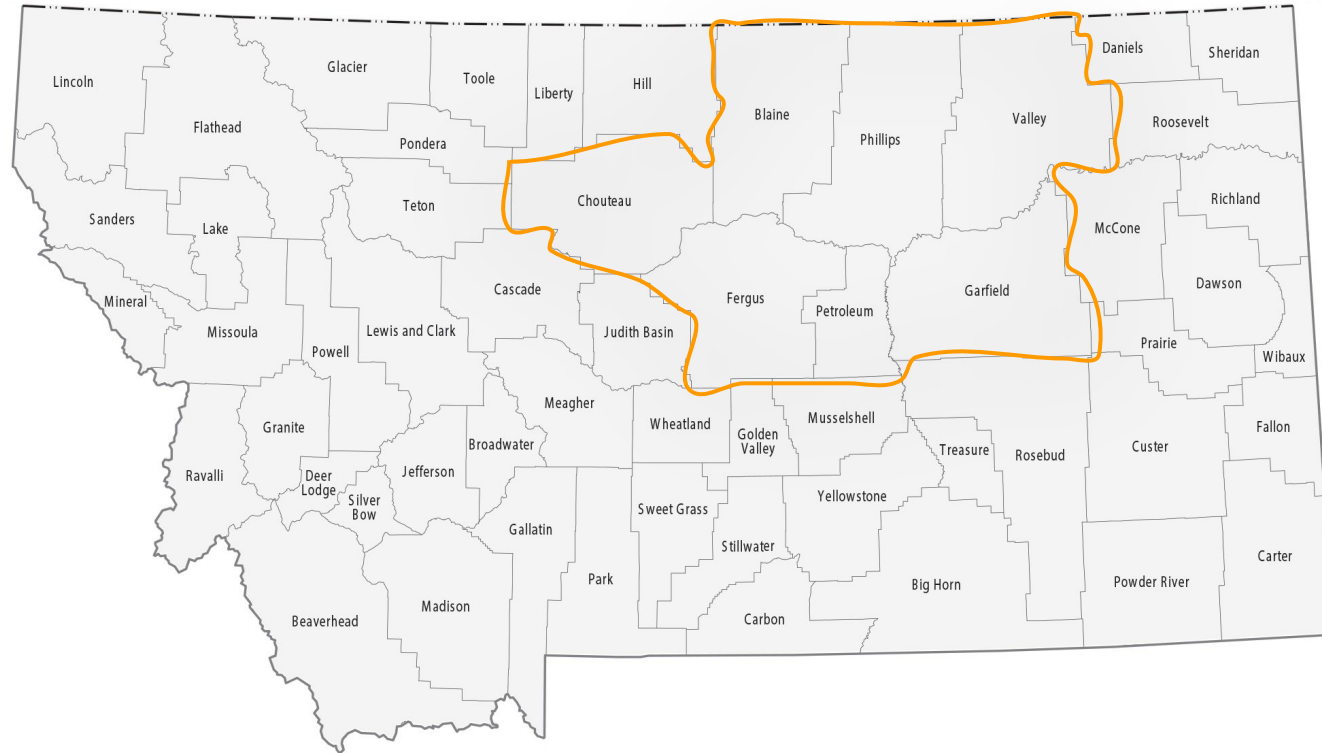


# Native Grasslands in Montana

- Collaboration between American Prairie and the Geospatial Lab
- Aimed at quantifying the amount of undisturbed grasslands in central Montana
- Initially focused on reproducing Bauman, et al. (2018) "Quantifying Undisturbed (Native) Lands in Northwestern South Dakota: 2013"

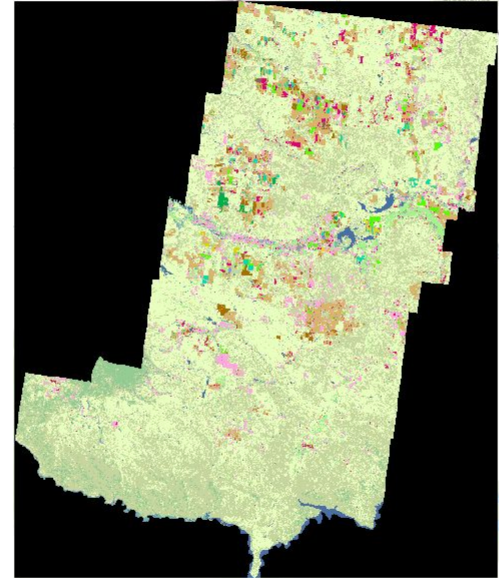
# Area of Interest



Seven counties: Phillips, Valley, Blaine, Fergus, Petroleum, Garfield, Chouteau

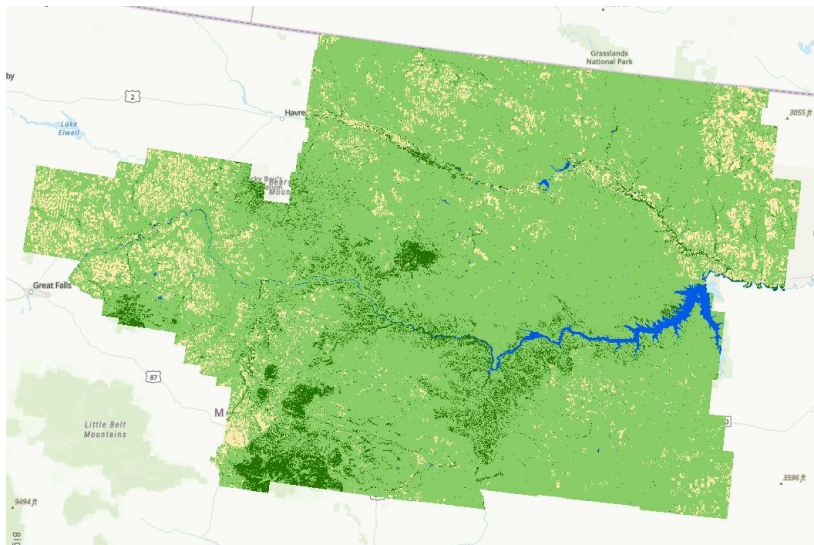
# Grassland Process: CropScape

1. Find land with cropland history
2. CropScape Data Layer (2007 & 2021)
3. Raster reclassification

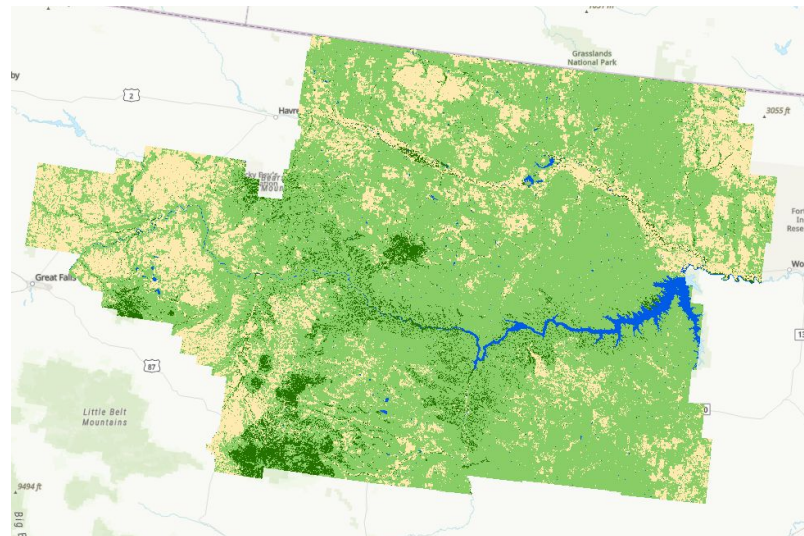


Phillips, MT

# Grassland Process: CropScape



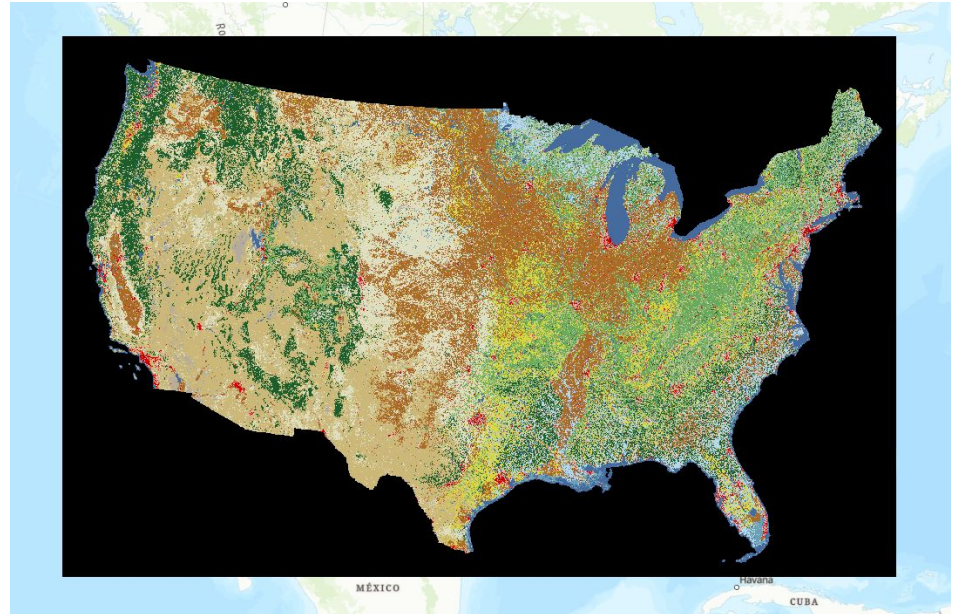
CropScape 2007



CropScape 2021

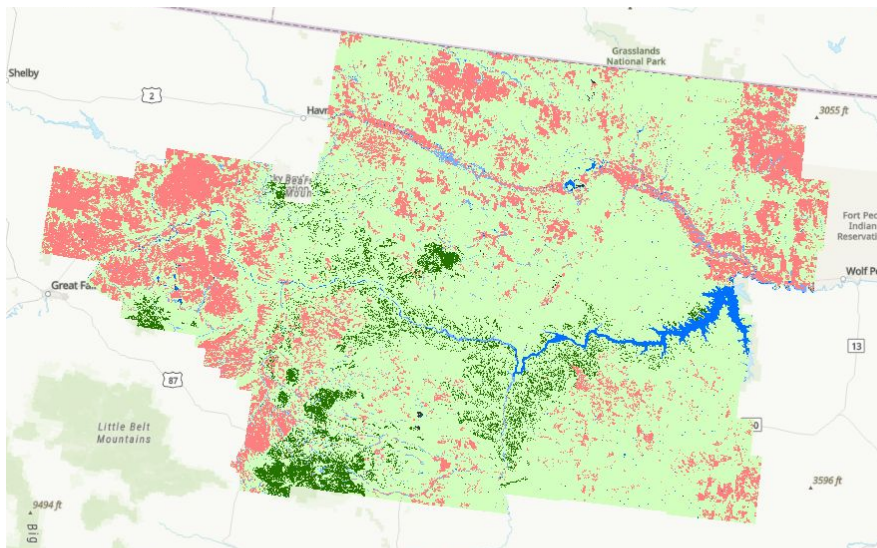
# Grassland Process: NLCD

1. Compare Cropscape to NLCD data
2. NLCD Layer (2001 & 2019)
3. Raster reclassification

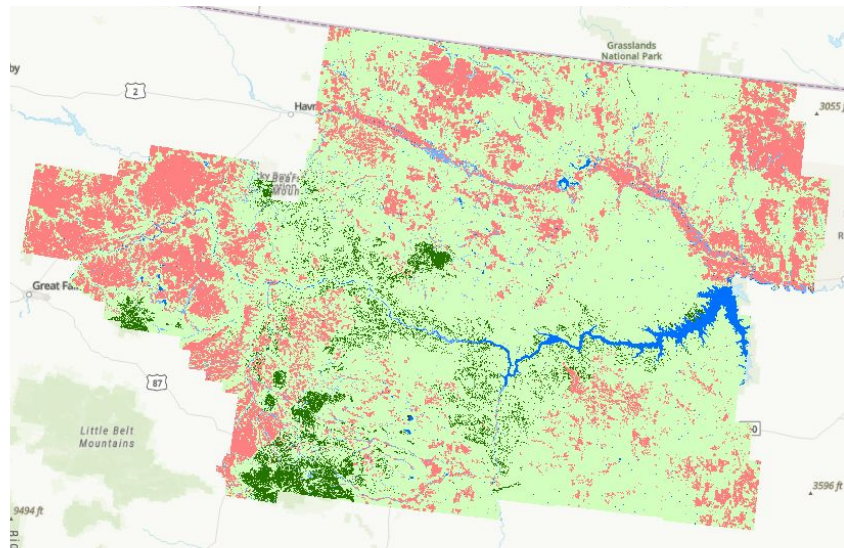




# Grassland Process: NLCD



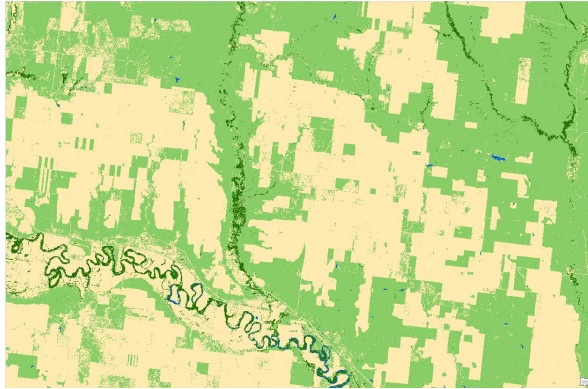
NLCD 2001



NLCD 2019

# Grassland Process: NLCD Time Series

1. Compare Cropscape and NLCD to Imagery Basemap
2. Analyze NLCD over time period (2001-2019)
3. NLCD reclassification (2006, 2011, 2016)



CropScape 2021



Imagery Basemap

# NLCD Reclassification

0 - Unclassified

1 - Water

2 - Developed

3 - Barren

4 - Forest

5 - Shrubland

7 - Herbaceous

8 - Pasture/Crops

9 - Wetlands

	OBJECTID *	Value	Count	Transition
1	1	0	46	<Null>
2	2	11	256283	Water
3	3	12	2	<Null>
4	4	13	285	<Null>
5	5	14	221	<Null>
6	6	15	747	<Null>
7	7	17	19094	<Null>
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10	10	22	172132	<Null>
11	11	31	1731	<Null>
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13	13	33	13048	<Null>
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15	15	37	308	<Null>
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22	22	47	59946	<Null>
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OBJECTID *	Value	Count	Transition
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55	98	2396	<Null>
56	99	410642	<Null>



# Works Cited

“Montana County Map.” *GIS Geography*, 15 Dec. 2021, <https://gisgeography.com/montana-county-map/>.