

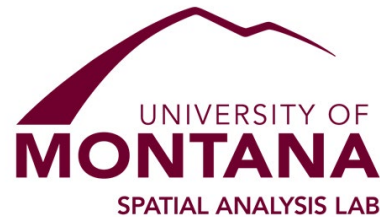
Land Cover and Spatial Analysis Lab Updates

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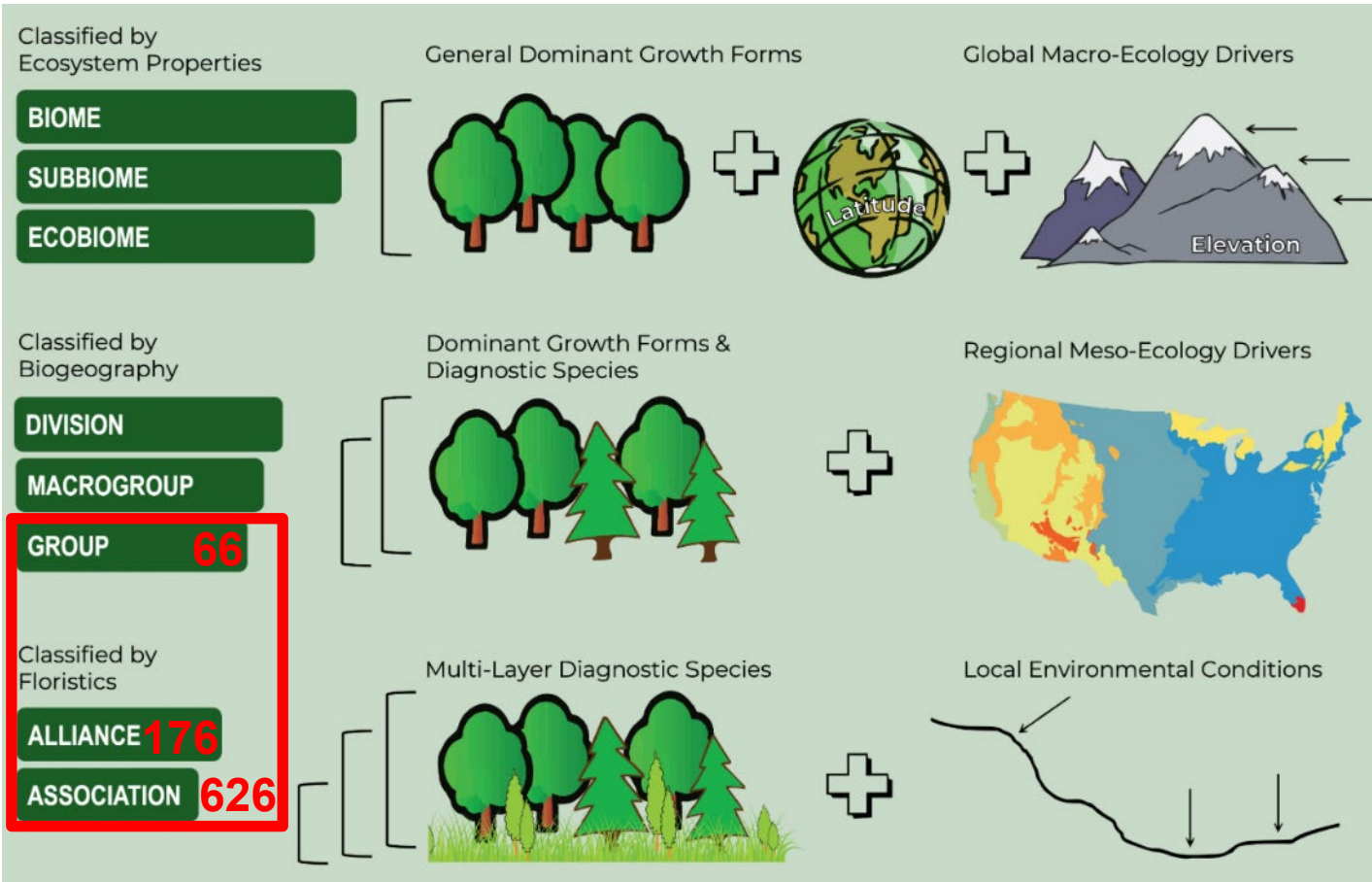


Claudine Tobalske



O'Connor Center for the
Rocky Mountain West

Implementing National Vegetation Classification System Mapping in Montana Land Cover



- National Standard for study, classification, inventory, and mapping of natural and cultural vegetation
- Comprehensive classification for U.S. and is being extended into Canada under the IVC
- Maintained through formal partnership of federal and non-federal entities
- Global and subnational conservation status ranks



Application of the NVC Standard in Montana

<https://mtnhp.mt.gov/resources/ecology/nvcs>

- Download the hierarchy
- Introduction and Background
- Links to Additional NVC Resources and Montana Land Cover

Biome	Subbiome	Formation	Division	Macrogroup	Group	Alliance	Association
TP1 B08 Palustrine Wetland							
	TP1.a S69 Forested Wetland						
		TP1.a2 F136 Temperate-Boreal Forested Wetland					
			TP1.a2.Nb D011 Eastern North American Flooded & Swamp Forest				
				TP1.a2.Nb.4 M028 Great Plains Flooded & Swamp Forest			
					TP1.a2.Nb.4.a G147 MT NAME: Great Plains Floodplain Forest, GLOBAL NAME: Great Plains Cottonwood - Willow Floodplain Forest		
					A2233 Eastern Cottonwood Northern Plains Floodplain Forest (Populus deltoides Northern Plains Floodplain Forest)		
						CEGL000657 Eastern Cottonwood / Red-osier Dogwood Floodplain Forest	
						CEGL000660 Eastern Cottonwood / Western Snowberry Floodplain Forest	
						CEGL000947 Peachleaf Willow Riparian Woodland (Salix amygdaloides)	
						CEGL008967 Eastern Cottonwood - Peachleaf Willow / Sandbar Willow	
					A4131 Green Ash - American Elm - Eastern Cottonwood Floodplain Forest (Fraxinus pennsylvanica - Ulmus americana - Populus deltoides Floodplain Forest)		
						CEGL000628 Box-elder / Chokecherry Floodplain Forest (Acer negundo)	
						CEGL000658 Eastern Cottonwood - Green Ash Floodplain Forest (Populus nigra)	
						CEGL002680 Eastern Cottonwood / Western Wheatgrass Riparian Woodland	
			TP1.a2.Nc D013 Western North American Arid Flooded Forest				
				TP1.a2.Nc.90 M298 Western Arid Ruderal Riparian Forest & Scrub			
					TP1.a2.Nc.90.a G510 MT NAME: Introduced Riparian Forest and Woodland, GLOBAL NAME: Western Arid Ruderal Lowland Riparian Forest & Scrub		
					A0842 Tamarisk species Ruderal Riparian Scrub (Tamarix spp. Ruderal Riparian Scrub)		
						CEGL003114 Tamarisk species Ruderal Riparian Shrubland (Tamarix spp.)	
			TP1.a2.Nd D195 Rocky Mountain-Great Basin Montane Flooded & Swamp Forest				
				TP1.a2.Nd.1 M034 Rocky Mountain-Great Basin Montane Riparian & Swamp Forest			
					TP1.a2.Nd.1.a G506 MT NAME: Montane - Subalpine Riparian Forest, GLOBAL NAME: Rocky Mountain-Great Basin Montane Riparian Forest		
					A3757 Subalpine Fir - Engelmann Spruce Wetland Forest (Abies lasiocarpa - Picea engelmannii Wetland Forest)		
						CEGL000297 Subalpine Fir - Engelmann Spruce / Sitka Alder Riparian Forest	
						CEGL000314 Subalpine Fir / Western Labrador-Tea Riparian Forest (Abies lasiocarpa - Picea canadensis)	
						CEGL000336 Subalpine Fir - Engelmann Spruce / Claspig Twisted-Stalk	
						CEGL000414 (Western White Spruce, Engelmann Spruce) / Rocky Mountain	
						CEGL002663 Subalpine Fir - Engelmann Spruce / Tall Fringed Bluebells	
						CEGL002677 Engelmann Spruce / Red-Osier Dogwood Riparian Woodland	
						CEGL005843 Engelmann Spruce / Drummond's Willow Riparian Woodland	
					A3759 Narrowleaf Cottonwood Riparian Forest (Populus angustifolia Riparian Forest)		
						CEGL002648 Narrowleaf Cottonwood / (Common Snowberry, Western Snowberry)	
						CEGL002664 Narrowleaf Cottonwood / Red-osier Dogwood Riparian Woodland	
						CEGL003749 Narrowleaf Cottonwood / Invasive Perennial Grasses Ruderal	

NVC Groups of Conservation Concern in Montana

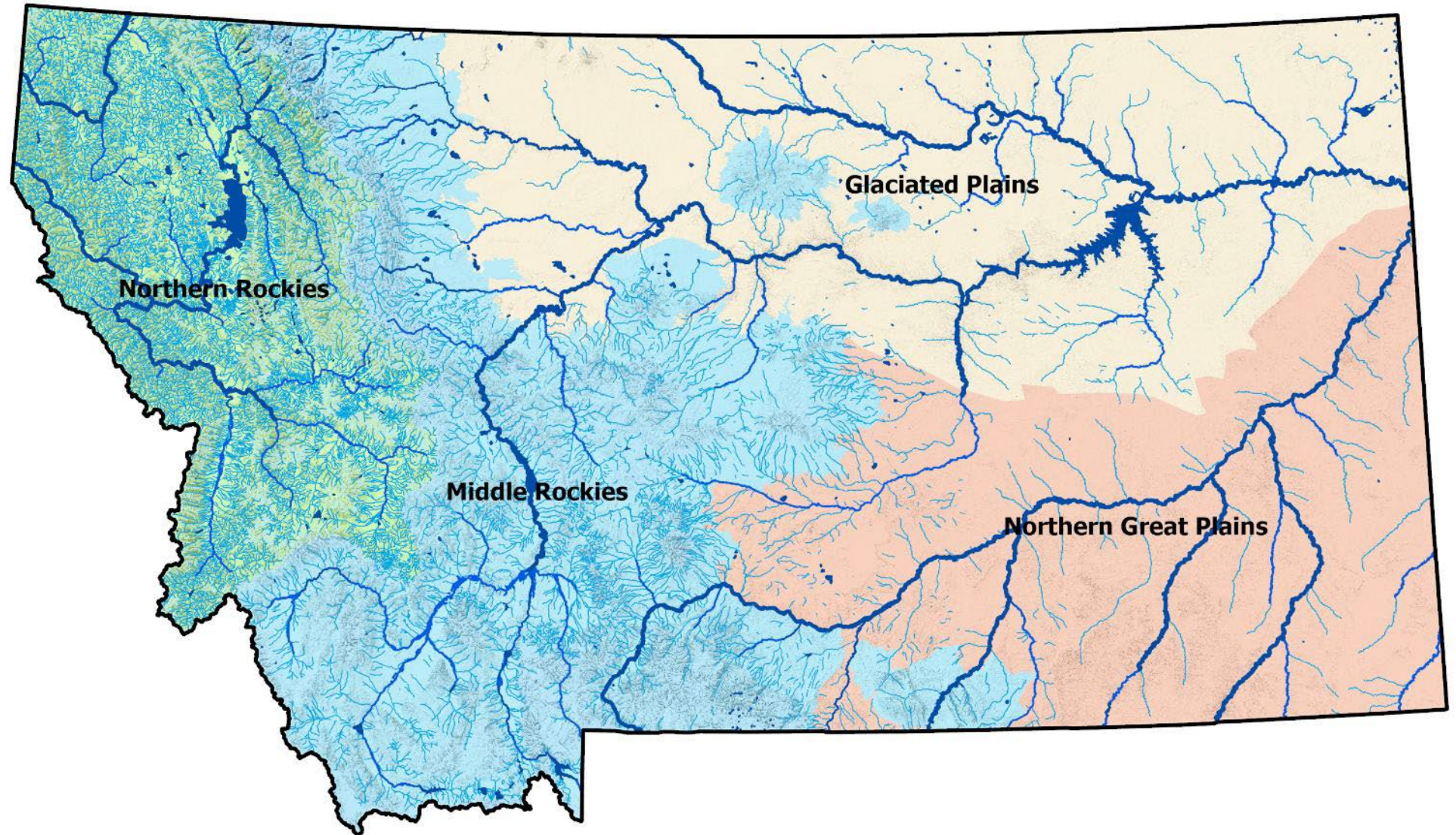


MT Level 1	MT Level 2	NVC Group	G Rank	S Rank
Forest and Woodland	Deciduous Forest and Woodland	Northern Great Plains Mesic Forest and Woodland	G3?	S3
Forest and Woodland	Deciduous Forest and Woodland	Northwestern Great Plains Aspen Woodland	G1G3	SU
Forest and Woodland	Montane - Subalpine Forest and Woodland	Central Rocky Mountain Douglas-fir Mesic Forest	G3?	S4S5
Forest and Woodland	Montane - Subalpine Forest and Woodland	Central Rocky Mountain Whitebark Pine - Subalpine Larch Forest and Woodland	G4G5	S3
Grassland	Lowland - Prairie Grassland	Central Rocky Mountain Lower Montane, Foothill and Valley Grassland	G4G5	S3
Grassland	Lowland - Prairie Grassland	Intermountain Semi-Desert Grassland	G3?	S3?
Grassland	Lowland - Prairie Grassland	Northern Great Plains Dry Mixedgrass Prairie	G3?	S4
Grassland	Lowland - Prairie Grassland	Northern Great Plains Mesic Mixedgrass Prairie	G3?	S3
Grassland	Lowland - Prairie Grassland	Northern Great Plains Sand Prairie	G3?	S3S4
Shrubland	Sagebrush Shrubland	Intermountain Basins Big Sagebrush Steppe	G3?	S3
Wetland and Riparian	Peatland	Great Plains Alkaline Fen	GNR	S2?
Wetland and Riparian	Peatland	Rocky Mountain Acidic Fen	G4G5	S3
Wetland and Riparian	Peatland	Rocky Mountain Alkaline Fen	G3?	S3S4
Wetland and Riparian	Riparian and Wetland Forest	Central Rocky Mountain Lowland and Foothill Riparian Forest	G3?	S3S4
Wetland and Riparian	Riparian and Wetland Forest	Great Plains Cottonwood - Willow Floodplain Forest	G3?	S2
Wetland and Riparian	Riparian Shrubland	Great Plains Riverscour Vegetation	G3	S2S3
Wetland and Riparian	Wet Meadow and Marsh	Great Plains Wet Meadow, Shrub Swamp and Seepage Fen	GNR	S3?

Aquatic Community Classification and Mapping...still underway

<https://fieldguide.mt.gov/displayEG.aspx?Level1=Open+Water>

- Ecoregion
- Stream size
- Stream flow
- Lakes and Reservoirs



Web Page Tour



***First a note that Map Viewer is still summarizing land cover with Ecological Systems. The Land Cover and Environmental Summary Report tasks will move to the new NVC land cover in the next couple of weeks.**

Application of NVC Standard in Montana

<https://mtnhp.mt.gov/resources/ecology/nvcs/>

New Community Field Guide

<https://fieldguide.mt.gov/displayEG.aspx>

Land Use/Land Cover page and Archive of Ecological Systems

https://msl.mt.gov/geoinfo/msdi/land_use_land_cover/

Plan for Habitat Conservation Status Summary Dashboard and USGS NLCD Tool

<https://mtnhp.mt.gov/webapps/dashboards>

<https://www.mrlc.gov/eva/>

Aquatic Community Classification and Mapping still under construction

<https://fieldguide.mt.gov/displayEG.aspx?Level1=Open+Water>

Questions?

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Land Use/ Land Cover Homepage

Updates

MONTANA.GOV
OFFICIAL STATE WEBSITE

SERVICES

AGENCIES

LOGIN

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TALKING BOOKS

Home > GeoInfo > About MSDI > Land Use/Land Cover > **Land Use/Land Cover**

Land Use/Land Cover

The Montana Land Use/Land Cover (LULC) Framework is a statewide, 30-meter resolution dataset of existing natural vegetation communities, based on the *Group* level of the National Vegetation Classification (NVC) system. It also includes mapped disturbances (e.g., pests, invasive species, fire), and human-altered lands. This dataset is best suited for broad, landscape-scale planning and general informational purposes. Due to its resolution and



Theme Lead

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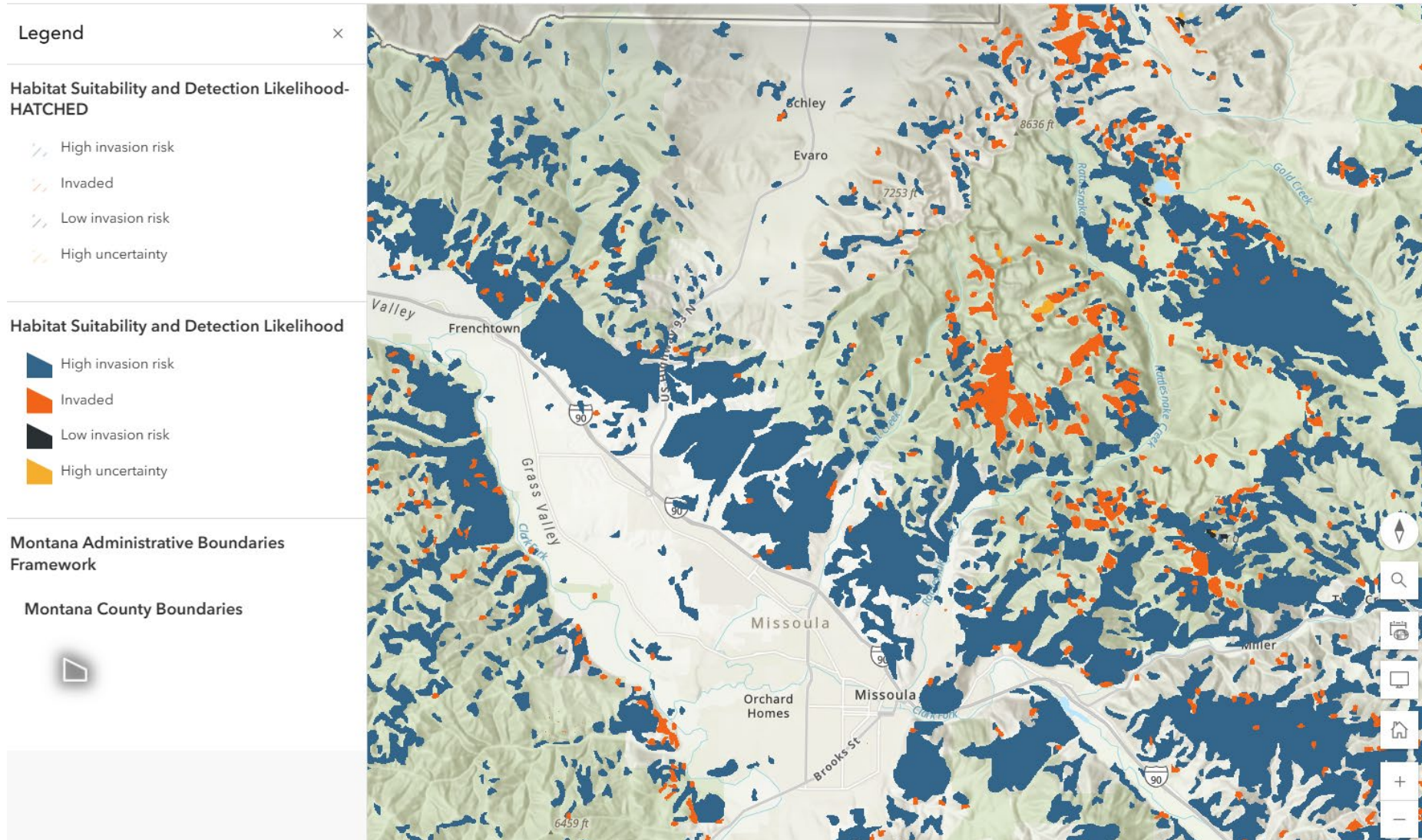
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- LAND USE/LAND COVER HOME
- MSDI HOME
- ABOUT MSDI
- MONTANA GEOSPATIAL INFORMATION PLAN

https://msl.mt.gov/geoinfo/msdi/land_use_land_cover/

Spatial Analysis Lab

Updates: Ventenata Invasion Risk Map Products



Spatial Analysis Lab Updates

Likelihood a Management Action Will Introduce an Invasive Species

Timber Harvest: Clearcut

Timber Harvest: Selection

Timber Harvest: Shelterwood

Grazing

Wildfire

Prescribed Burn

Planting

Recreation



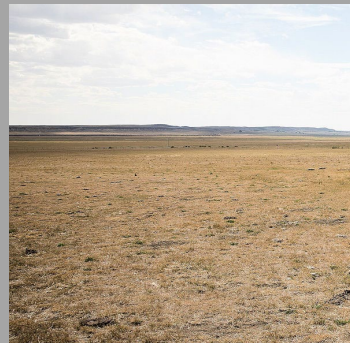
Soil Disturbance



Edge Creation



Equipment



Reduce Native
Competition



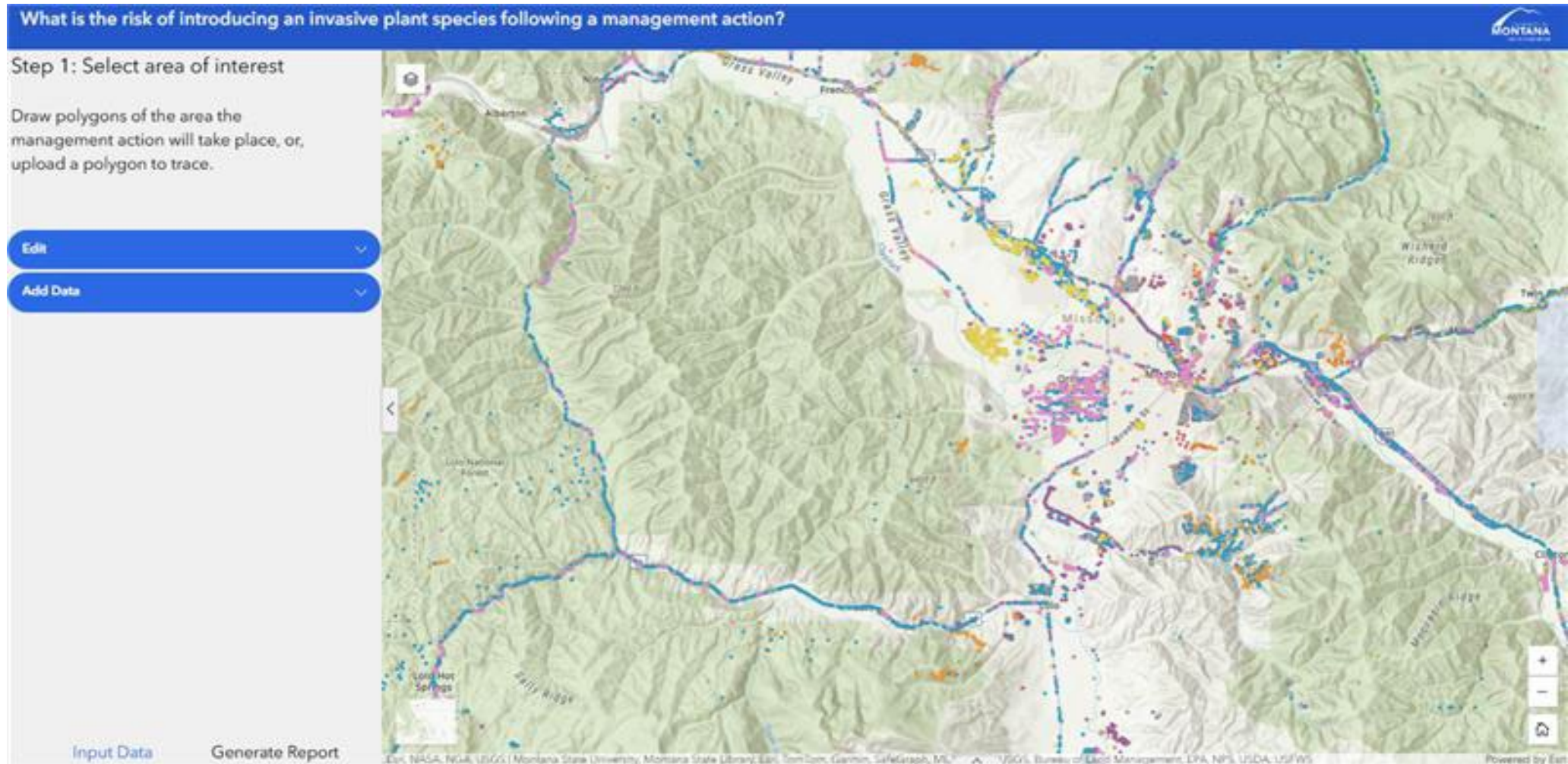
Increase Humans



Increase Roads

Spatial Analysis Lab Updates

Likelihood a Management Action Will Introduce an Invasive Species



Questions?

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