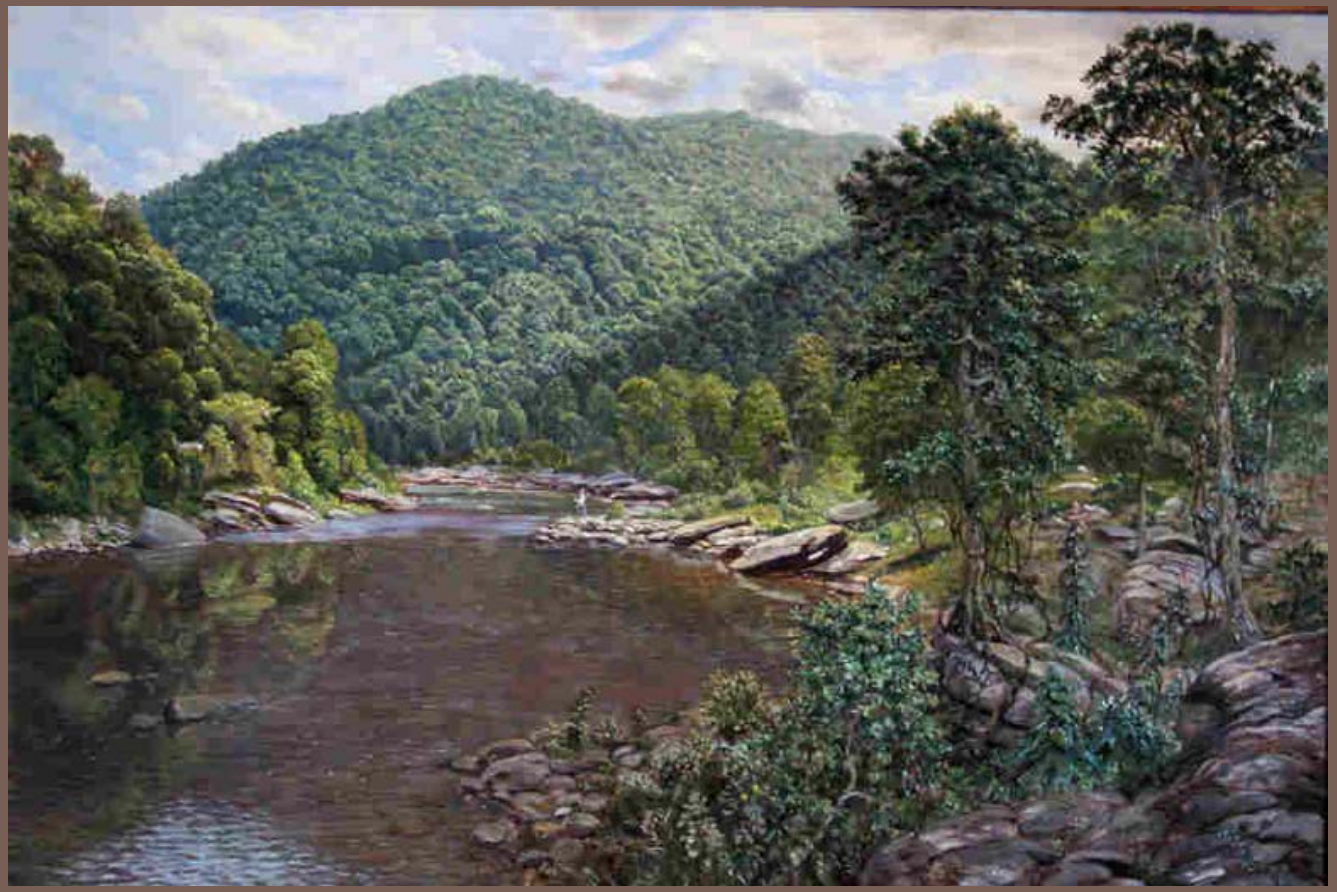


# C.R.E.A.T.E.S.

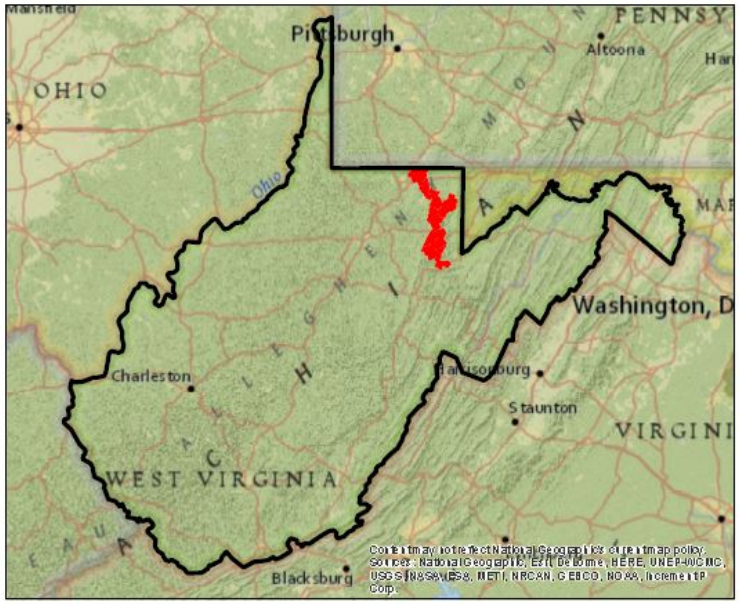
Cheat River Ephemeral Access Treatment and Enhancement Strategy

# Mission Statement

The CREATES team plans to revitalize and recover the streams entering the southern 20 miles of the Cheat River Watershed by 2030

# Overview

Location Reference Map





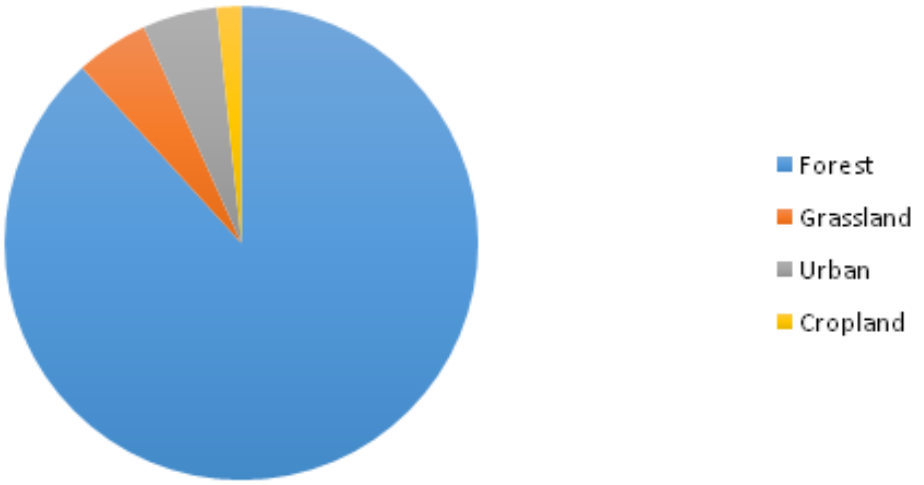
**Legend**

West Virginia

Study Area

Map by: Group 8

# Land Use




West Virginian Flying Squirrel

# Existing Regulations & Organizations

- The Surface Mining and Reclamation Control Act of 1977
-

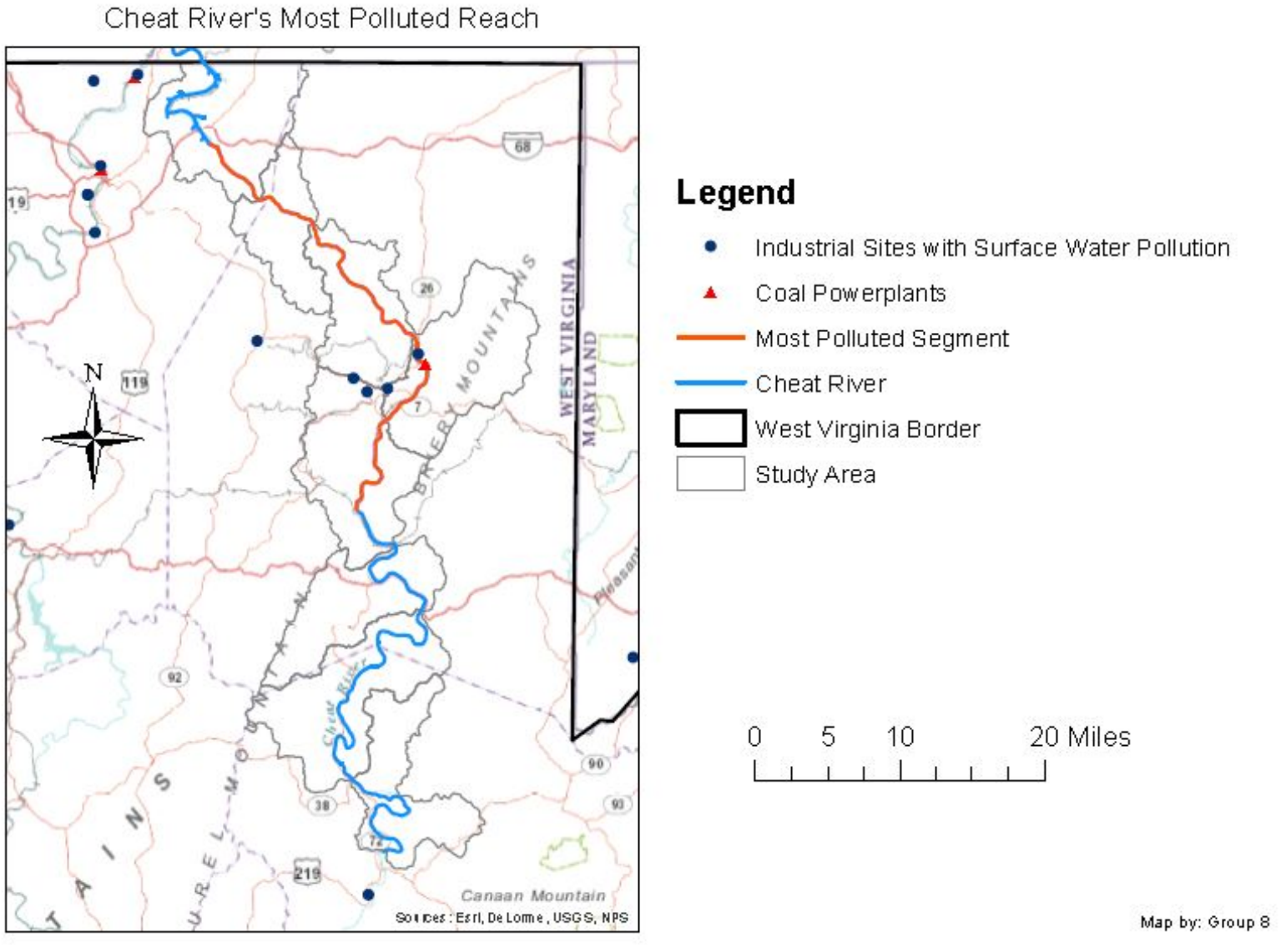
Friends of the Cheat

West Virginia DNR

# Problems

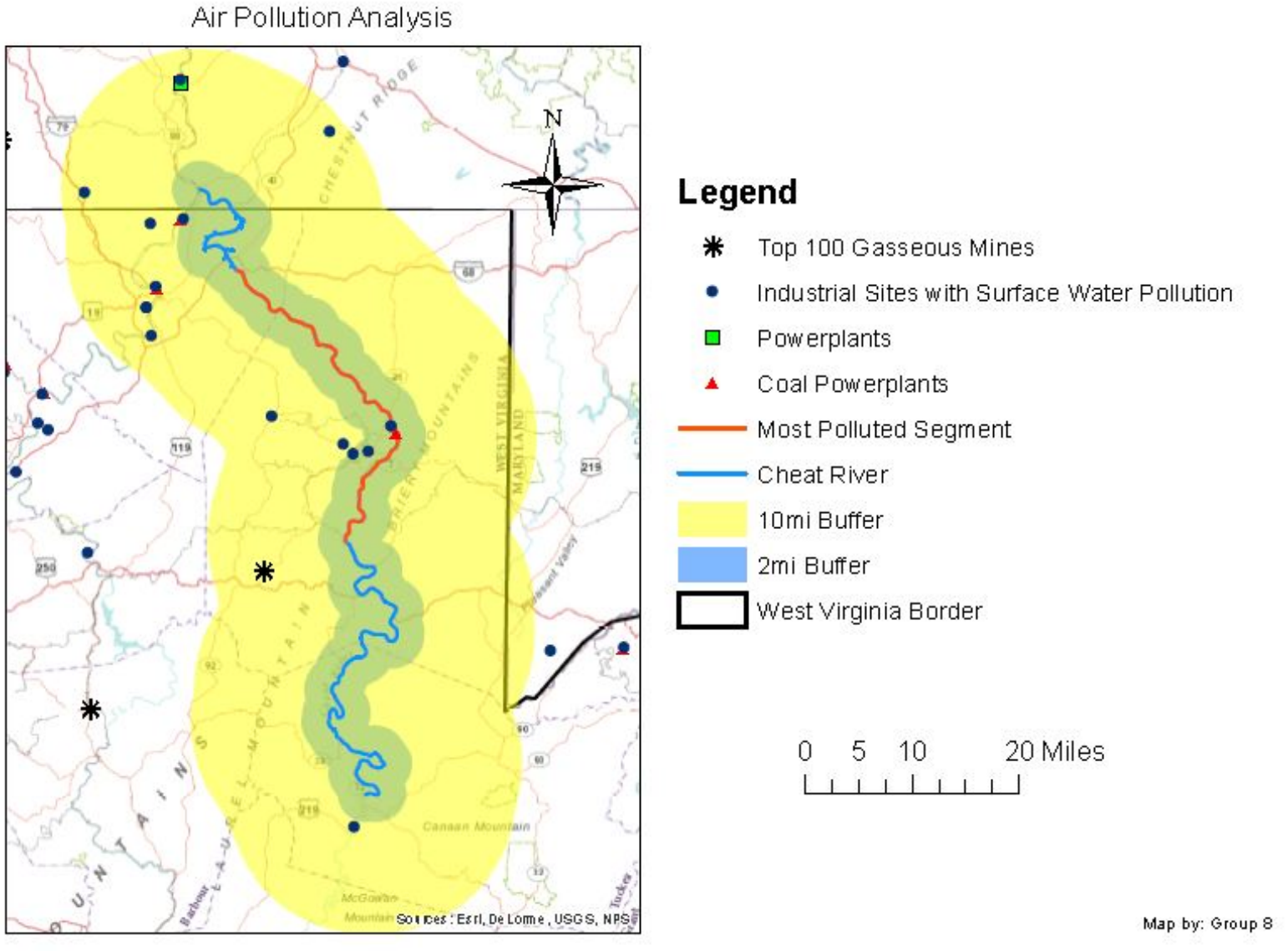
- Acid Mine
  - 239 abandoned mines
  - 66 dumping acid
  - Problems with pH
- Biological Disturbances
  - Fecal coliform
  - Human / Environmental Hazards
- Sedimentation Build Up

# Water




- Approximately 30mi segment
- Sites known to pollute: 4 Industrial sites and 1 large coal power plant
- All located near, or upstream of, most polluted segment

# Air




- Air pollution, a major factor
- Sites that are known to pollute

  14 Industrial sites, 4 large power plants, 1 of USA's top 100 gaseous coal mines

# Solutions

- Acid Mine Drainage
  - Limestone Usage
    - Active
    - Passive
      - Drain
      - Channel
- Biological Disturbances (Fecal Coliform)
  - Nonpoint pollution
    - Need to locate sources
      - Livestock
      - Residential sewage systems
- Sediment Buildup
  - Prevent Erosion
  - Agriculture Areas

# Conclusion

Mission Statement: 20 Miles by 2030

Problems: Acid Mine Runoff, Bio Disturbances, and Sediment

Solution: Limestone Usage, Nonpoint Pollution Removal, Education and Prevention.

# Resources

- http://www.dep.wv.gov/WWE/watershed/wqmonitoring/Documents/EcologicalAssessments/EcoAssess_CheatR_1996.pdf
- http://www.lrp.usace.army.mil/Portals/72/docs/HotProjects/signed%20IWA_final_revised%20FEB12%20public%20comments%20incorporated.pdf
- http://www.hsph.harvard.edu//mining/files/Acid_mine_drainage_remediation_options_-_a_review_JOHNSON_20.pdf
- http://www.downstreamstrategies.com/documents/reports_publication/WBP_Lower_Cheat_River_Feb2005.pdf
- http://www.epa.gov/reg3wapd/nps/success/wv_lower_cheat.htm#partners
- http://water.epa.gov/polwaste/nps/success319/wv_che.cfm
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- http://www.canoekayak.com/mantle/whitewater-needs-more-cheat-fest/
- http://geonames.usgs.gov/
- http://www.arcgis.com/home/search.html?q=pollution&t=content&focus=layers