

Mountaintop Removal in Wise County, VA



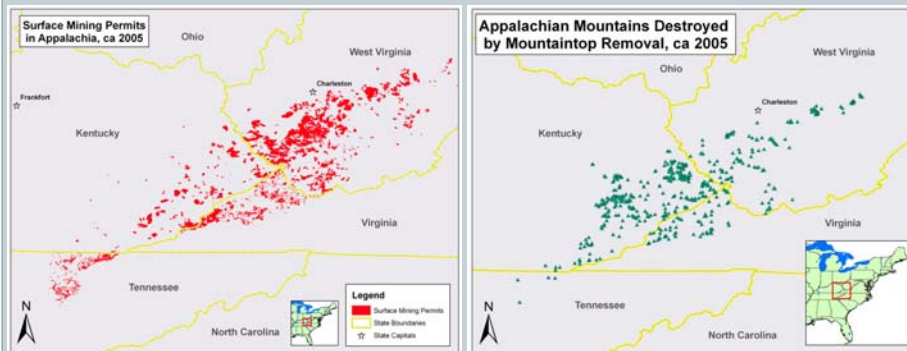
What is Mountaintop Removal?

- Form of surface mining that involves removing coal seams through removing the land above them



Where is it?

- Appalachia- VA, WV, TN, KY



Why is it a problem?

- Water Quality Problems
- Forest/Regrowth Problems
- Decreased Biodiversity
- Socio-economic Problems



Wise County, VA

- ~400 square miles
- 41,565 people
- Median household income (2006-2010): \$33,608
 - Half the average in VA
- 11% of county industry is mining
- Unemployment rate: 7.7% as of Nov 1, 2012

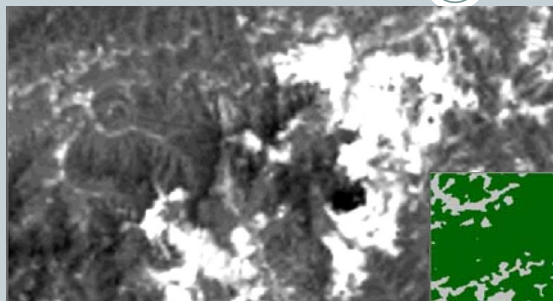


Indian Mountain

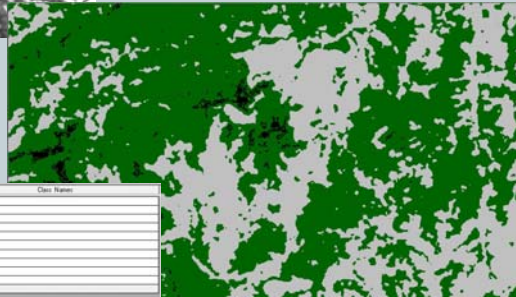
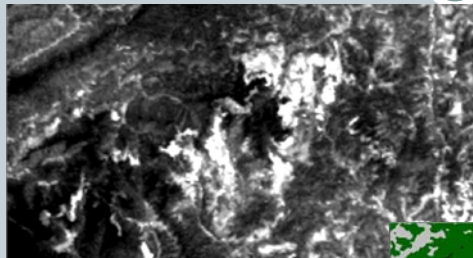


Project Objective: to utilize ERDAS Imagine for the purpose of coming up with a classification system for MTR in the Indian Mountain area.

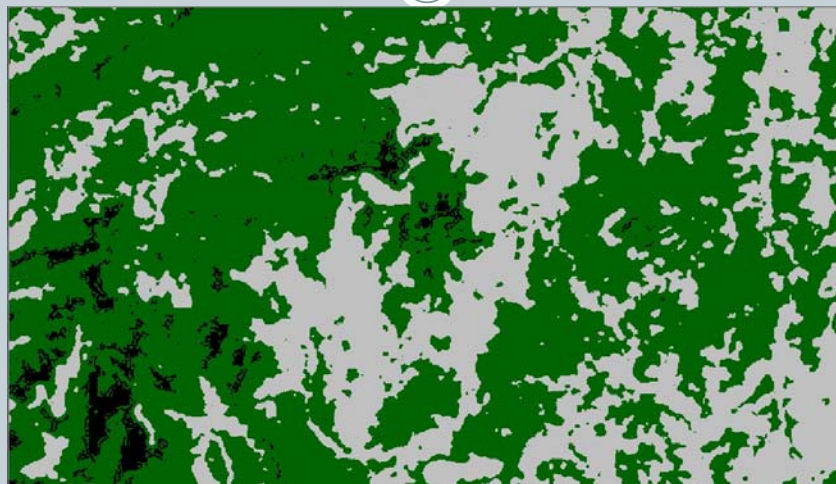
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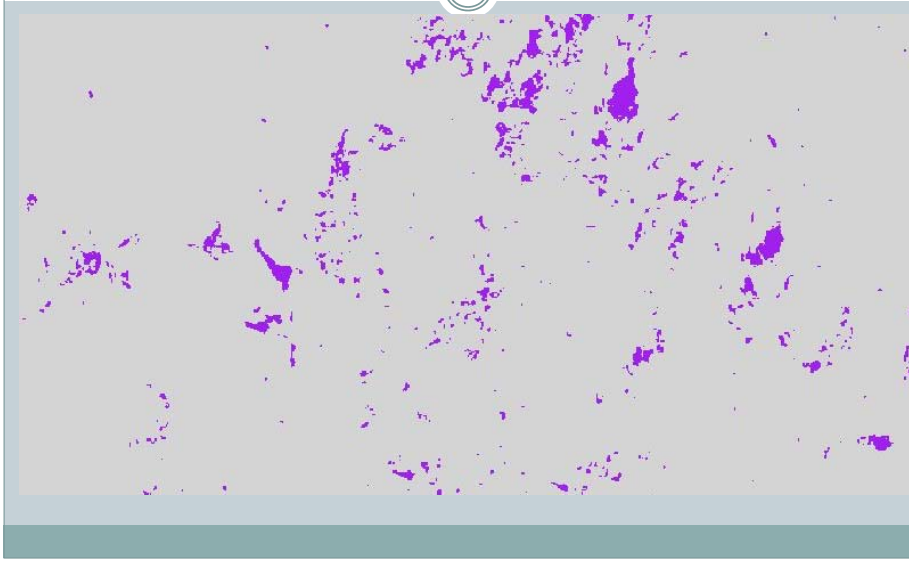
2003



Row	Wavelengths	Color	Red	Green	Blue	Opacity	Color Names
0	100-255,255		0	0	0	0.75/unused	
1	40-255		0	0	0	1.0/unused	
2	100-150		0	0	0	0.75/unused	
3	50-255		0	0	0	1.0/unused	
4	50-255		0	0	0	1.0/unused	
5	100-255		0	0	0	0.75/unused	
6	100-255		0	0	0	1.0/unused	
7	100-255		0	0	0	0.75/unused	
8	100-255		0.25	0.75	0.75	1.0/white	
9	100-255		0.75	0.75	0.75	1.0/white	
10	100-255		0.75	0.75	0.75	1.0/white	
11	100-255		0.75	0.75	0.75	1.0/white	



Changes



Conclusions

- Classification scheme is not all inclusive
- We'll probably never be able to get the same level of accuracy for classification using these tools versus using more detailed methods (which would be more costly/time consuming)

References



- Bureau of Labor Statistics. *Unemployment rates by county in virginia, september 2012*. (2012, November 01). Retrieved from <http://www.bls.gov/ro3/valaus.htm>
- Pond, G. J., Passmore, M. E., Borsuk, F. A., Reynolds, L., & Rose, C. J. (2008). Downstream effects of mountaintop coal mining: Comparing biological conditions using family- and genus-level macroinvertebrate bioassessment tools. *Journal of North American Benthological Society*, 23(3), 717-737. Retrieved from <http://www.epa.gov/region3/mtntop/pdf/downstreameffects.pdf>
- U.S. Department of Census. *Wise county, wv*. (2011). Retrieved from <http://quickfacts.census.gov/qfd/states/51/51195.html>
- U.S. Environmental Protection Agency Region 3. *Mid-atlantic mountaintop mining*. (2011, September 01). Retrieved from <http://www.epa.gov/region3/mtntop/>