laird Creek)	MT76H002_080	Alteration in stream-side or littoral vegetative covers	Not Applicable; Non-Pollutant	Addressed by a sediment TMDL in a previous document (2005)
		Sedimentation/Siltation	Sediment	Addressed by a sediment TMDL in a previous document (2005)
<sup>3</sup> <b>Granite Creek</b> , headwaters to mouth (Lolo Creek)	MT76H005_030	Alteration in stream-side or littoral vegetative covers	Not Applicable; Non-Pollutant	Addressed by a sediment TMDL in a previous document (2003)
		Fish-Passage Barrier	Not Applicable; Non-Pollutant	Addressed by a sediment TMDL in a previous document (2003)
		Sedimentation/Siltation	Sediment	Addressed by a sediment TMDL in a previous document (2003)
<sup>2</sup> <b>Hughes Creek</b> , headwaters to the mouth (West Fork Bitterroot River)	MT76H003_040	Alteration in stream-side or littoral vegetative covers	Not Applicable; Non-Pollutant	Addressed by a sediment TMDL in a previous document (2005)
		Physical substrate habitat alterations	Not Applicable; Non-Pollutant	Addressed by a sediment TMDL in a previous document (2005)
		Sedimentation/Siltation	Sediment	Addressed by a sediment TMDL in a previous document (2005)
		Temperature, water	Temperature	Addressed by a temperature TMDL in a previous document (2005)



**Table A-1. Status of waterbody impairments in the TMDL planning areas within the Bitterroot watershed, based on the 2014 Integrated Report**

Waterbody & Location Description	Waterbody ID	Impairment Cause	TMDL Pollutant Category	Impairment Cause Status *
<sup>1</sup> <b>Kootenai Creek</b> , Selway-Bitterroot Wilderness boundary to mouth (Bitterroot River)	MT76H004_020	Alteration in stream-side or littoral vegetative covers	Not Applicable; Non-Pollutant	Addressed in Section 8 of this document
		Low flow alterations	Not Applicable; Non-Pollutant	Addressed in section 8 of this document
<sup>2</sup> <b>Laird Creek</b> , headwaters to mouth (East Fork Bitterroot River)	MT76H002_070	Alteration in stream-side or littoral vegetative covers	Not Applicable; Non-Pollutant	Addressed by a sediment TMDL in a previous document (2005)
		Sedimentation/Siltation	Sediment	Addressed by a sediment TMDL in a previous document (2005)
<sup>3</sup> <b>Lee Creek</b> , headwaters to mouth (West Fork Lolo Creek)	MT76H005_070	Alteration in stream-side or littoral vegetative covers	Not Applicable; Non-Pollutant	Addressed by a sediment TMDL in a previous document (2003)
		Sedimentation/Siltation	Sediment	Addressed by a sediment TMDL in a previous document (2003)
<sup>1</sup> <b>Lick Creek</b> , headwaters to mouth (Bitterroot River)	MT76H004_170	Alteration in stream-side or littoral vegetative covers	Not Applicable; Non-Pollutant	Addressed by a sediment TMDL in a previous document (2011)
		Aluminum	Metals	Addressed by an aluminum TMDL in this document
		Chlorophyll-a	Not Applicable; Non-Pollutant	Addressed by a TP TMDL in this document
		Phosphorus (Total)	Nutrients	Addressed by a TP TMDL in this document
		Sedimentation/Siltation	Sediment	Addressed by a sediment TMDL in a previous document (2011)
<sup>1</sup> <b>Lolo Creek</b> , Mormon Creek to mouth (Bitterroot River)	MT76H005_011	Low flow alterations	Not Applicable; Non-Pollutant	Addressed in Section 8 of this document
		Physical substrate habitat alterations	Not Applicable; Non-Pollutant	Addressed by a sediment TMDL in a previous document (2011)
		Sedimentation/Siltation	Sediment	Addressed by a sediment TMDL in a previous document (2011)
<sup>1</sup> <b>Lolo Creek</b> , Sheldon Creek to Mormon Creek	MT76H005_012	Physical substrate habitat alterations	Not Applicable; Non-Pollutant	Addressed by a sediment TMDL in a previous document (2011)
		Sedimentation/Siltation	Sediment	Addressed by a sediment TMDL in a previous document (2011)

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Waterbody & Location Description	Waterbody ID	Impairment Cause	TMDL Pollutant Category	Impairment Cause Status *
<sup>1</sup> <b>Lolo Creek</b> , headwaters to Sheldon Creek	MT76H005_013	Physical substrate habitat alterations	Not Applicable; Non-Pollutant	Addressed by a sediment TMDL in a previous document (2011)
		Sedimentation/Siltation	Sediment	Addressed by a sediment TMDL in a previous document (2011)
<sup>1</sup> <b>Lost Horse Creek</b> , headwaters to mouth (Bitterroot River)	MT76H004_070	Low flow alterations	Not Applicable; Non-Pollutant	Addressed in Section 8 of this document
<sup>3</sup> <b>Lost Park Creek</b> , headwaters to mouth (Confluence with East Fork Lolo Creek)	MT76H005_060	Alteration in stream-side or littoral vegetative covers	Not Applicable; Non-Pollutant	Addressed by a sediment TMDL in a previous document (2003)
		Fish-Passage Barrier	Not Applicable; Non-Pollutant	Addressed by a sediment TMDL in a previous document (2003)
		Sedimentation/Siltation	Sediment	Addressed by a sediment TMDL in a previous document (2003)
<sup>1</sup> <b>McClain Creek</b> , headwaters to mouth (Sin-tin-tin-em-ska Creek)	MT76H004_150	Sedimentation/Siltation	Sediment	Addressed by a sediment TMDL in a previous document (2011)
<sup>1</sup> <b>Mill Creek</b> , Selway-Bitterroot Wilderness boundary to the mouth (Fred Burr Creek)	MT76H004_040	Alteration in stream-side or littoral vegetative covers	Not Applicable; Non-Pollutant	Addressed by a temperature TMDL in this document
		Low flow alterations	Not Applicable; Non-Pollutant	Addressed in Section 8 of this document
		Temperature, water	Temperature	Addressed by a temperature TMDL in this document
<sup>1</sup> <b>Miller Creek</b> , headwaters to mouth (Bitterroot River)	MT76H004_130	Alteration in stream-side or littoral vegetative covers	Not Applicable; Non-Pollutant	Addressed by a sediment TMDL in a previous document (2011)
		Chlorophyll-a	Not Applicable; Non-Pollutant	Not impaired based on updated assessment
		Nitrate/Nitrite (Nitrite + Nitrate as N)	Nutrients	Not impaired based on updated assessment
		Nitrogen (Total)	Nutrients	Not impaired based on updated assessment
		Phosphorus (Total)	Nutrients	Not impaired based on updated assessment
		Sedimentation/Siltation	Sediment	Addressed by a sediment TMDL in a previous document (2011)
		Temperature, water	Temperature	Addressed by a temperature TMDL in a previous document (2011)

**Table A-1. Status of waterbody impairments in the TMDL planning areas within the Bitterroot watershed, based on the 2014 Integrated Report**

Waterbody & Location Description	Waterbody ID	Impairment Cause	TMDL Pollutant Category	Impairment Cause Status *
<sup>1</sup> <b>Muddy Spring Creek</b> , headwaters to mouth (Gold Creek)	MT76H004_180	Nitrate/Nitrite (Nitrite + Nitrate as N)	Nutrients	Addressed by a NO <sub>2</sub> + NO <sub>3</sub> TMDL in this document
		Sedimentation/Siltation	Sediment	Addressed by a sediment TMDL in a previous document (2011)
<sup>2</sup> <b>Nez Perce Fork Bitterroot River</b> , headwaters to mouth (West Fork Bitterroot River)	MT76H003_020	Temperature, water	Temperature	Addressed by a temperature TMDL in a previous document (2005)
<sup>1</sup> <b>North Burnt Fork Creek</b> , confluence with South Burnt Fork Creek to Mouth (Bitterroot River)	MT76H004_200	Bottom Deposits	Sediment	Addressed by a sediment TMDL in a previous document (2011)
		Nitrogen (Total)	Nutrients	Addressed by a TN TMDL in this document
		Phosphorus (Total)	Nutrients	Addressed by a TP TMDL in this document
<sup>1</sup> <b>North Channel Bear Creek</b> , headwaters to mouth (Fred Burr Creek)	MT76H004_032	Low flow alterations	Not Applicable; Non-Pollutant	Addressed in Section 8 of this document
<sup>1</sup> <b>North Fork Rye Creek</b> , headwaters to mouth (Rye Creek-Bitterroot River, South of Darby)	MT76H004_160	Alteration in stream-side or littoral vegetative covers	Not Applicable; Non-Pollutant	Addressed by TN and TP TMDLs in this document
		Nitrogen (Total)	Nutrients	Addressed by a TN TMDL in this document
		Phosphorus (Total)	Nutrients	Addressed by a TP TMDL in this document
<sup>2</sup> <b>Overwhich Creek</b> , headwaters to mouth (West Fork Bitterroot River)	MT76H003_050	Temperature, water	Temperature	Addressed by a temperature TMDL in a previous document (2005)
<sup>2</sup> <b>Reimel Creek</b> , headwaters to mouth (East Fork Bitterroot River)	MT76H002_020	Alteration in stream-side or littoral vegetative covers	Not Applicable; Non-Pollutant	Addressed by a sediment TMDL in a previous document (2005)
		Sedimentation/Siltation	Sediment	Addressed by a sediment TMDL in a previous document (2005)
<sup>1</sup> <b>Rye Creek</b> , North Fork to mouth (Bitterroot River)	MT76H004_190	Alteration in stream-side or littoral vegetative covers	Not Applicable; Non-Pollutant	Addressed by a sediment TMDL in a previous document (2011)
		Nitrogen (Total)	Nutrients	Addressed by a TN TMDL in this document
		Phosphorus (Total)	Nutrients	Addressed by a TP TMDL in this document
		Sedimentation/Siltation	Sediment	Addressed by a sediment TMDL in a previous document (2011)
<sup>1</sup> <b>Skalkaho Creek</b> , headwaters to mouth (Bitterroot River)	MT76H004_100	Low flow alterations	Not Applicable; Non-Pollutant	Addressed in Section 8 of this document

**Table A-1. Status of waterbody impairments in the TMDL planning areas within the Bitterroot watershed, based on the 2014 Integrated Report**

Waterbody & Location Description	Waterbody ID	Impairment Cause	TMDL Pollutant Category	Impairment Cause Status *
<sup>1</sup> <b>Sleeping Child Creek</b> , headwaters to mouth (Bitterroot River)	MT76H004_090	Sedimentation/Siltation	Sediment	Addressed by a sediment TMDL in a previous document (2011)
		Temperature, water	Temperature	Addressed by a temperature TMDL in a previous document (2011)
<sup>1</sup> <b>South Fork Lolo Creek</b> , Selway-Bitterroot Wilderness boundary to mouth (Lolo Creek)	MT76H005_020	Low flow alterations	Not Applicable; Non-Pollutant	Addressed in Section 8 of this document
		Physical substrate habitat alterations	Not Applicable; Non-Pollutant	Addressed in Section 8 of this document
<sup>1</sup> <b>Sweathouse Creek</b> , headwaters to mouth (Bitterroot River)	MT76H004_210	Alteration in stream-side or littoral vegetative covers	Not Applicable; Non-Pollutant	Addressed by a sediment TMDL in a previous document (2011)
		Low flow alterations	Not Applicable; Non-Pollutant	Addressed in Section 8 of this document
		Phosphorus (Total)	Nutrients	Addressed by a TP TMDL in this document
		Sedimentation/Siltation	Sediment	Addressed by a sediment TMDL in a previous document (2011)
<sup>1</sup> <b>Threemile Creek</b> , headwaters to mouth (Bitterroot River)	MT76H004_140	Low flow alterations	Not Applicable; Non-Pollutant	Addressed in Section 8 of this document
		Nitrate/Nitrite (Nitrite + Nitrate as N)	Nutrients	Addressed by a TN TMDL in this document
		Nitrogen (Total)	Nutrients	Addressed by a TN TMDL in this document
		Phosphorus (Total)	Nutrients	Addressed by a TP TMDL in this document
		Sedimentation/Siltation	Sediment	Addressed by a sediment TMDL in a previous document (2011)
<sup>1</sup> <b>Tin Cup Creek</b> , Selway-Bitterroot Wilderness boundary to mouth (Bitterroot River)	MT76H004_080	Alteration in stream-side or littoral vegetative covers	Not Applicable; Non-Pollutant	Addressed in Section 8 of this document
<sup>2</sup> <b>West Fork Bitterroot River</b> , headwaters to mouth	MT76H003_010	Physical substrate habitat alterations	Not Applicable; Non-Pollutant	Addressed by a sediment TMDL in a previous document (2005)
		Sedimentation/Siltation	Sediment	Addressed by a sediment TMDL in a previous document (2005)
		Temperature, water	Temperature	Addressed by a temperature TMDL in a previous document (2005)

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Waterbody & Location Description	Waterbody ID	Impairment Cause	TMDL Pollutant Category	Impairment Cause Status *
<sup>3</sup> <b>West Fork Lolo Creek</b> , headwaters to mouth (Lolo Creek)	MT76H005_050	Alteration in stream-side or littoral vegetative covers	Not Applicable; Non-Pollutant	Addressed by a sediment TMDL in a previous document (2003)
		Sedimentation/Siltation	Sediment	Addressed by a sediment TMDL in a previous document (2003)
<sup>1</sup> <b>Willow Creek</b> , headwaters to mouth (Bitterroot River)	MT76H004_110	Alteration in stream-side or littoral vegetative covers	Not Applicable; Non-Pollutant	Addressed by a sediment TMDL in a previous document (2011)
		Sedimentation/Siltation	Sediment	Addressed by a sediment TMDL in a previous document (2011)
		Temperature, water	Temperature	Addressed by a temperature TMDL in a previous document (2011)

\* TN = Total Nitrogen, TP = Total Phosphorus, NO<sub>2</sub> + NO<sub>3</sub> = Nitrite + Nitrate

<sup>1</sup>Waterbody is part of the Bitterroot TPA, <sup>2</sup>Waterbody is part of the Bitterroot Headwaters TPA, <sup>3</sup>Waterbody is part of the Upper Lolo TPA



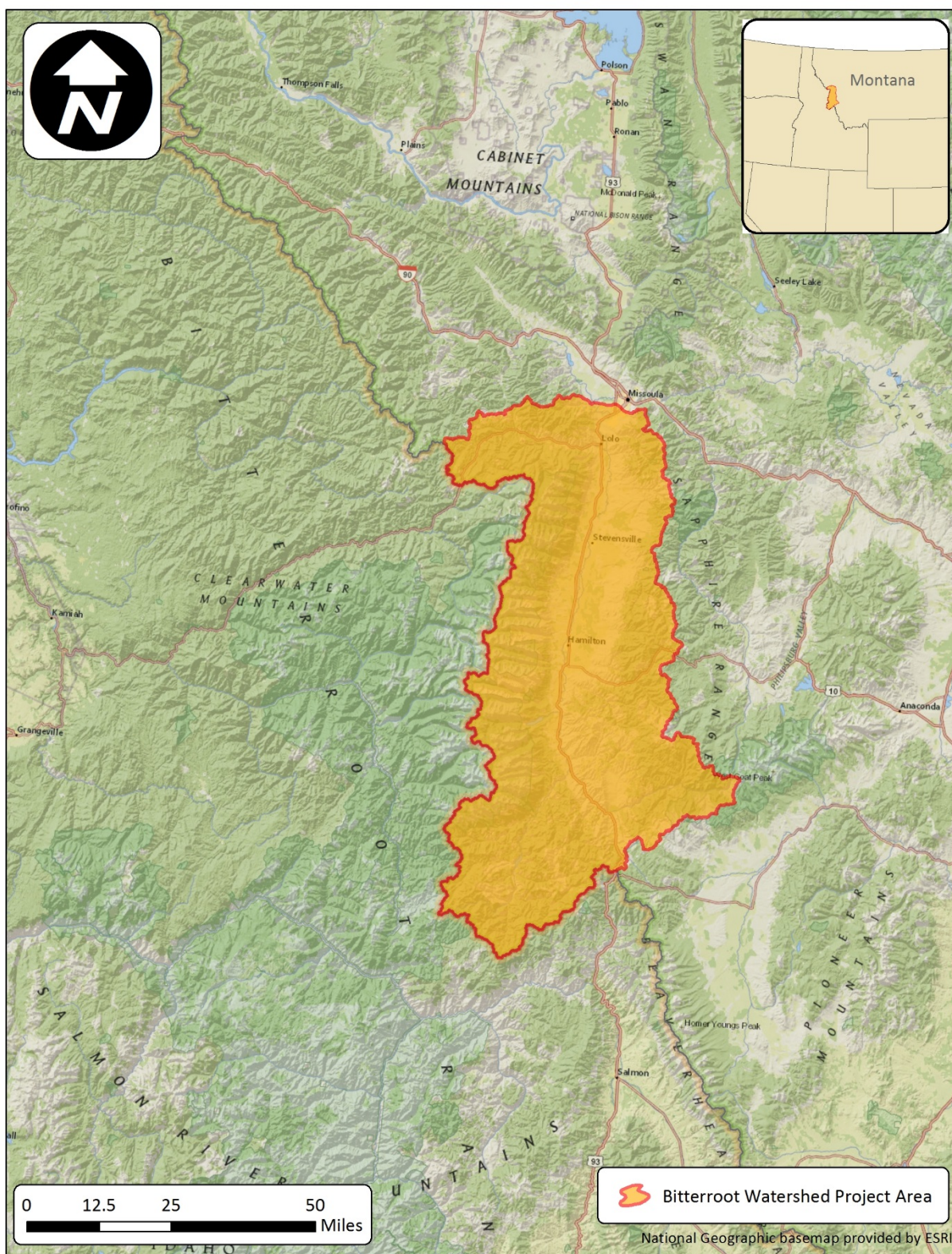


Figure A-1. Location of Bitterroot Watershed Project Area

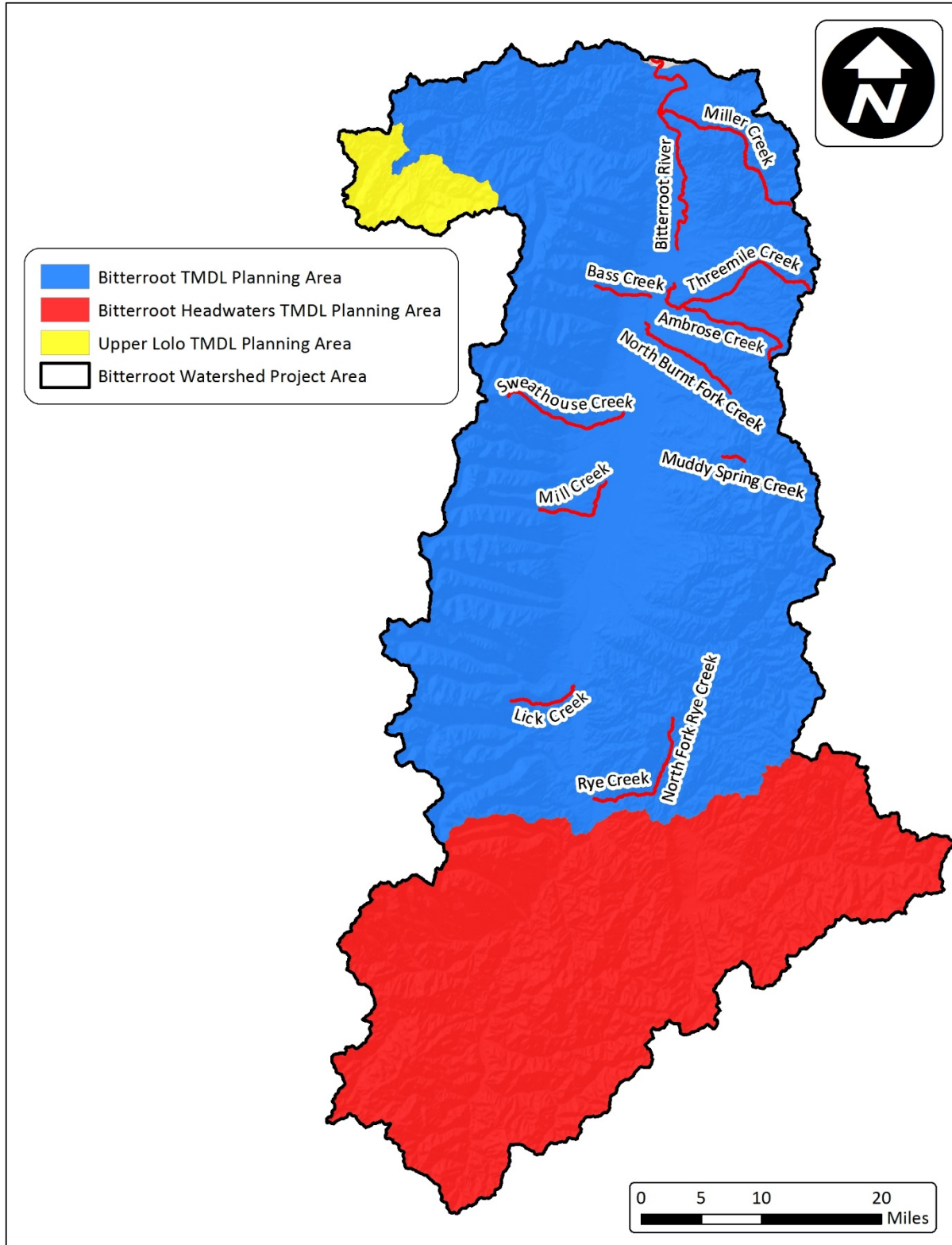
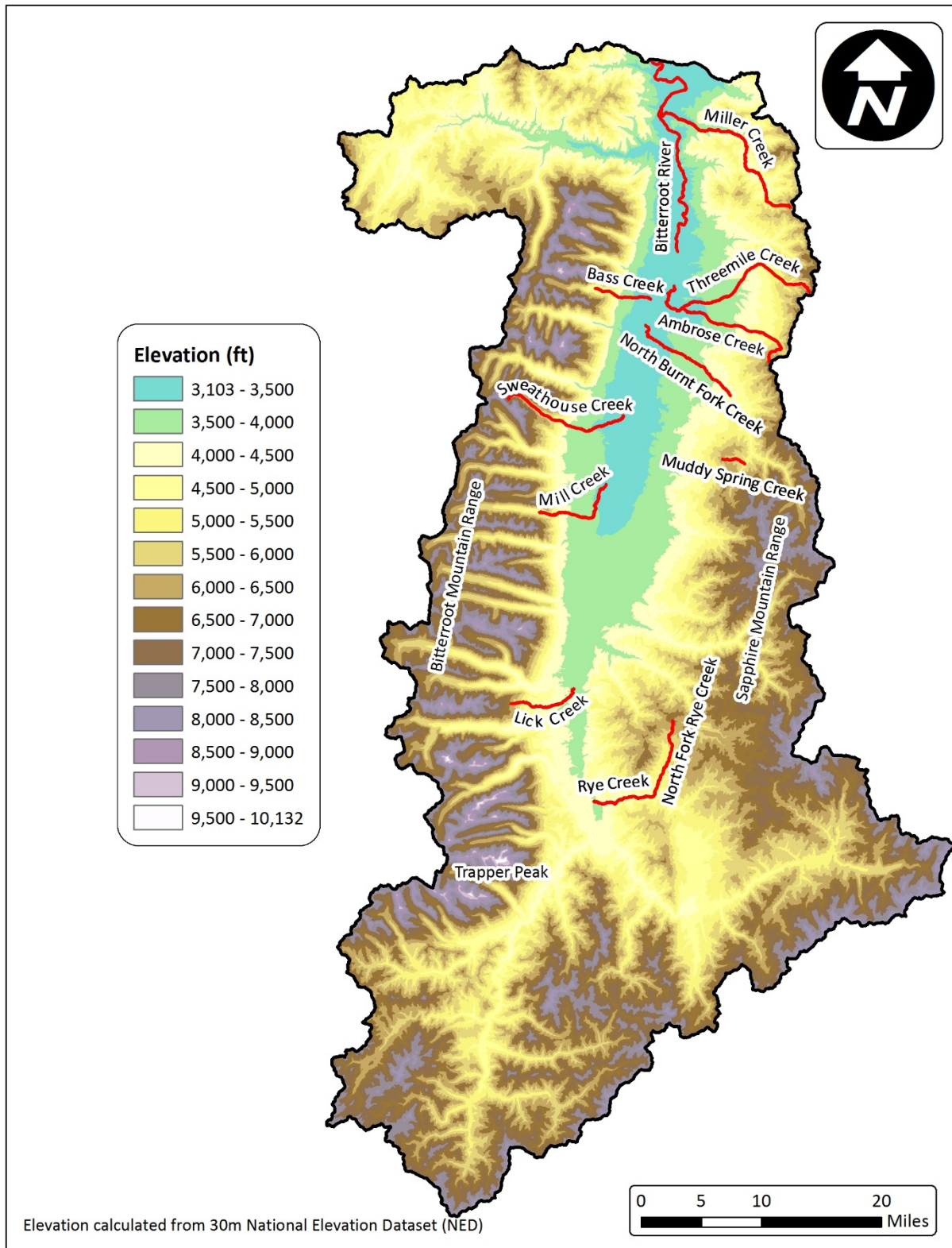


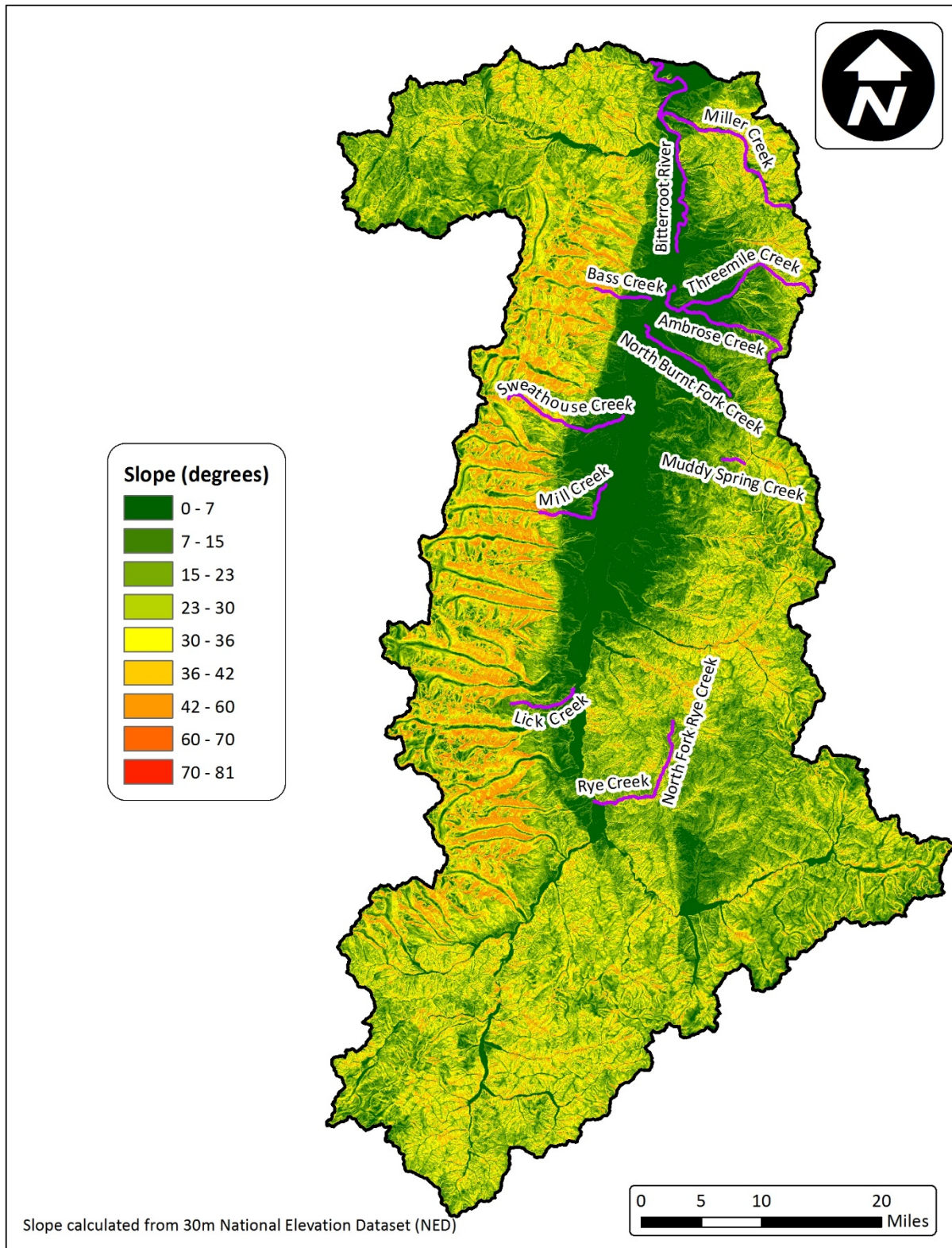
Figure A-2. TMDL Planning Areas (TPAs) within the Bitterroot Watershed Project Area





**Figure A-3. Elevation of the Bitterroot Watershed Project Area**





**Figure A-4. Slope of the Bitterroot Watershed Project Area**

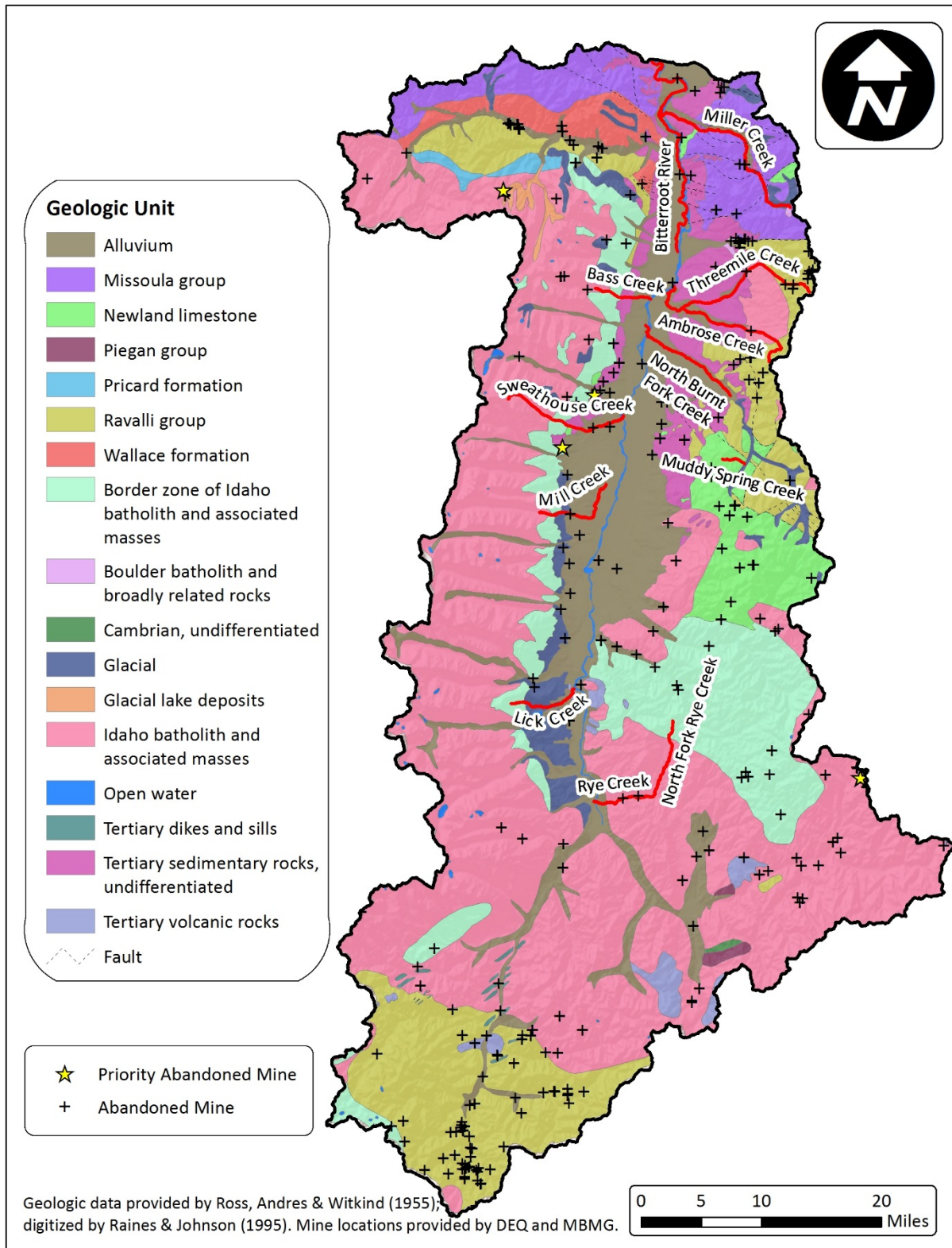
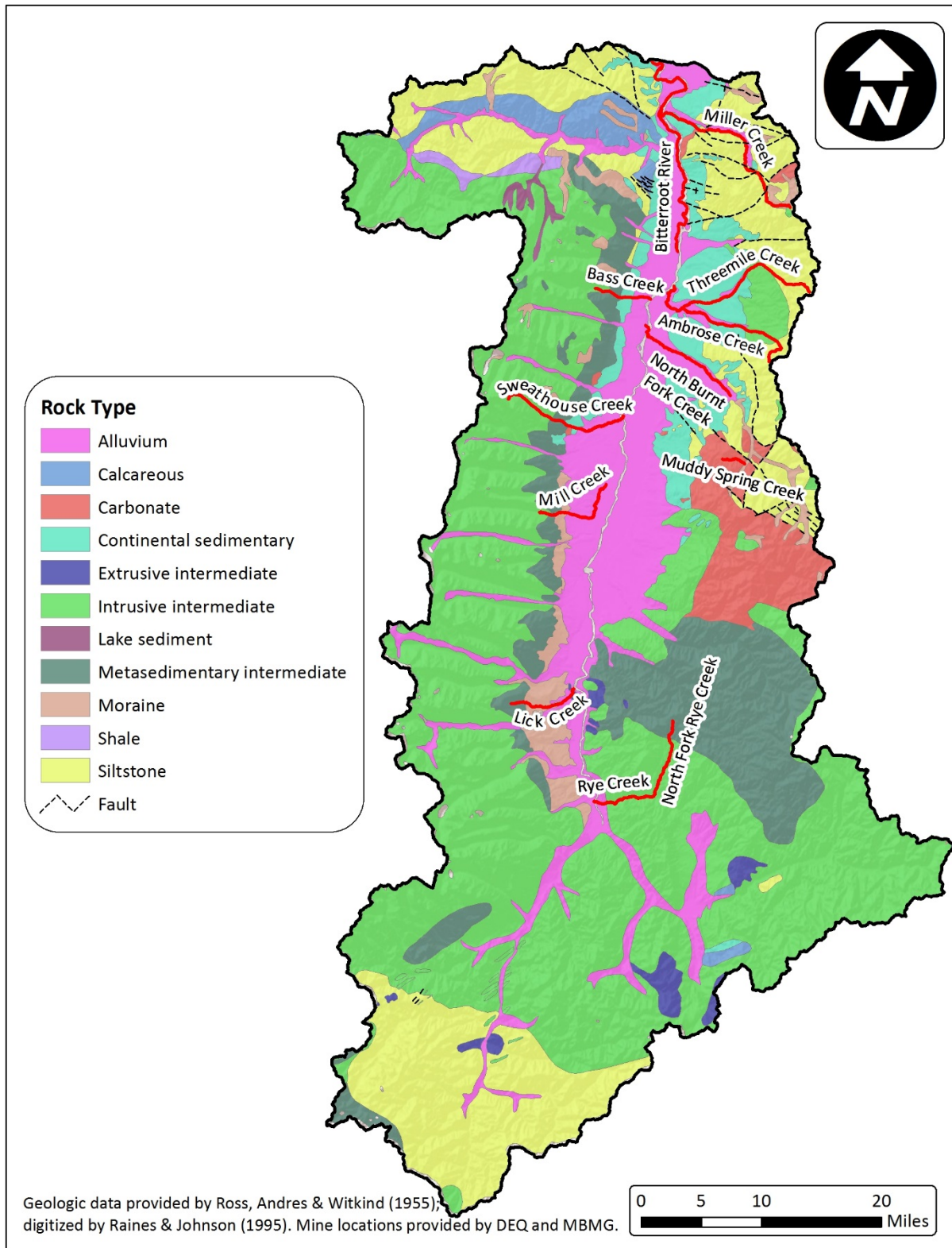


Figure A-5. Geologic units and abandoned mines of the Bitterroot Watershed Project Area





**Figure A-6. Geologic rock types of the Bitterroot Watershed Project Area**

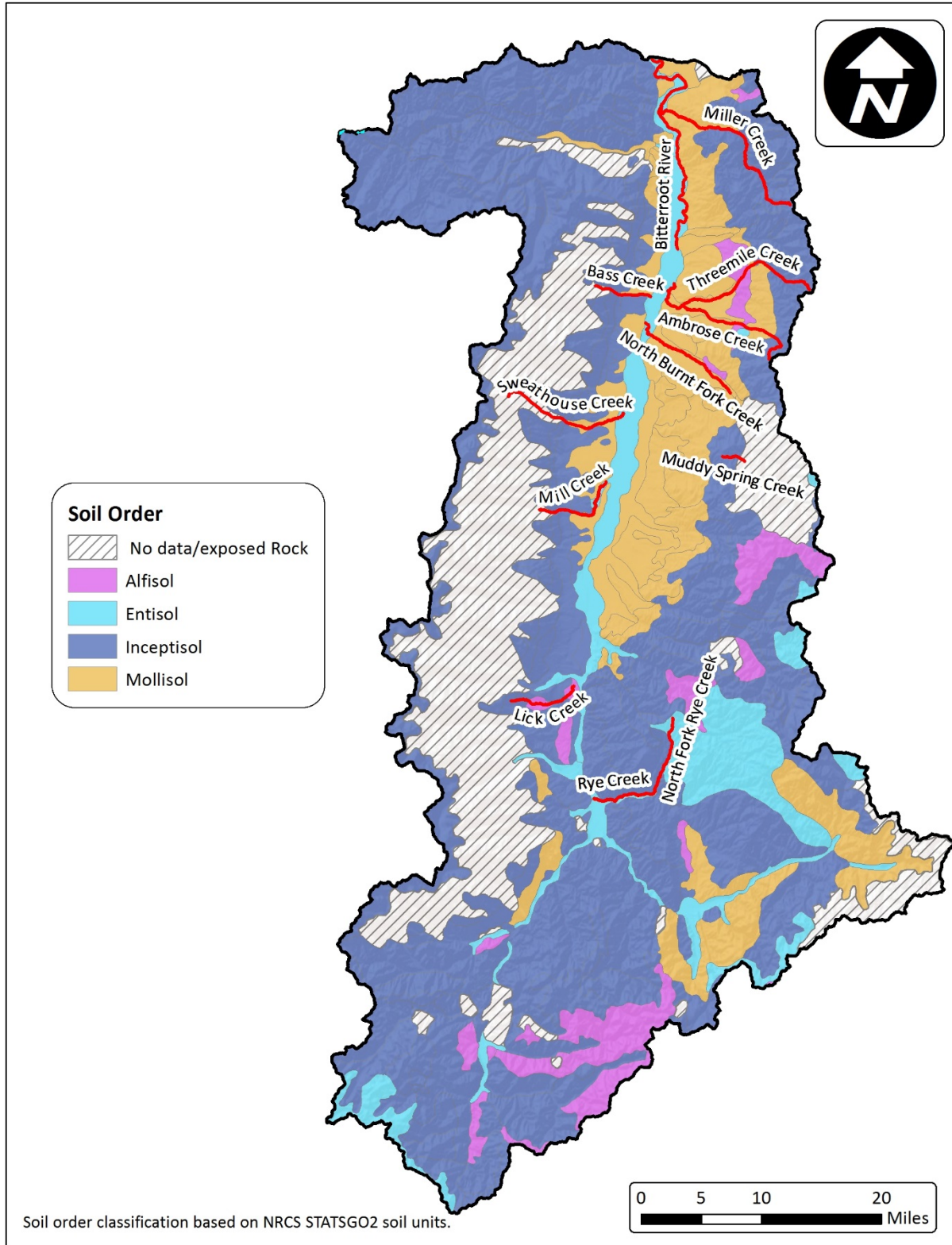


Figure A-7. Soil orders of the Bitterroot Watershed Project Area

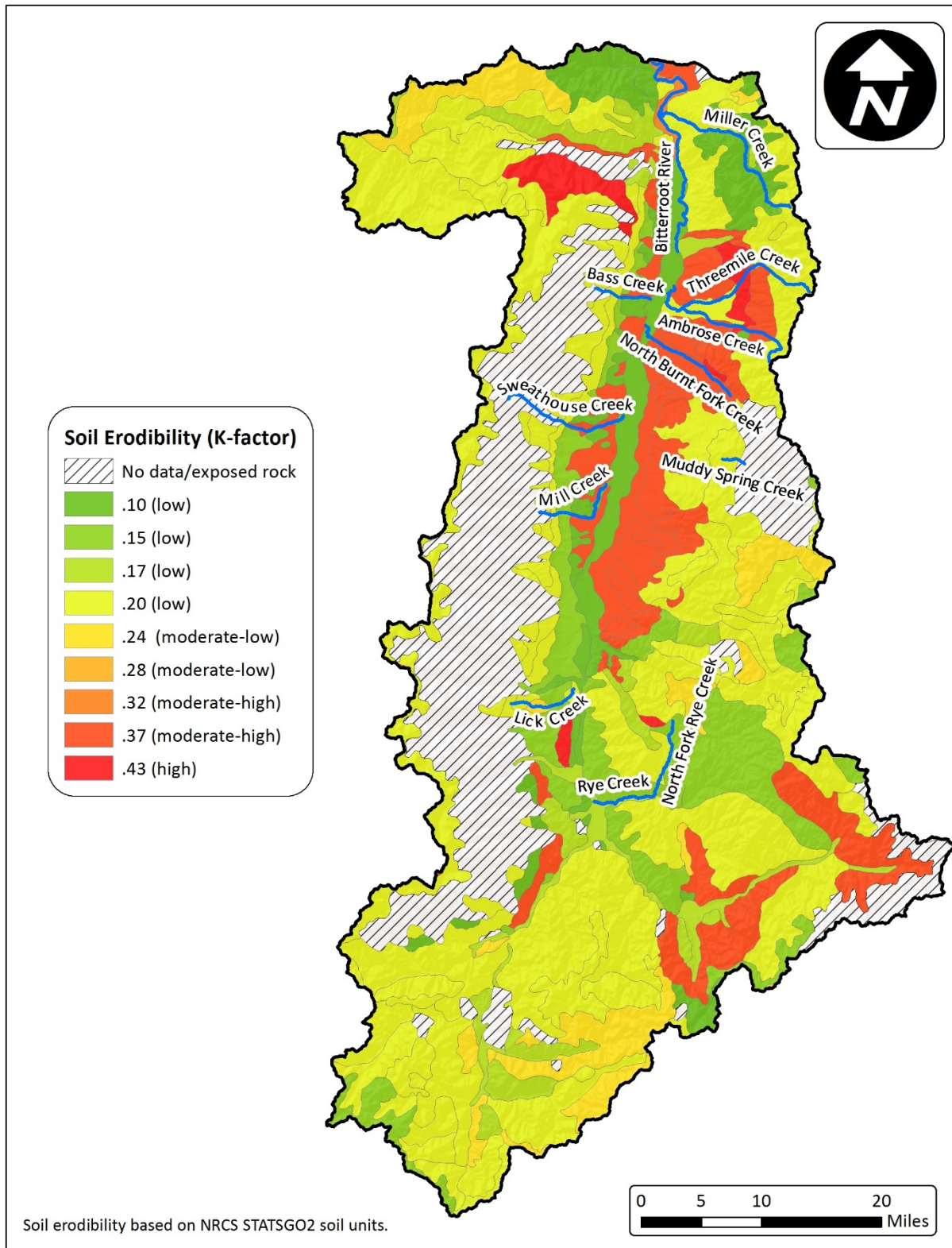


Figure A-8. Soil erodibility values of the Bitterroot Watershed Project Area



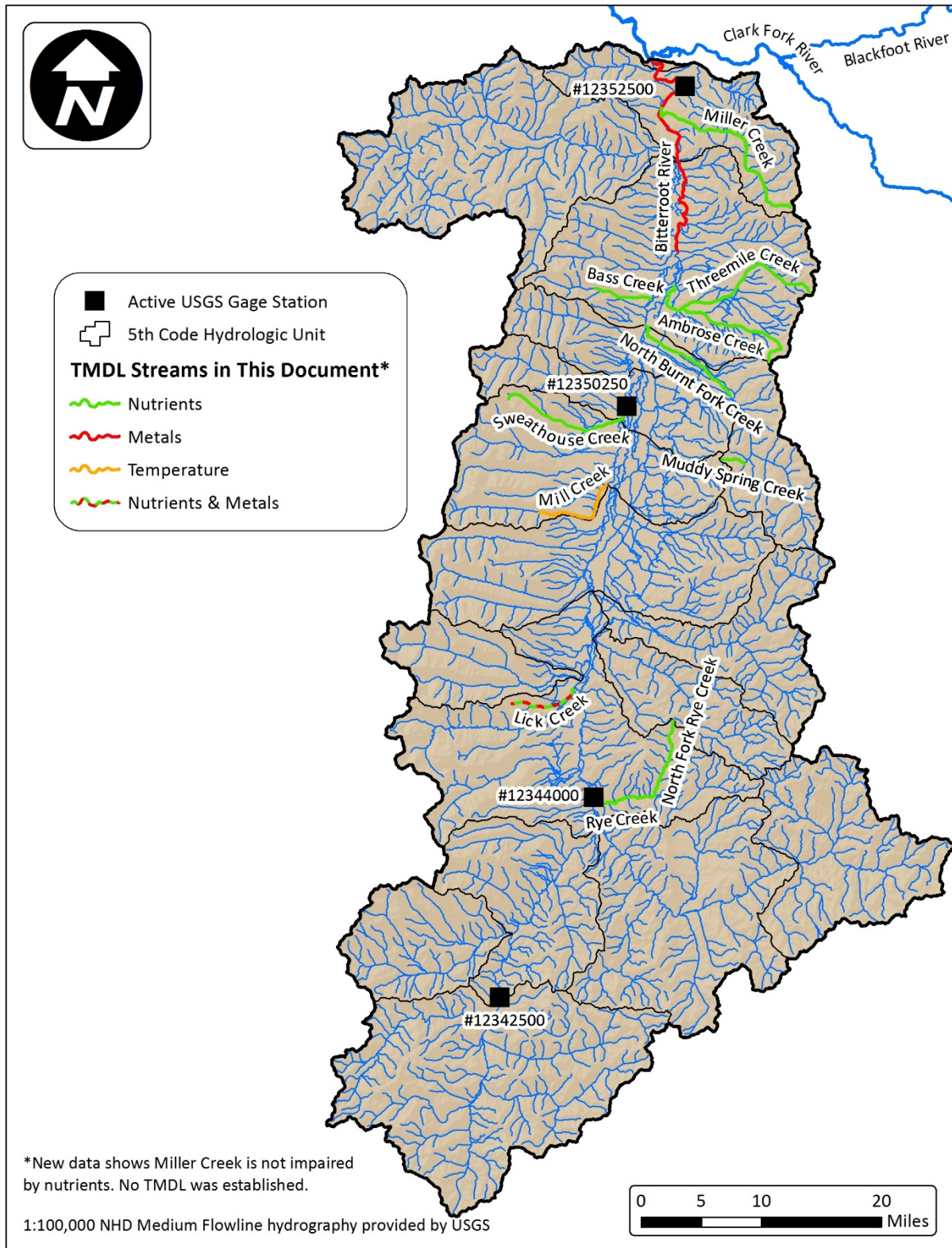
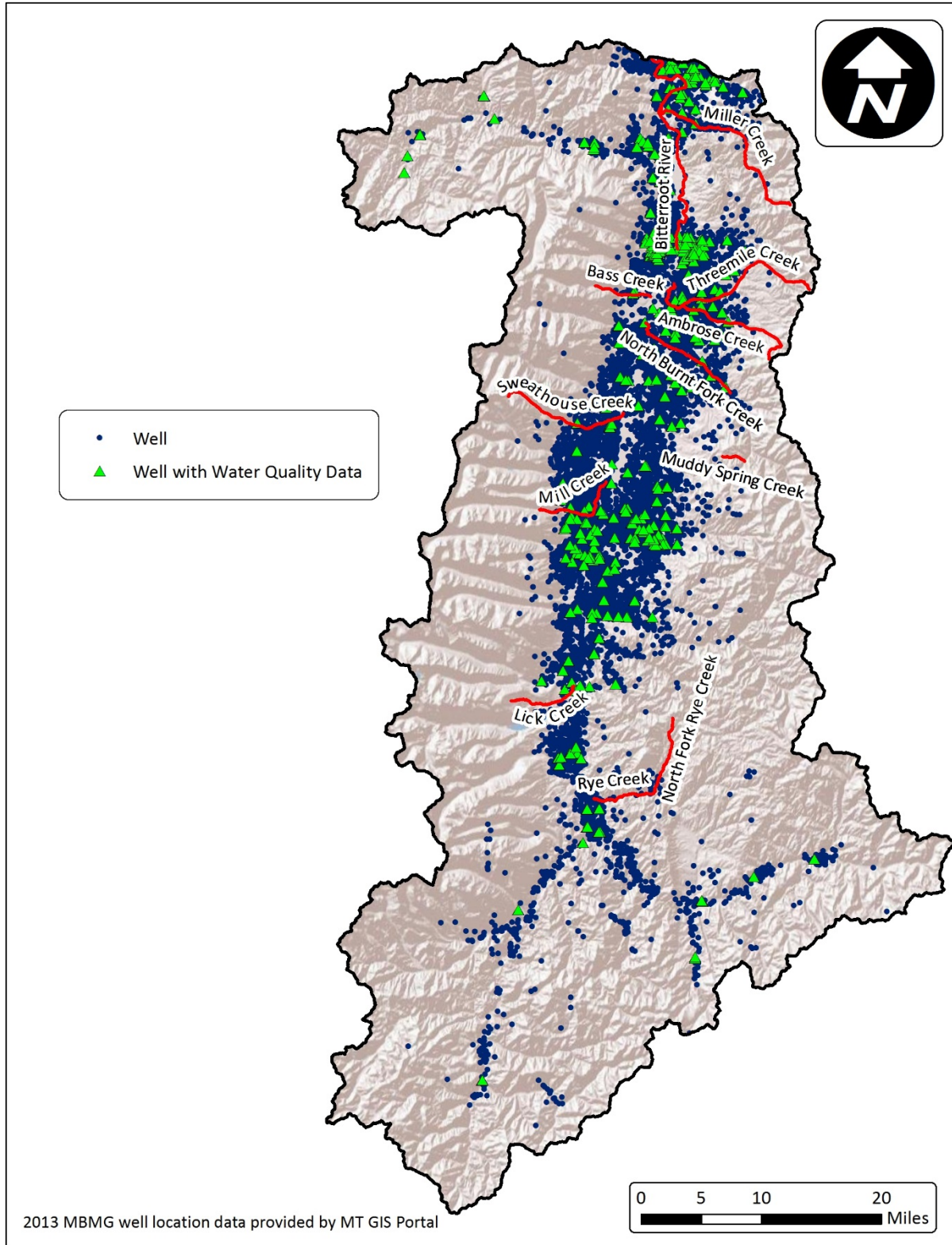
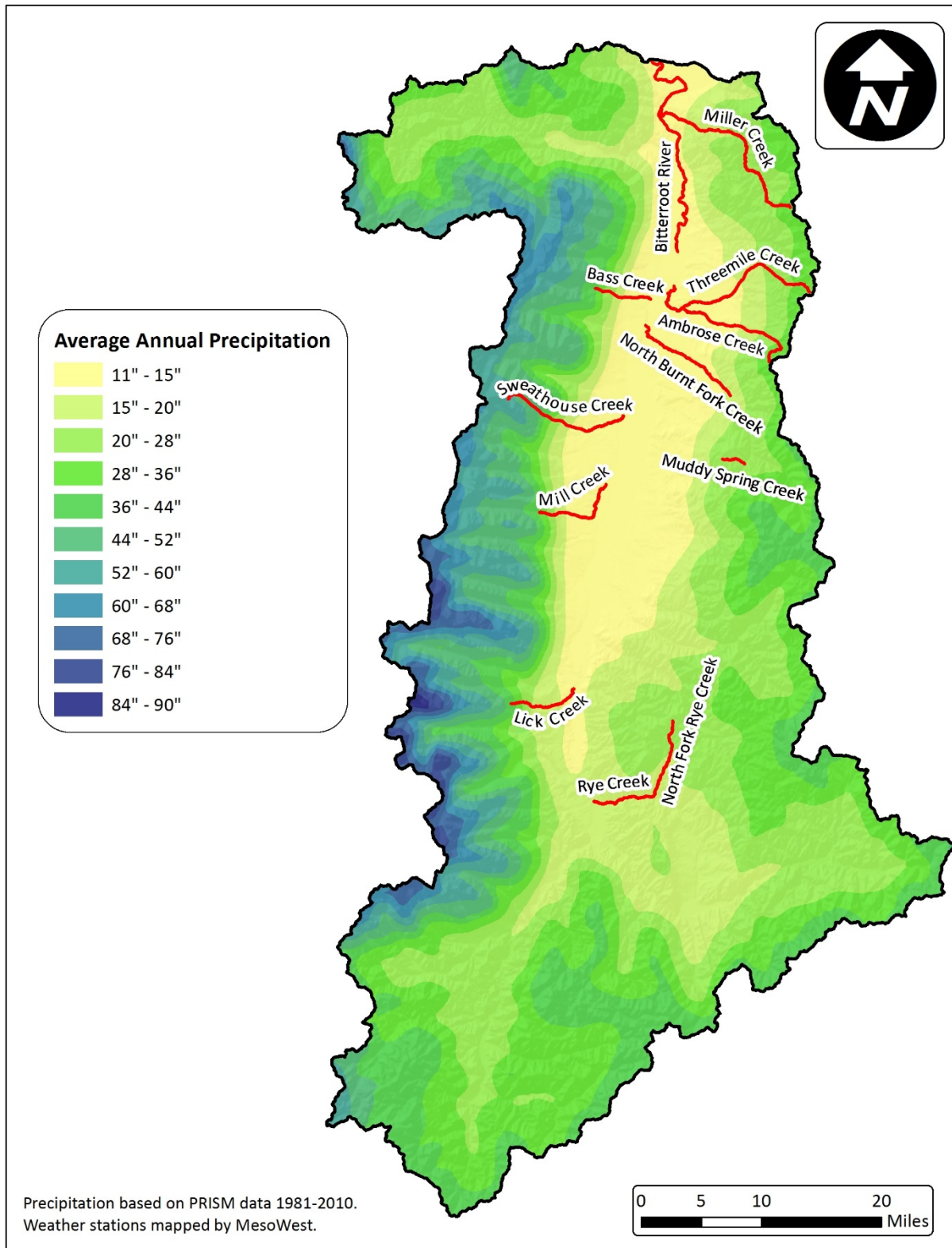


Figure A-9. Surface water hydrography of the Bitterroot Watershed Project Area



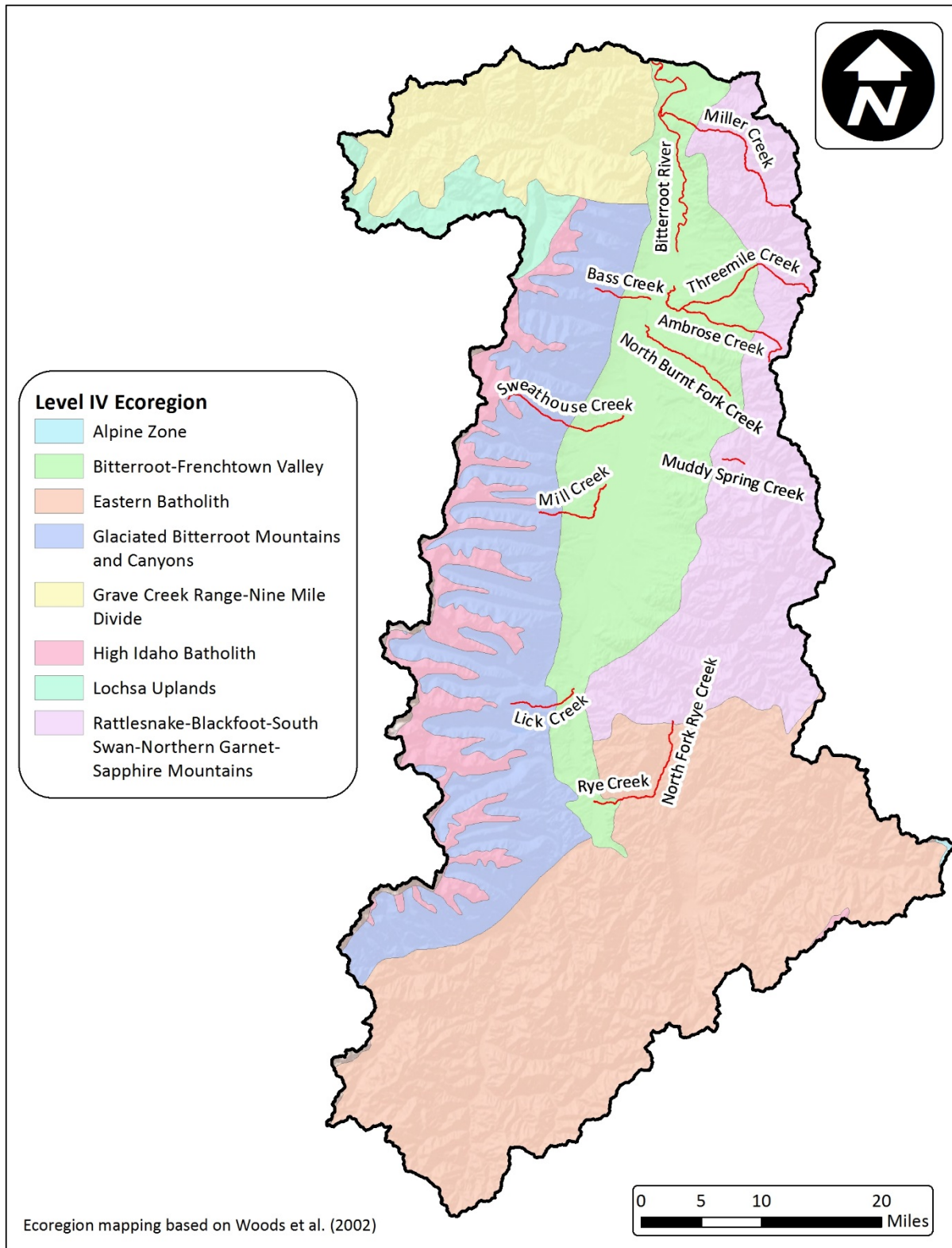
**Figure A-10. Groundwater wells in the Bitterroot Watershed Project Area**



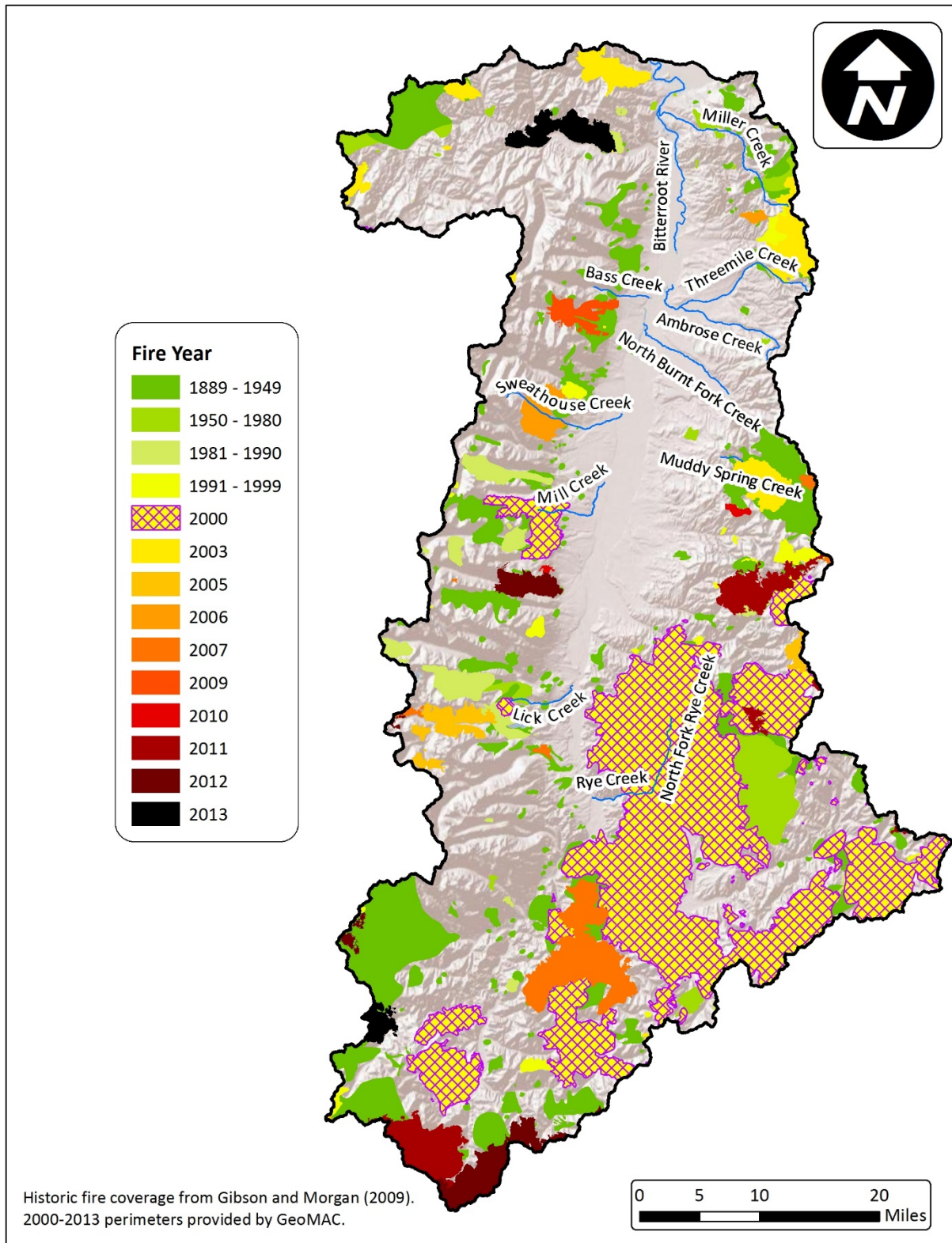


**Figure A-11. Precipitation averages in the Bitterroot Watershed Project Area**





**Figure A-12. Ecoregions of the Bitterroot Watershed Project Area**



**Figure A-13. Fire history of the Bitterroot Watershed Project Area**



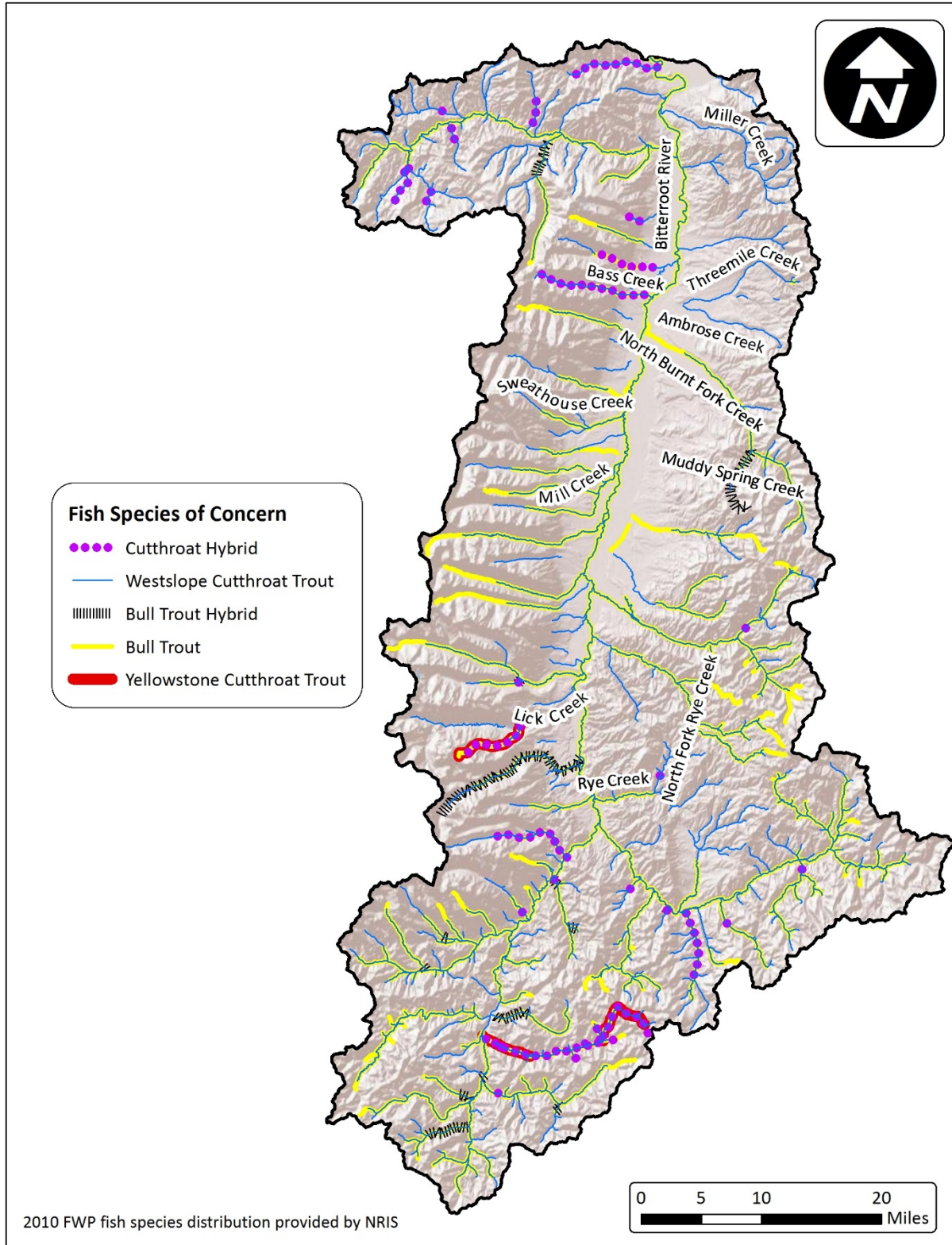


Figure A-14. Fish species of concern in the Bitterroot Watershed Project Area

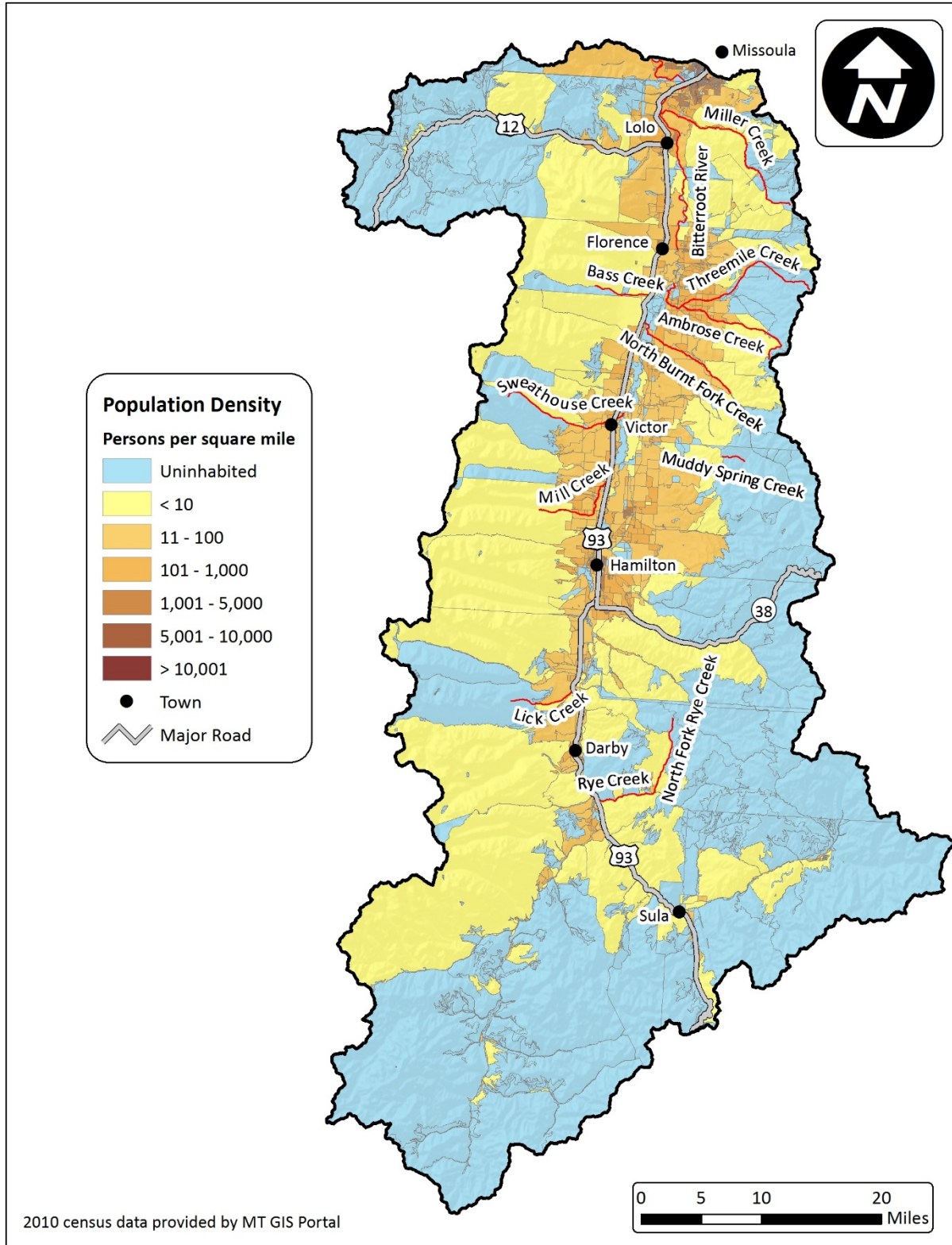


Figure A-15. Population density of the Bitterroot Watershed Project Area



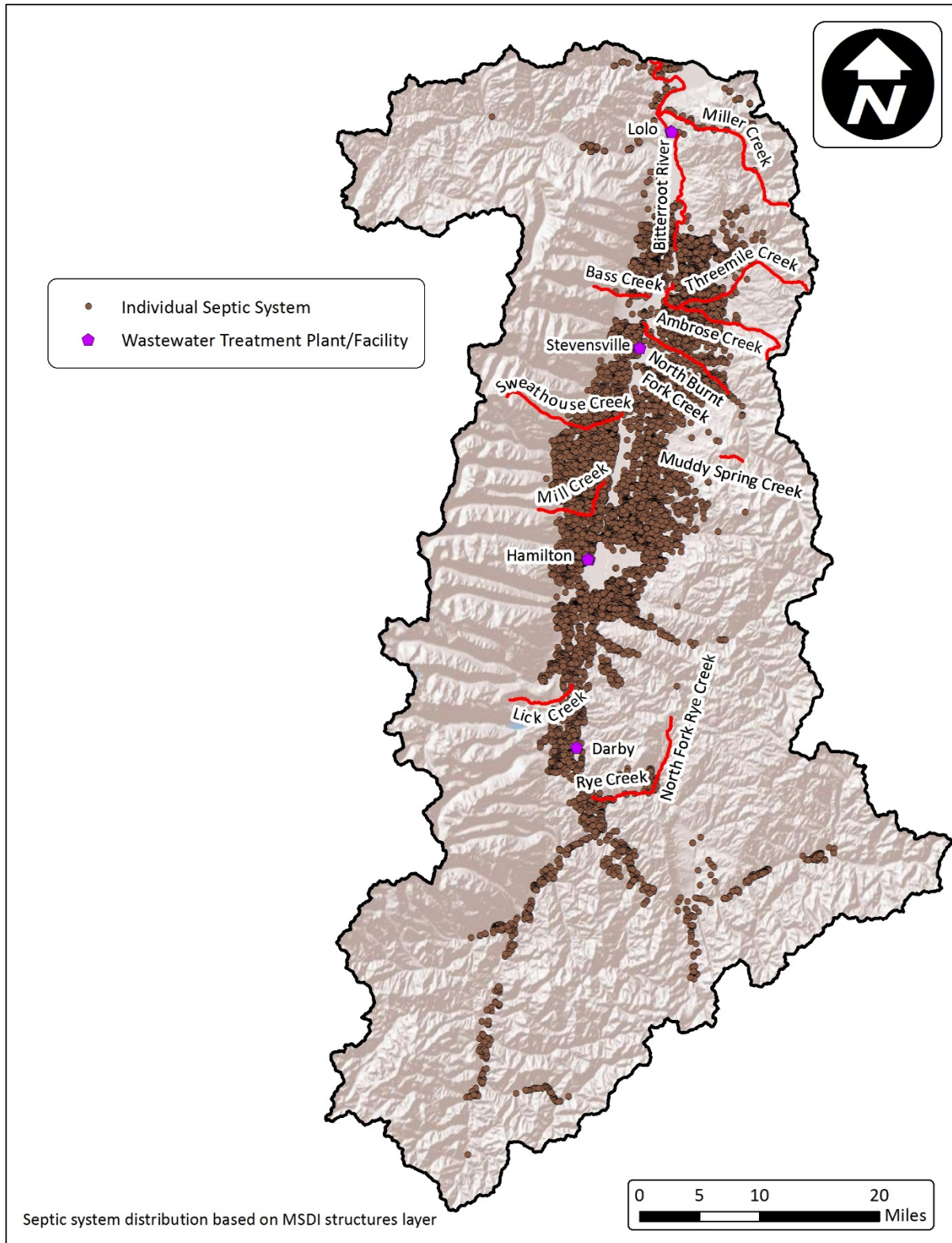


Figure A-16. Individual septic systems of the Bitterroot Watershed Project Area

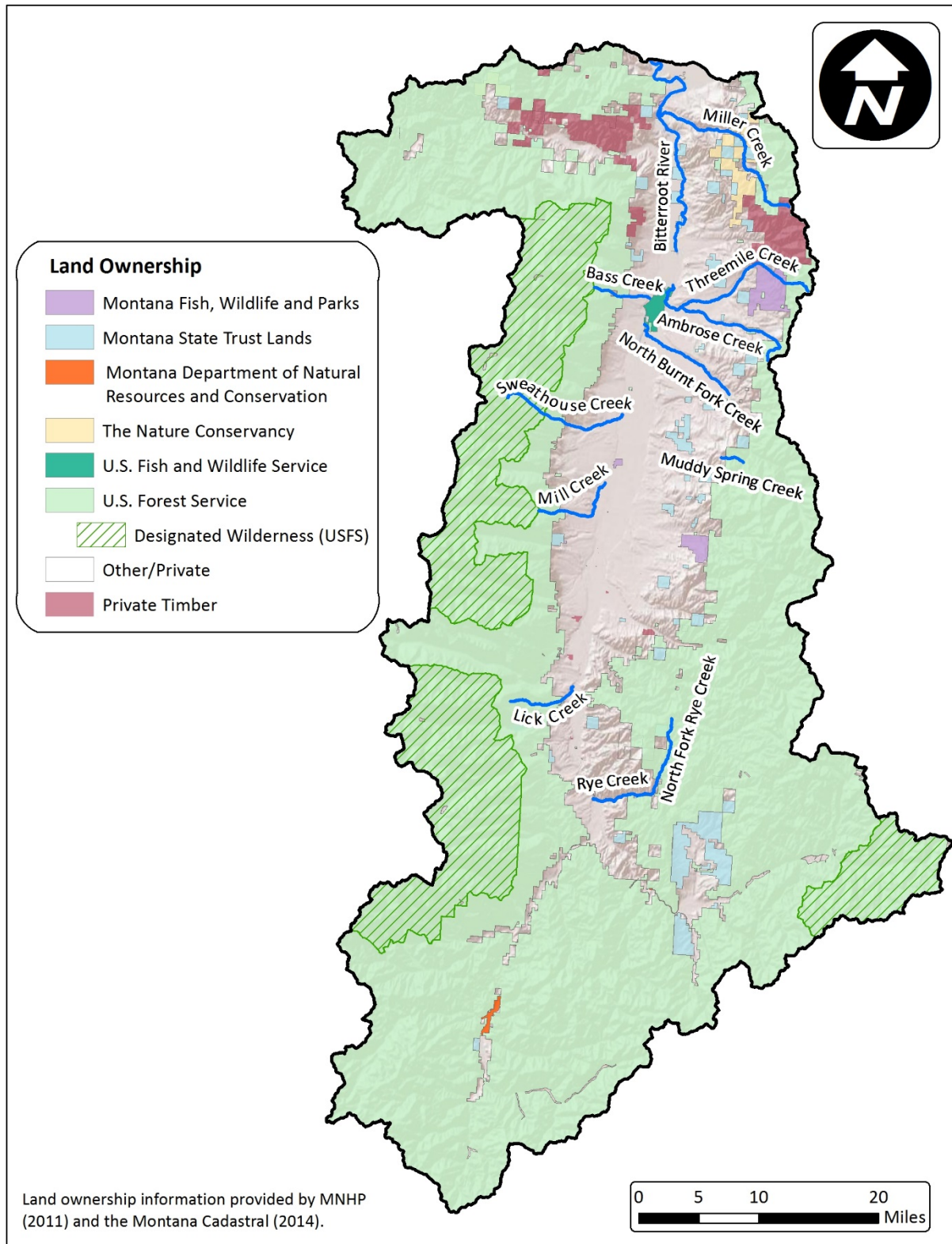
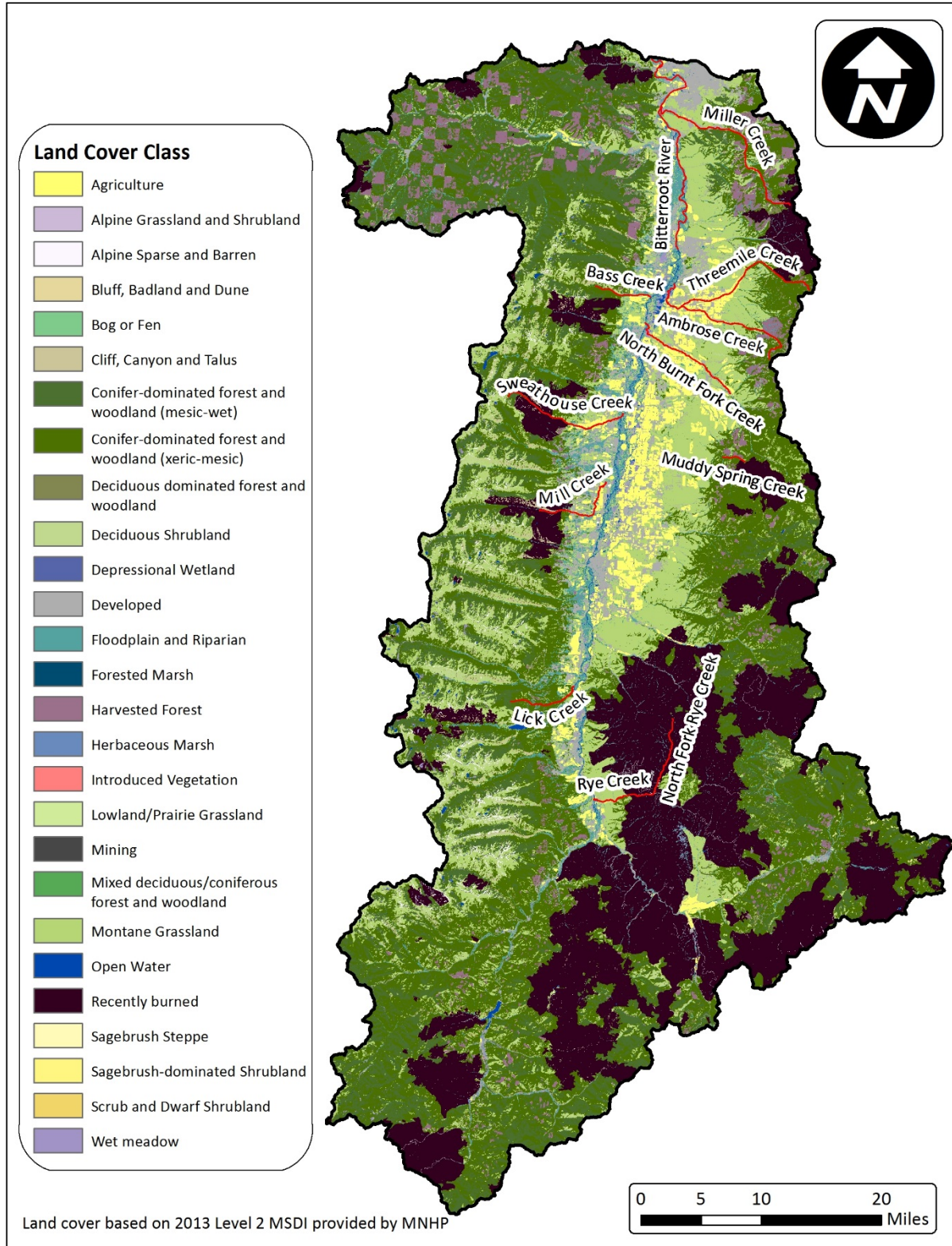


Figure A-17. Land ownership of the Bitterroot Watershed Project Area





**Figure A-18. Land cover of the Bitterroot Watershed Project Area**

