

# WV WATERSHED ASSESSMENT PILOT PROJECT



Gauley River ©Kent Mason

Expert Workshop #1, Round 2  
Bridgeport Conference Center, October 10 & 11, 2012

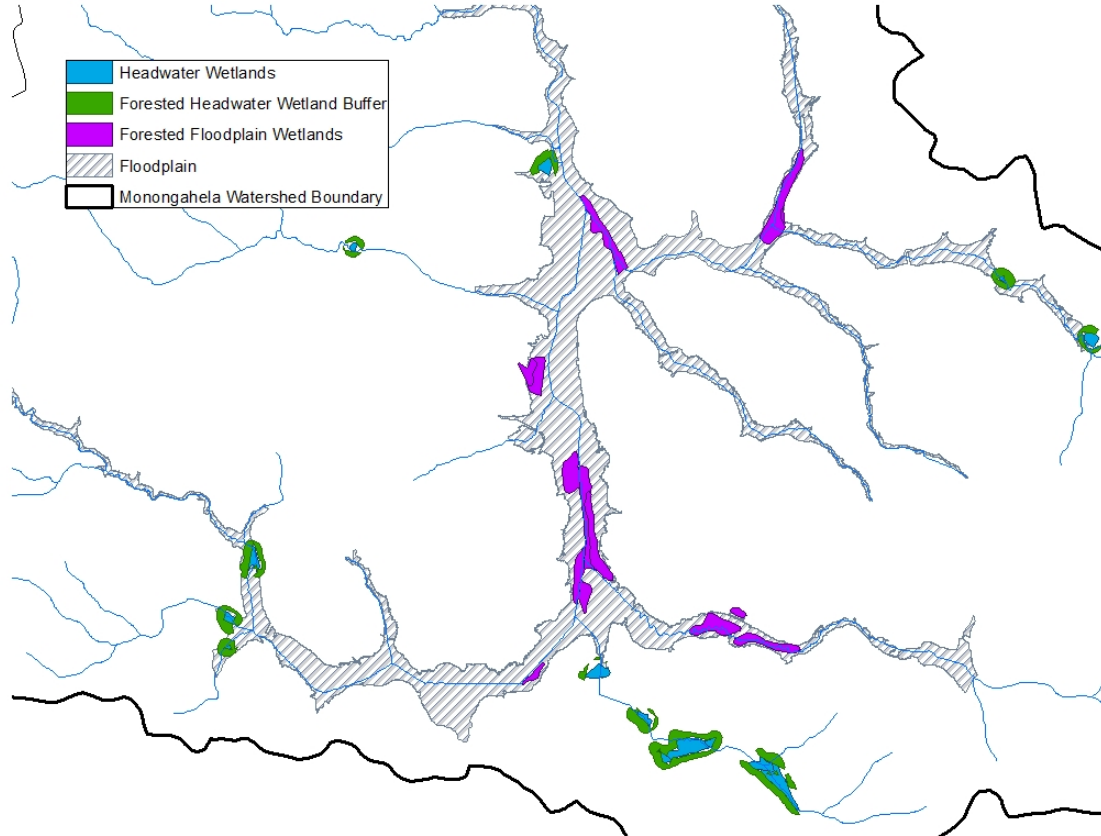
# Wetlands Model

# Planning Units without Wetlands

- Several planning units did not have mapped NWI wetlands
- Null values for metrics dependent on presence of wetlands
- Only 2 indices had values for all planning units:
  - Wetland Hydrology (presence of hydric soils)
  - Biodiversity

# Wetland Function Metrics

- Forested headwater wetlands, forested floodplain wetlands, etc



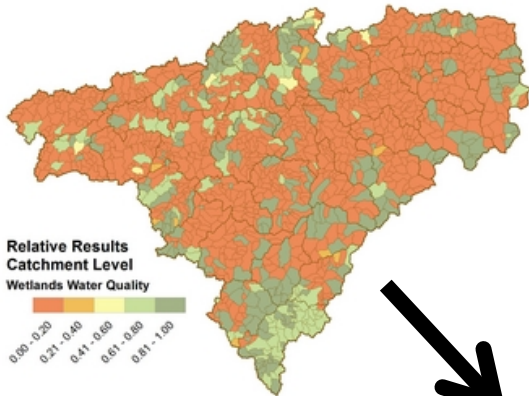
# Wetland Hydrology Metrics

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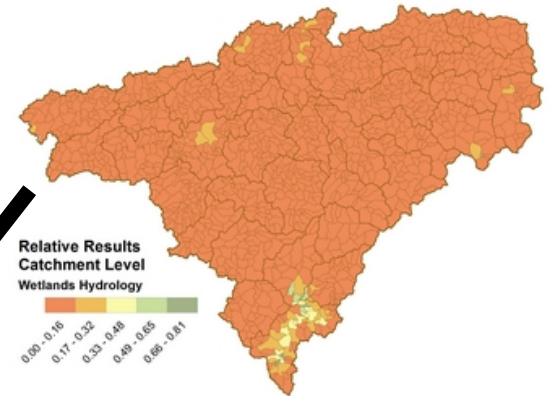
- Wetland area
- Hydric soils (potential for wetland restoration)
  - But: these are not consistently mapped across WV
- Forested flood plain wetlands
- Floodplain area



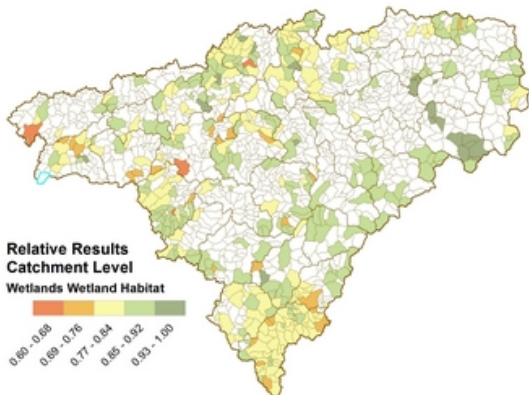
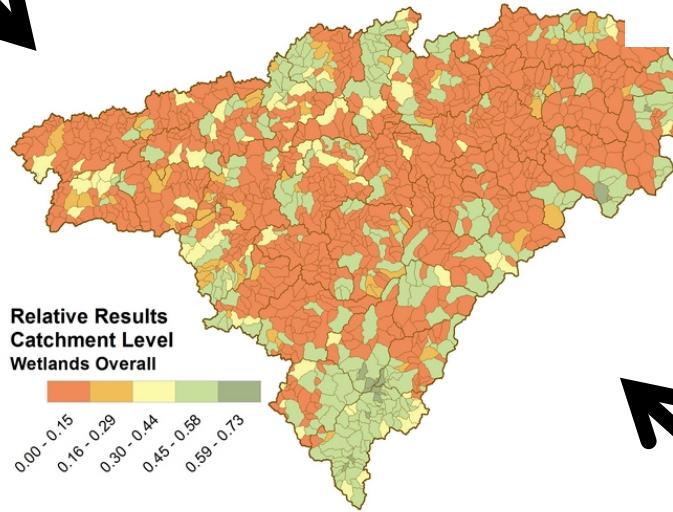
Water Quality



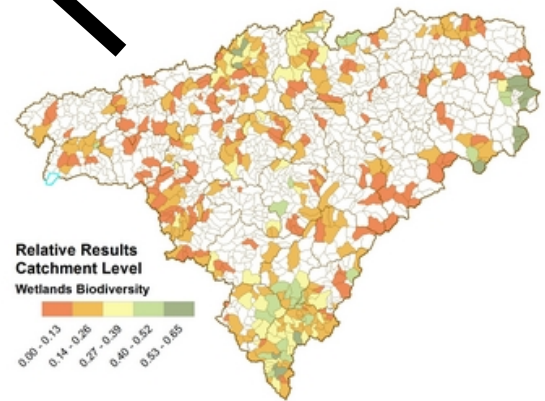
Hydrology



**Wetlands:  
Gauley  
Overall Ranking  
Catchments**



Wetland Habitat



Biodiversity

# Weakest Model

- Wetlands are our weakest model
  - Currently no reliable data on presence/absence or function of wetlands
  - Attempted to find appropriate surrogates for wetland function
- Missing values for indices make ranking of planning units not very reliable

# Group Discussion

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- How can we best handle lack of reliability for wetland results?
  - Alert users, provide caveats for use of these results
  - Change index weights for indices with many null values
  - As additional datasets become available, incorporate them into future assessments





Mon wetlands



Dunkard Creek

COMMENTS/QUESTIONS?

# Group Discussion After Results Presentations

- Are thresholds defined appropriately?
  - Is the Very Good/Good threshold too stringent? Very difficult to attain
  - Is the Poor/Fair threshold too stringent?
  - Should an alternate definition (i.e., quantiles, other?) be used where thresholds don't work?
- How should metrics with missing thresholds be handled?
  - Keep as presence/absence
  - Assign intermediate very good/good and poor/fair categories instead of forcing into good and fair only
  - Assign arbitrary/"best guess" thresholds for all thresholds
- How should results be presented in interactive web tool?
  - Suggest potential workflow for users

# Next Steps

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- Please let us know any suggestions, especially on:
  - Objective ranking methodology
  - Thresholds
  - Workflow for interactive web tool
  - Wetlands model modifications
- Incorporate workshop feedback
- Second expert workshop will present consolidated analysis and potential strategies
- Spring: stakeholder/partner workshop
- April 2013: final watershed assessments and interactive webtool completed

# Acknowledgments

- US Environmental Protection Agency
- WV Department of Environmental Protection
- Many individuals from several agencies, organizations, watershed associations:
  - US Geological Survey
  - US Army Corps of Engineers
  - US Office of Surface Mining
  - US Department of Agriculture - NRCS
  - WV Division of Natural Resources
  - WV Geological and Economic Survey
  - Region 3 Intergovernmental Council
  - The Conservation Agency
  - Trout Unlimited
  - West Virginia University
  - Marshall University
  - WV Rivers Coalition
  - WV Land Trust
  - Canaan Valley Institute
  - Potesta & Associates
  - Triad Engineering
  - Morgantown Utility Board
  - Several Watershed Organizations





Mon River at Friendship Hill ©photos.igougo.com

THANK YOU FOR YOUR HELP!