

Llano River Catchment Assessment

HUC12: 120902040504- LOWER COMANCHE CREEK

Catchment 5769623. Reach Code 12090204000631

Unnamed Tributary of Hog Branch from Headwaters to Unnamed Spring, Mason County

Length of Stream Reach : 1.73 mi

Area of Catchment : 576 acres

Mean annual temperature : 65.5 F

Mean annual precipitation : 27.7 inches

Number of parcels (resident owned) : 14 (9)

Number of houses : 0

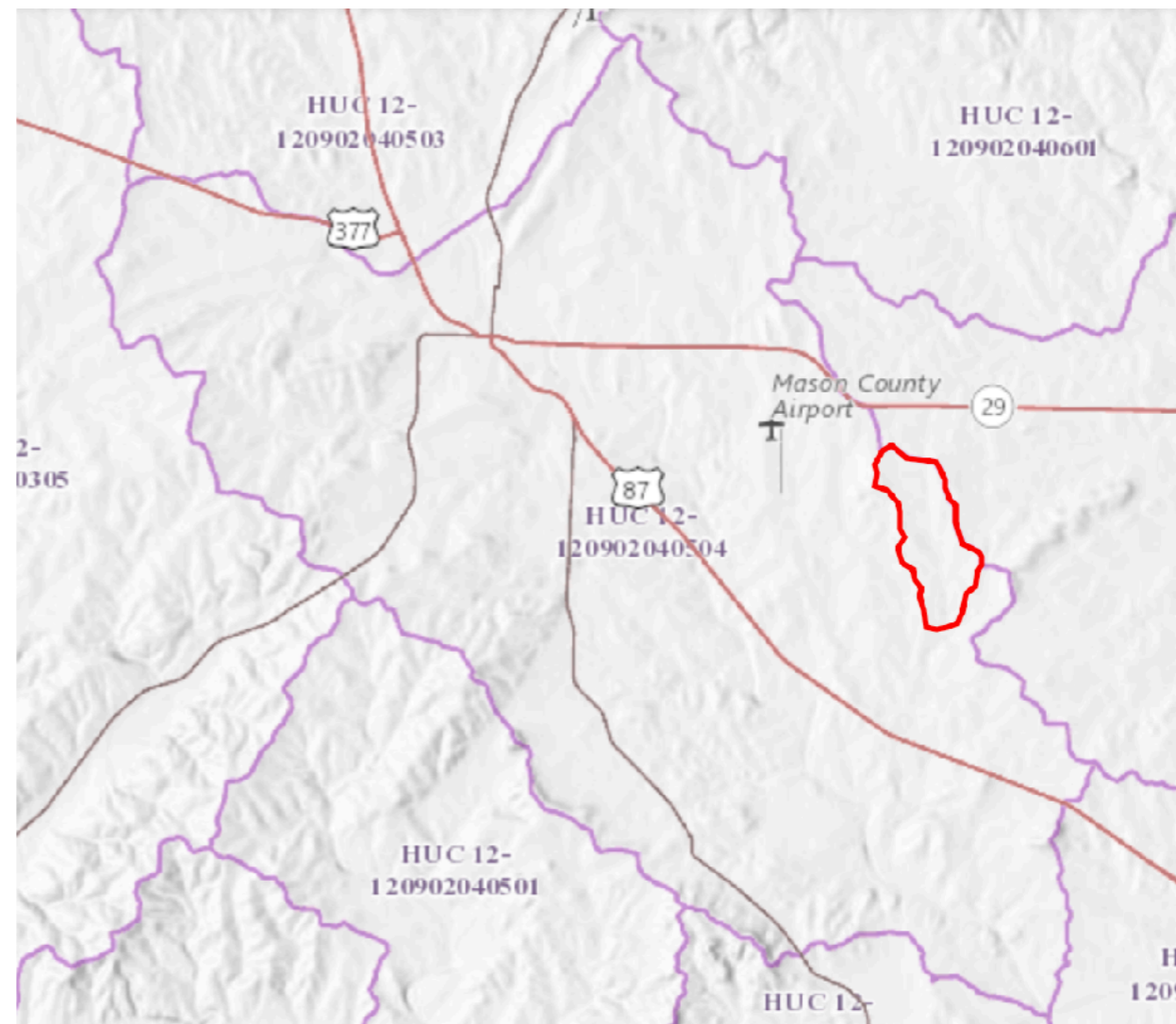
Number of known wells : 1

Number of known septic : 0

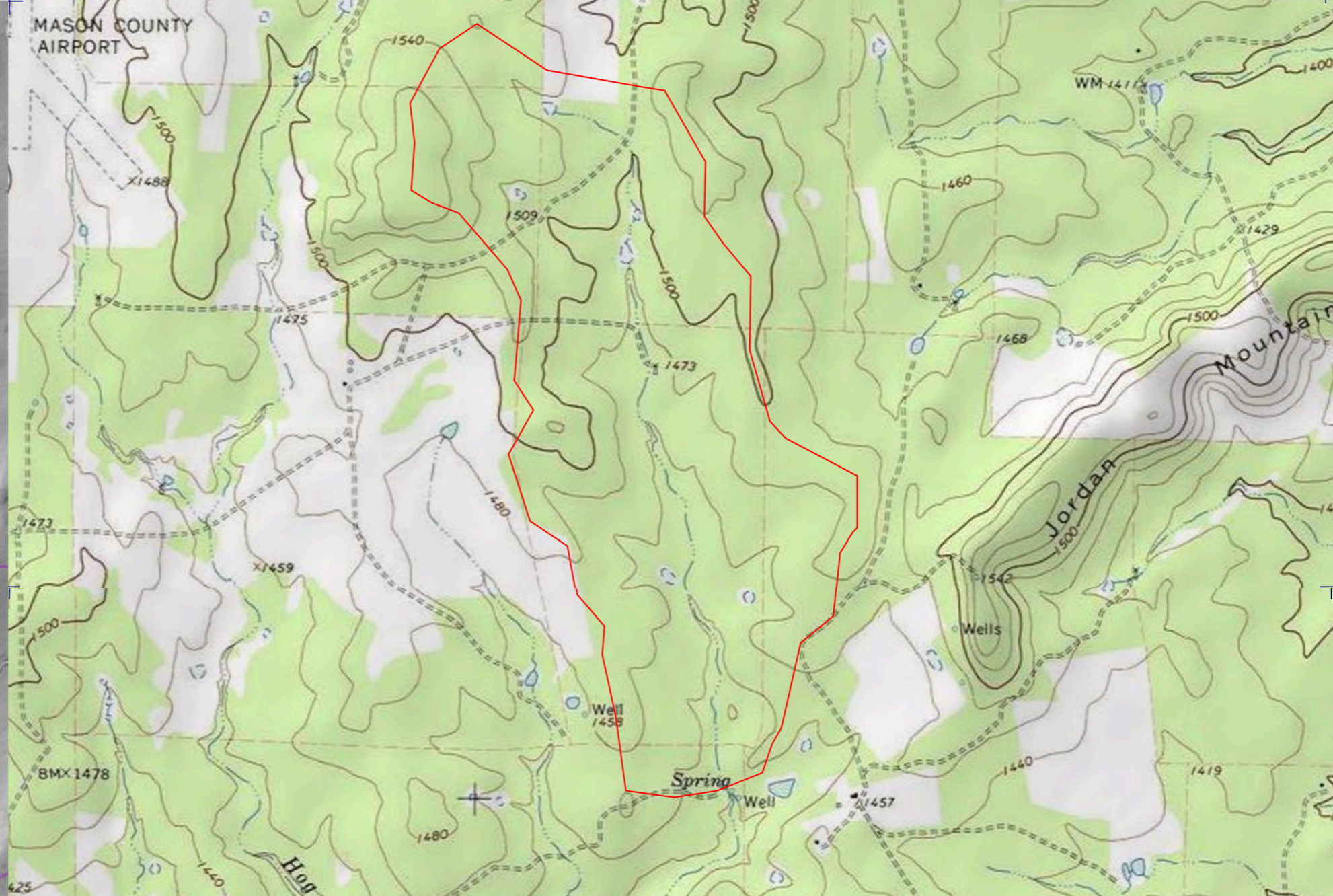
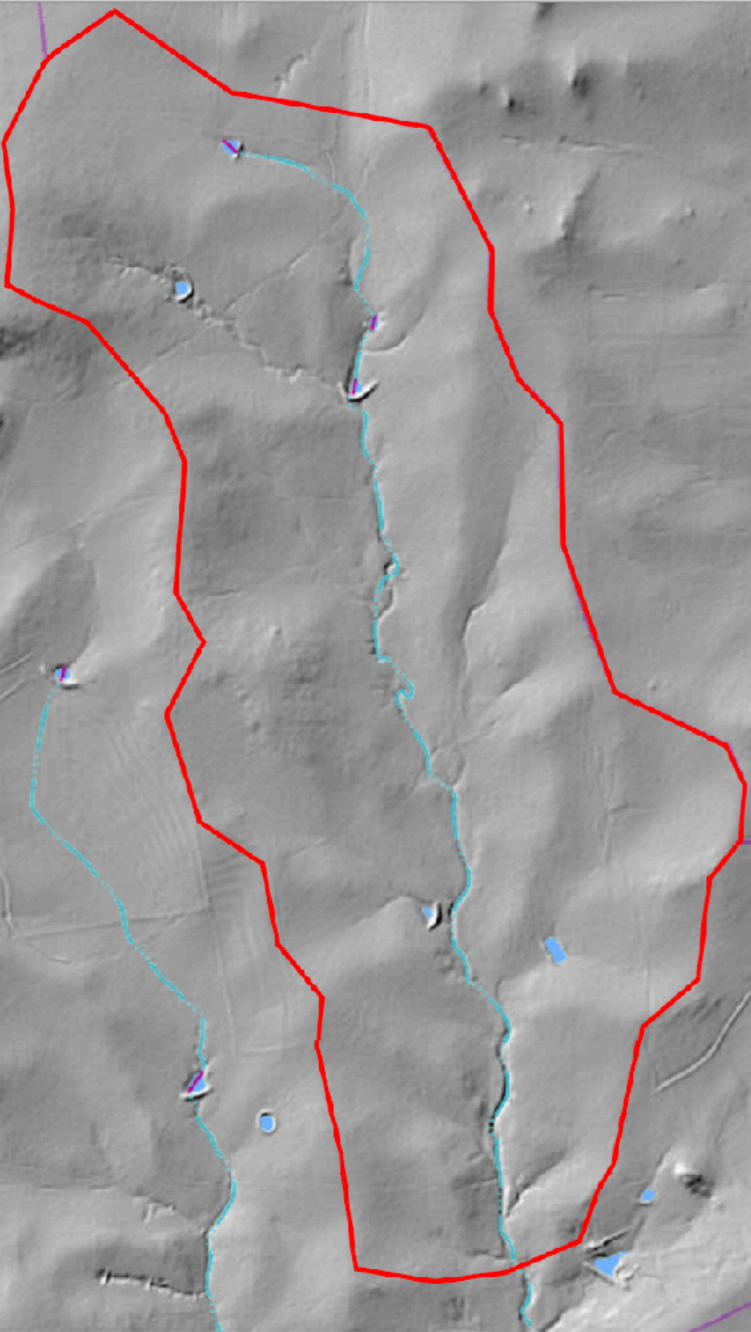
Estimated Population of Catchment : 0

Number of Stock Tanks : 6

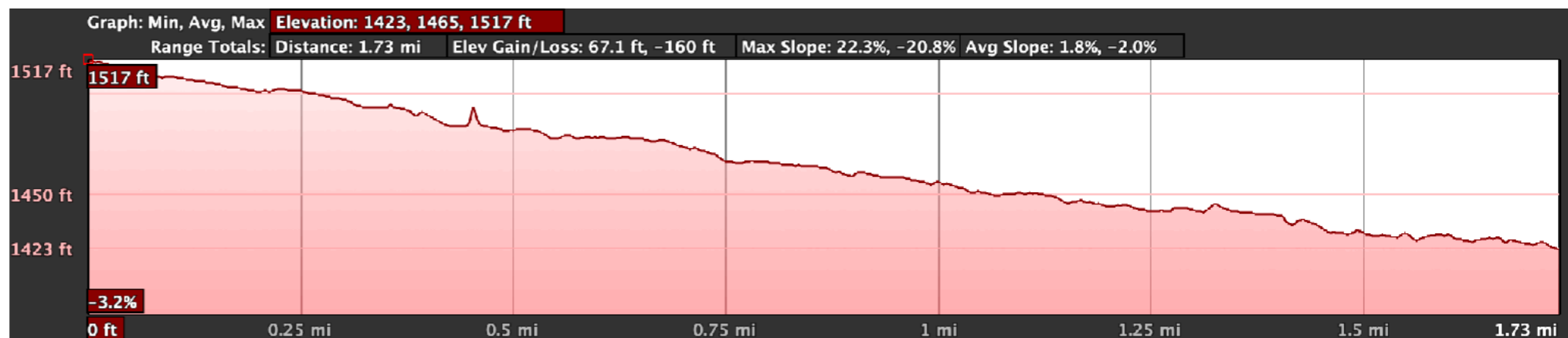
Number of Springs : 0

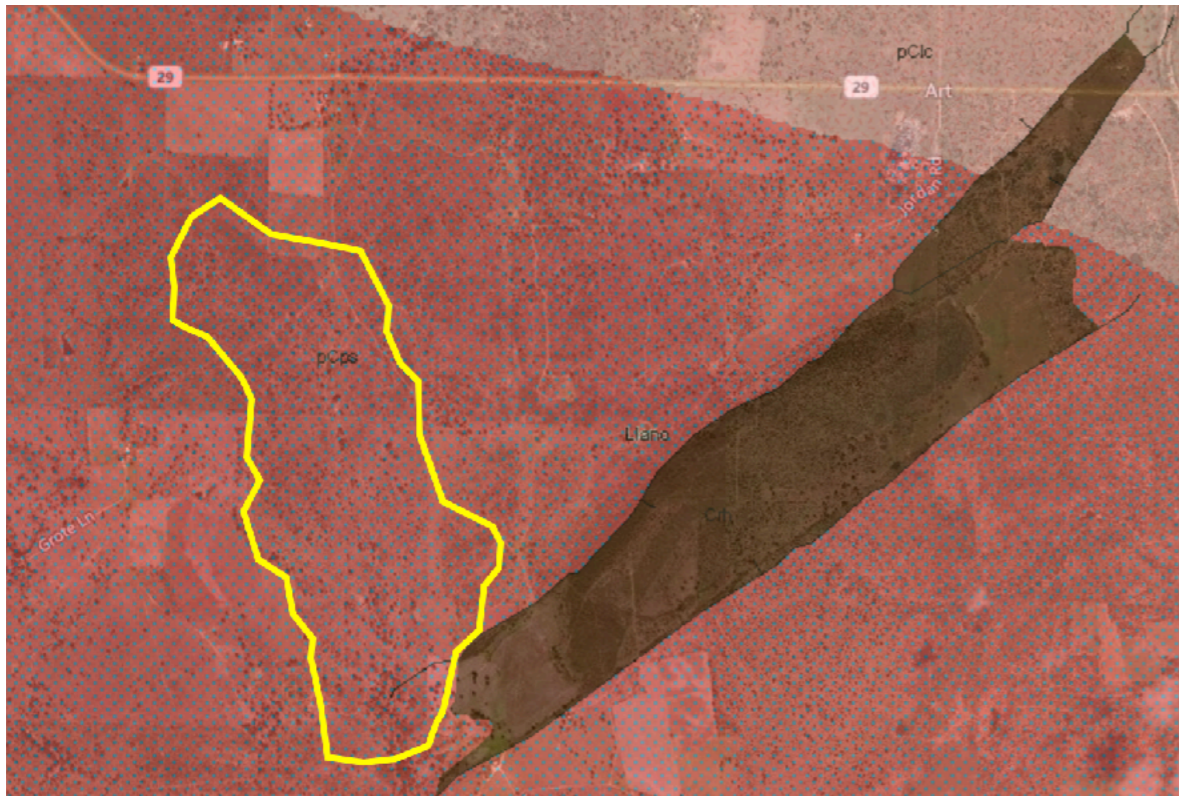


This catchment, or sub-watershed (marked in red), is located in the larger Lower Comanche Creek watershed (indicated in purple), a tributary of the Llano River.



The catchment draining the upper portion of an unnamed eastern tributary of Hog Branch is located approximately 5 miles southeast of the City of Mason near the Mason County Airport. The upper portion of this tributary begins at an elevation 1,517 and descends to 1,423 feet at a point just above an unnamed spring. The stream gradient is 54 feet per mile. The highest point in the catchment is 1,579 feet above sea level in the upper northwestern portion of the watershed

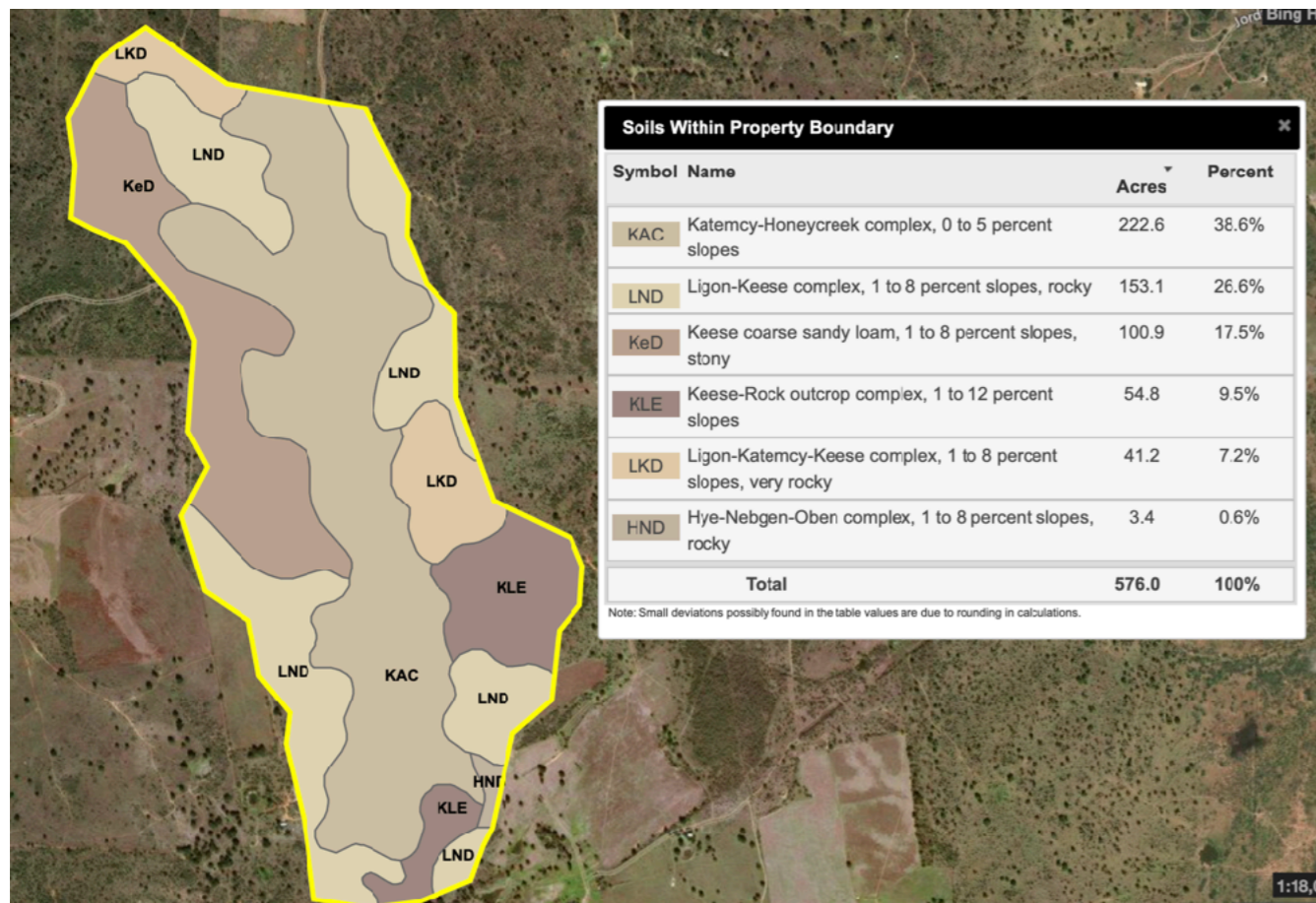




Geology- Packsaddle Schist (Salmon)/Hickory Sandstone (Brown)

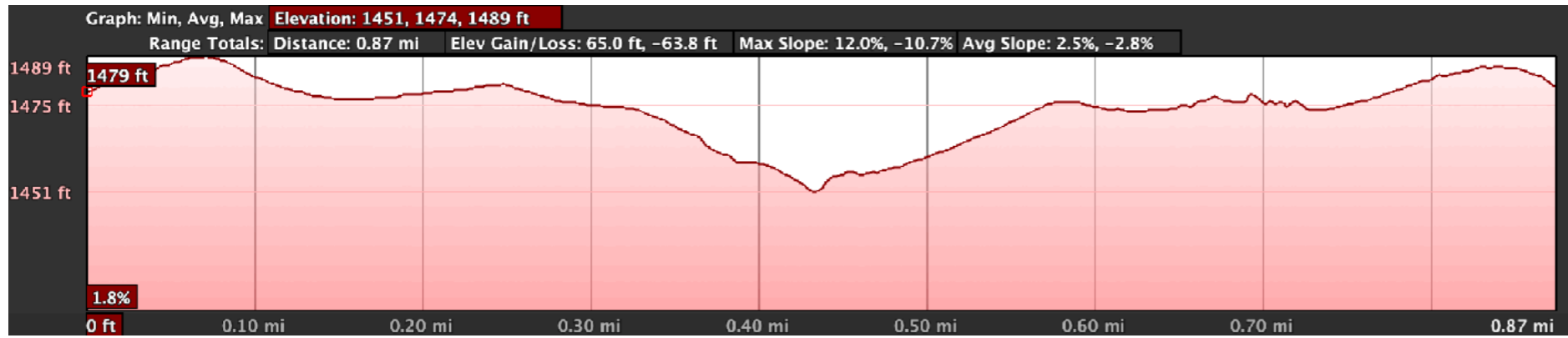
The catchment rests entirely atop Packsaddle Schist, a common metamorphic rock formation found in the Llano Uplift ecoregion. The rock has low permeability and there is only one well drilled in the catchment.

The catchment terminates just upstream of an unnamed spring at the west end of Jordan Mountain (*in brown on left*). The spring is likely fed by precipitation falling on Jordan Mountain, a ridge of permeable Hickory Sandstone. Water infiltrates through the sandstone but is forced to the surface where the Hickory is in contact with the impermeable Packsaddle Schist.

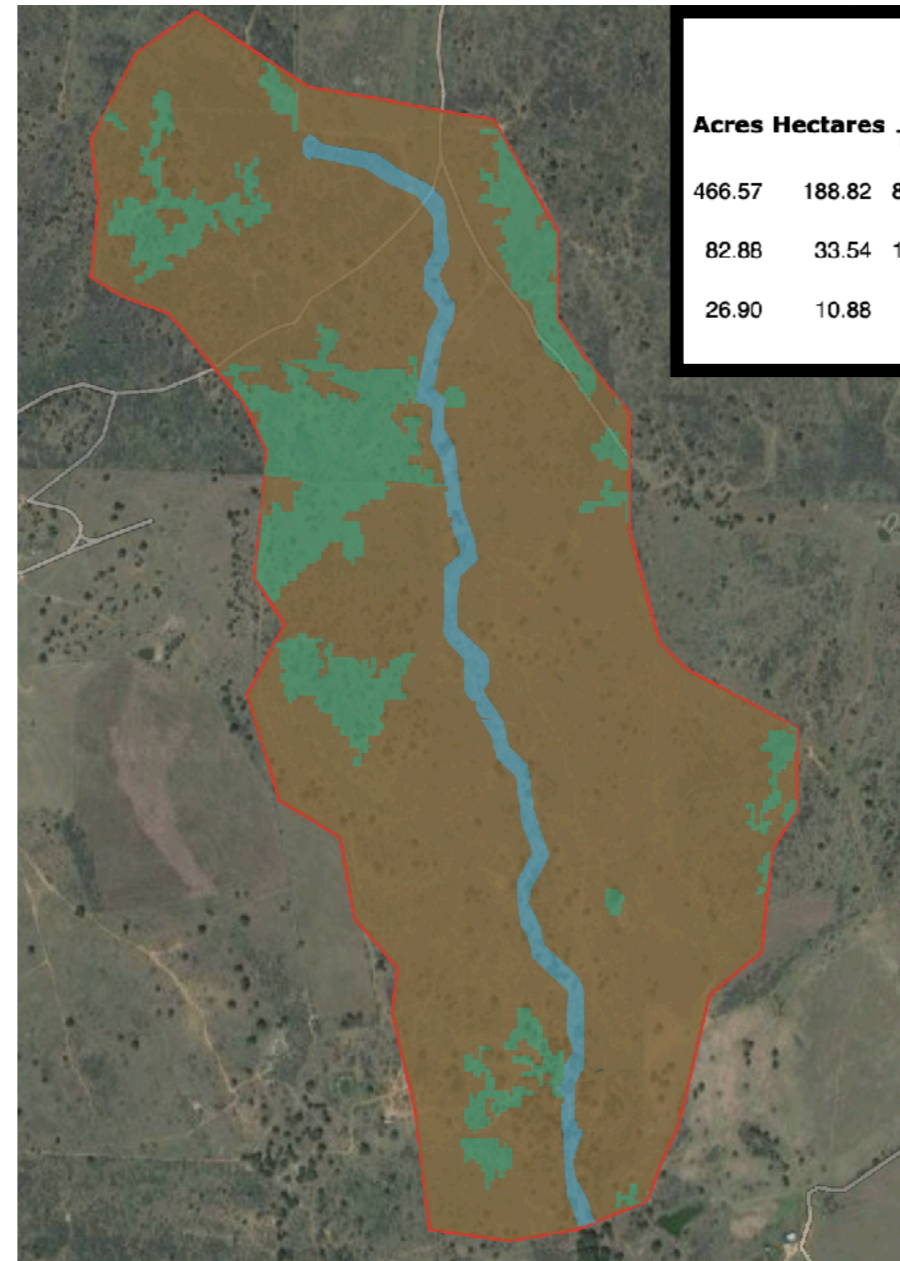
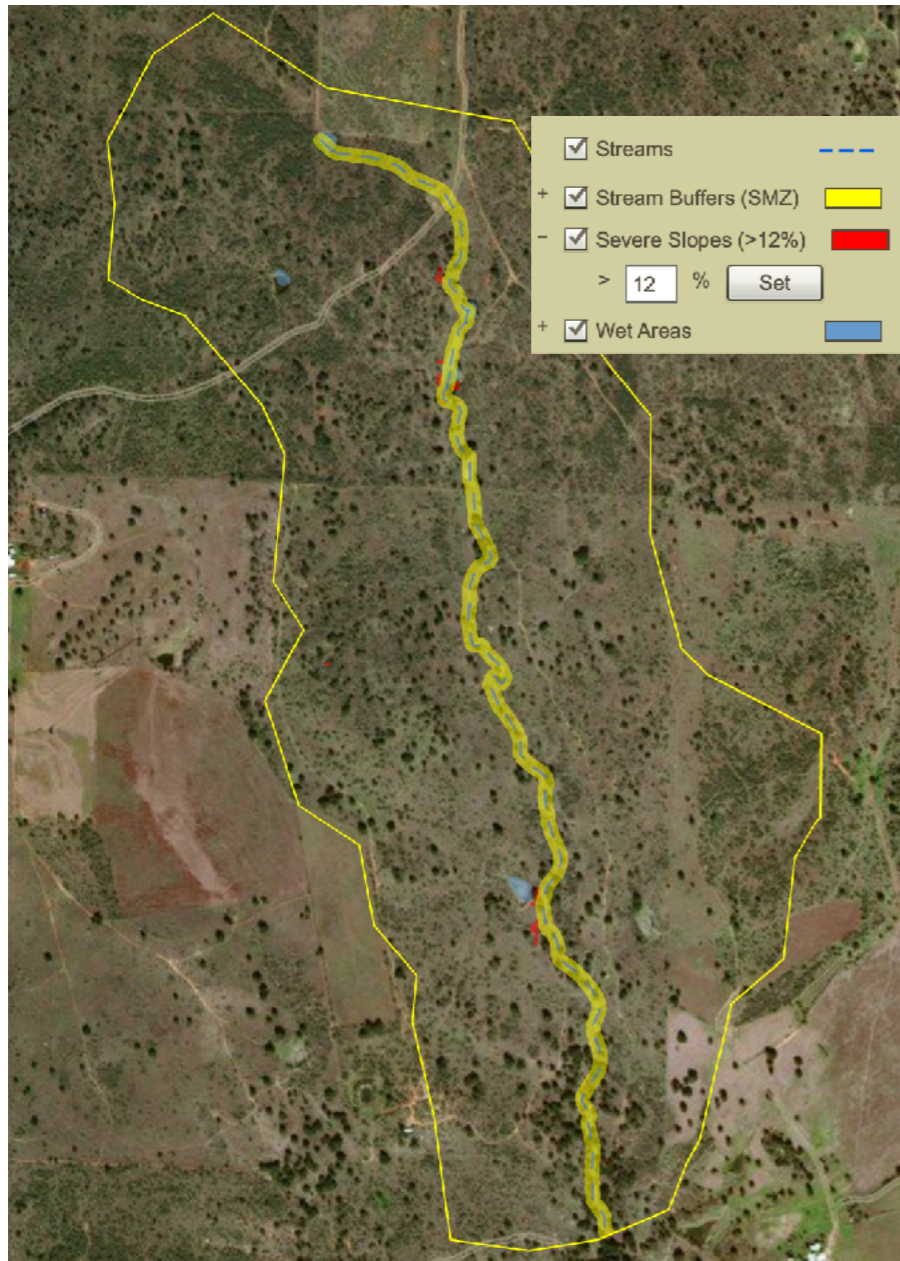
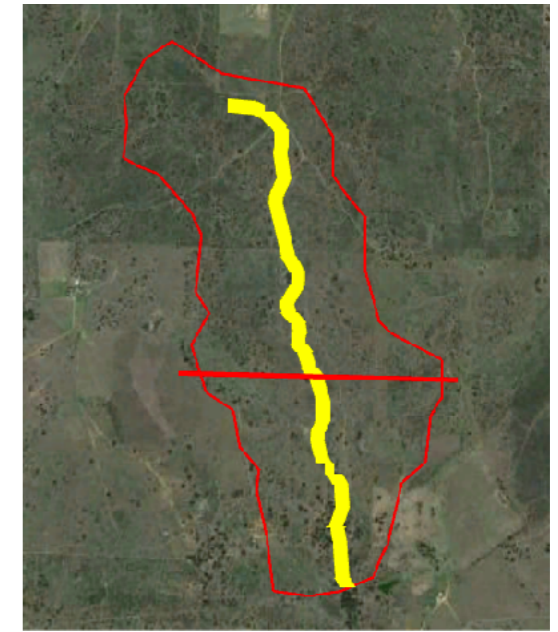


Katemcy-Honeycreek complex, Ligon-Keese complex and Keese coarse sandy loam account for nearly 83% of the soil types; the parent material for these soils is Precambrian schist.

Katemcy-Honeycreek is found in the drainages of the catchment with a slope of less than 5% and are slowly permeable and moderately deep sandy loam. Ligon soils are a gravelly and sandy, clay, loam and Keese soils are a coarse sandy loam. Both Ligon and Keese soils are found on ridges and hills with less than 8% slopes. The Ligon-Keese complex supports a small amount of native pasture in the catchment, as does the Hye-Nebgen-Oben complex.

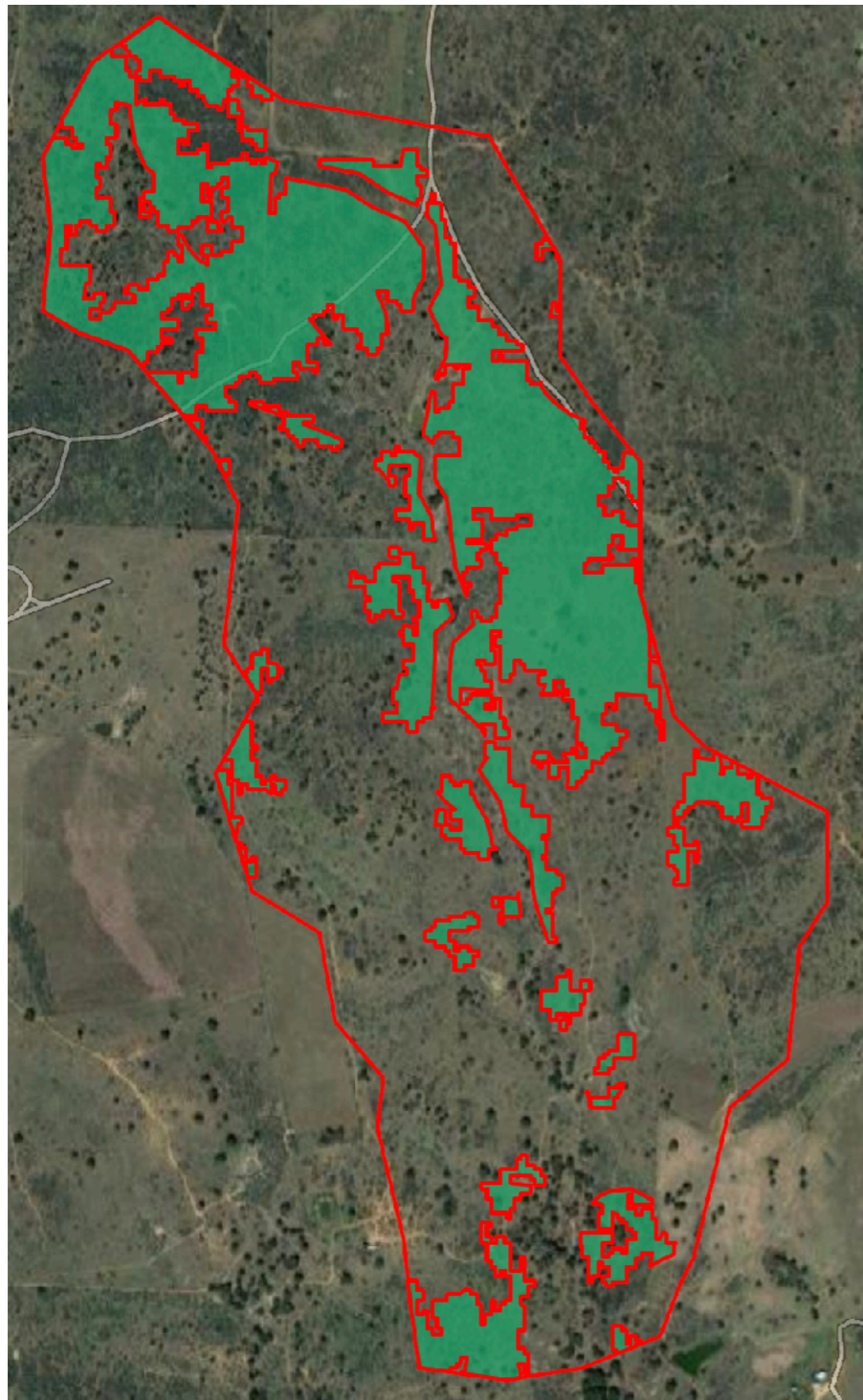


A cross section across the middle of the catchment demonstrates that the Ligon and Keese soils are found along a 30-foot bench on either side of the Katemcy-Honeycreek soils found in along the main drainage of the catchment (above and right). Severe slopes greater than 12% only occur in small areas near the lower end of the basin (below left).



Summary: Study Area				
576.35 Acres 233.24 Hectares				
Acres	Hectares	% Total	# Polys	NatureServe EcoSys
466.57	188.82	80.95	70	Llano Uplift Acidic Forest, Woodland and Glade
82.88	33.54	14.38	23	Native Invasive: Juniper Shrubland
26.90	10.88	4.67	18	Edwards Plateau Riparian

The Texas Ecosystem Analytical Mapper (TEAM) indicates that over 80% of the catchment is classified as Llano Uplift Acidic Forest, Woodland and Glade. Nearly 15% of catchment is classified as Native Invasive Juniper Shrubland and about 5% is classified as Riparian. As Juniper is uncommon in this portion of the Llano Uplift, the accuracy of the Juniper classification can not be validated.



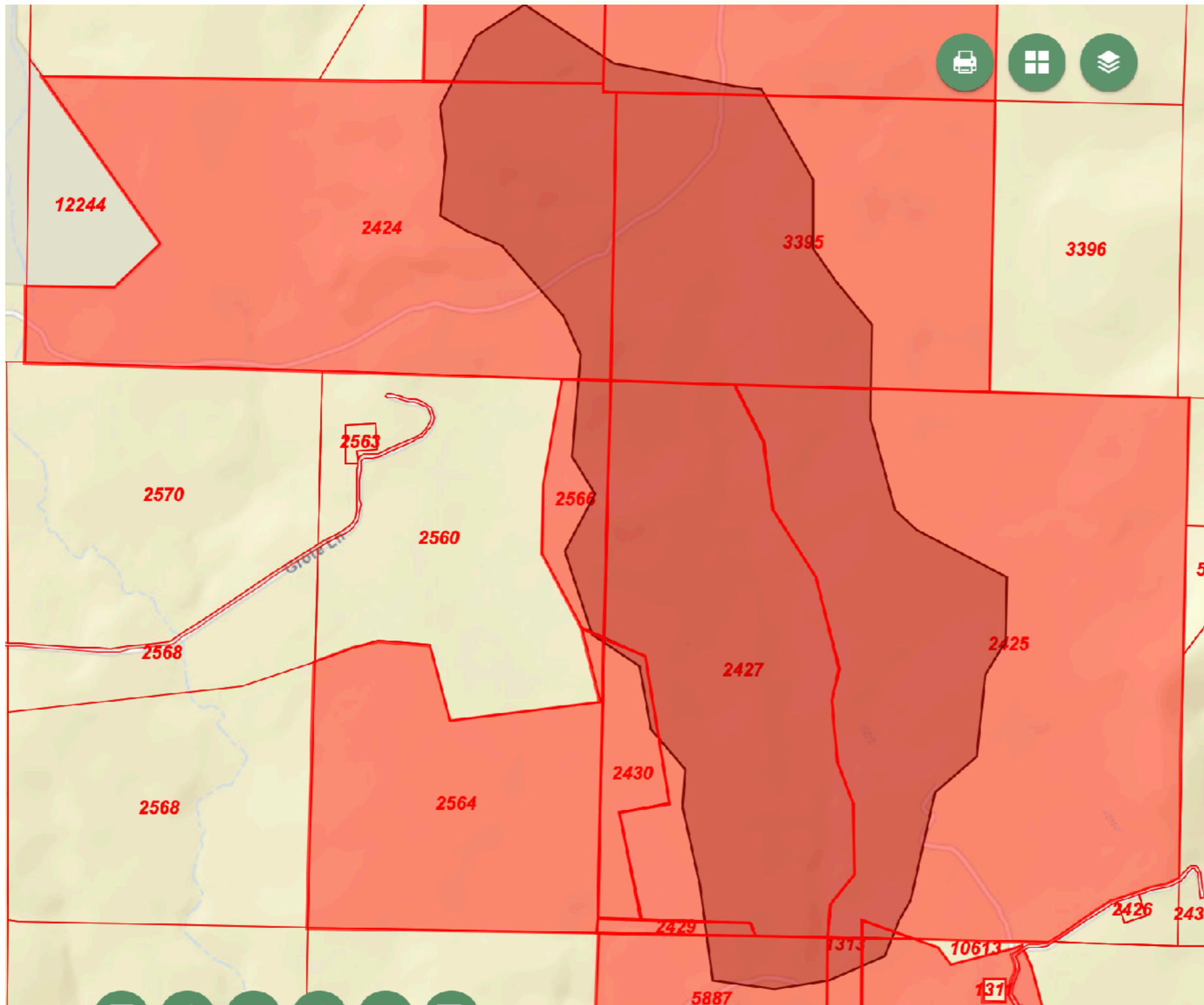
Summary: Study Area
576.35 Acres || 233.24 Hectares

Acres	Hectares	% Total	# Polys	Tx Ecological System	More..
213.80	86.52	37.10	18	Llano Uplift: Grassland	More..
183.42	74.23	31.82	32	Llano Uplift: Mesquite - Whitebrush Shrubland	More..
82.88	33.54	14.38	23	Native Invasive: Juniper Shrubland	More..
56.87	23.01	9.87	18	Llano Uplift: Post Oak Woodland	More..
13.14	5.32	2.28	7	Edwards Plateau: Riparian Deciduous Shrubland	More..
12.49	5.05	2.17	4	Llano Uplift: Live Oak Woodland	More..
7.54	3.05	1.31	4	Edwards Plateau: Riparian Herbaceous Vegetation	More..
4.15	1.68	0.72	4	Edwards Plateau: Riparian Live Oak Forest	More..
1.16	0.47	0.20	2	Edwards Plateau: Riparian Hardwood Forest	More..
0.91	0.37	0.16	1	Edwards Plateau: Riparian Ashe Juniper Shrubland	More..

Under pre-settlement conditions, the area was a Mixed-grass Savannah (below left) of mostly midgrasses with tall grasses and scattered trees and shrubs along draws. Such a community evolved under the influence of grazing and periodic fire.

Today, due to historic overgrazing and the suppression of fire, the area has transitioned to a Midgrass Savannah Community (below middle) consisting of mid grass dominated savannah being encroached or invaded by woody species such as mesquite and brushy species such as Whitebrush. Today, mesquite and white brush cover over 30% of the catchment. Unless proper grazing, brush management and prescribed burning are applied, the area could potentially transition to a Shortgrass/Mixed-brush Community (below right). For more detail see page x.





Parcels in Catchment 5769623

Property ID	Owner in Watershed	Tract Acres
14916	N	1.002
2564	N	133.209
2429	Y	3.86
2423	Y	102.345
5887	Y	276.47
2424	N	301.663
1313	Y	27.84
2430	N	31.477
2566	Y	10.319
3395	Y	234.887
14915	N	80.992
2425	Y	295.128
2427	Y	283.268
3393	Y	226.212

Nine of the fourteen land parcels located in the catchment are owned by residents of the watershed. Ownership is 100% private and there are no public access in the catchment.

LINKS TO ADDITIONAL INFORMATION

Vegetation Code	Description	BMP	Sources of Funding
1607	Llano Uplift : Grassland		
1606	Llano Uplift : Mesquite- Whitebrush Shrubland		
9105	Native Invasive : Juniper Shrubland		
1604	Post Oak Woodland		
1406	Edwards Plateau : Riparian Deciduous Shrubland		
1602	Llano Uplift : Live Oak Woodland		
1407	Edwards Plateau : Riparian Herbaceous Vegetation		
1402	Edwards Plateau : Riparian Live Oak Forest		
1405	Edwards Plateau : Riparian Ashe Juniper Shrubland		

Soil Type		BMP	Sources of Funding
KAC	Katemcy-Honeycreek complex, 0-5 percent slopes		
LND	Ligon-Keese complex, 1 to 8 percent slopes, rocky		
KeD	Keese coarse sandy loam, 1 to 8 percent slope, stoney		
KLE	Keese-Rock outcrop complex, 1 to 12 percent slopes		
LKD	Ligon-Katemcy-Keese complex, 1 to 8 percent slopes, very rocky		
HND	Hye-Nebgen-Oben complex, 1 to 8 percent slopes, rocky		