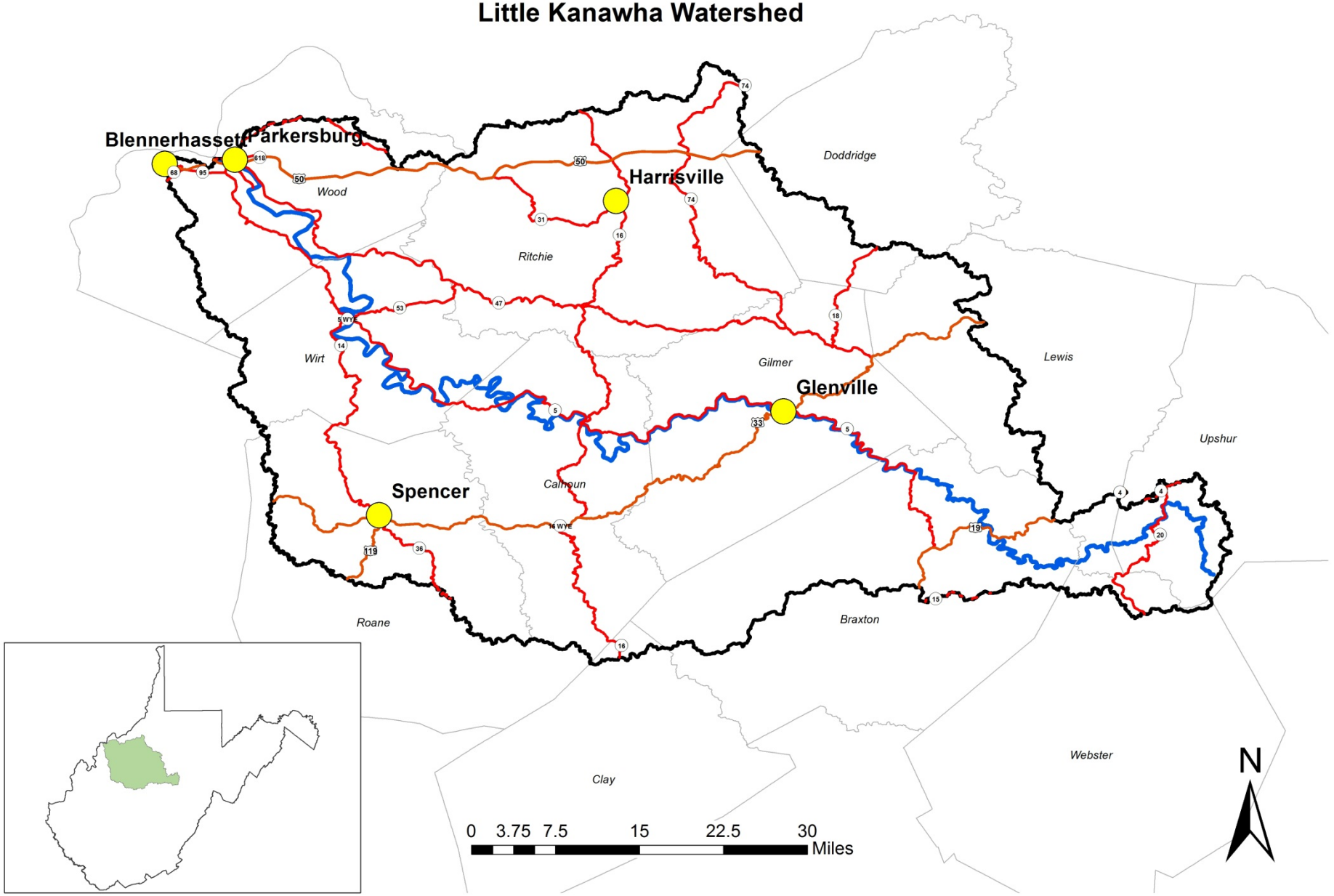
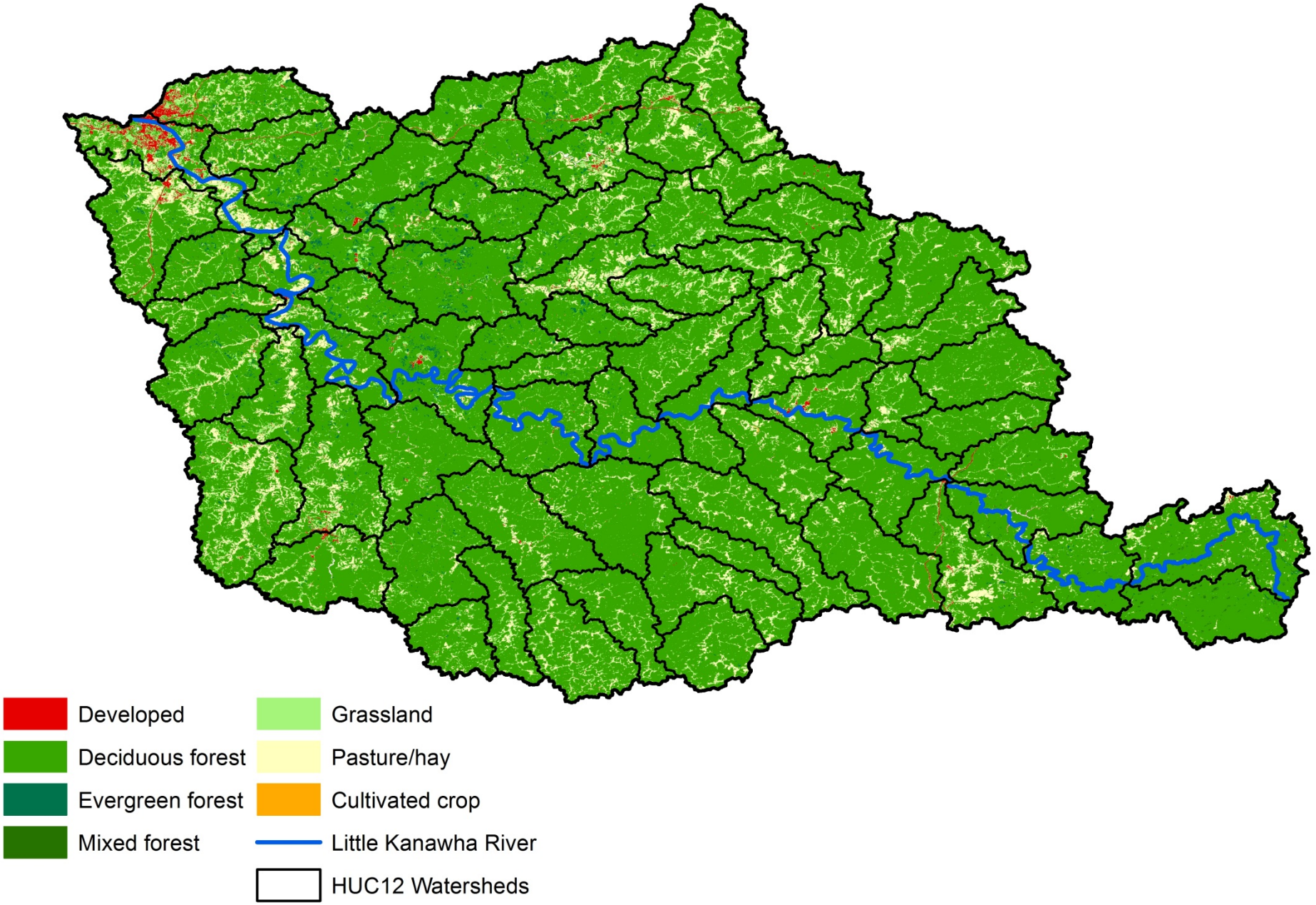
WEST VIRGINIA WATERSHED ASSESSMENT PILOT PROJECT

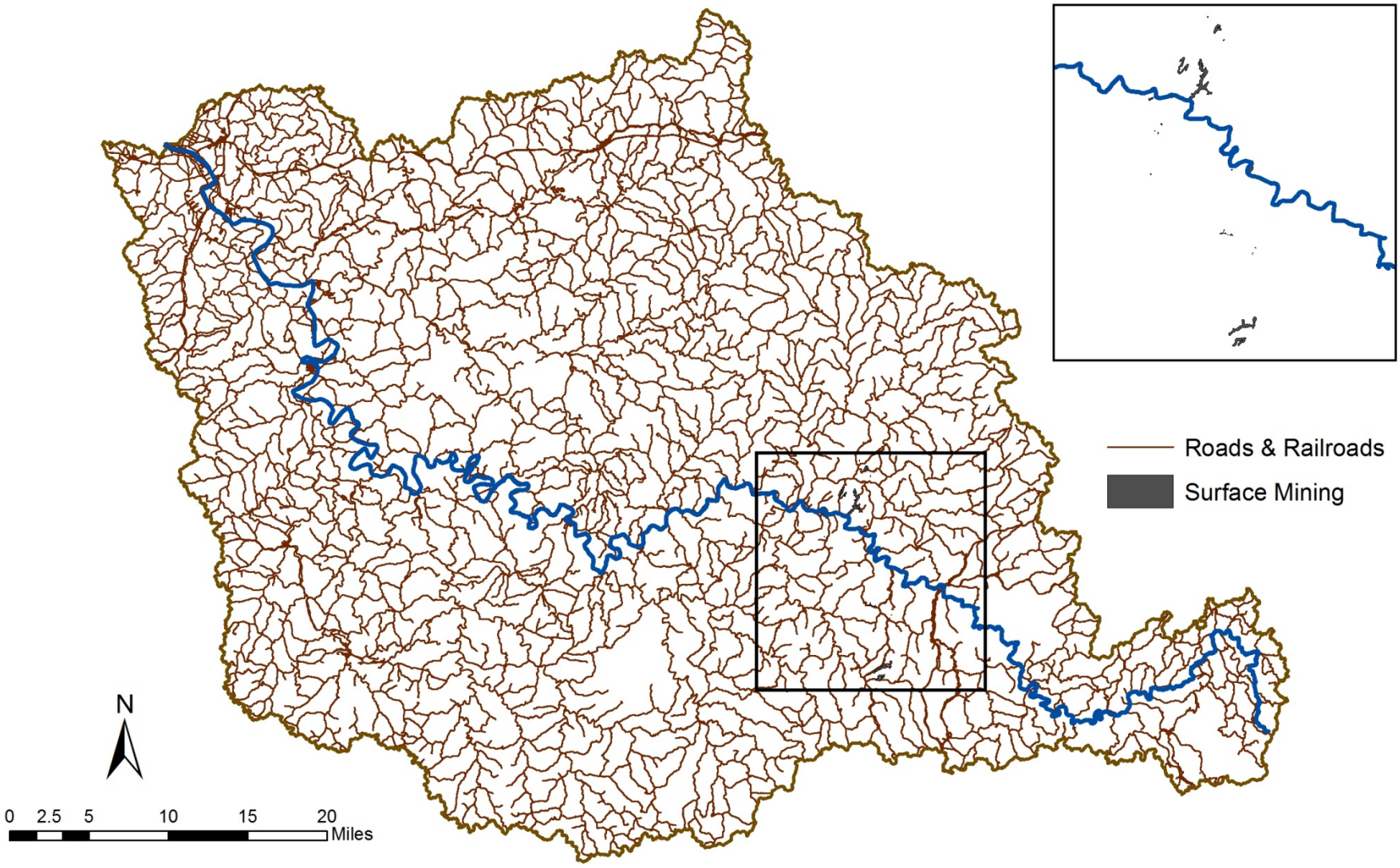
Little Kanawha Watershed Assessment

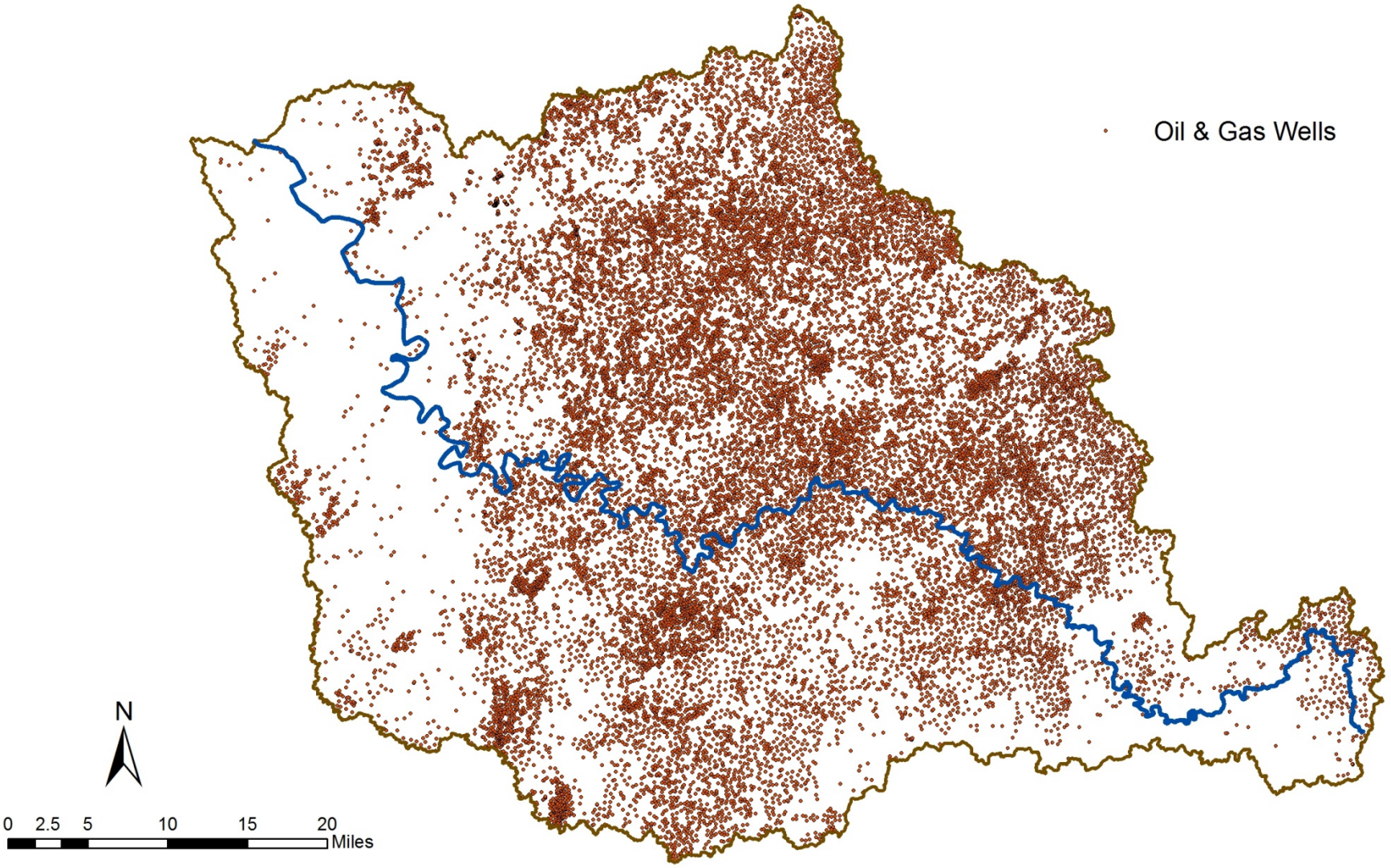
January 8-9, 2013

Little Kanawha Watershed




Developed
Deciduous forest
Evergreen forest
Mixed forest
Grassland
Pasture/hay
Cultivated crop
Little Kanawha River
HUC12 Watersheds

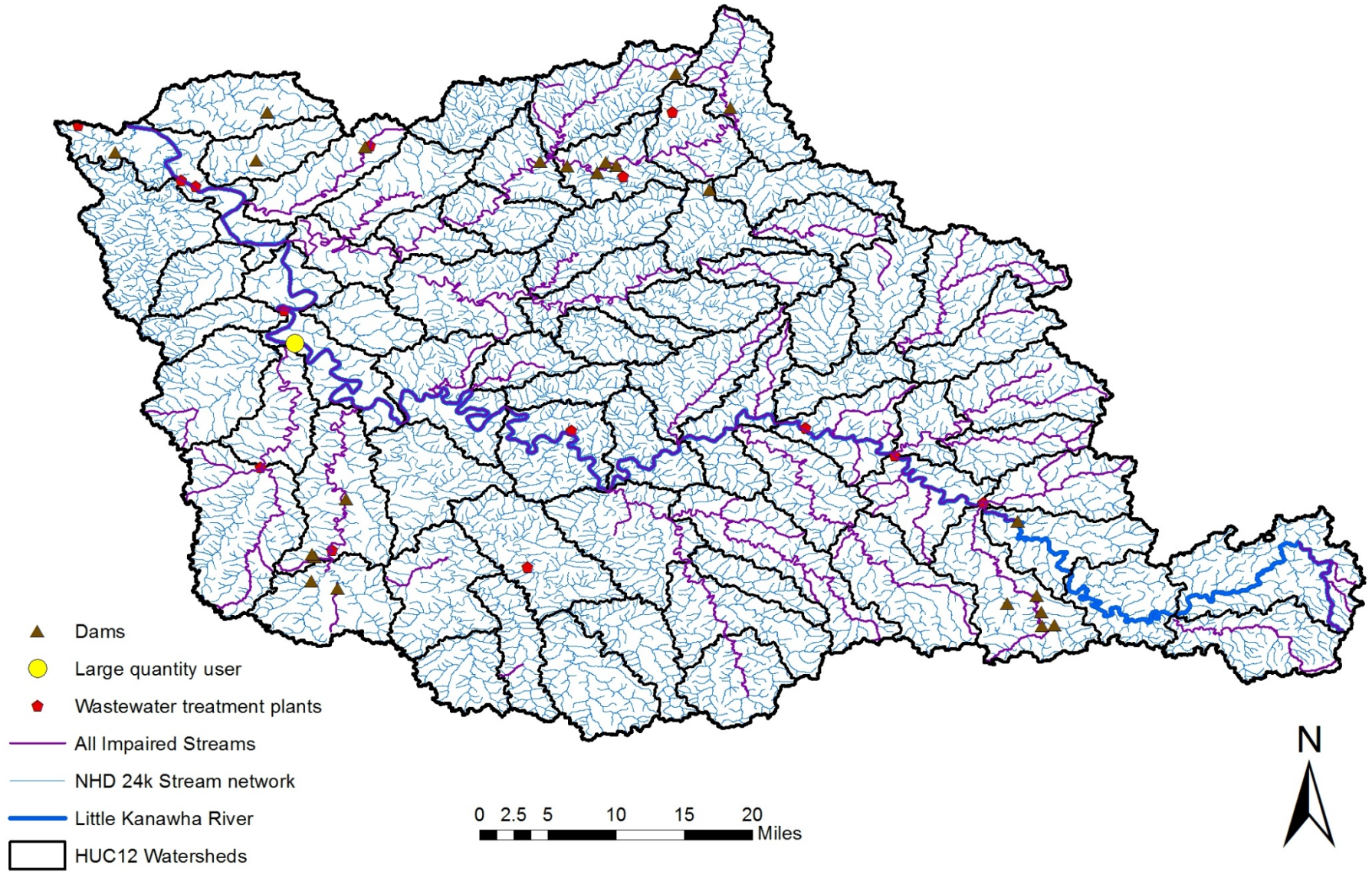

Roads & Railroads
Surface Mining
N
0 2.5 5 10 15 20
Miles


Oil & Gas Wells
N
0 2.5 5 10 15 20
Miles

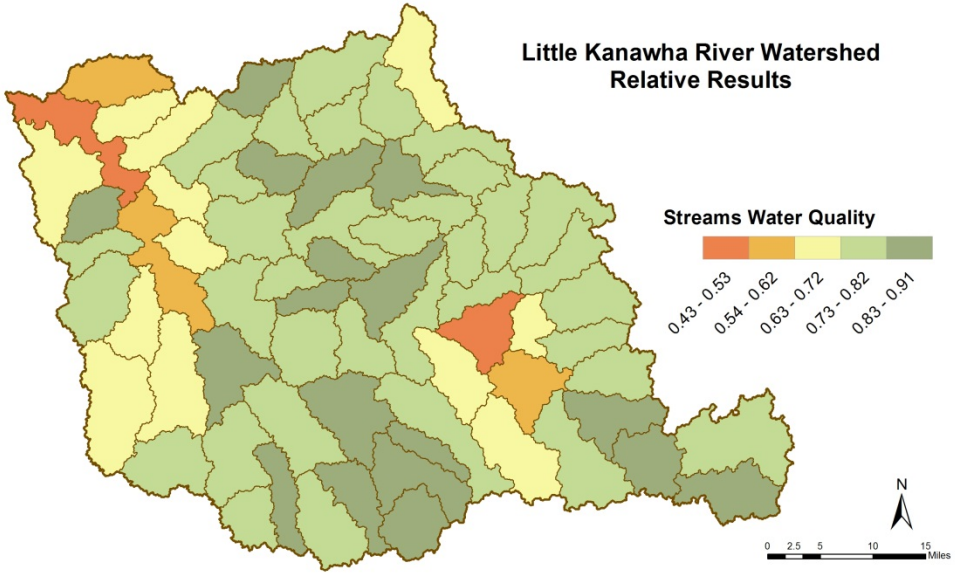
Little Kanawha Watershed: Streams

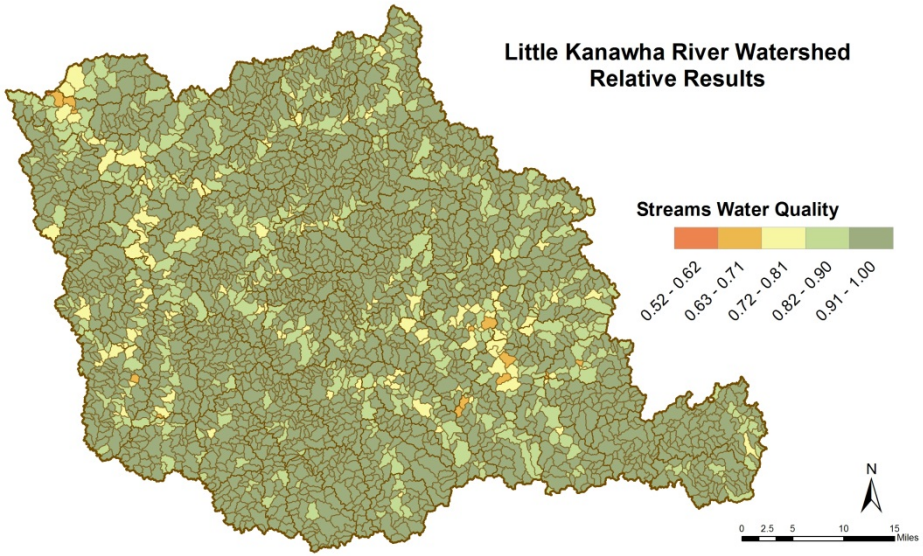
North Fork Hughes River by R.C. Local

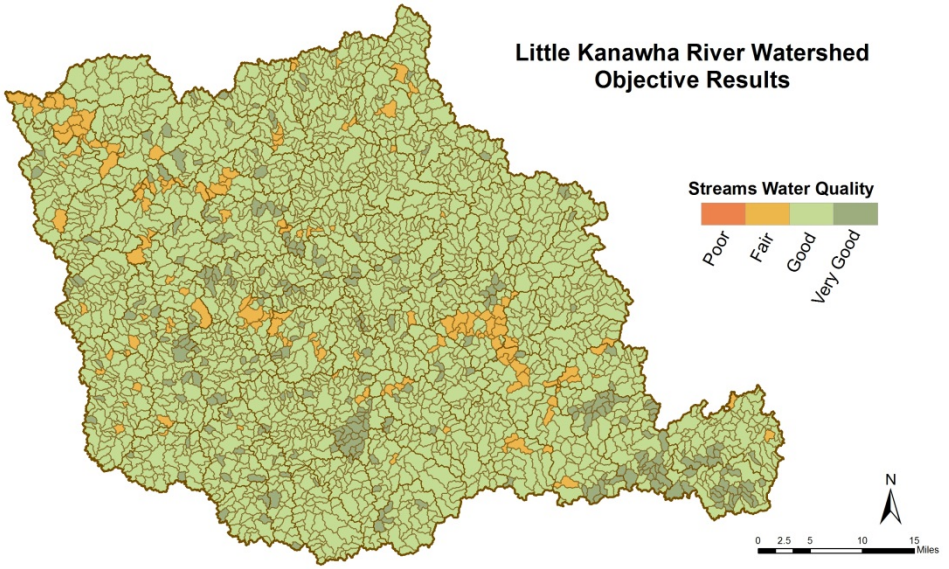
Little Kanawha Watershed
Streams Overview



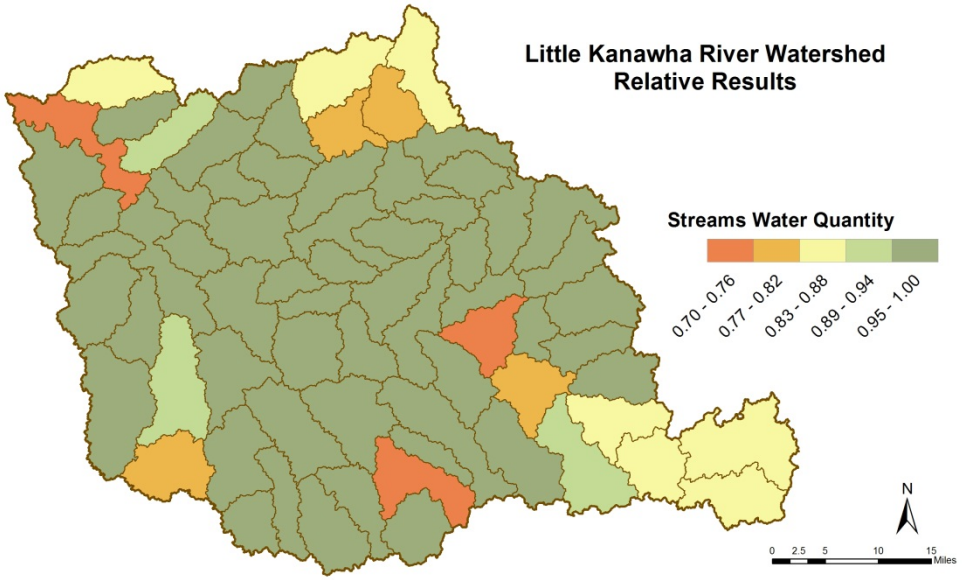
Streams: Water Quality



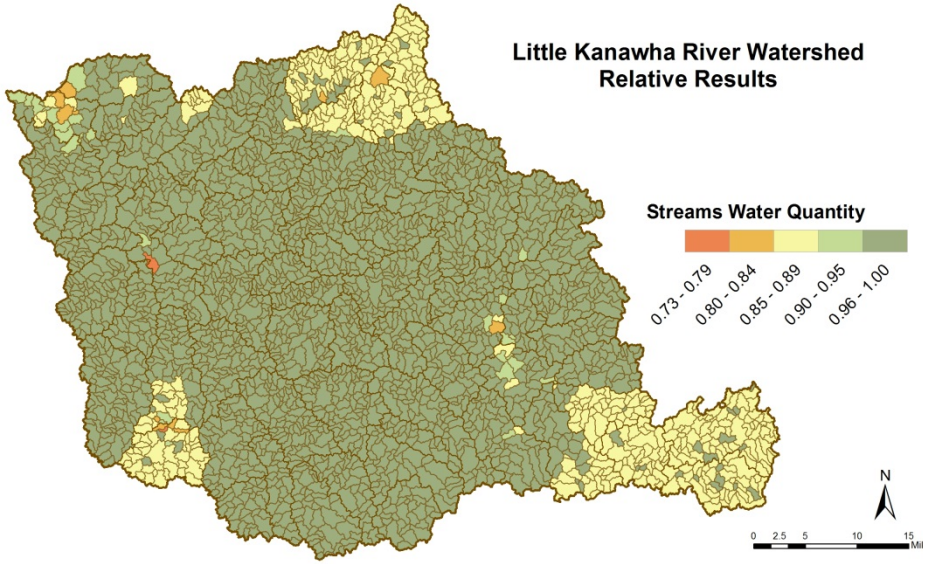


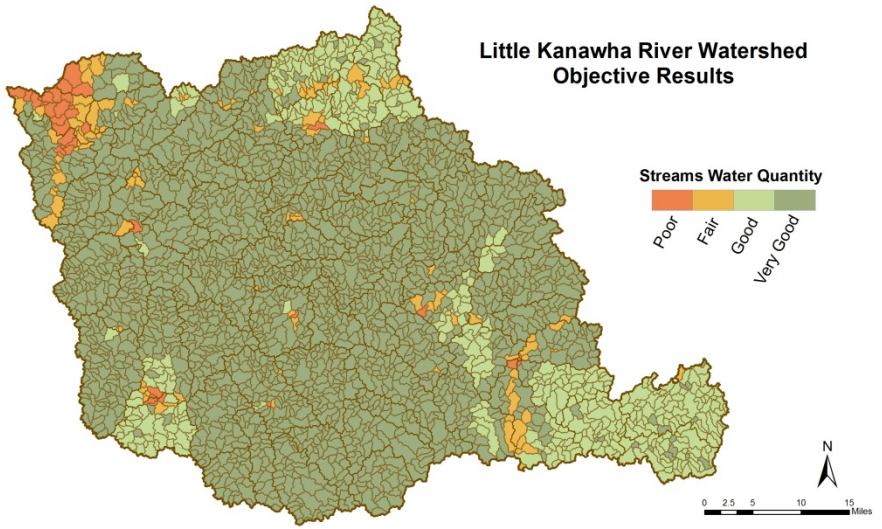


Streams: Water Quantity

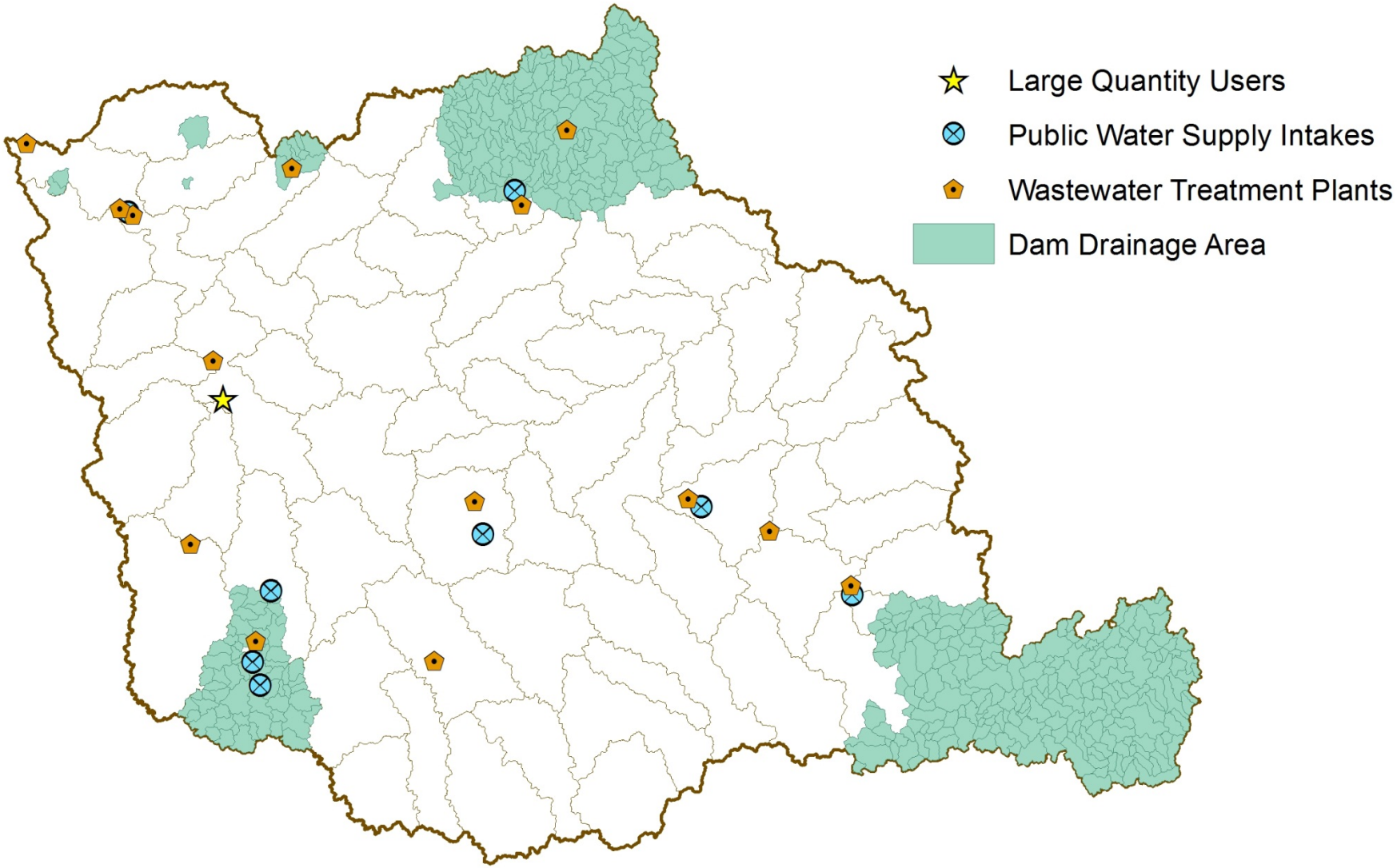


Dam drainage area
Impervious surface
Wastewater treatment
Public water supply

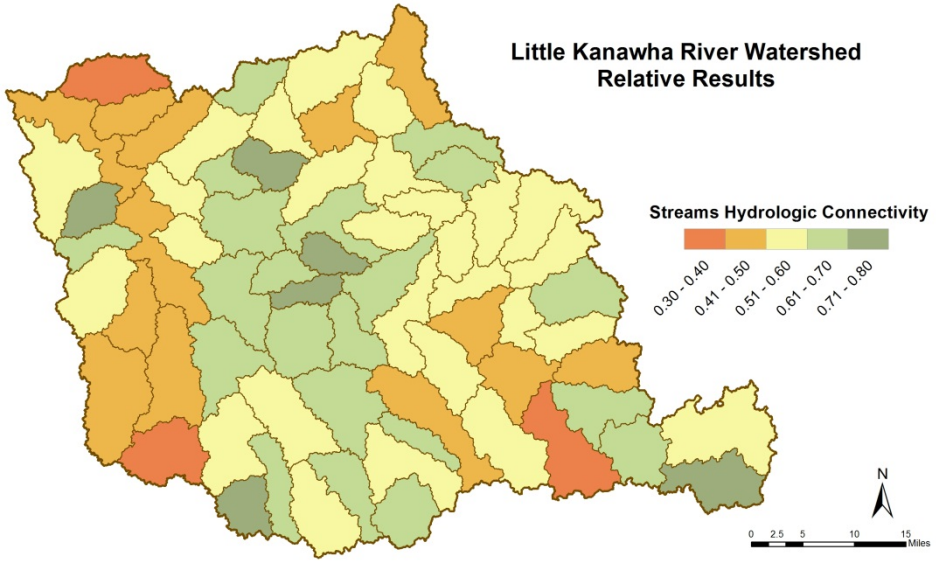


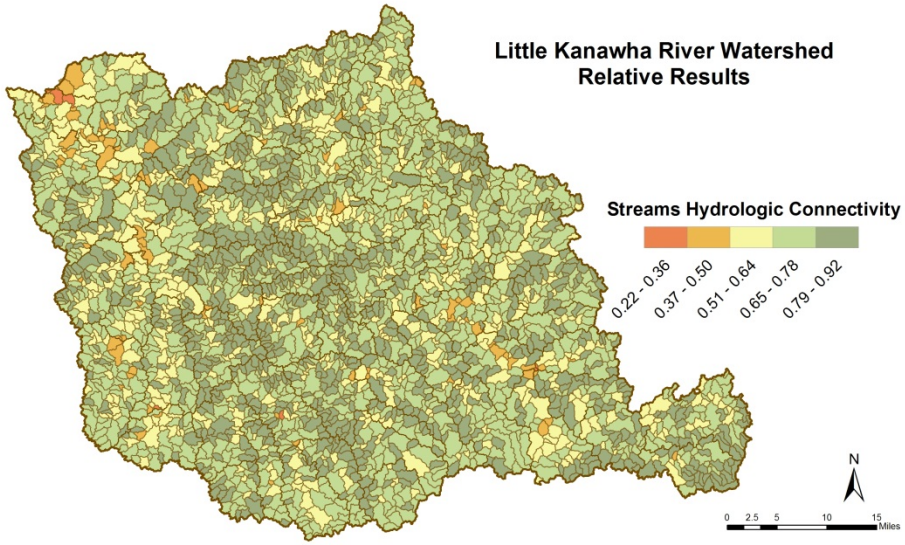


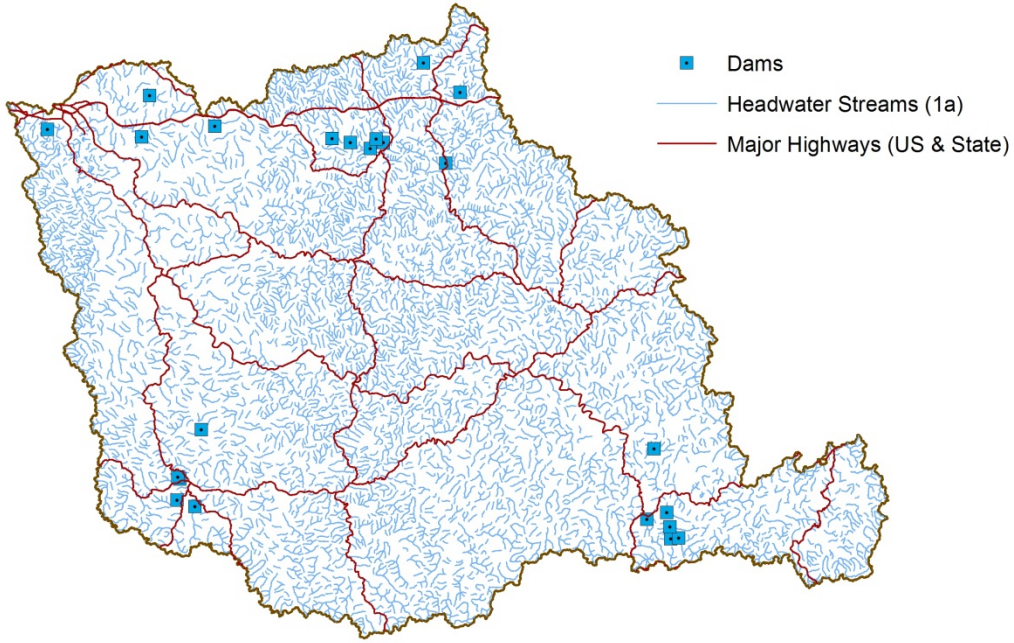
Streams: Water quantity



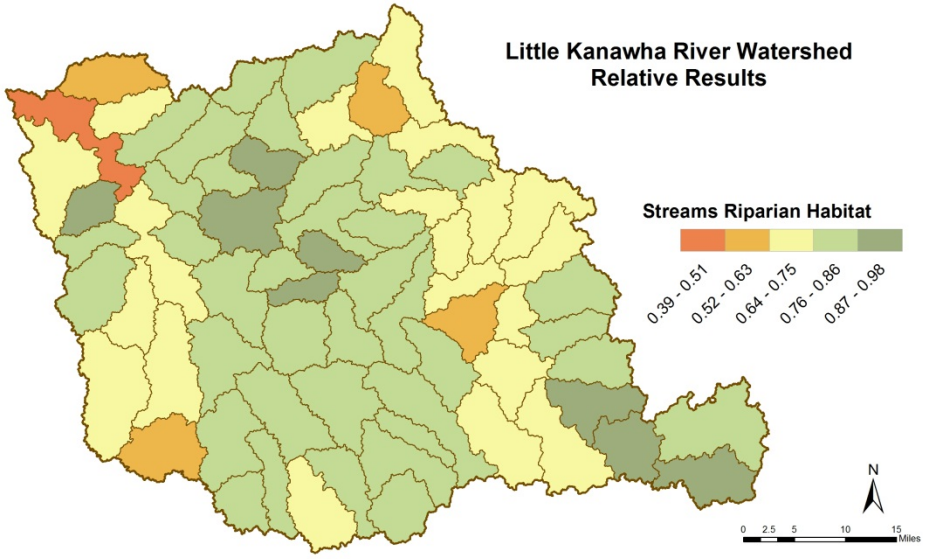
Streams: Hydrologic Connectivity

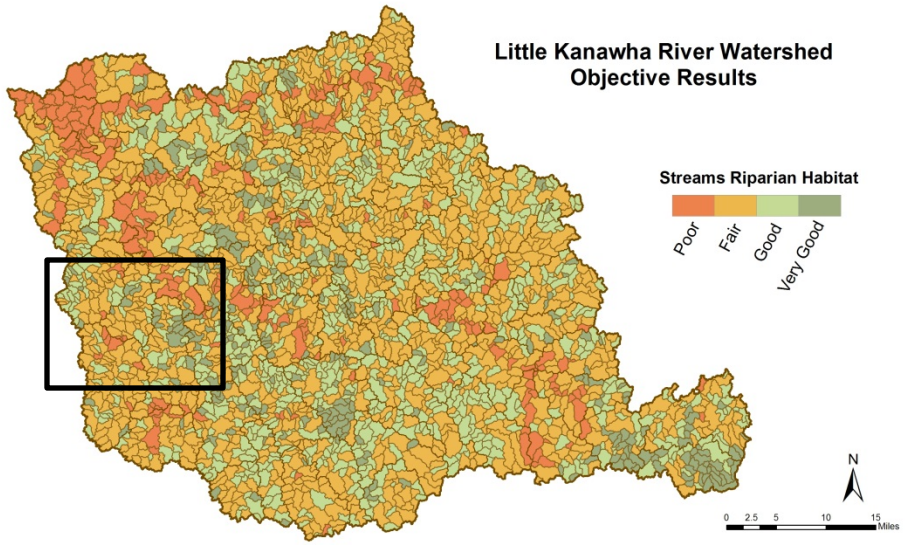


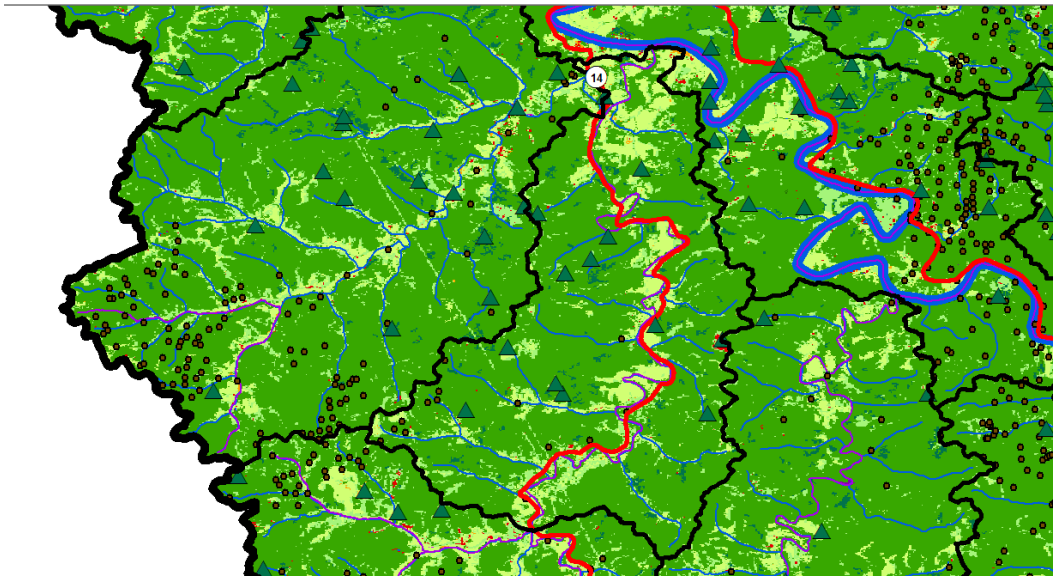


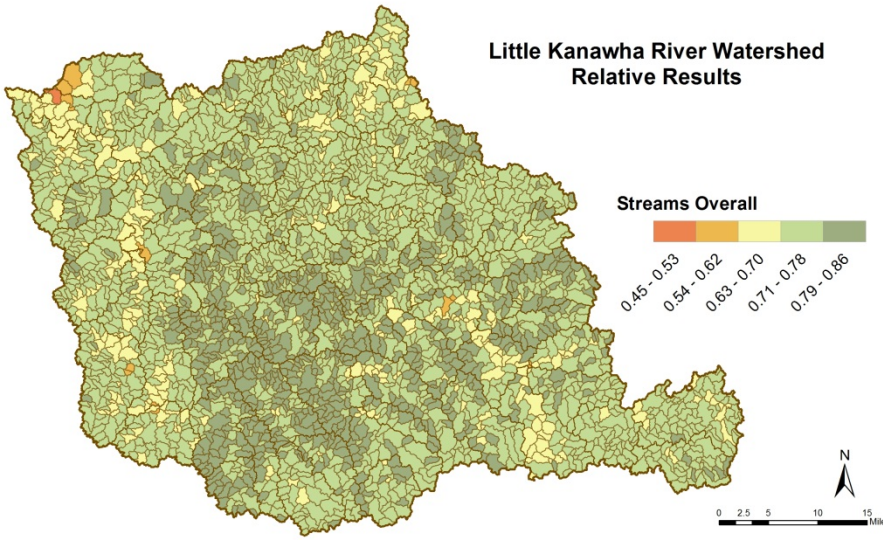


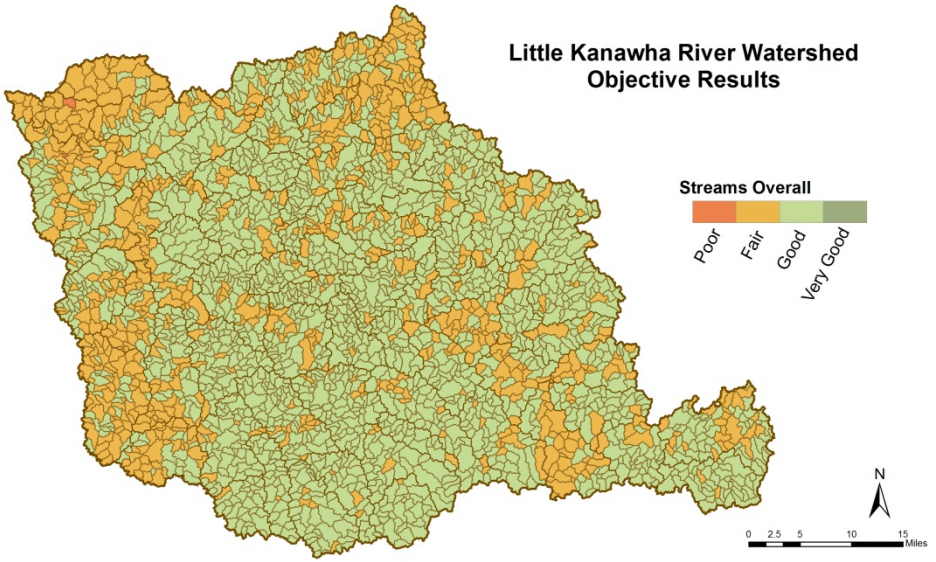
Streams: Riparian Habitat

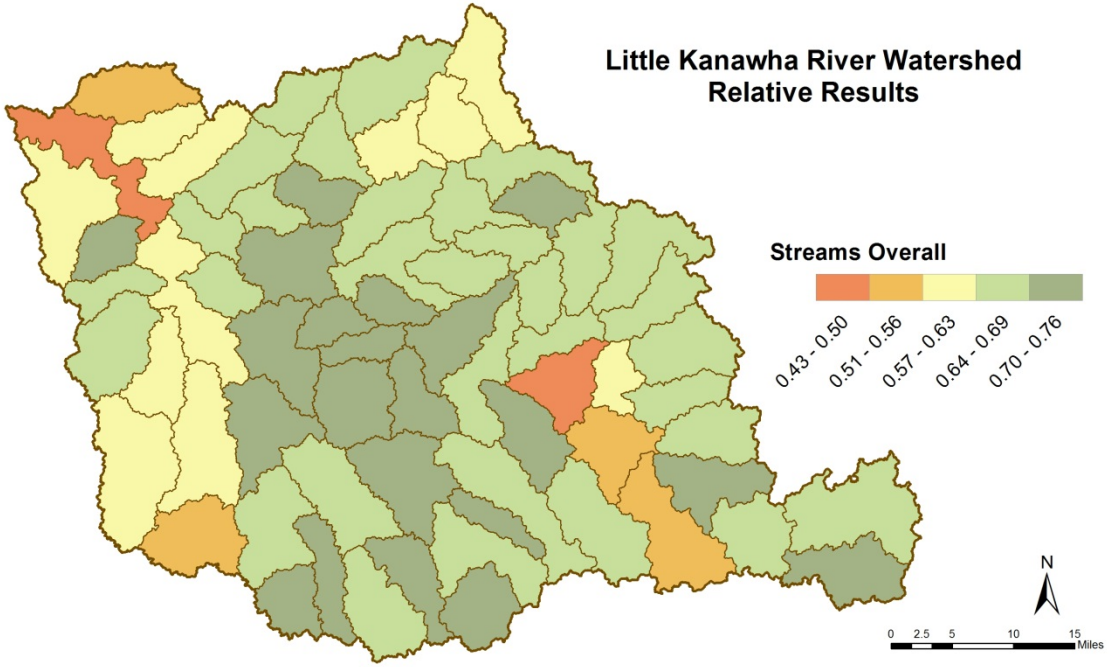










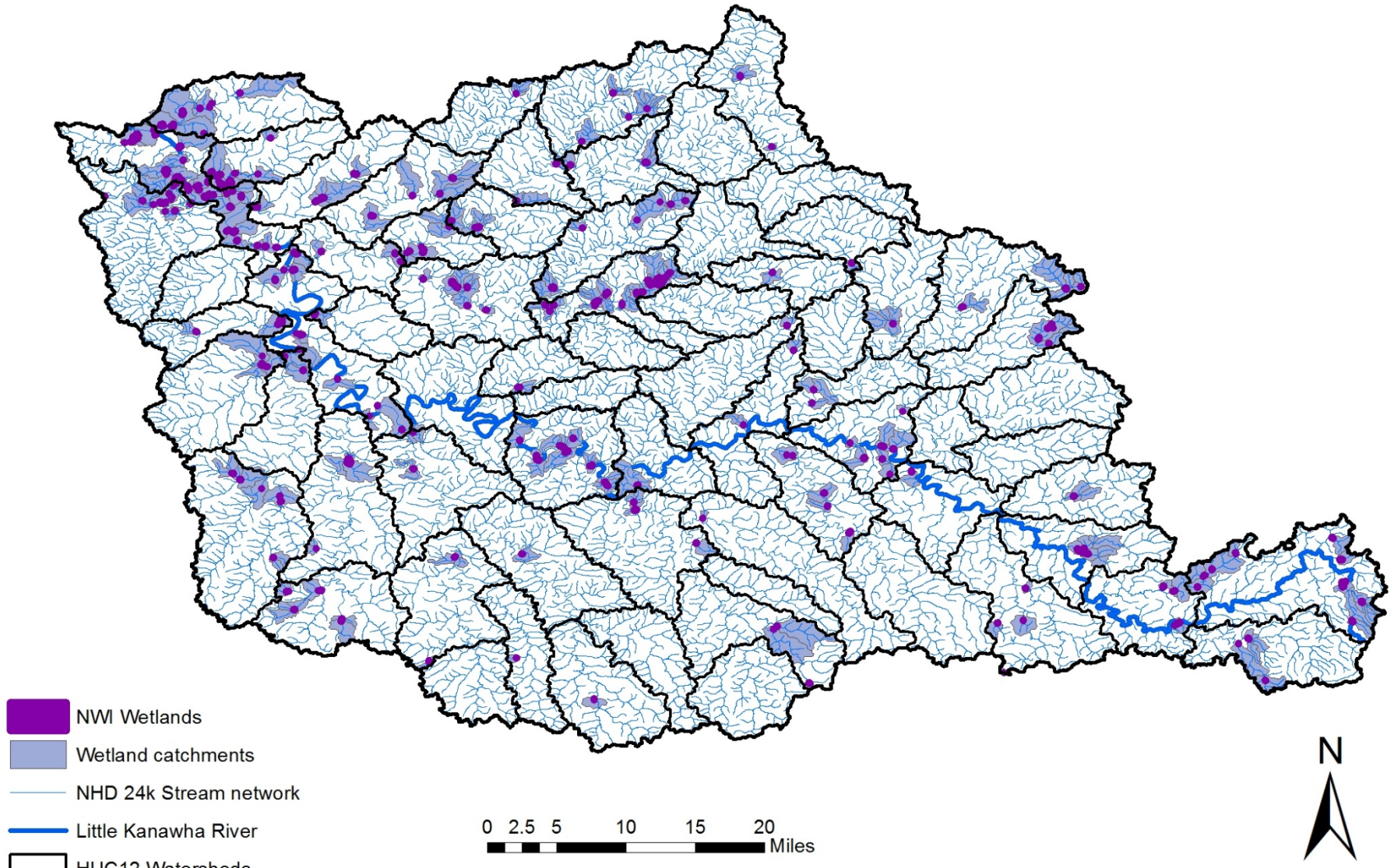


Streams Model Overall

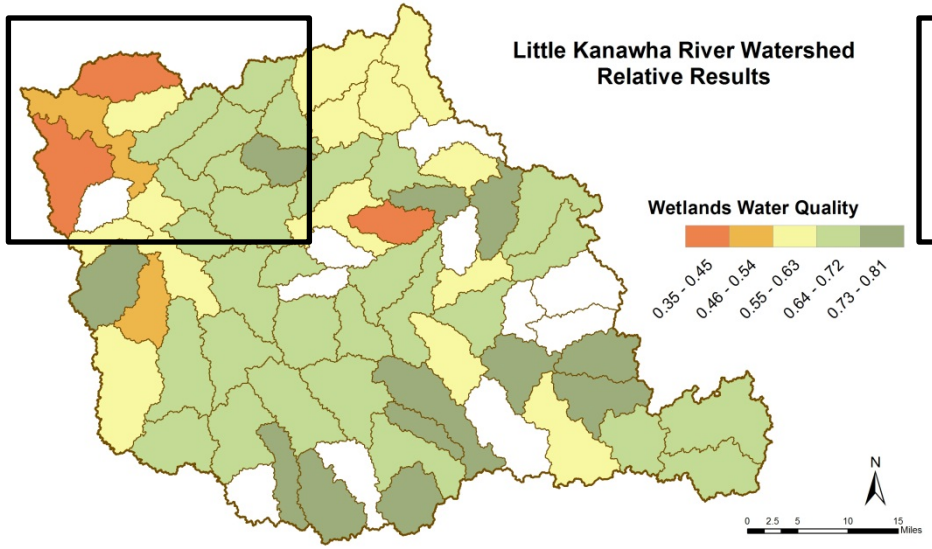
Little Kanawha Watershed: Wetlands

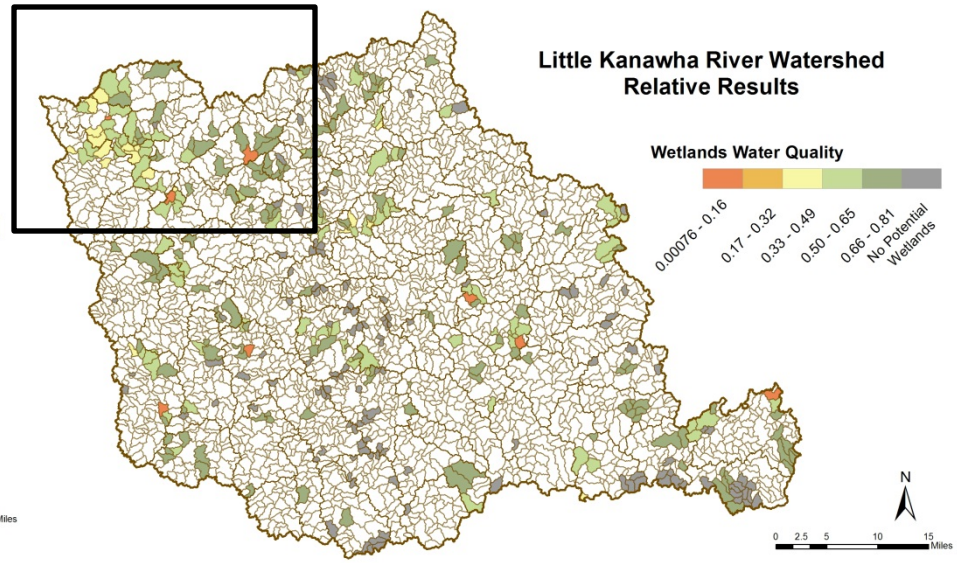
Hughes River by Van Slider

Little Kanawha Watershed
Wetlands Overview

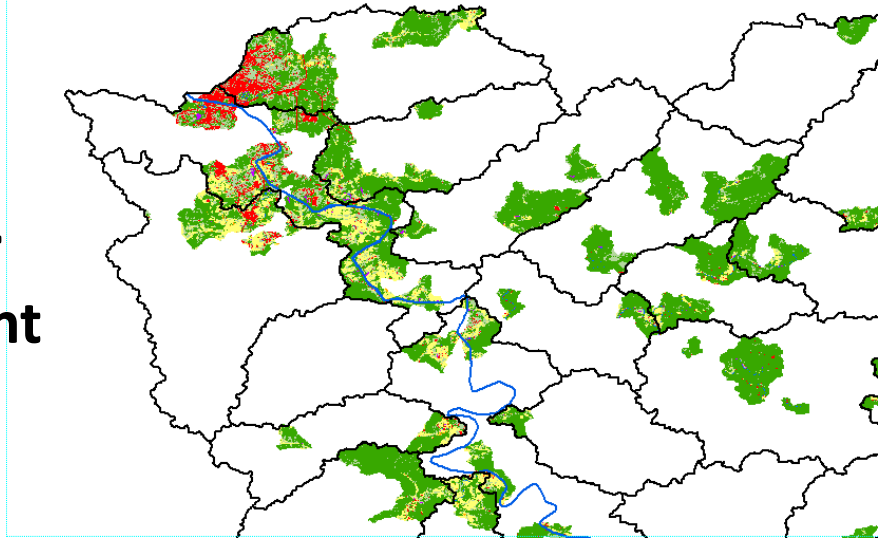


Wetlands: Water Quality

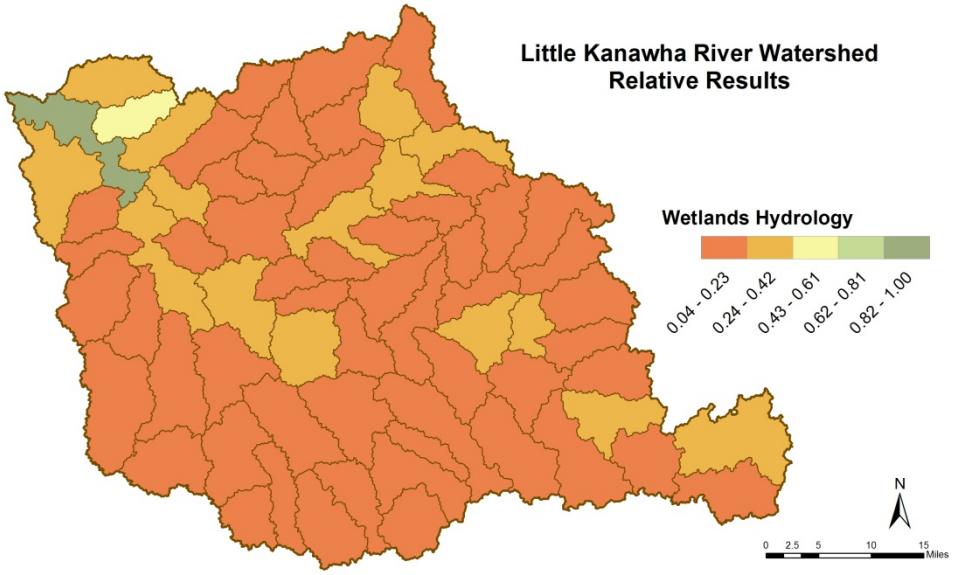


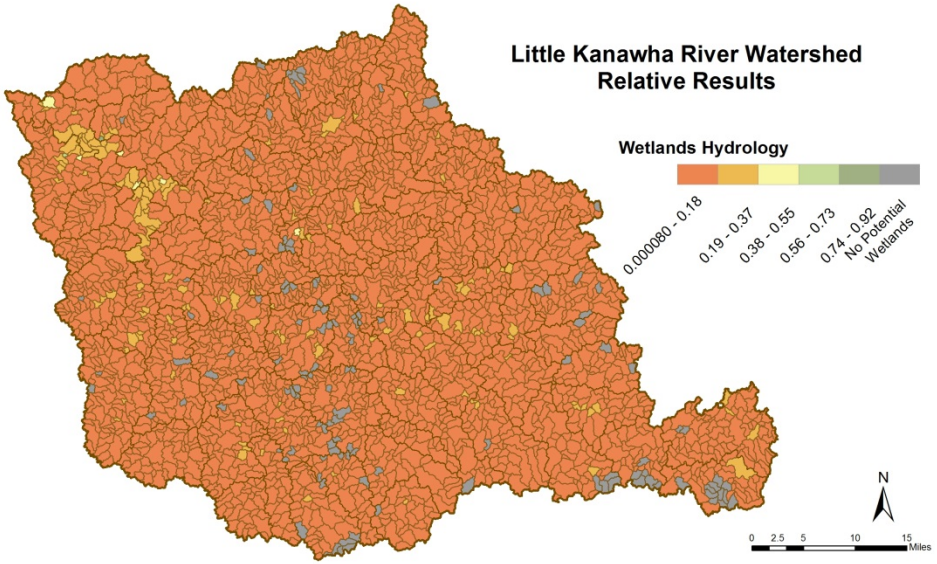


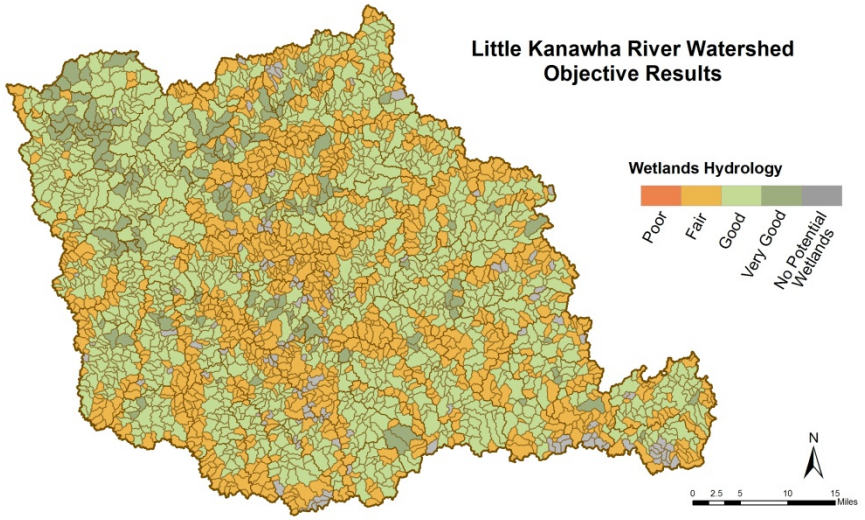
Land use/land cover
In wetland catchment

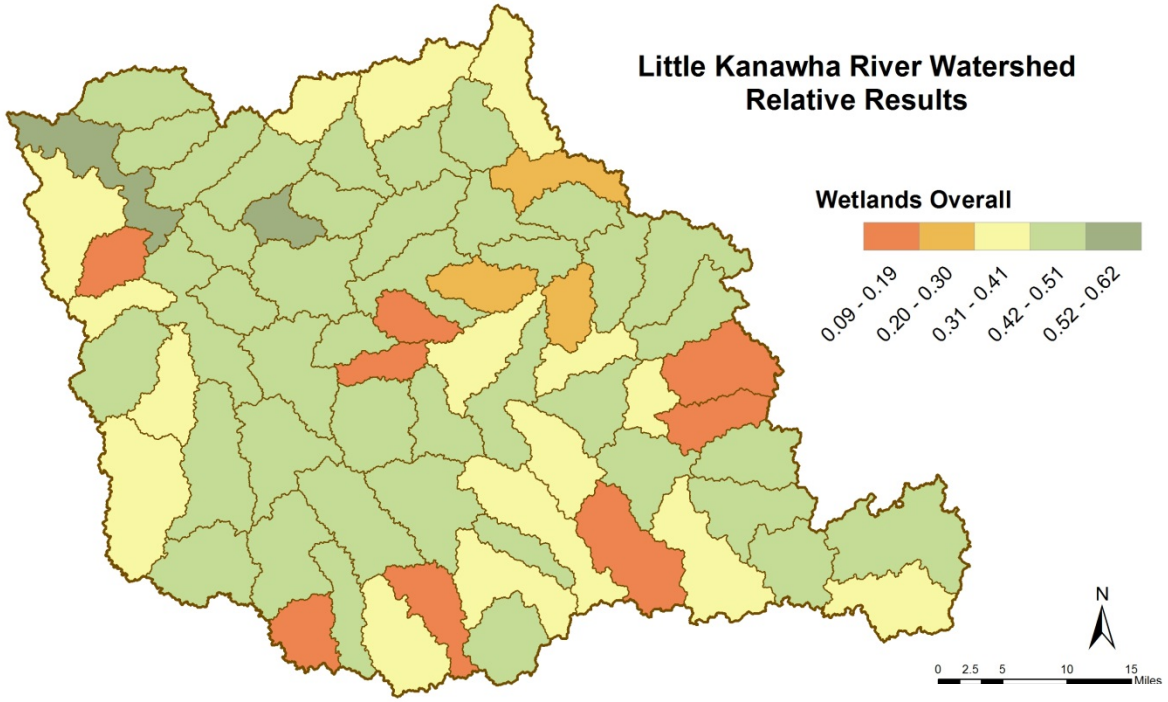


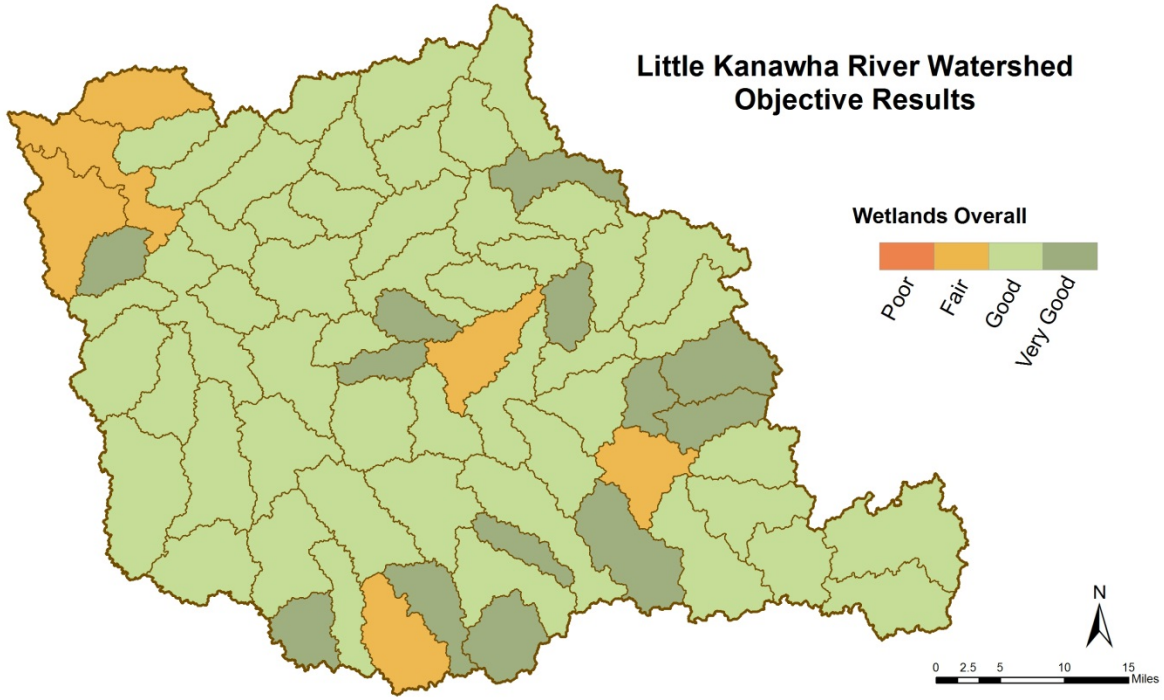
Wetlands: Hydrology

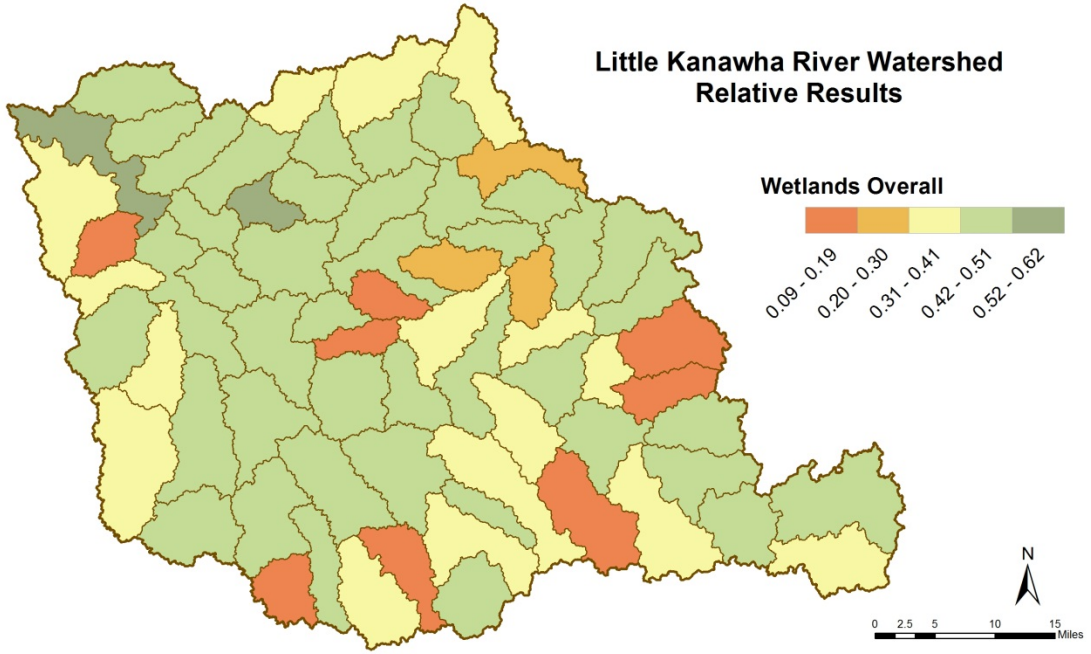







Little Kanawha River Watershed
Relative Results
Wetlands Overall
0.09 - 0.19
0.20 - 0.30
0.31 - 0.41
0.42 - 0.51
0.52 - 0.62
N
0 2.5 5 10 15
Miles


Little Kanawha River Watershed
Objective Results
Wetlands Overall
Poor
Fair
Good
Very Good
N
0 2.5 5 10 15
Miles


Little Kanawha River Watershed
Relative Results
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0.09 - 0.19
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0.42 - 0.51
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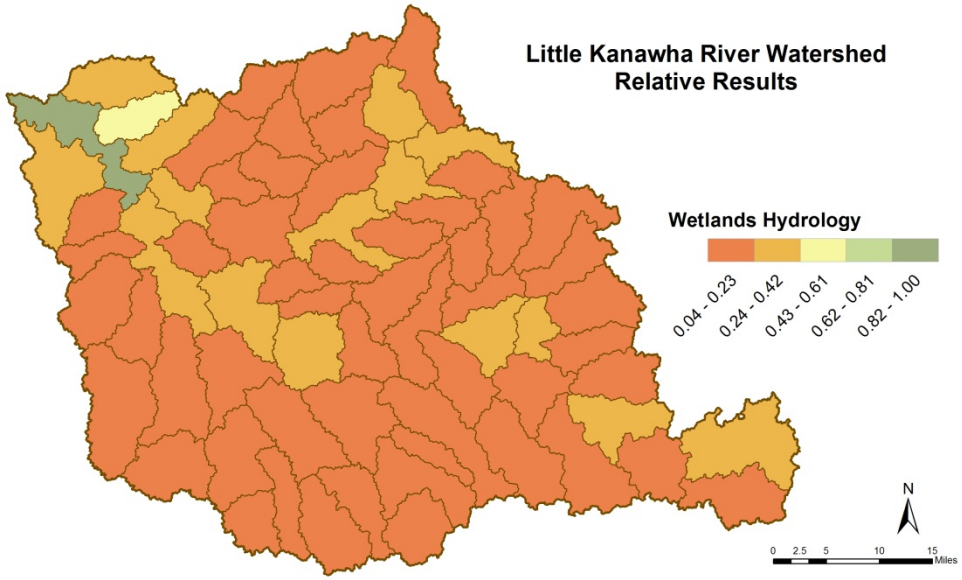
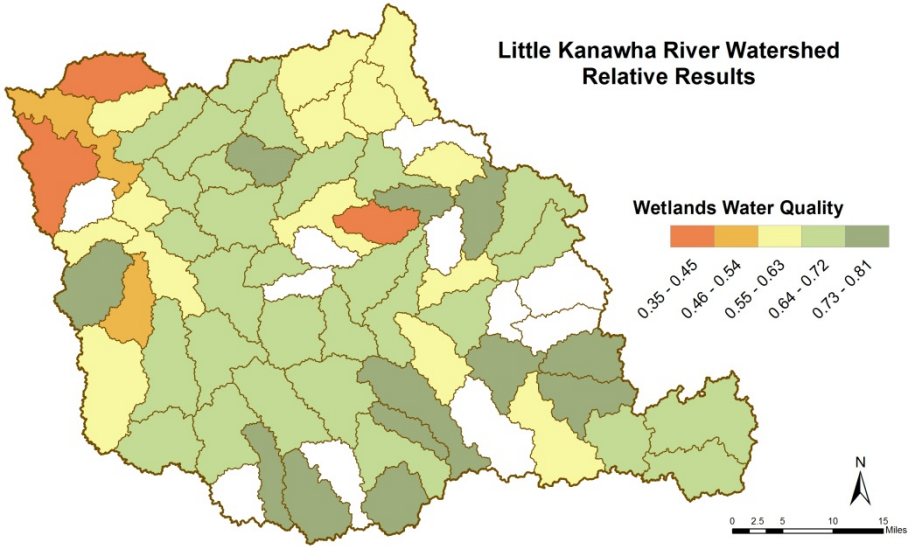
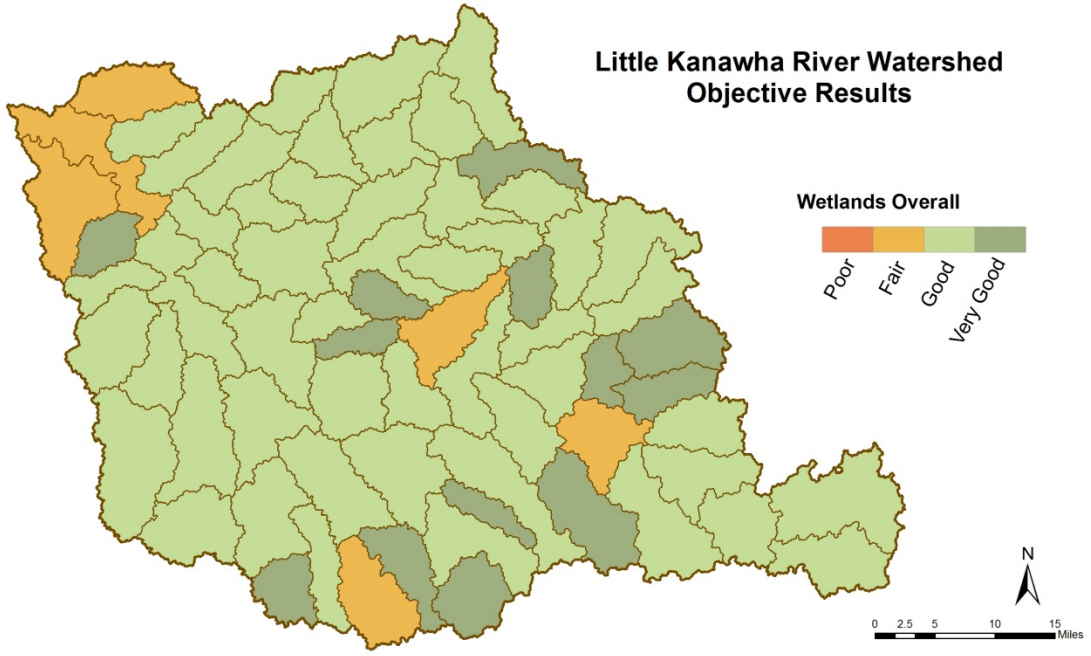

Little Kanawha River Watershed
Relative Results
Wetlands Hydrology
0.04 - 0.23
0.24 - 0.42
0.43 - 0.61
0.62 - 0.81
0.82 - 1.00
N
0 2.5 5 10 15
Miles


Little Kanawha River Watershed
Relative Results
Wetlands Water Quality
0.35 - 0.45
0.46 - 0.54
0.55 - 0.63
0.64 - 0.72
0.73 - 0.81
N
0 2.5 5 10 15
Miles


Little Kanawha River Watershed
Objective Results
Wetlands Overall
Poor
Fair
Good
Very Good
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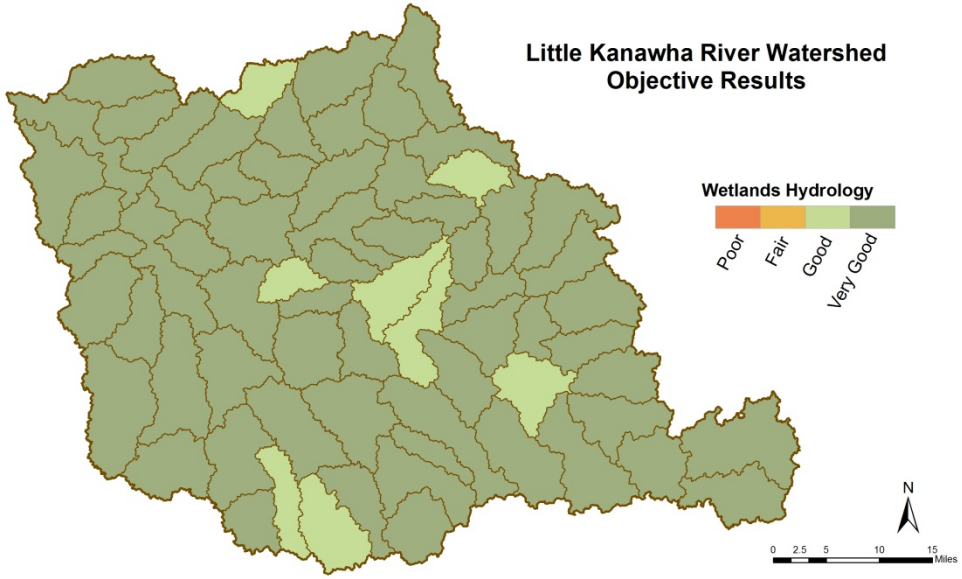
Miles


Little Kanawha River Watershed
Objective Results
Wetlands Hydrology
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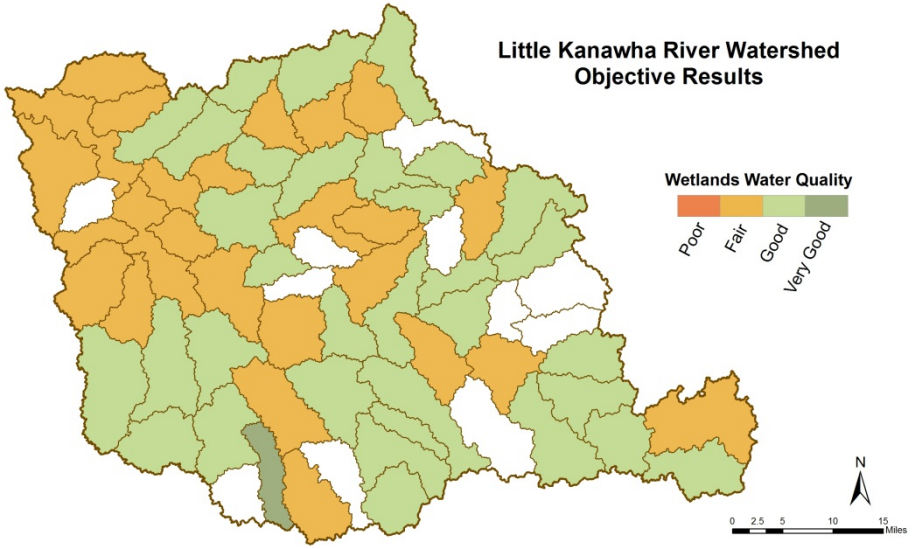
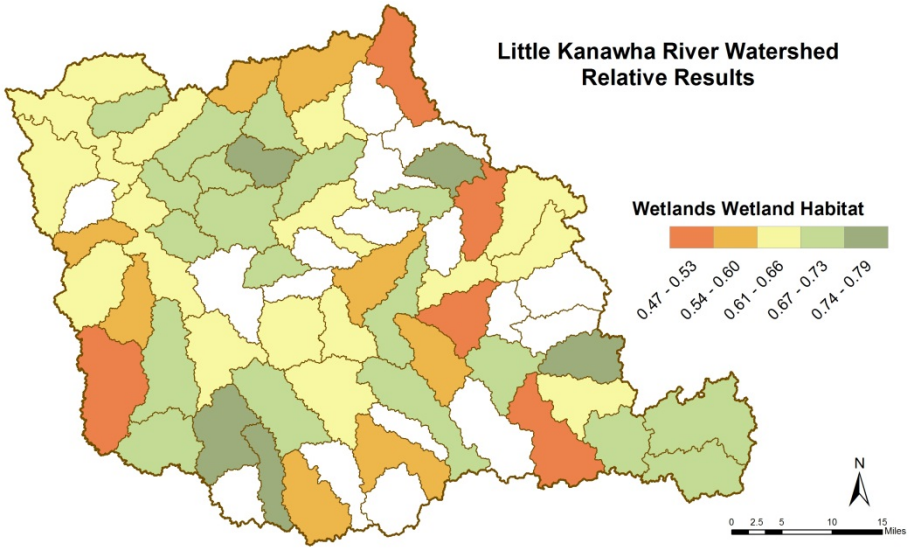
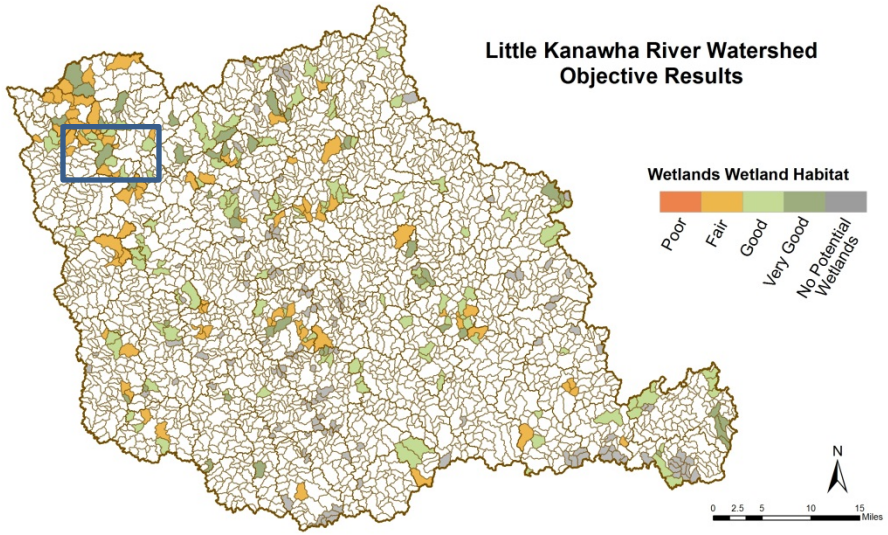
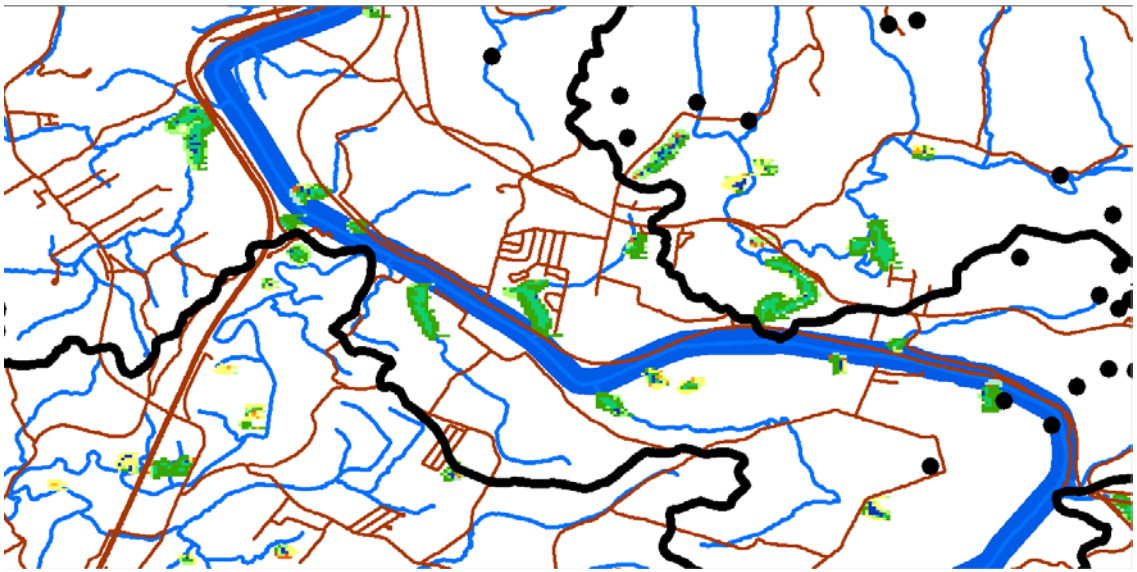
Miles

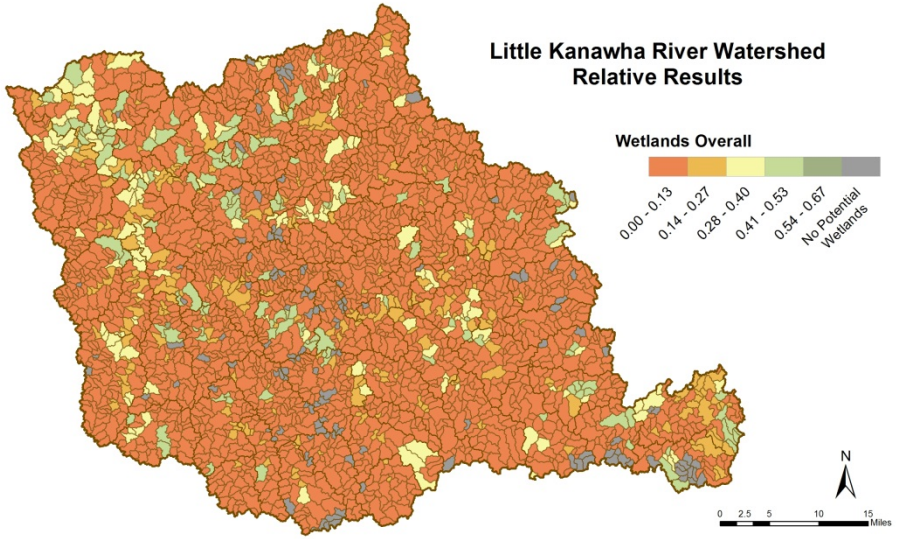

Little Kanawha River Watershed
Objective Results
Wetlands Water Quality
Poor
Fair
Good
Very Good
N
0 2.5 5 10 15
Miles

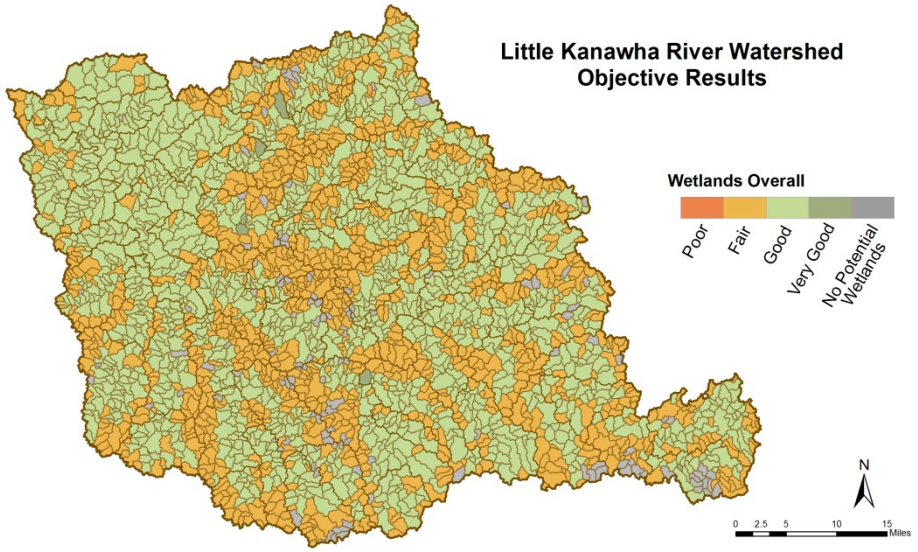
Wetlands: Wetland Habitat

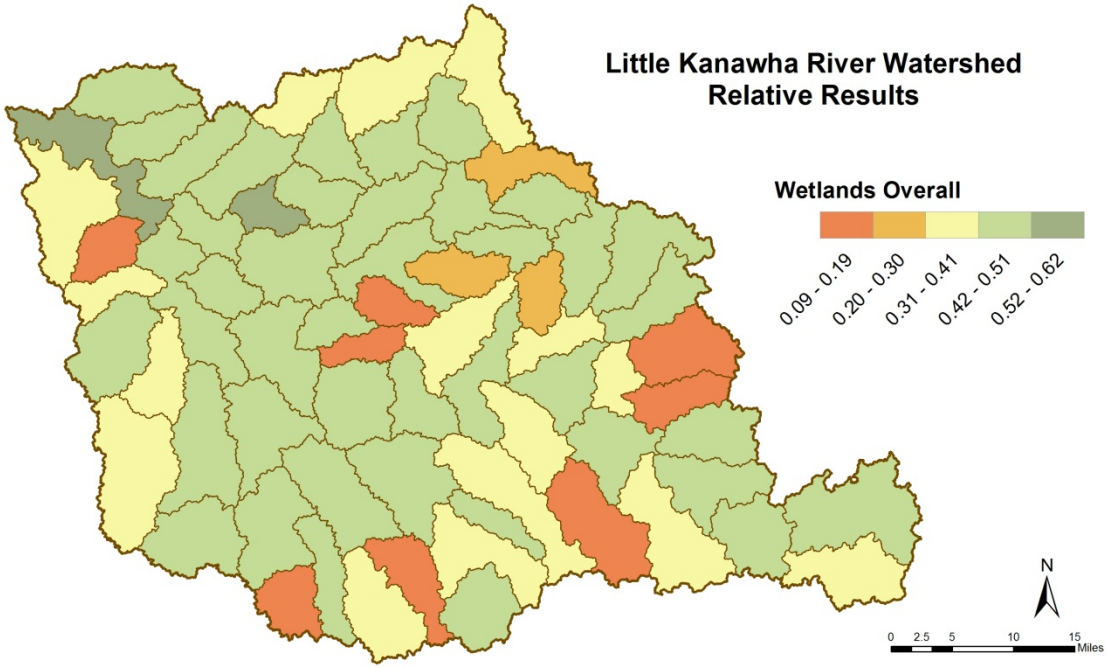










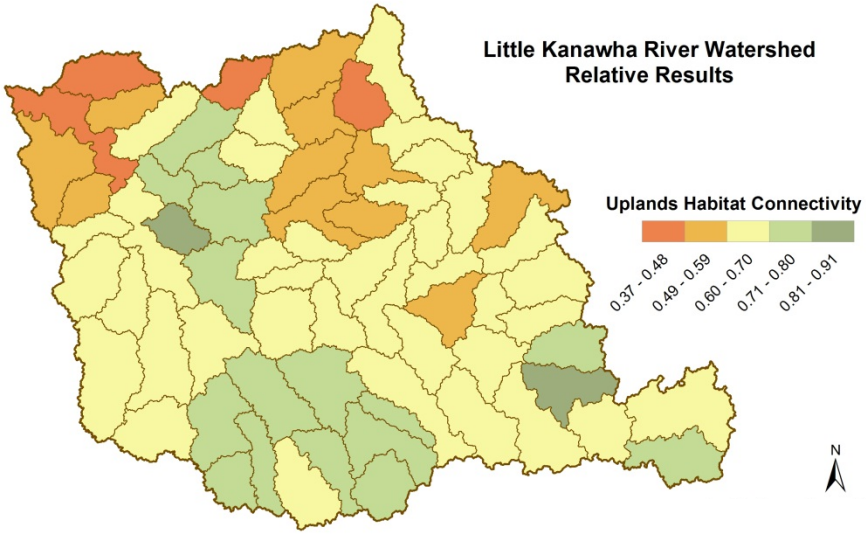


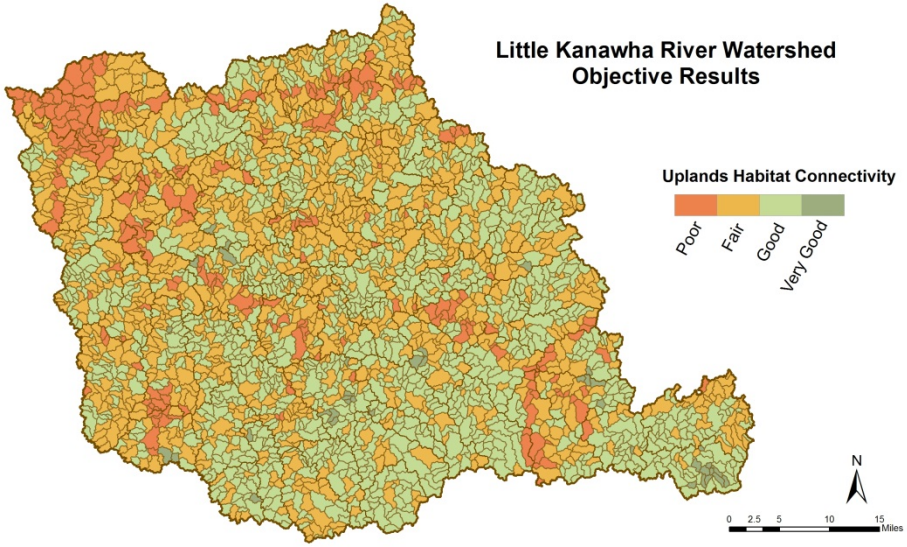
Wetlands Model Overall

Little Kanawha Watershed: Uplands

Little Kanawha Watershed
Uplands Overview

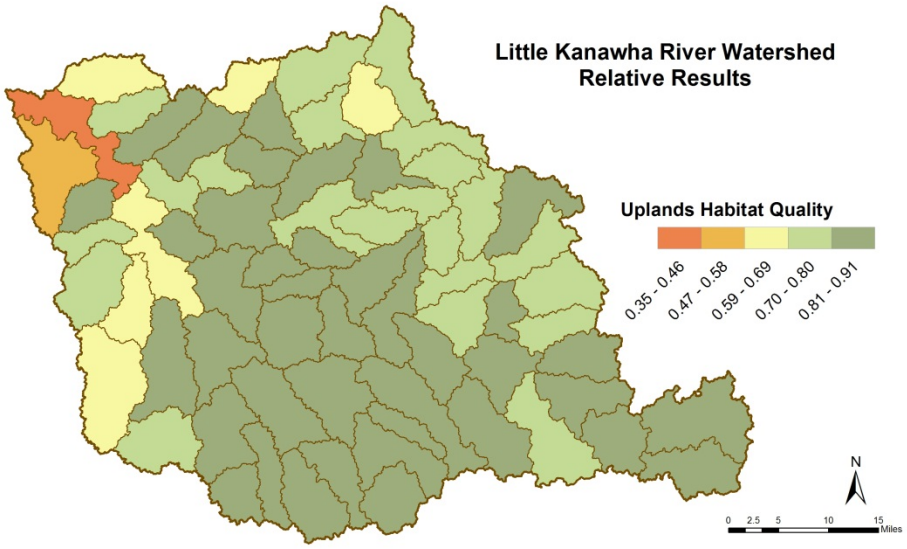
Uplands: Habitat Connectivity

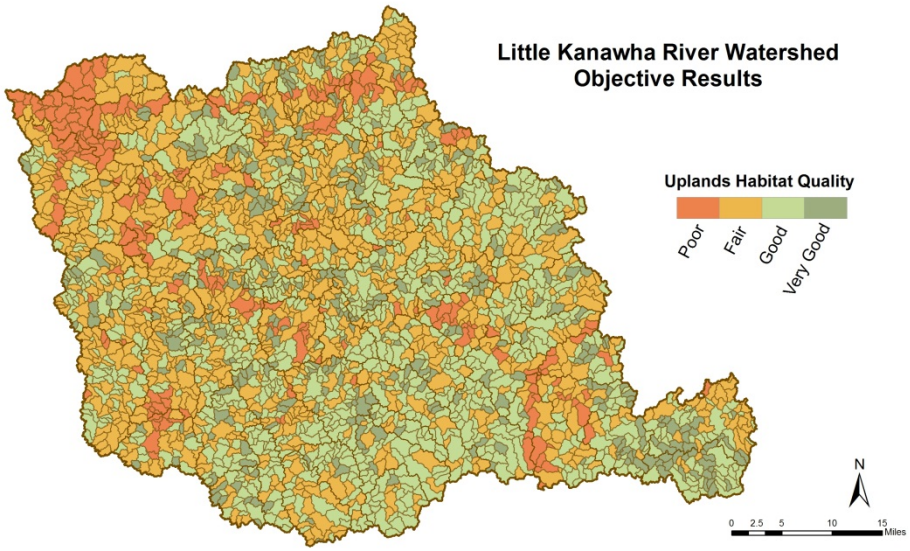




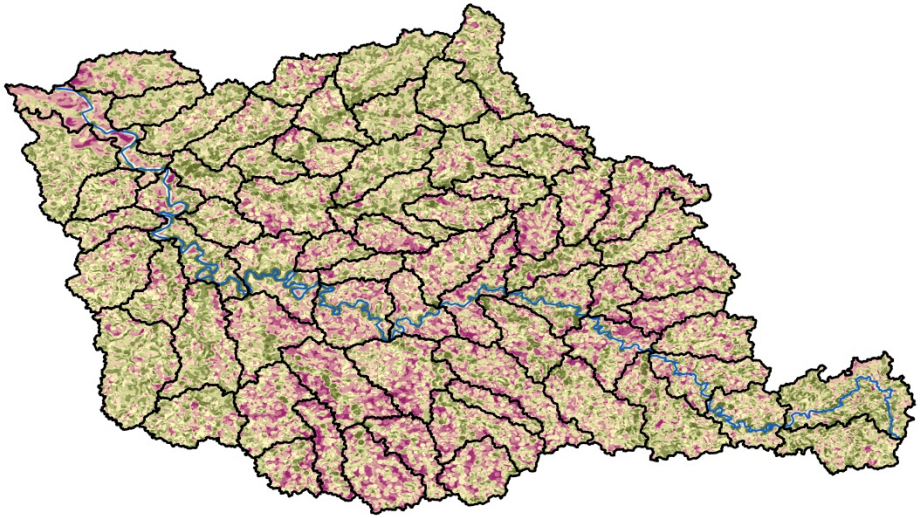
Roads & Rail

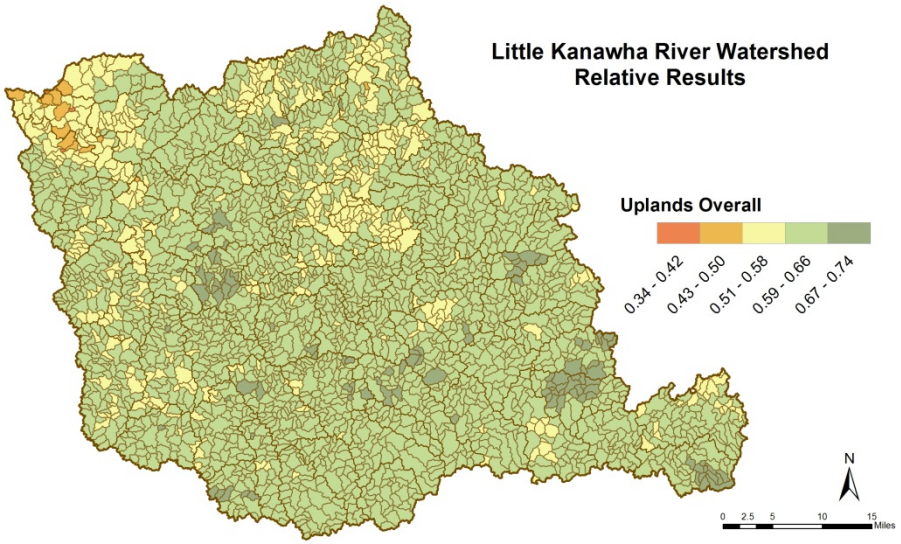
Uplands: Habitat Quality

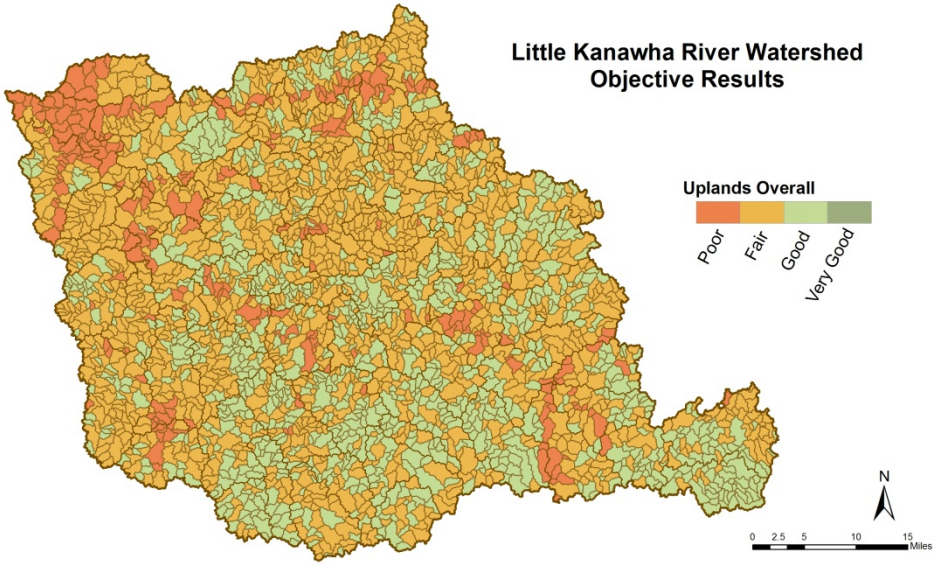


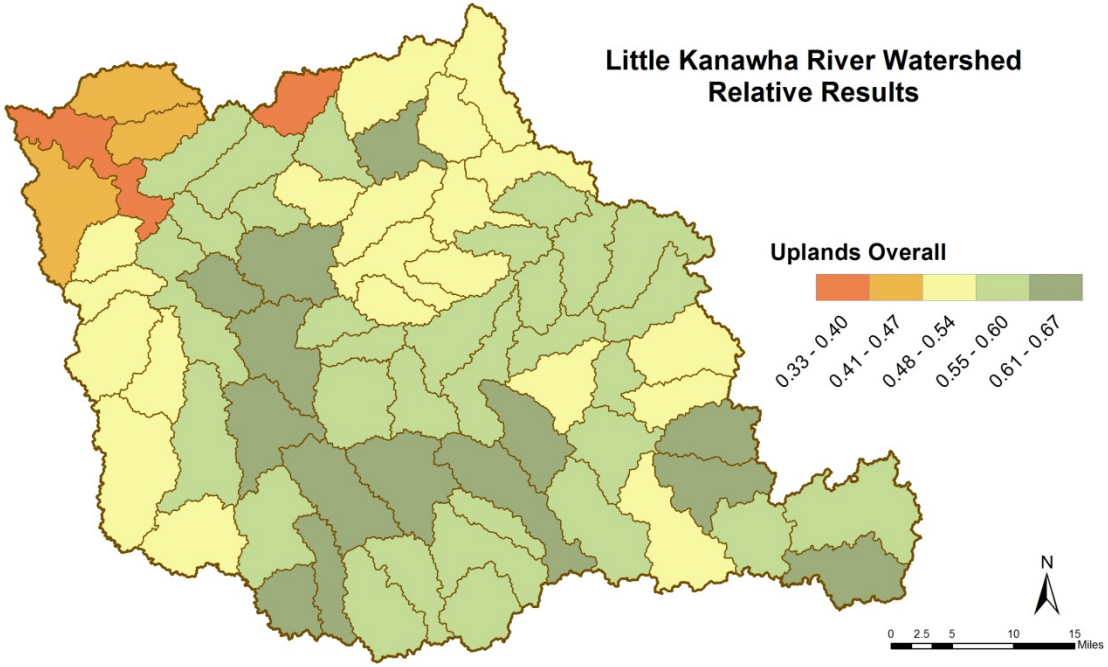


Natural cover Heterogeneity



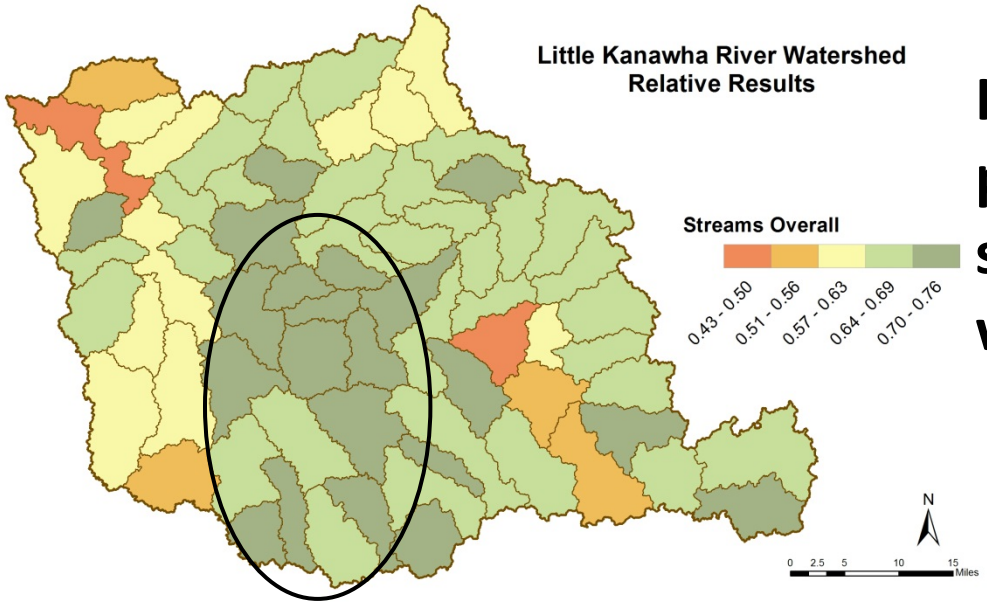






Uplands Model Overall

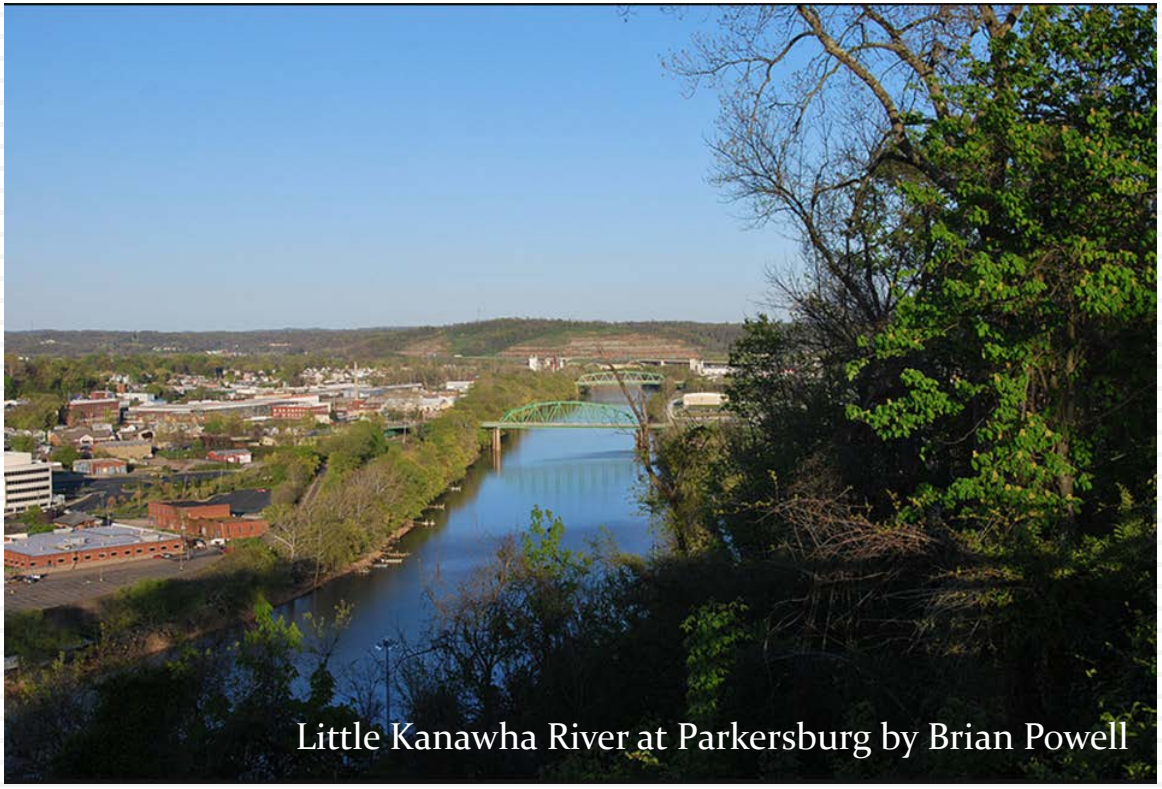
Findings



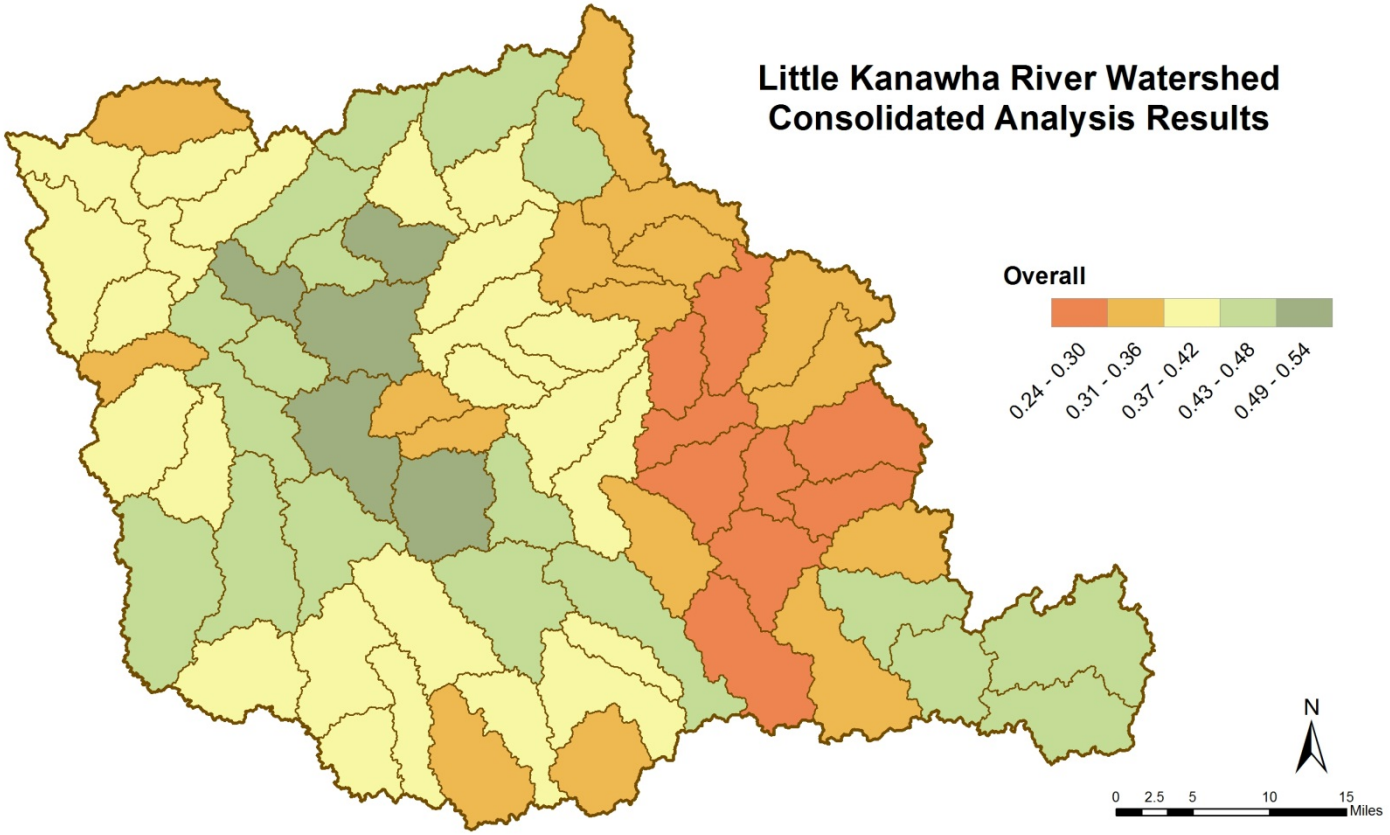
Higher quality areas for potential protection tend to be in the south-central areas of the watershed

COMMENTS/QUESTIONS?

Little Kanawha Watershed: Consolidated Analysis



Little Kanawha River at Parkersburg by Brian Powell

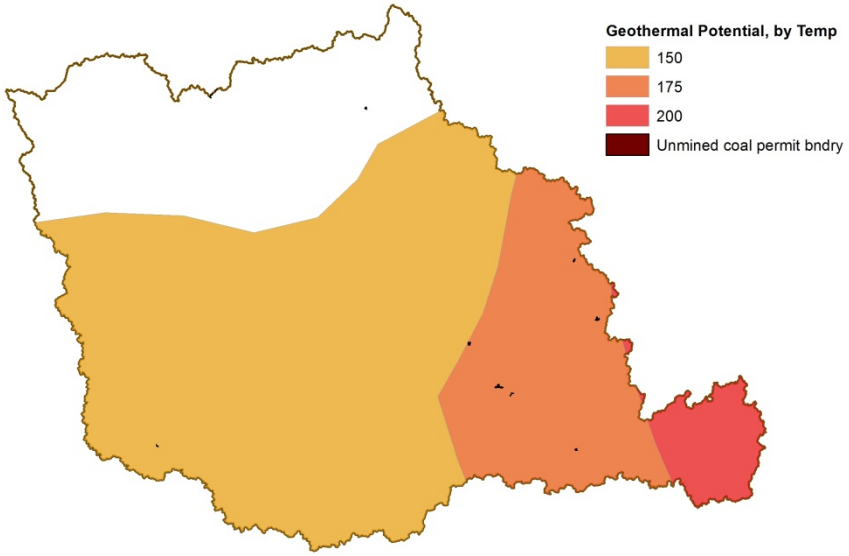


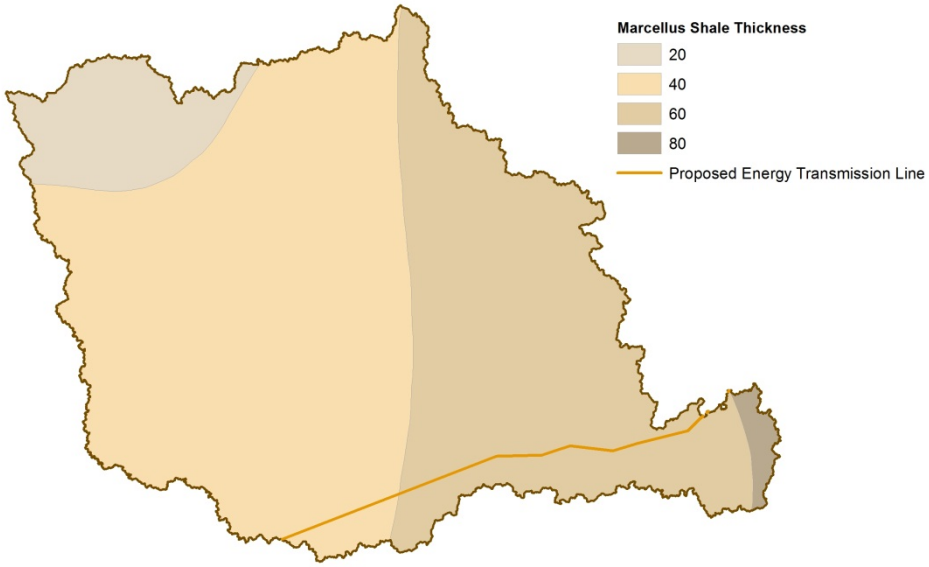
Consolidated Analysis Overall

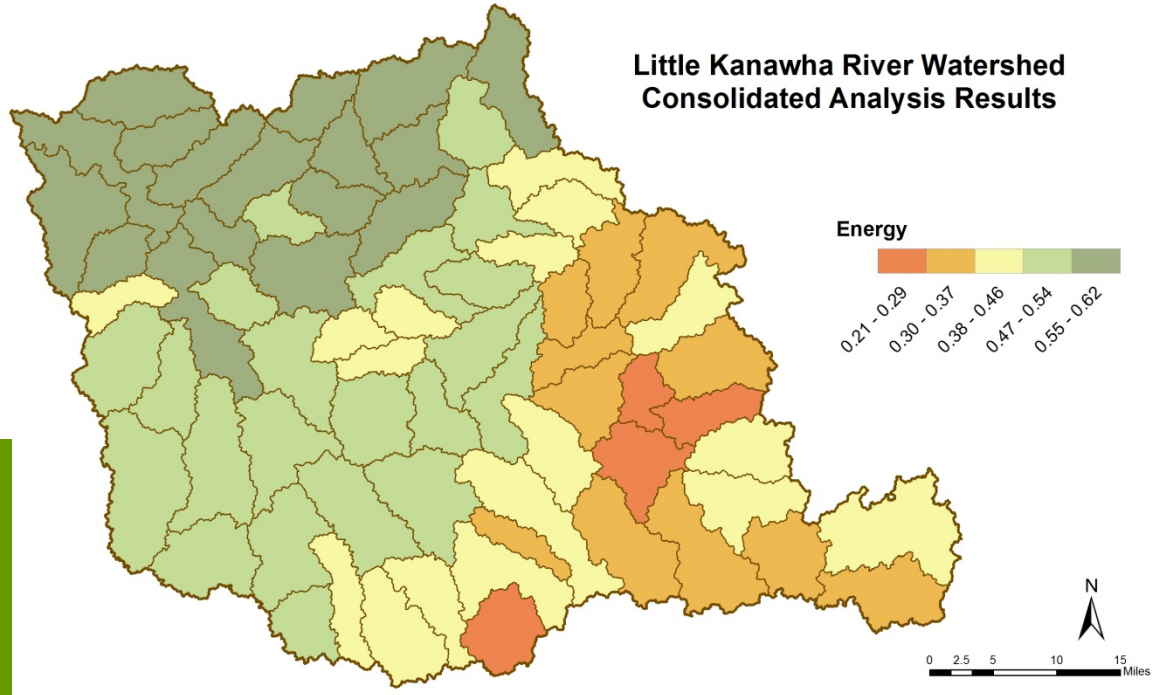
Energy: Unmined coal, Marcellus shale thickness, Wind development potential, Proposed transmission lines/pipelines/power plants/wind, Geothermal development potential

Climate Change: TNC Resiliency & Current density models, TNC Climate Wizard Precipitation & Temperature change

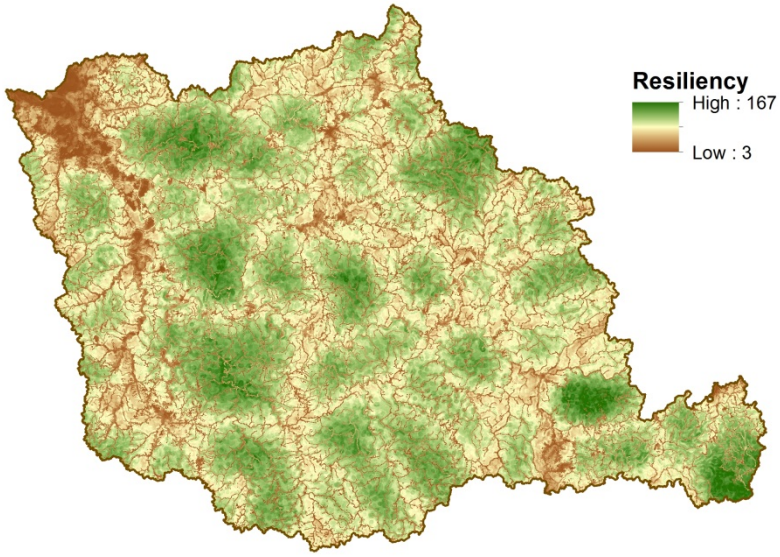
Priority Interest Areas: TNC aquatic & terrestrial portfolio, US Forest Service proclamation boundary, WV Division of Forestry priority HUC12 watersheds

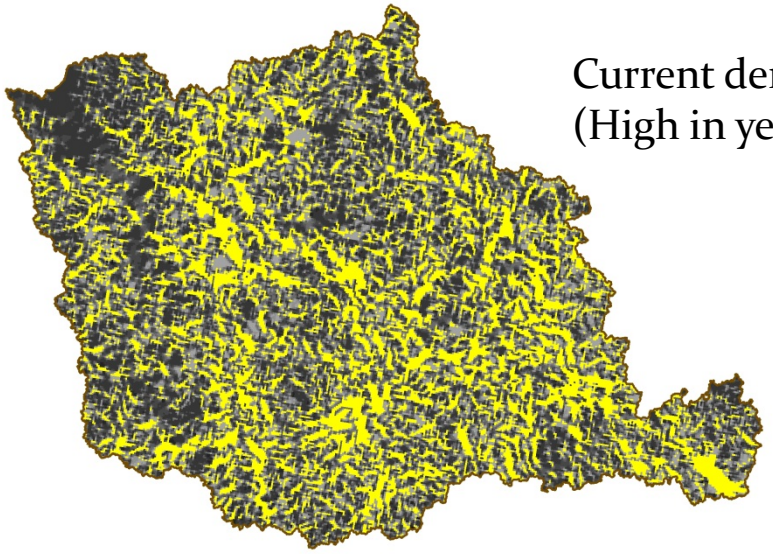




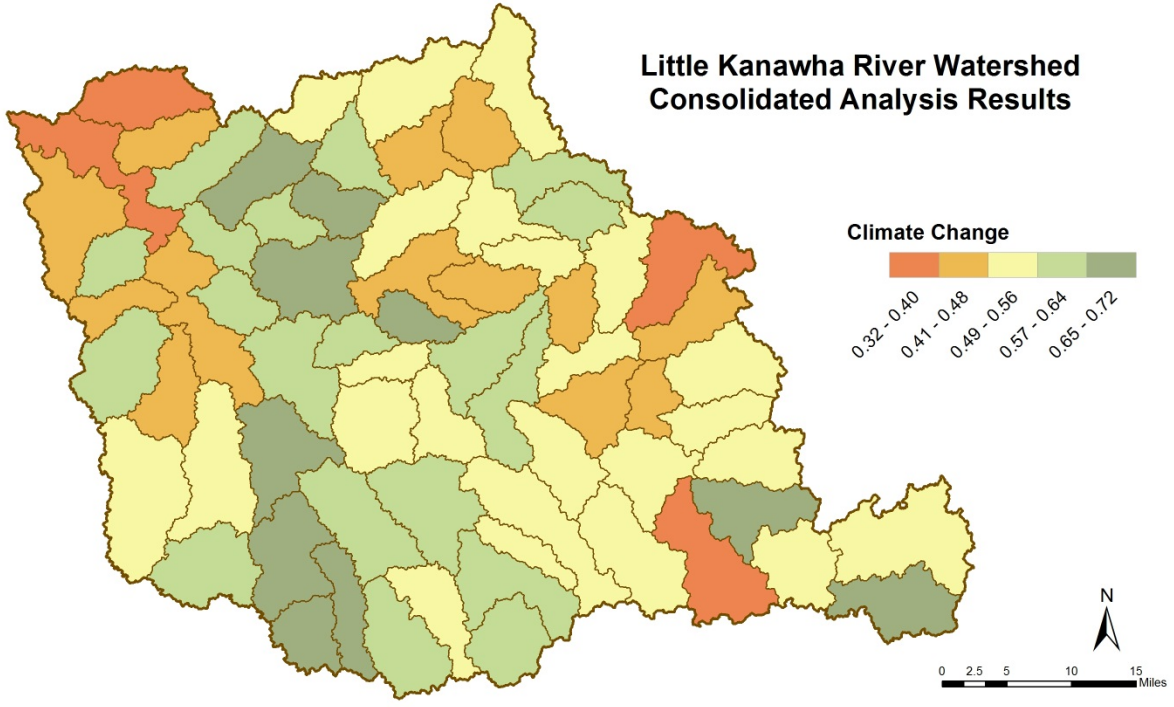


Consolidated Analysis Energy

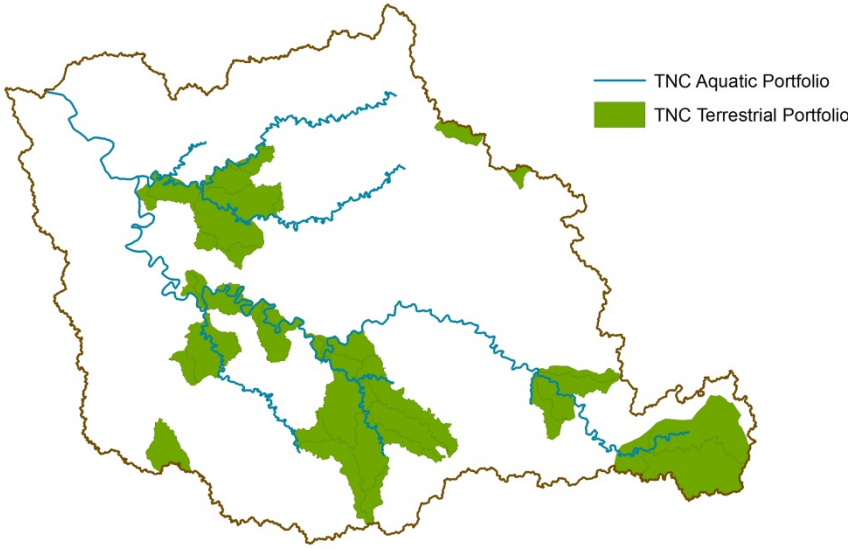


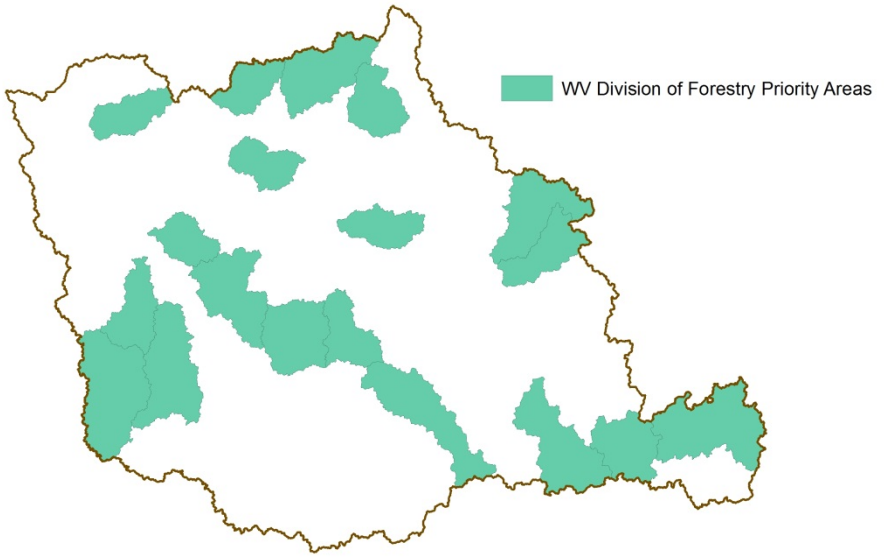


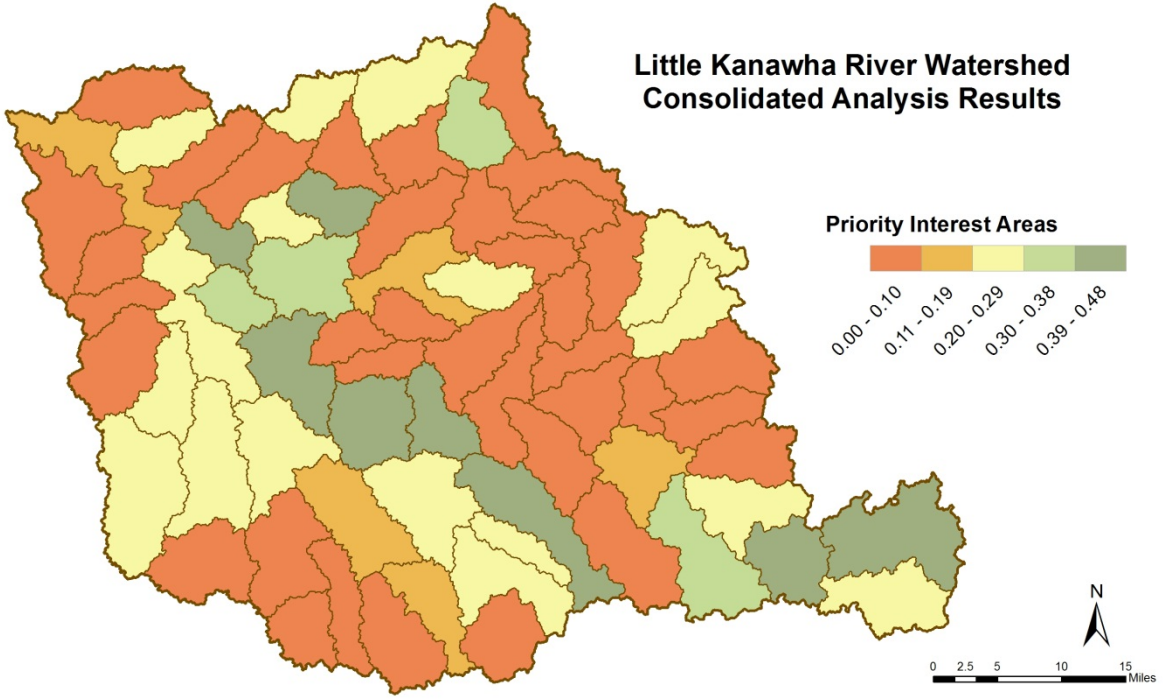
Current density
(High in yellow)



Consolidated Analysis Climate Change







Consolidated Analysis Priority Interest Areas

COMMENTS/QUESTIONS?