



WEST VIRGINIA WATERSHED ASSESSMENT PILOT PROJECT

Gauley River, SmugMugPro

First Expert Workshop: Gauley River Watershed
October 10, 2012

Gauley River Watershed

1. Watershed Overview
2. Streams Review/Results
3. Wetlands Review/Results
4. Uplands Review/Results

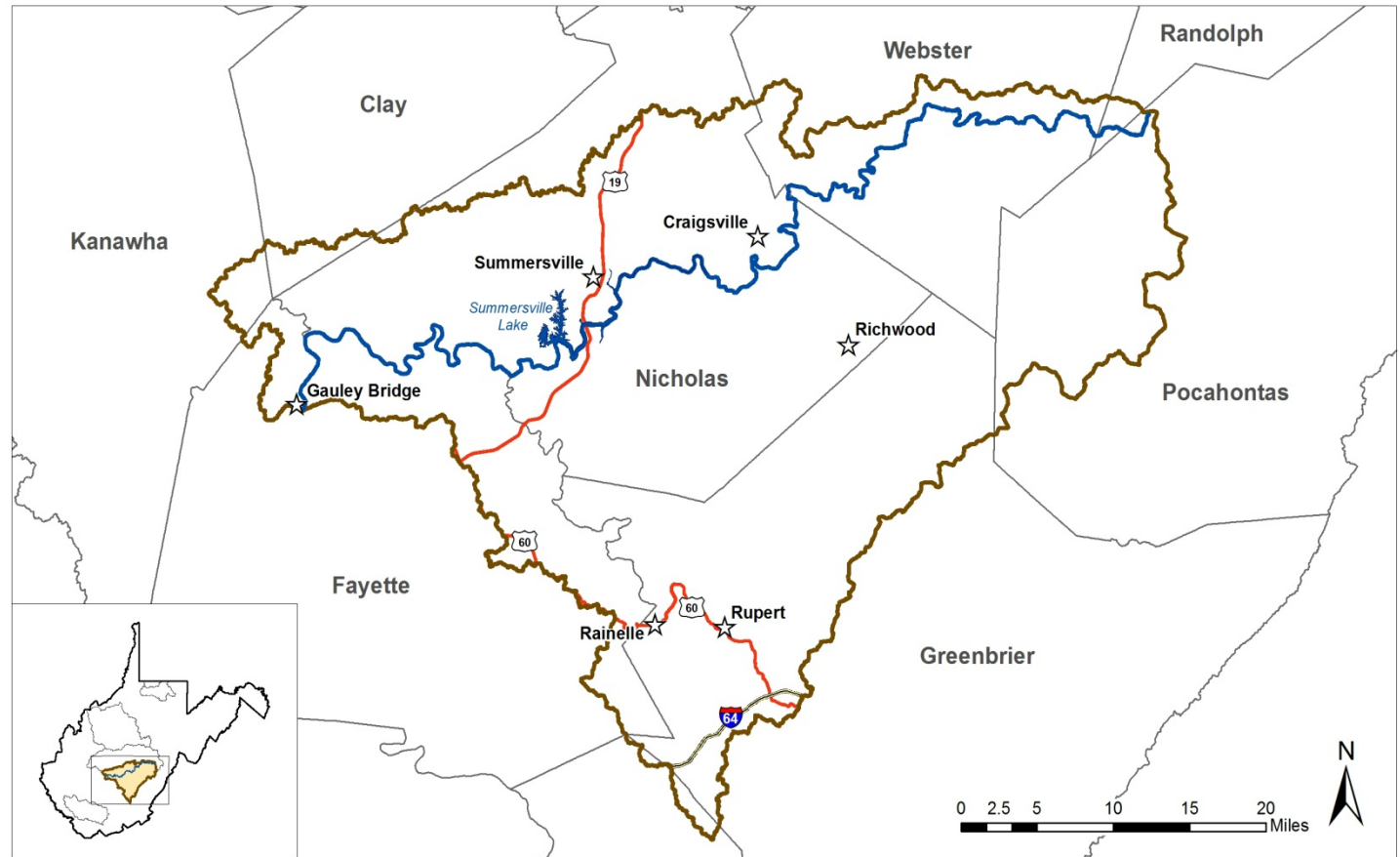
Gauley River Watershed

Watershed
Overview:

Counties













Cities &
Towns

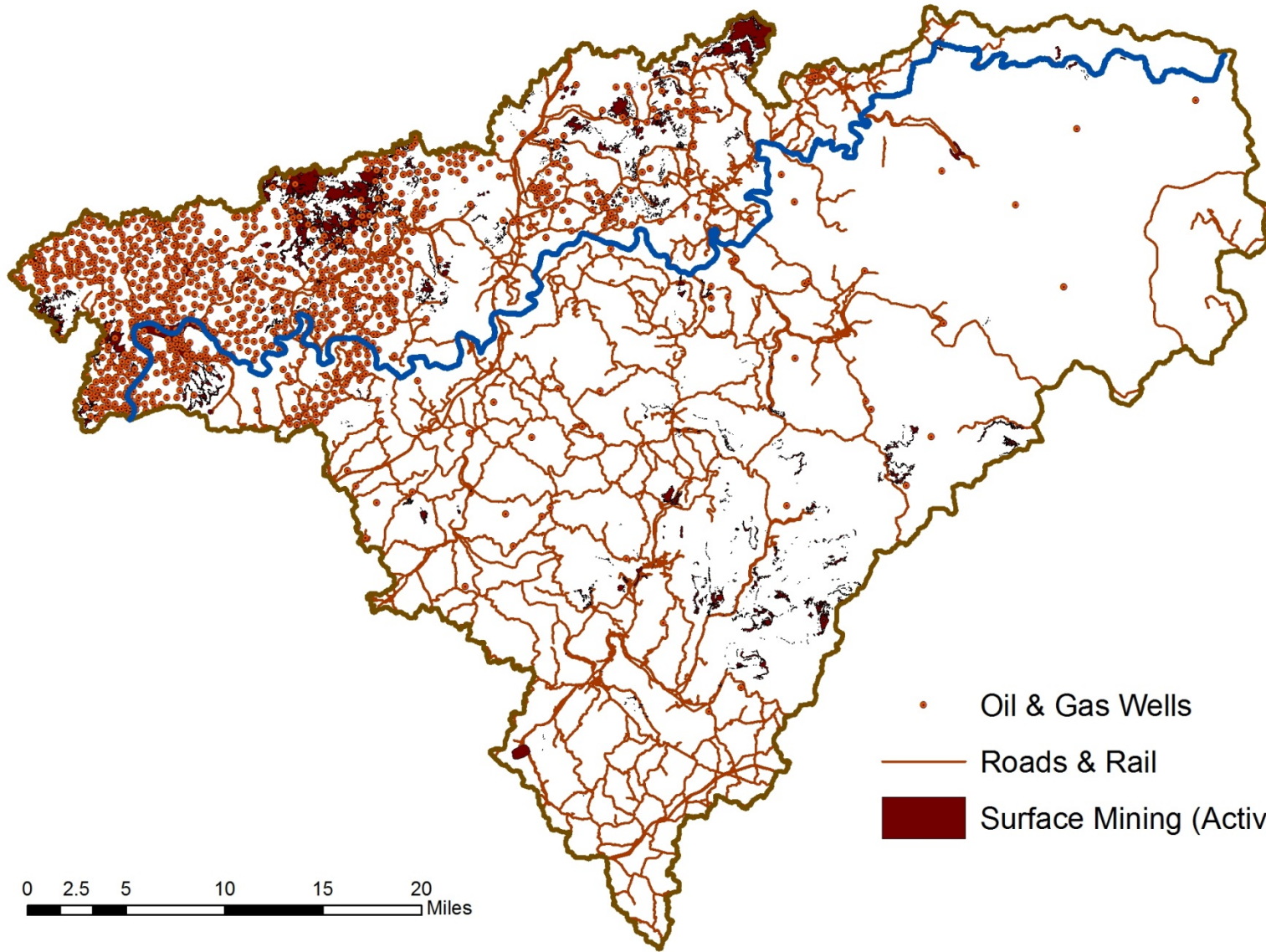
Major
Roads



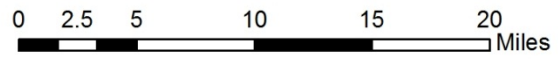


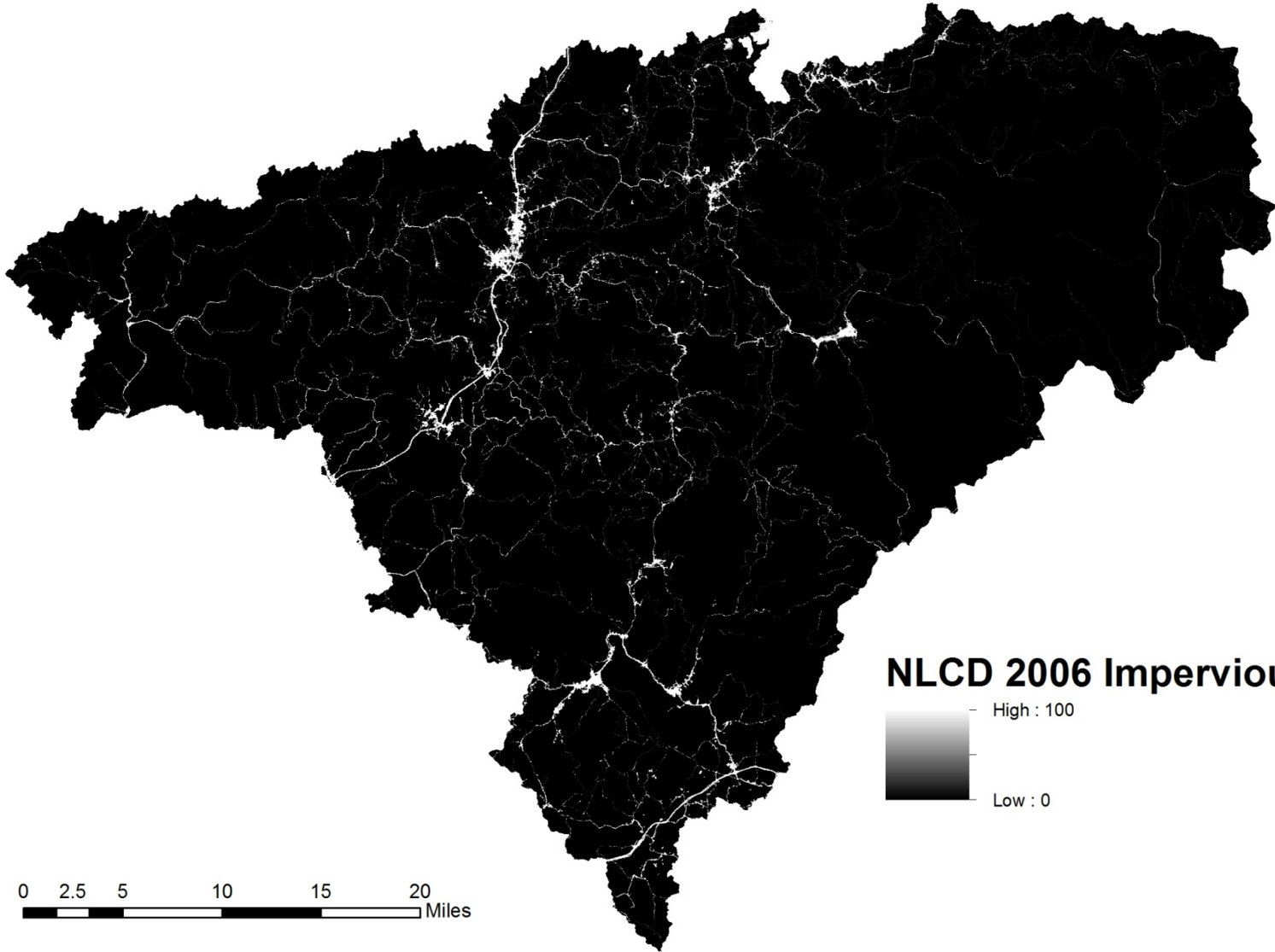
Land Use/Land Cover 2009-10 (WVU/NRAC)

- | | |
|---|---|
|  Water |  Mixed Forest |
|  Barren/Developed |  Grasslands |
|  Mine Disturbance |  Agriculture |
|  Reclaimed Mine Lands |  Grazing |
|  Deciduous Forest |  Woody Wetlands |
|  Evergreen Forest |  Herbaceous Wetlands |

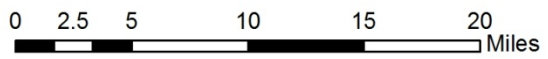
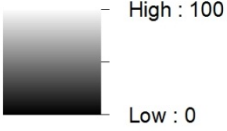


- Oil & Gas Wells
- Roads & Rail
- Surface Mining (Active & Legacy)





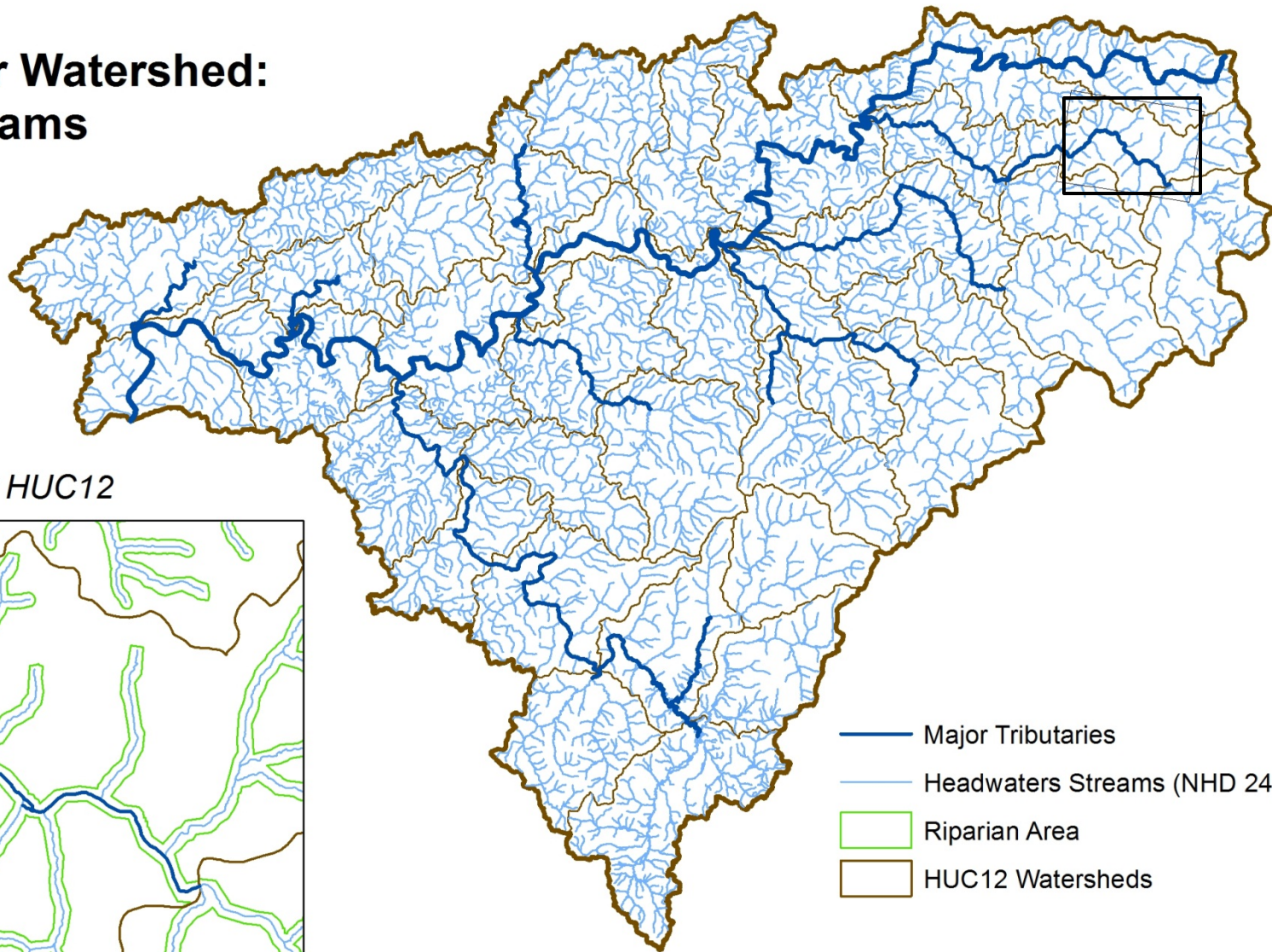
NLCD 2006 Impervious Cover



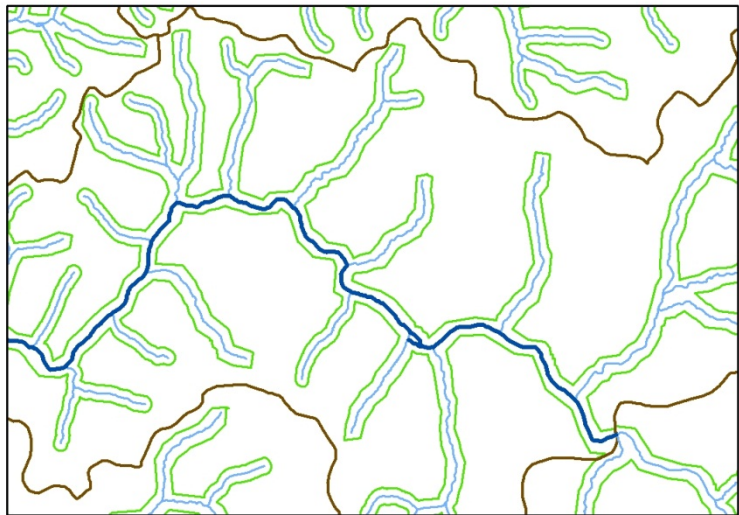
Gauley Watershed: Streams



Gauley River Watershed: Streams

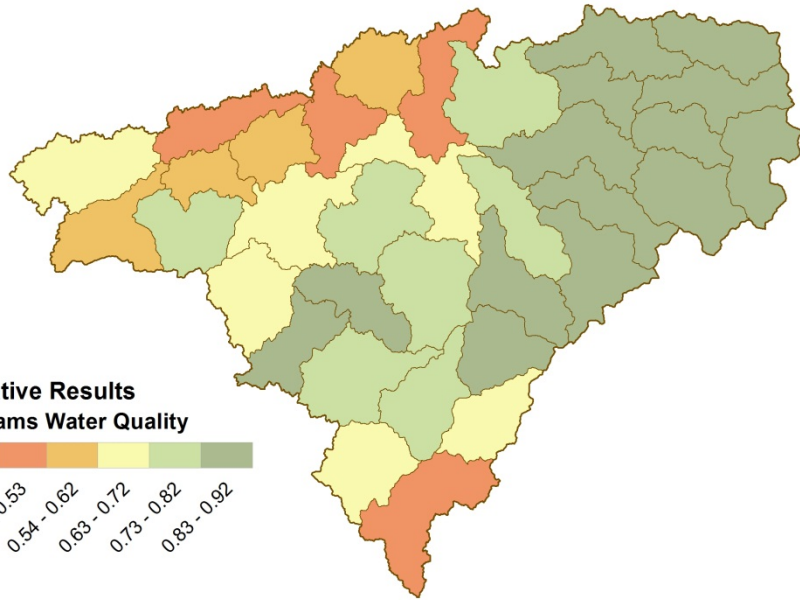
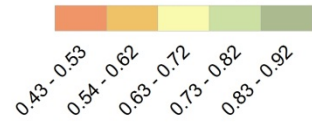


Middle Williams River HUC12

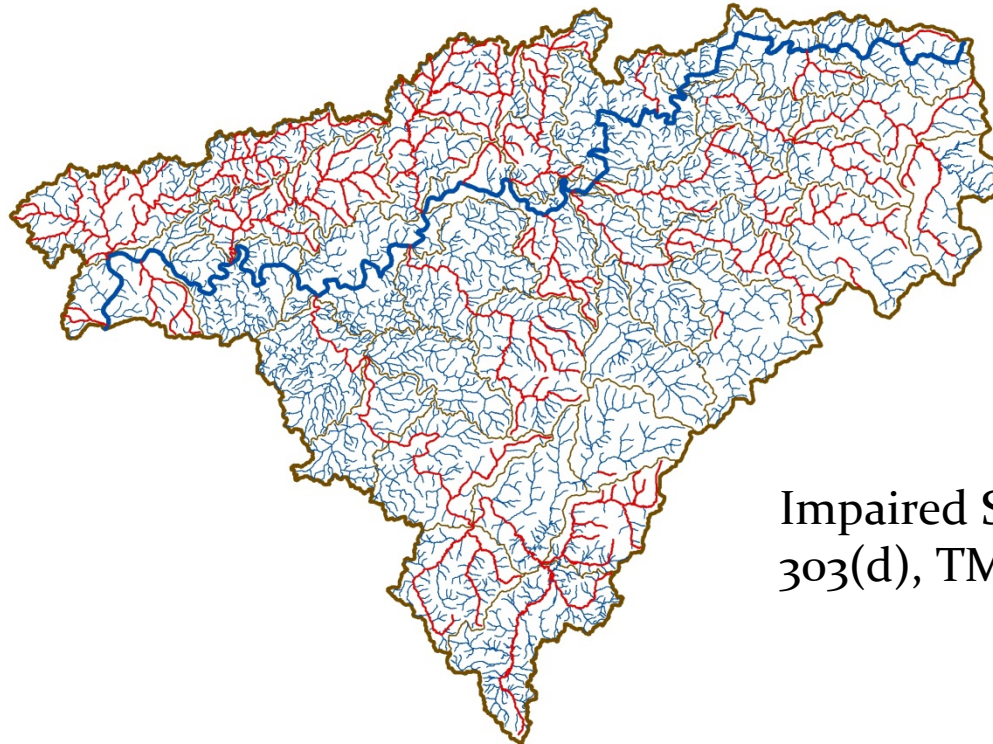
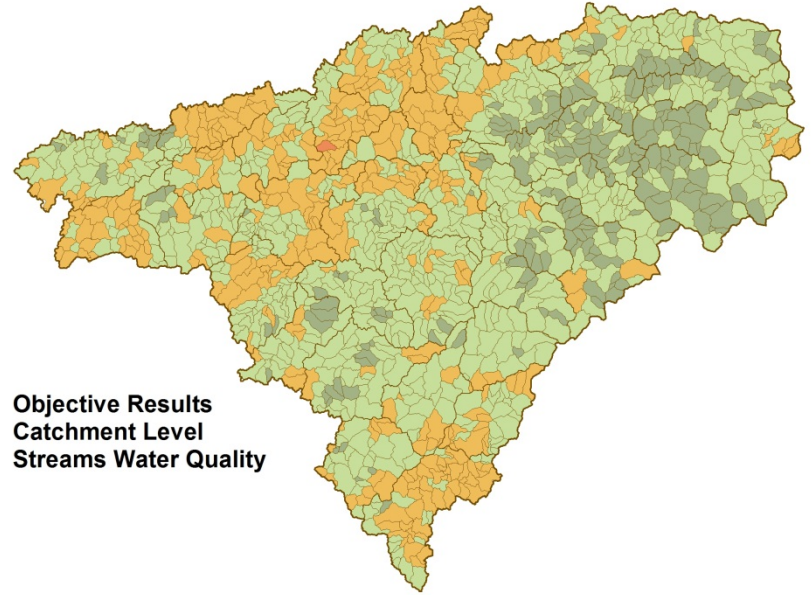


- Major Tributaries
- Headwaters Streams (NHD 24k)
- Riparian Area
- HUC12 Watersheds

**Relative Results
Streams Water Quality**



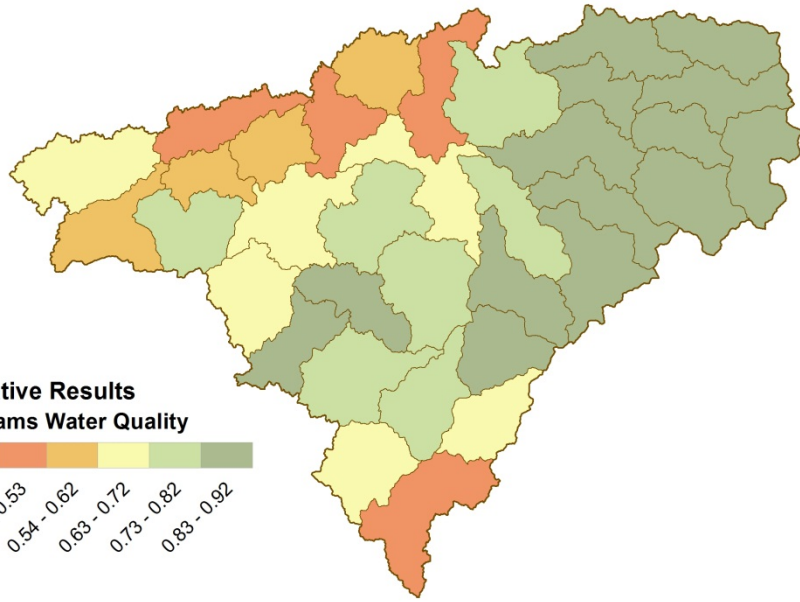
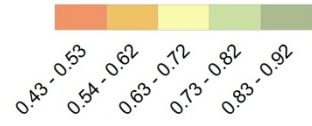
**Objective Results
Catchment Level
Streams Water Quality**



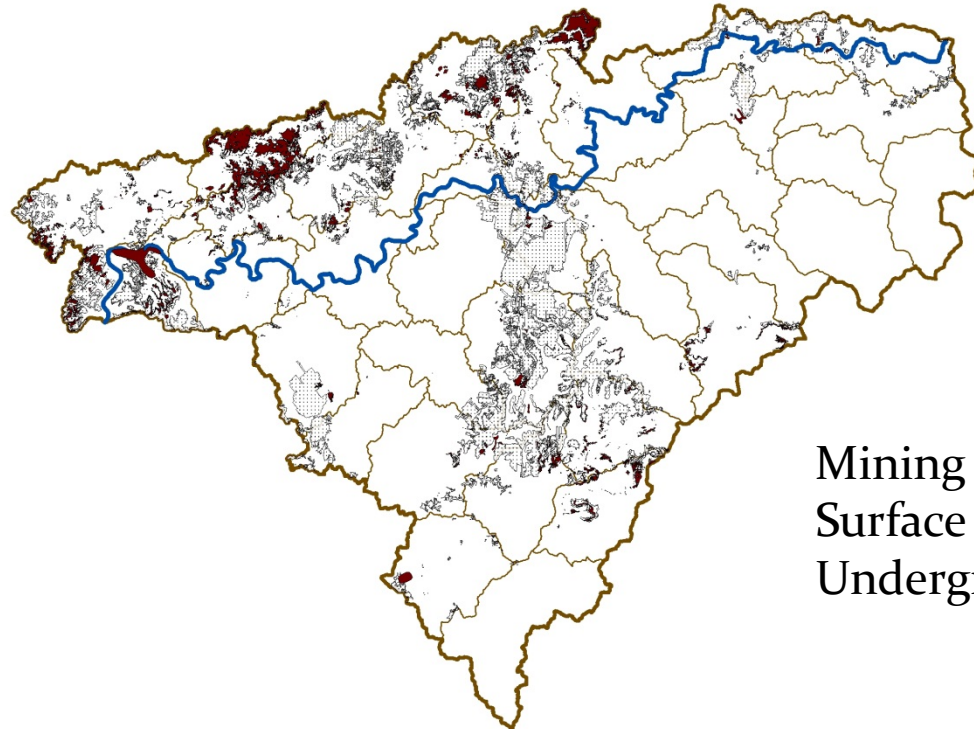
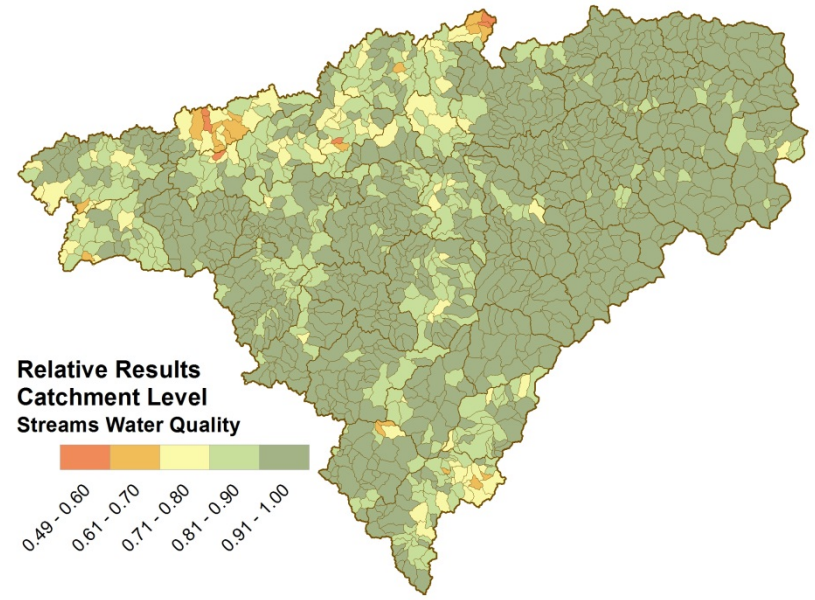
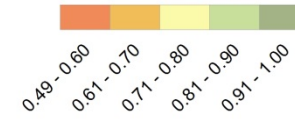
Impaired Streams:
303(d), TMDL, AMD

Streams
Water
Quality

Relative Results
Streams Water Quality



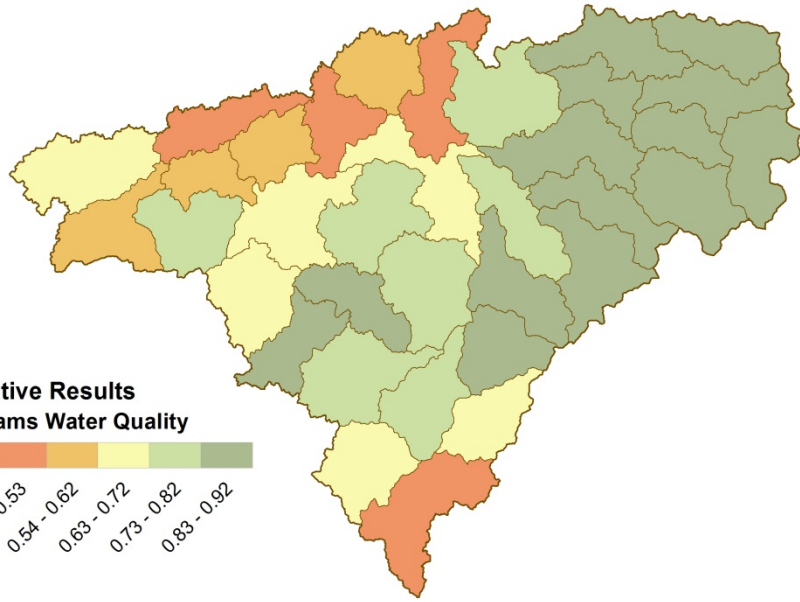
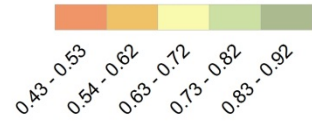
Relative Results
Catchment Level
Streams Water Quality



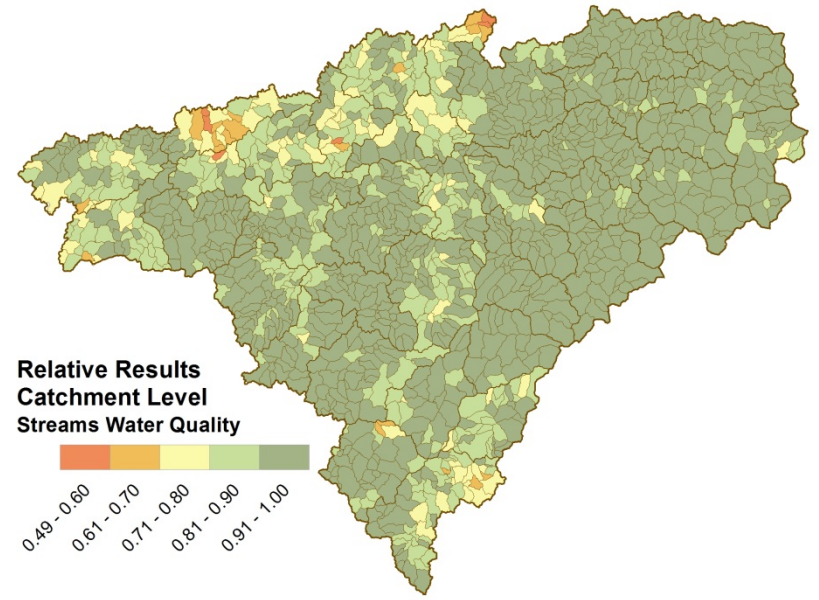
Mining Activity:
Surface (Active and Legacy)
Underground

Streams
Water
Quality

**Relative Results
Streams Water Quality**



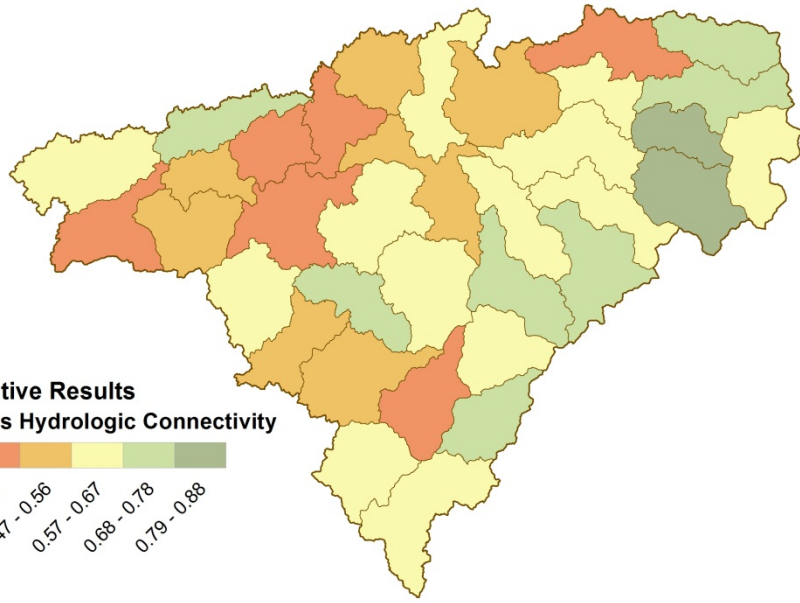
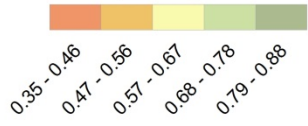
**Relative Results
Catchment Level
Streams Water Quality**



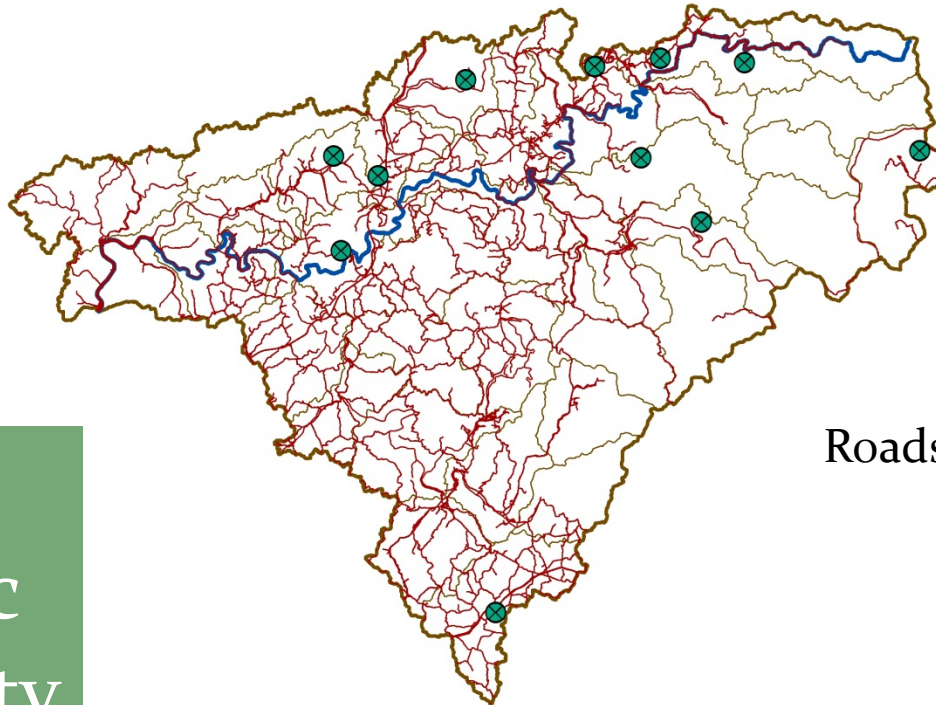
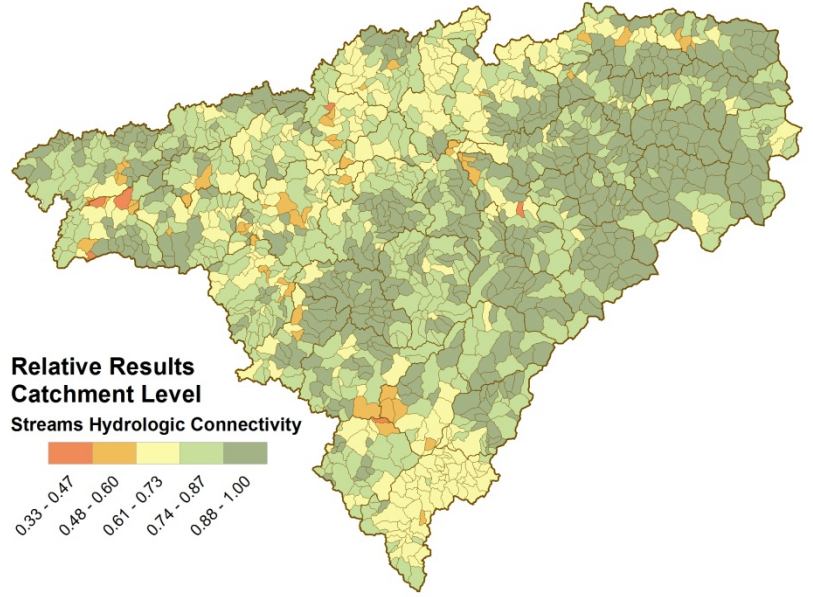
Natural Cover:
Forest, Grasslands, Wetlands

Streams
Water
Quality

Relative Results
Streams Hydrologic Connectivity



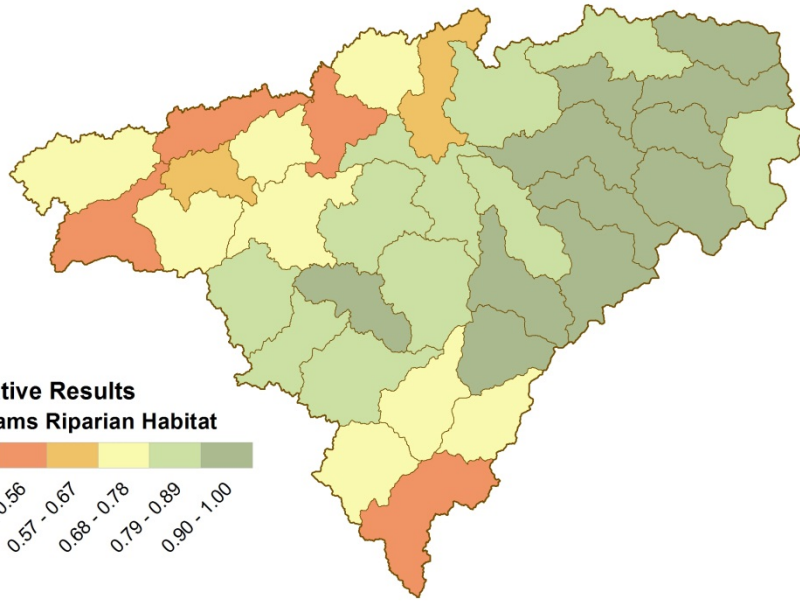
Relative Results
Catchment Level
Streams Hydrologic Connectivity



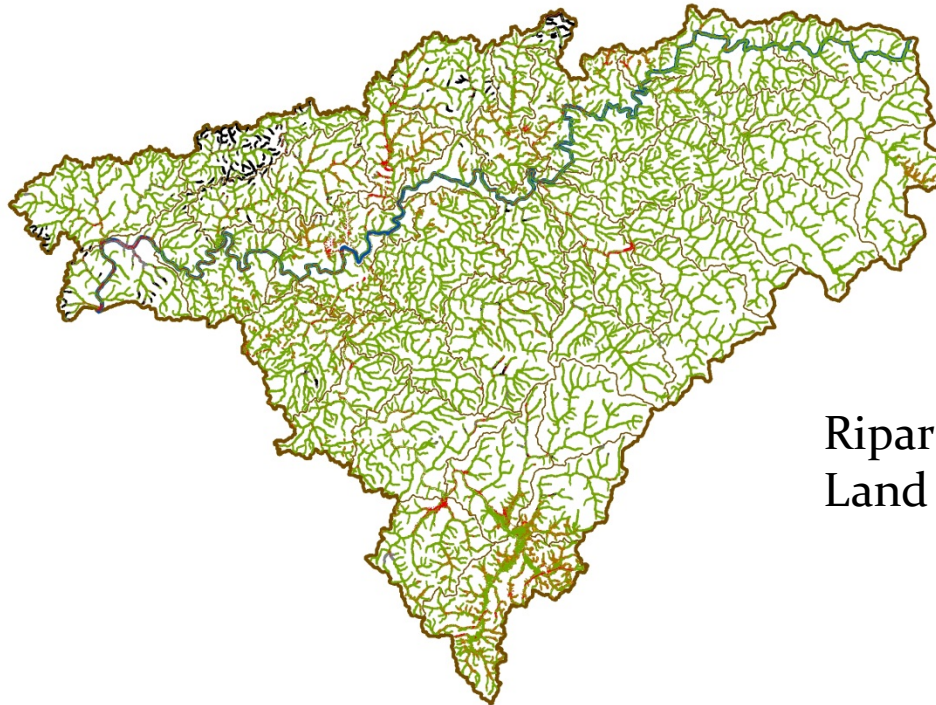
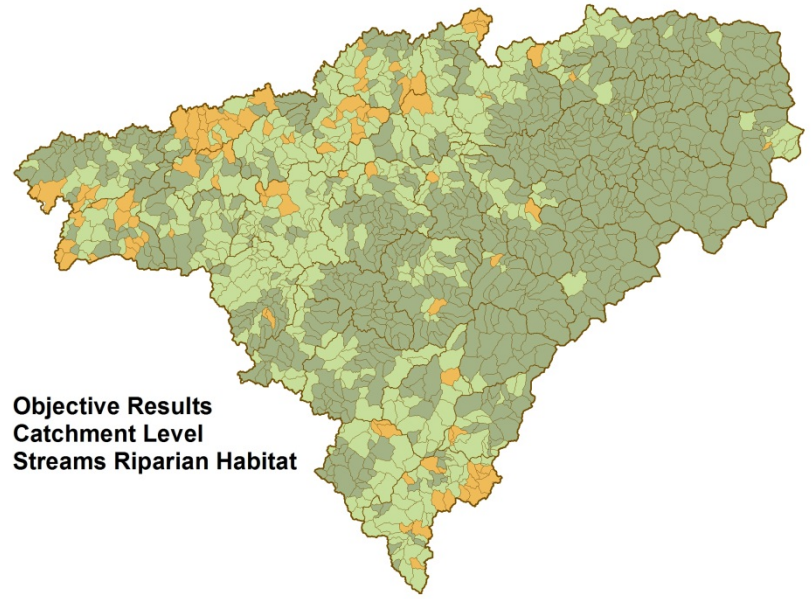
Roads & Rail, Dams

Streams
Hydrologic
Connectivity

Relative Results
Streams Riparian Habitat

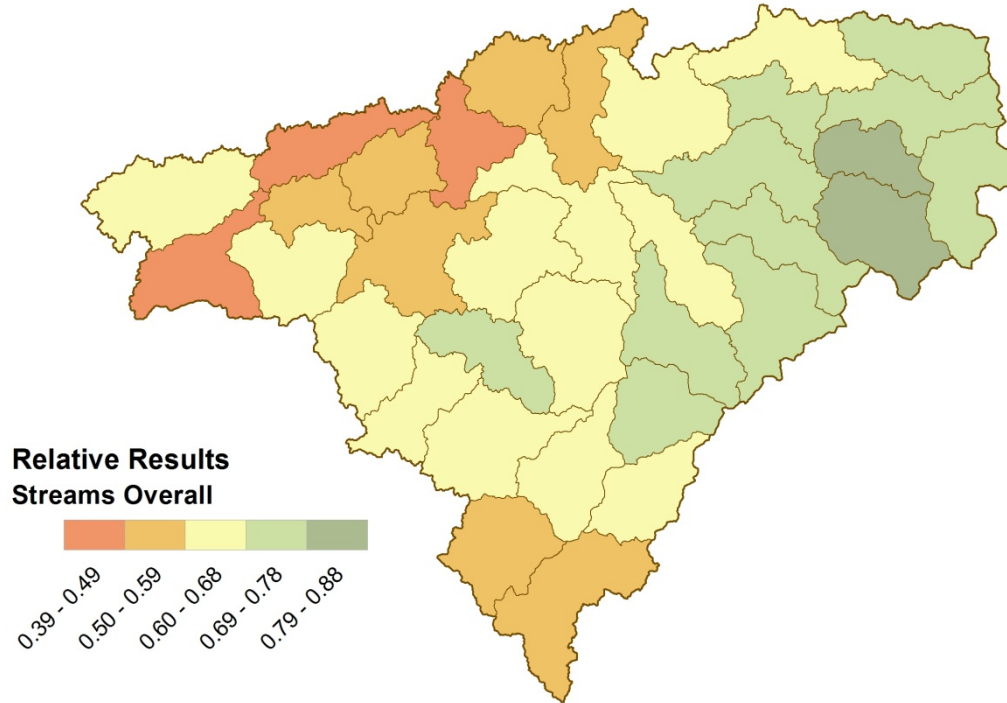
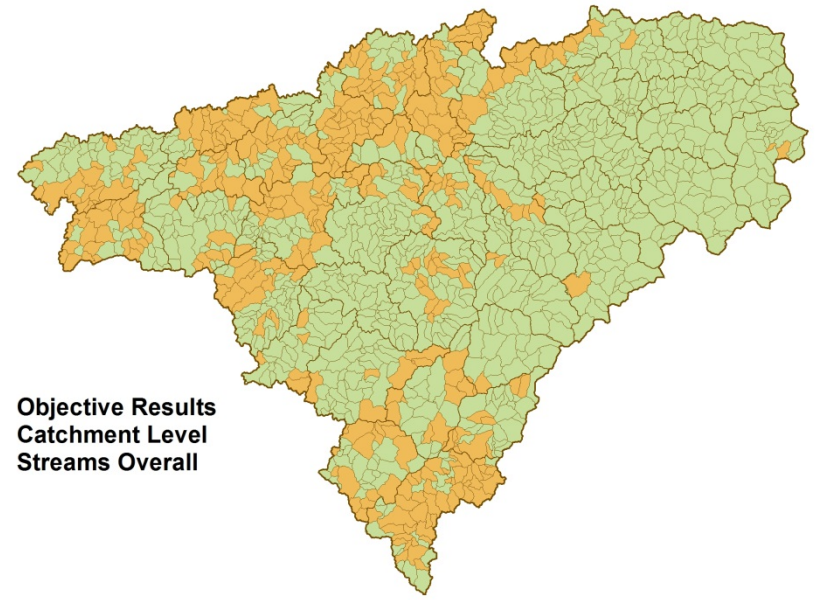
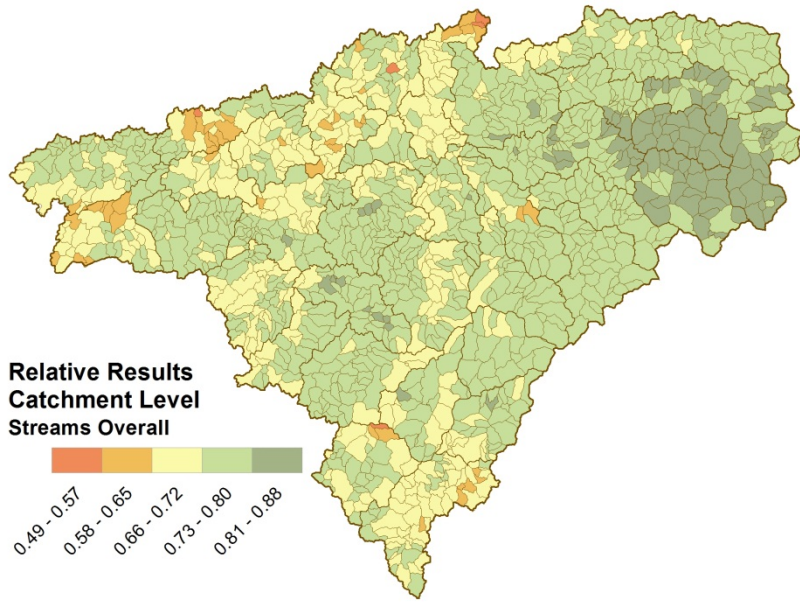


Objective Results
Catchment Level
Streams Riparian Habitat



Riparian Area
Land Use/Land Cover

Streams
Riparian
Habitat



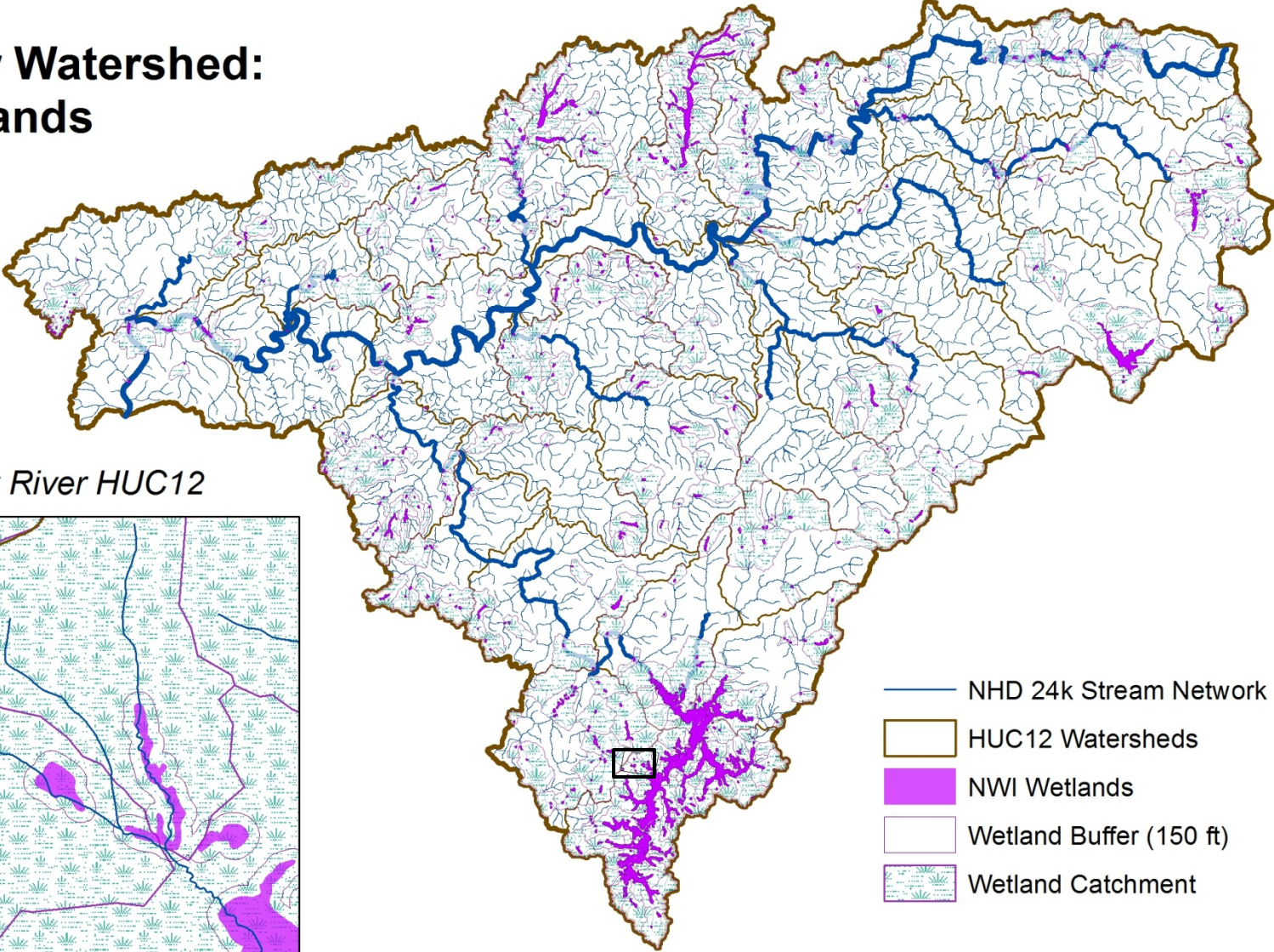
Streams
Model
Overall

Gauley Watershed: Wetlands



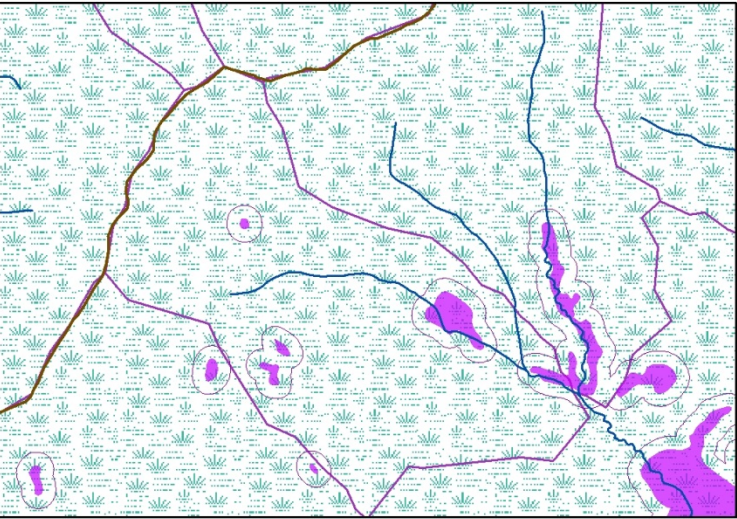
Cranberry Glades ©pocahontascountywv.com

Gauley River Watershed: Wetlands

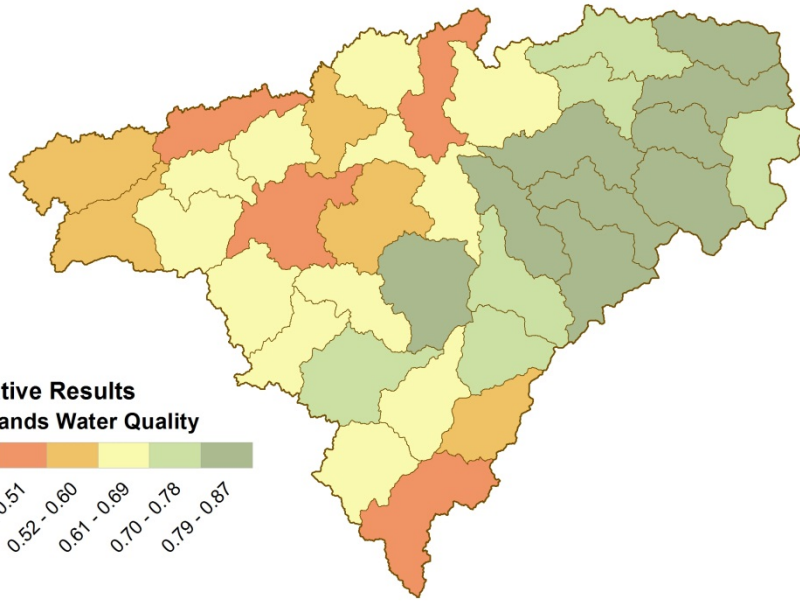
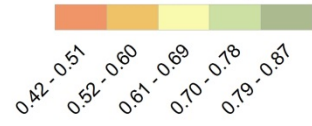


- NHD 24k Stream Network
- HUC12 Watersheds
- NWI Wetlands
- Wetland Buffer (150 ft)
- Wetland Catchment

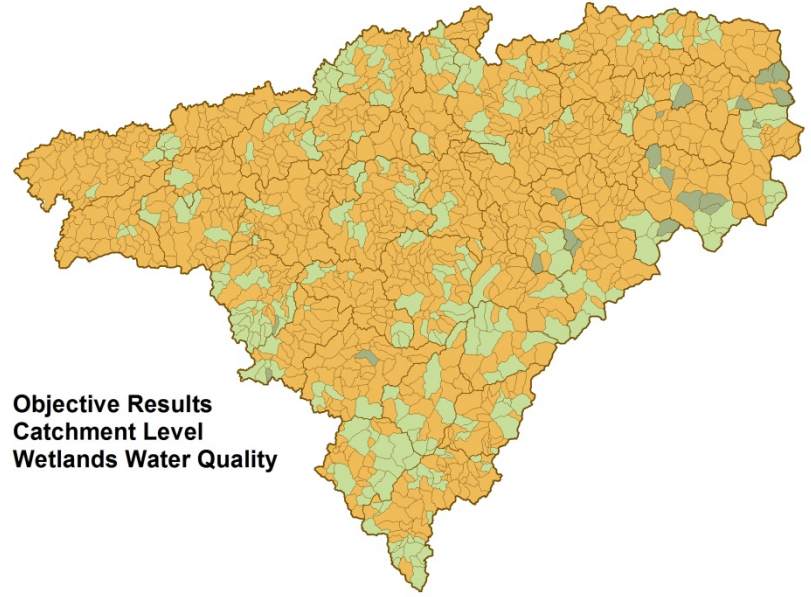
Otter Creek - Meadow River HUC12



**Relative Results
Wetlands Water Quality**



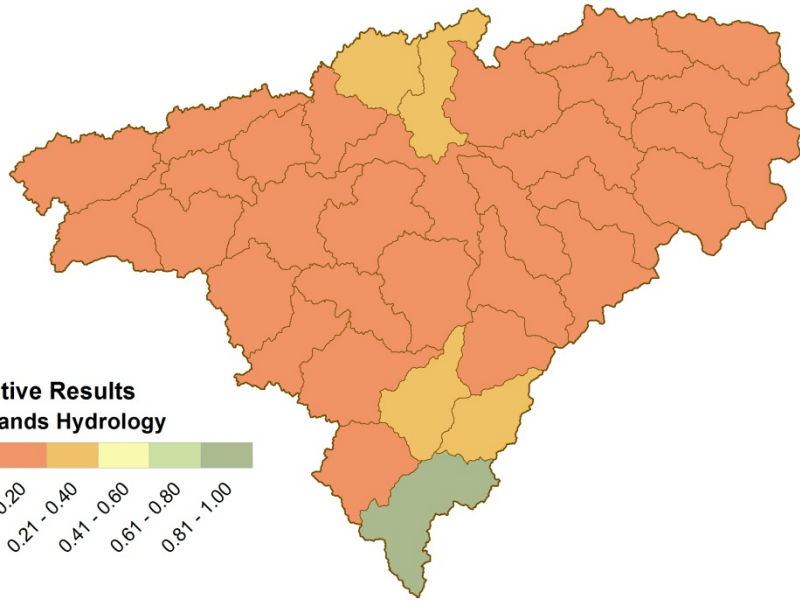
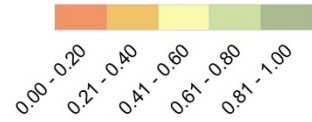
**Objective Results
Catchment Level
Wetlands Water Quality**



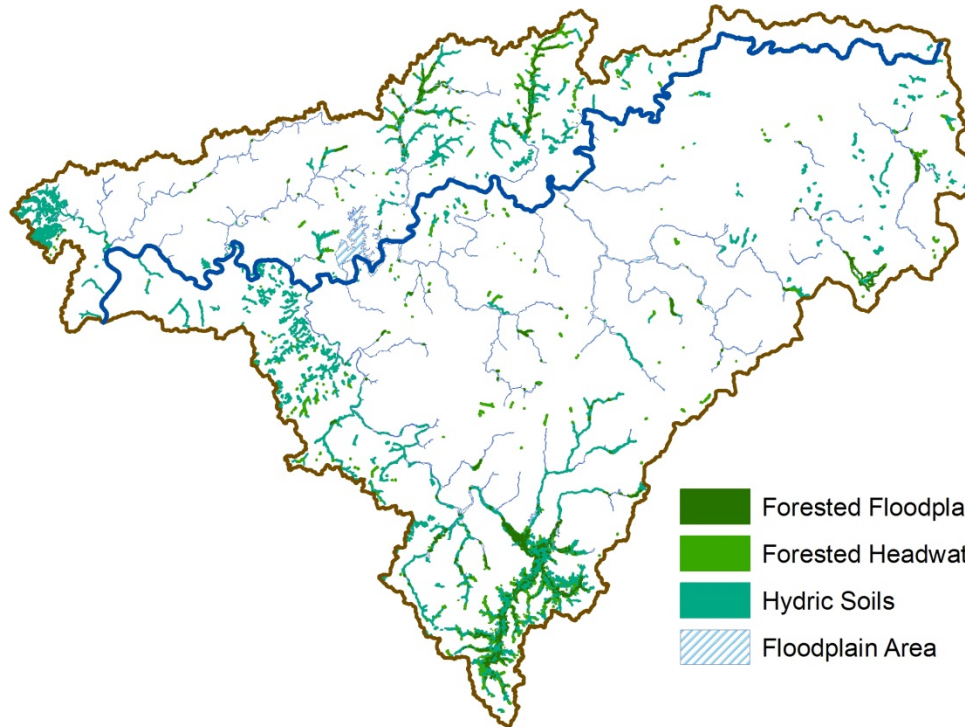
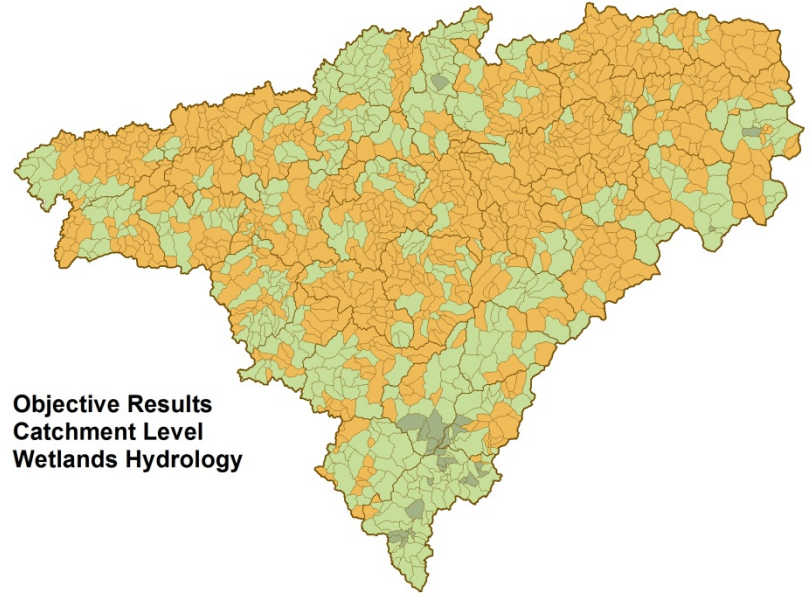
**Land Use/Land Cover
in Wetland Catchment**

**Wetlands
Water
Quality**

**Relative Results
Wetlands Hydrology**



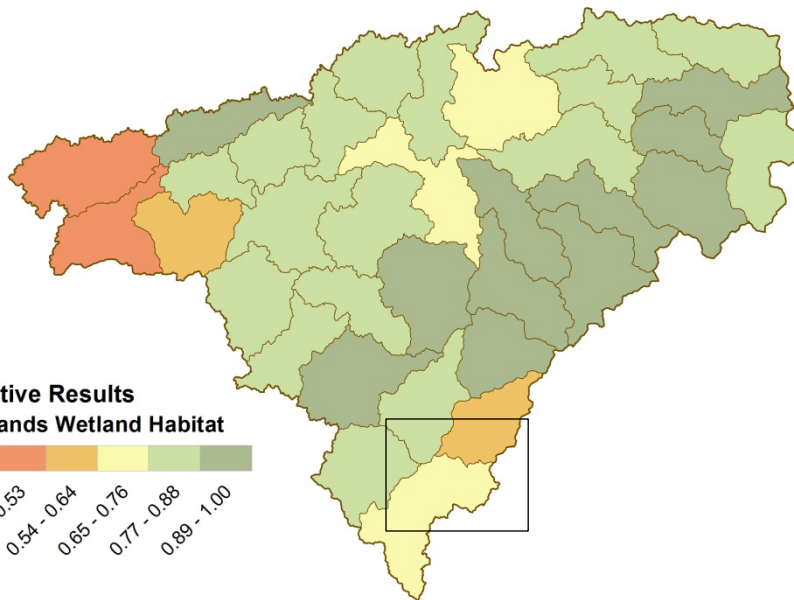
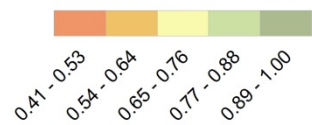
**Objective Results
Catchment Level
Wetlands Hydrology**



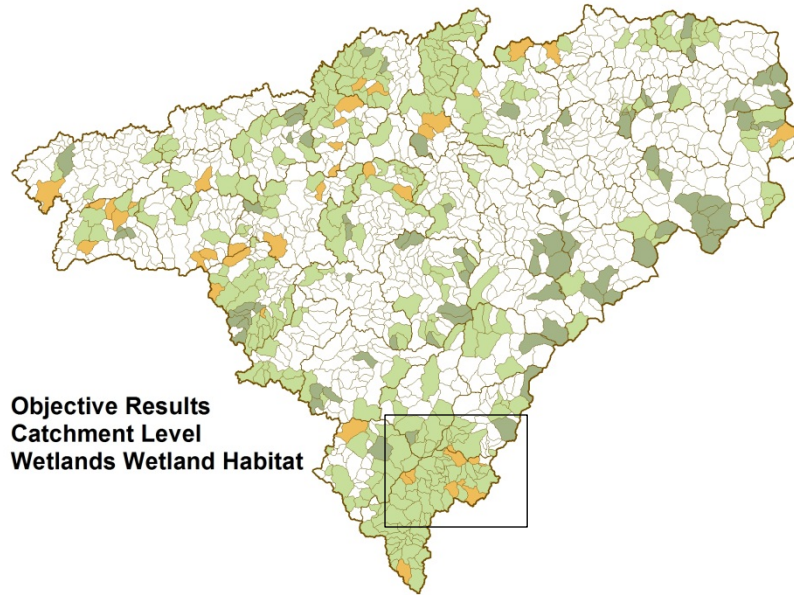
- Forested Floodplain Wetlands
- Forested Headwater Wetlands
- Hydric Soils
- Floodplain Area

Wetlands Hydrology

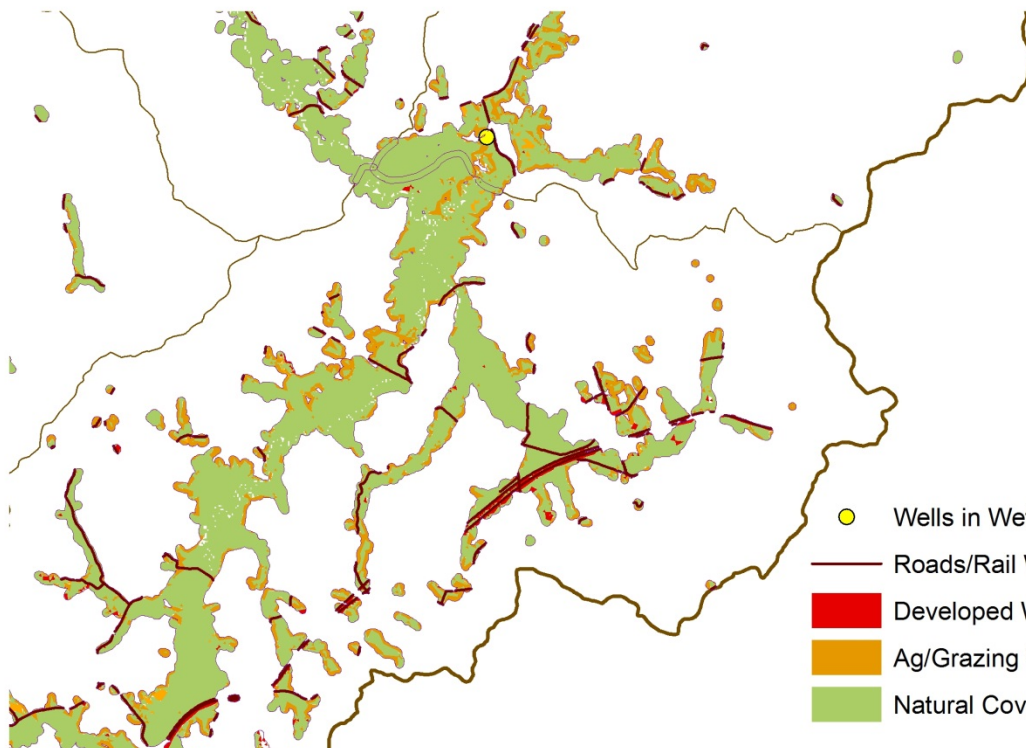
Relative Results
Wetlands Wetland Habitat



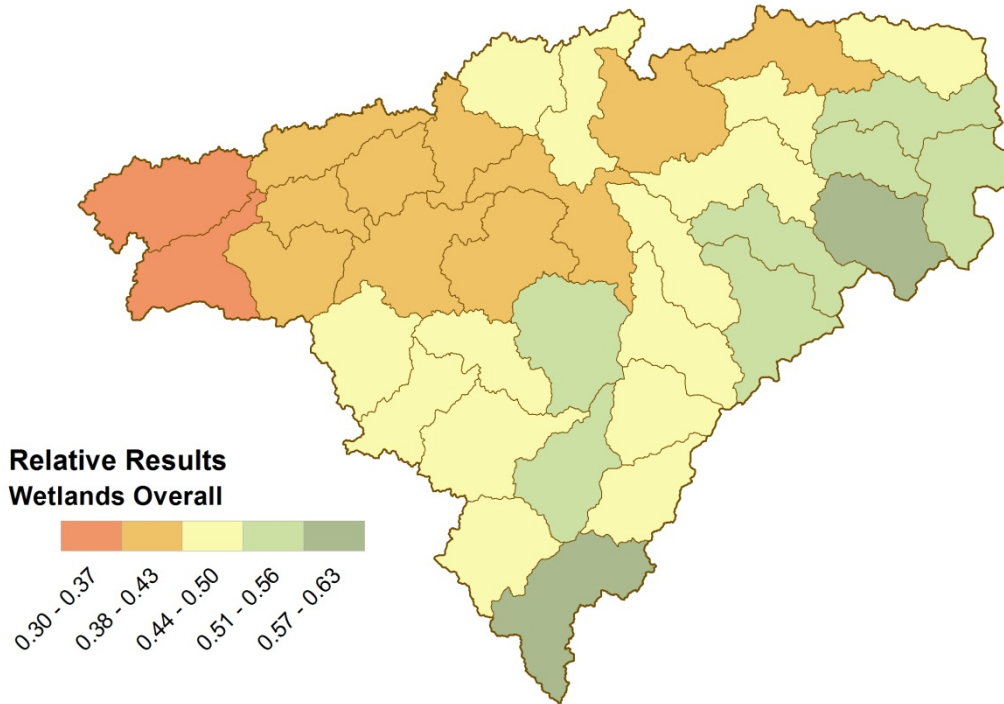
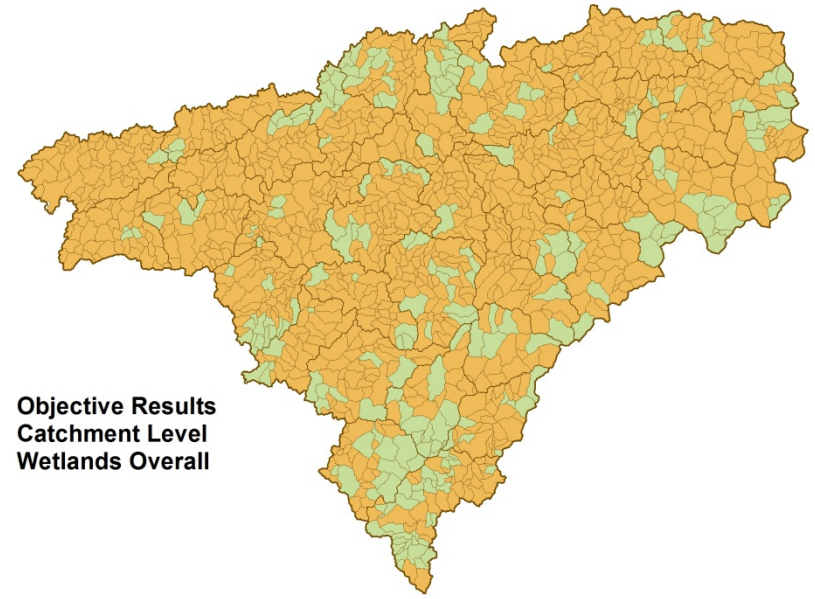
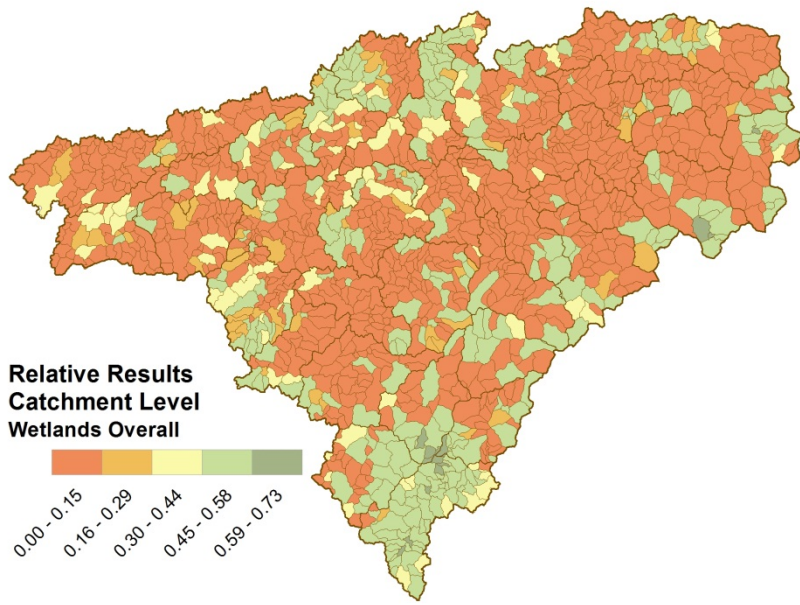
Objective Results
Catchment Level
Wetlands Wetland Habitat



Wetlands
Wetland
Habitat



- Wells in Wetland Buffer
- Roads/Rail Wetland Buffer
- Developed Wetland Buffer
- Ag/Grazing Wetland Buffer
- Natural Cover Wetland Buffer















**Wetlands
Model
Overall**

Gauley Watershed: Uplands

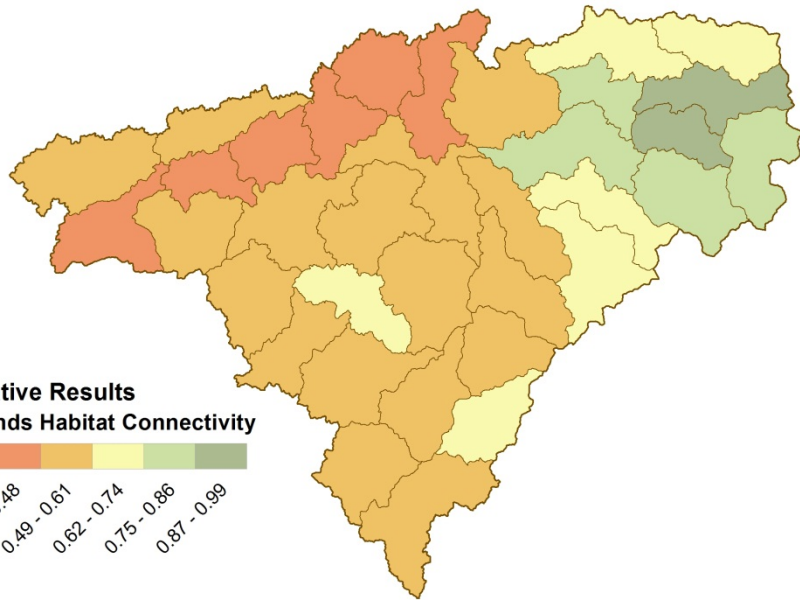
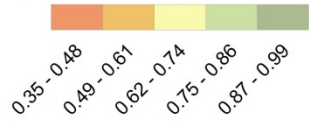




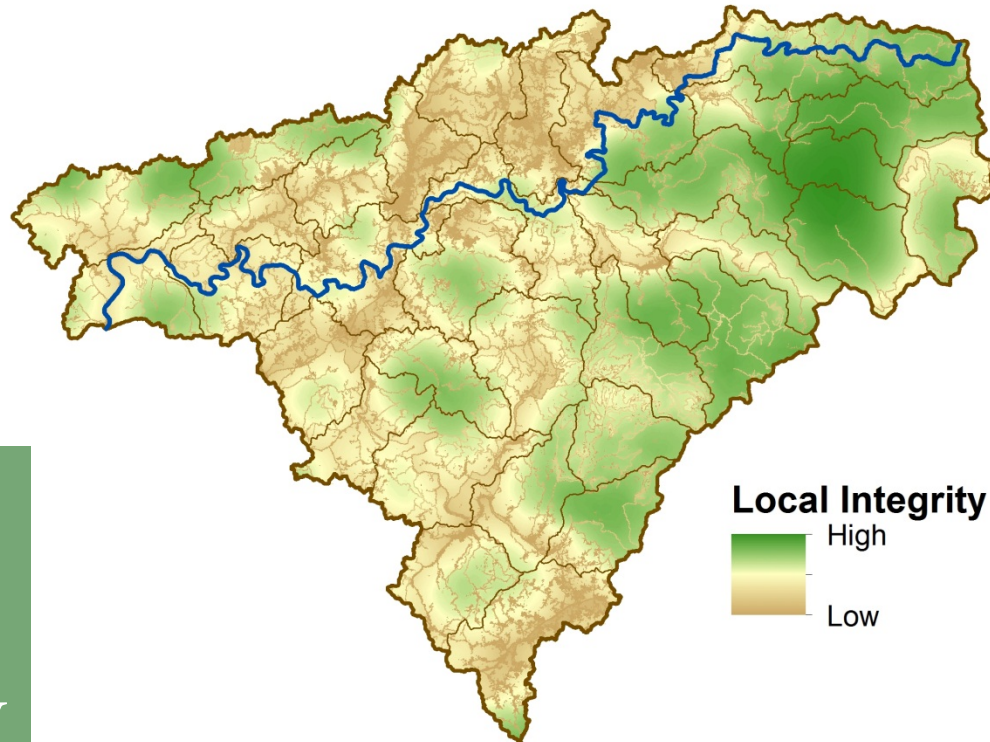
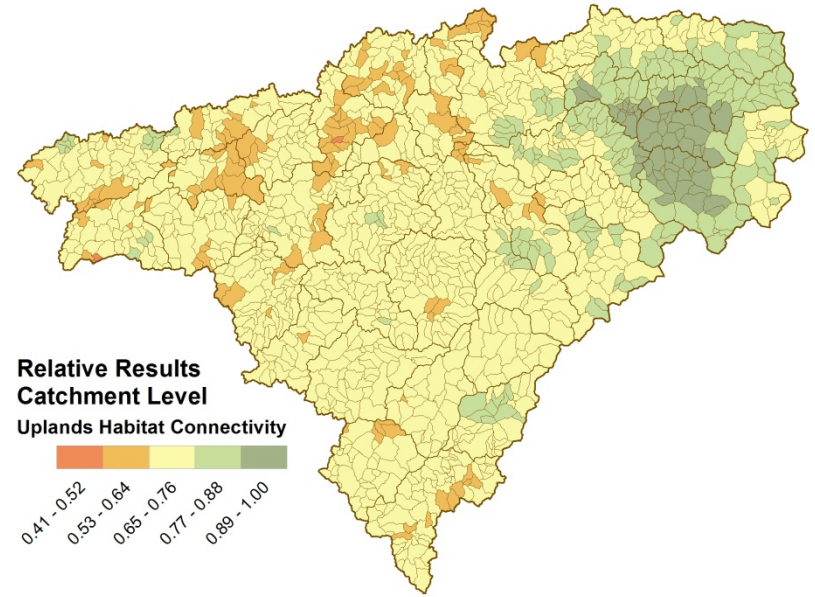
Land Use/Land Cover 2009-10 (WVU/NRAC)

- | | |
|---|---|
|  Water |  Mixed Forest |
|  Barren/Developed |  Grasslands |
|  Mine Disturbance |  Agriculture |
|  Reclaimed Mine Lands |  Grazing |
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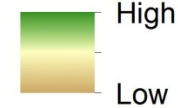
Relative Results
Uplands Habitat Connectivity



Relative Results
Catchment Level
Uplands Habitat Connectivity

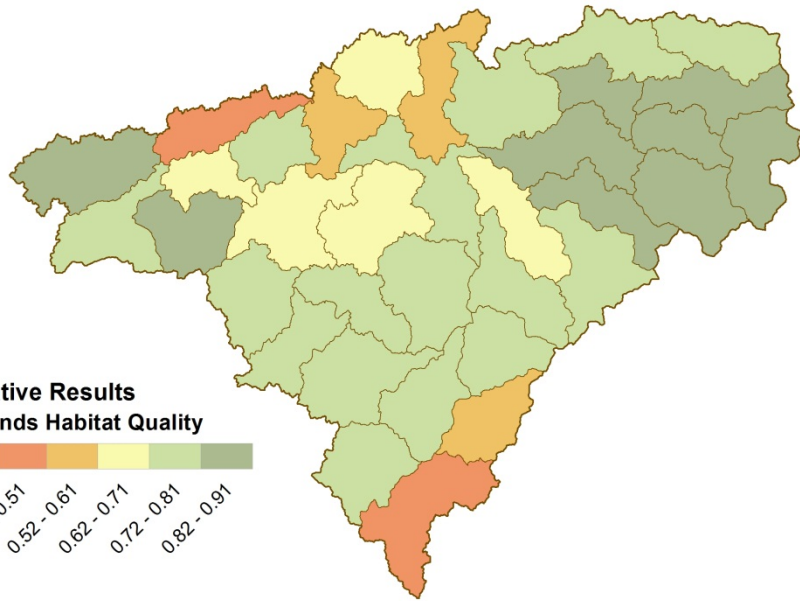
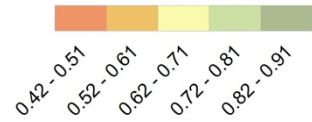


Local Integrity (TNC)

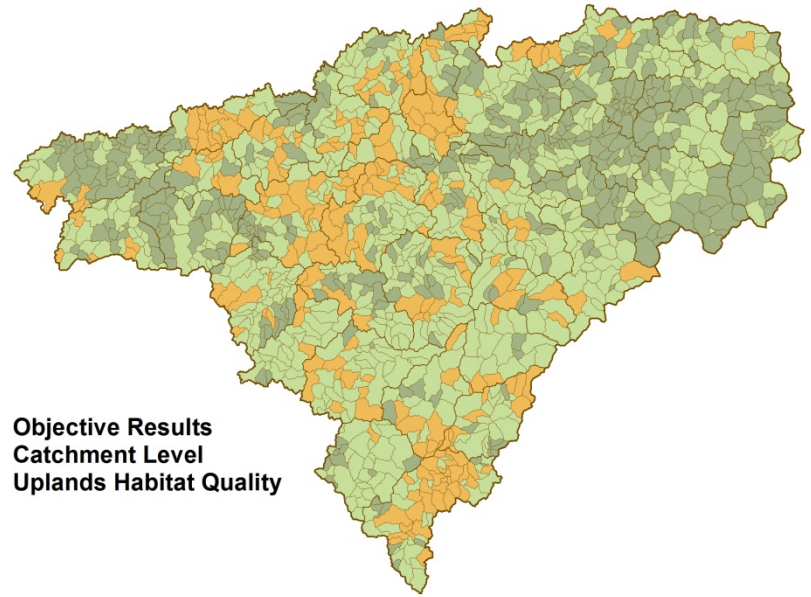


Uplands
Habitat
Connectivity

Relative Results
Uplands Habitat Quality

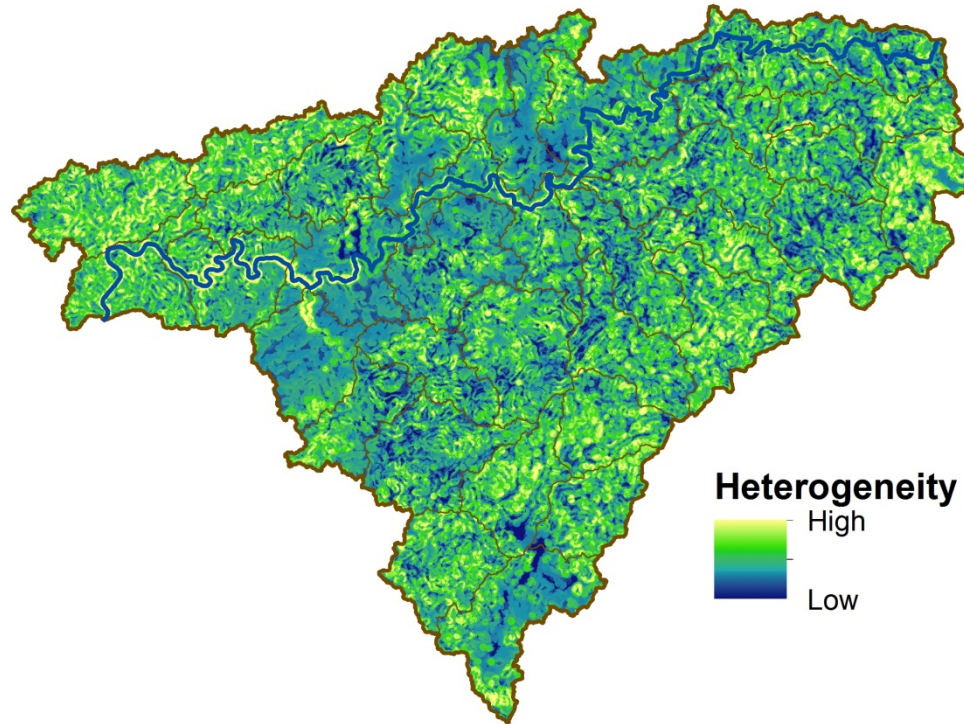
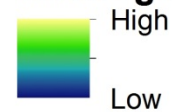


Objective Results
Catchment Level
Uplands Habitat Quality

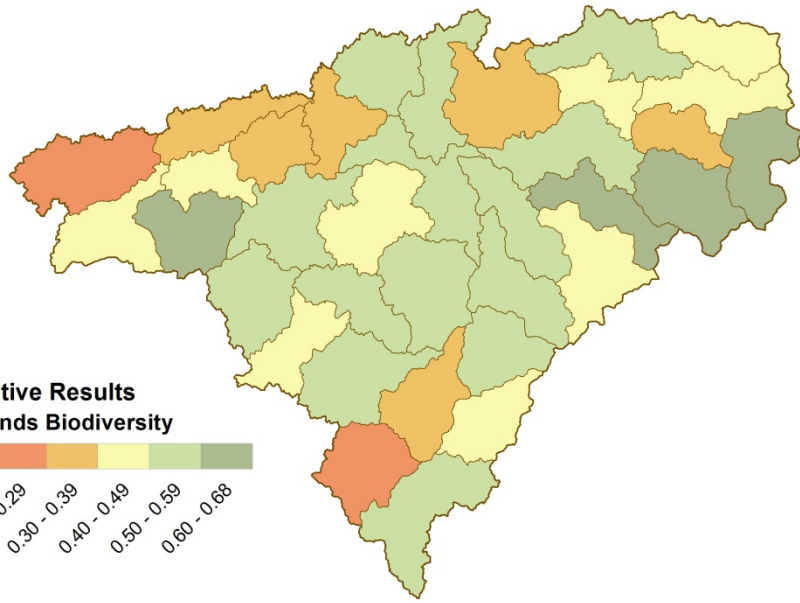
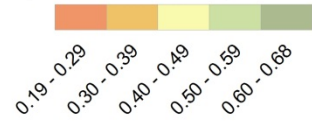


Uplands Habitat Quality

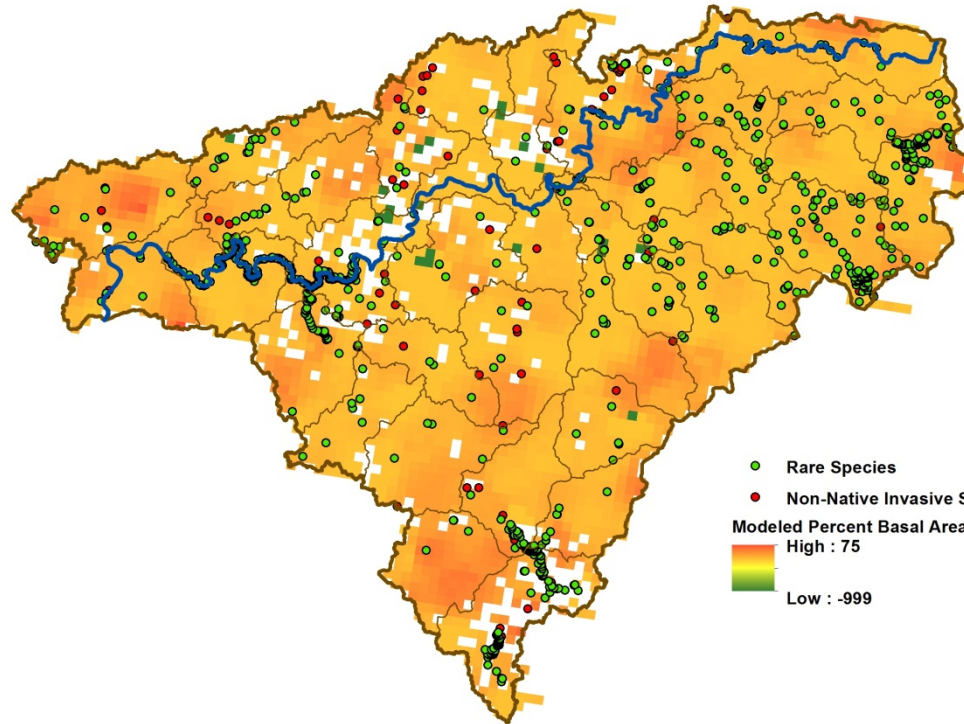
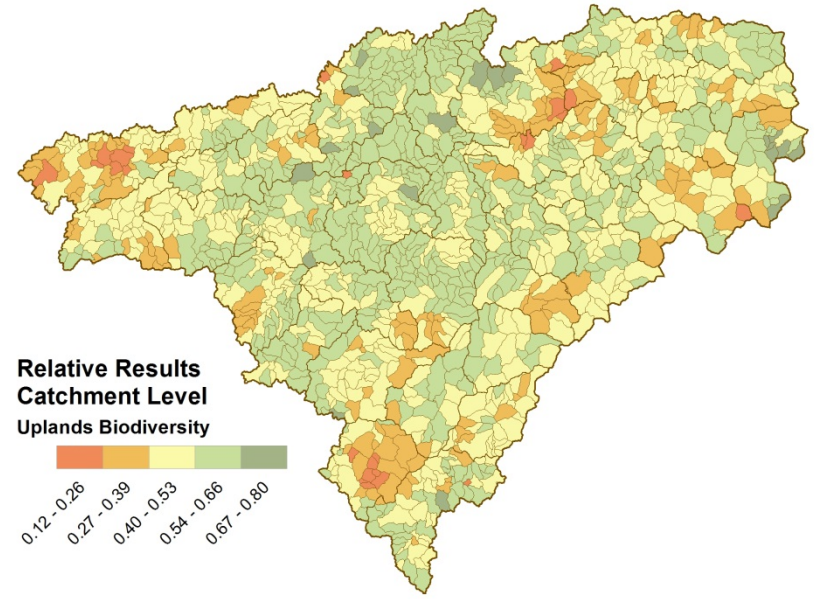
Heterogeneity (TNC)



**Relative Results
Uplands Biodiversity**

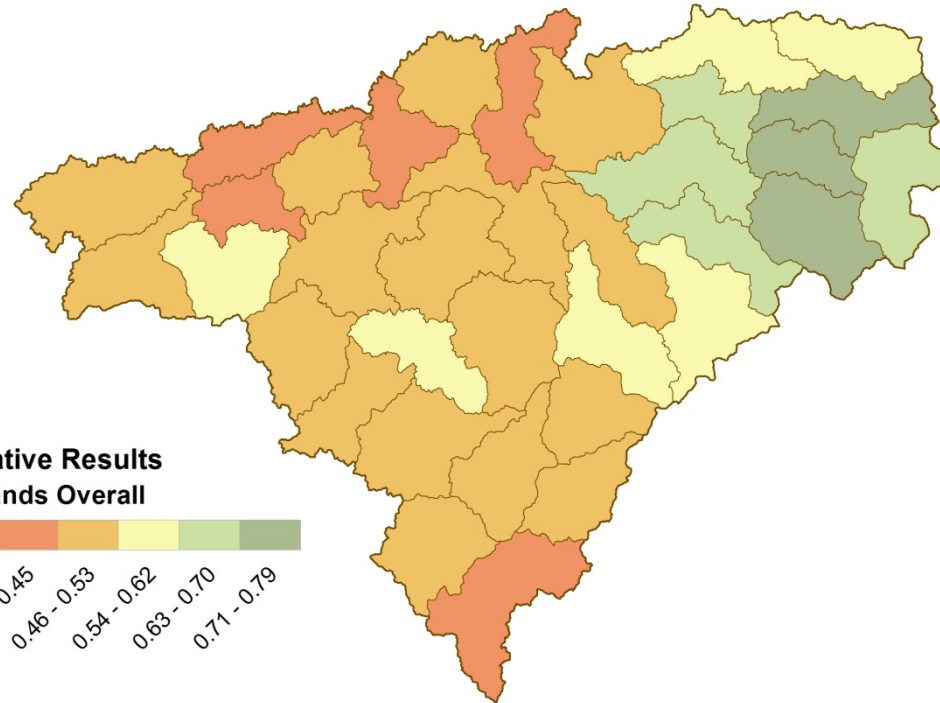
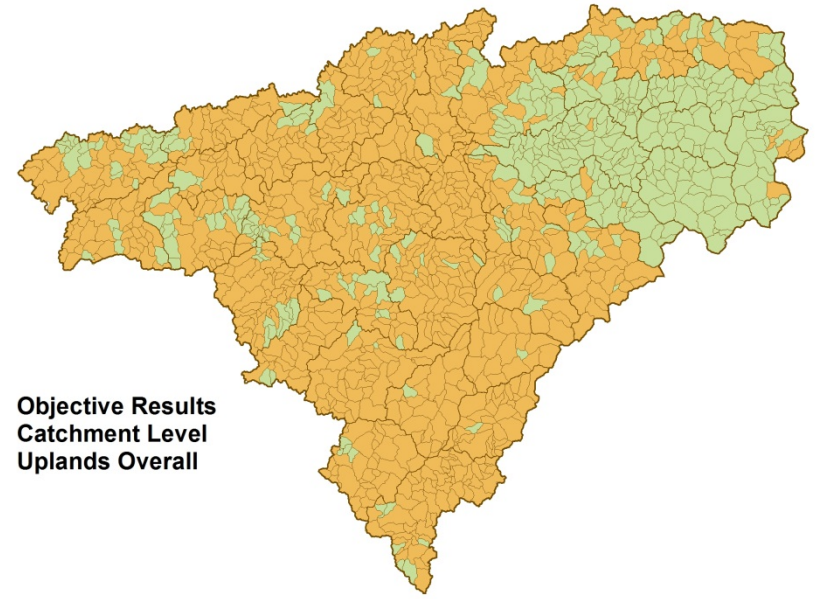
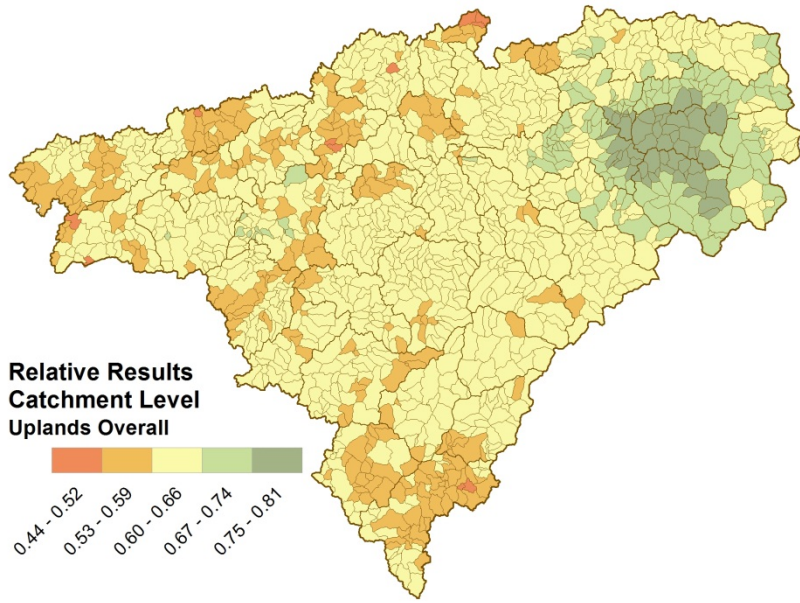


**Relative Results
Catchment Level
Uplands Biodiversity**



● Rare Species
● Non-Native Invasive Species
Modeled Percent Basal Area Loss
High : 75
Low : -999

Uplands Biodiversity



**Uplands
Model
Overall**



COMMENTS/QUESTIONS?