MARCELLUS SHALE AND ITS IMPACT ON ROUTE 6 IN PENNSYLVANIA

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Proposal for Masters Capstone Project
Department of Landscape Architecture | Pennsylvania State University
Marcellus Shale and Route 6

- About Marcellus Shale
- Marcellus Shale and Pennsylvania
- US Route 6 in Pennsylvania
- US Route 6 and Marcellus Shale: Spatial relations
- Examples of future product
- Method: Overlay analysis by mapping based on Geographic Information System (GIS).
Marcellus Shale

• Discovered in 2007
• Extent: Pennsylvania, New York, Ohio and West Virginia
• Estimated reserve: 363 TCF
• Employment opportunities
• Economic development
• Urban development
Marcellus Shale

- Fracking/hydraulic fracturing
  - Use of fresh water
  - Production of waste water
  - Contamination of water
  - Distance traveled by fresh and waste water
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  - Damaged rural roads
  - Increased traffic volume
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- Well pads and pipelines
  - Clearing of forests
  - Disruption of natural habitat
  - Disturbed ecological balance


Courtesy: Rick Hammond

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The US Route 6
And Pennsylvania

- Historic significance
- Transit connectivity
- Community
- Tourism and recreation
  - State game lands: Hunting
  - Water trails: canoeing, kayaking
  - Rail trails: hiking, biking…
  - Streams: fishing
  - Road trips
  - Fall color tourism
  - Economic development from tourism
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www.paroute6.com
The US Route 6
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Courtesy: Kathryn Nguyen and Kevin Gavaghan,
Dept. of Landscape Architecture, Penn State
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Tourism and recreation opportunities

Land use distribution

Legend
- Water access points
- Tourism oriented services
- Urban development
- Water trails
- Agricultural land
- Rail trails
- Forests
- State game lands
- Wetlands
- Major water bodies
- Route 6 in PA
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- Using GIS-based mapping to identify:
  - Ecologically important areas
  - Natural habitats
  - Locations most popular for tourism and recreational purposes
  - Communities that may possibly be impacted
  - How socio-economic balance may be at risk in these locations

- And, propose:
  - Design and planning guidelines to support sustainable development of the industry
  - Protect the natural environment and ecological balance
  - Reclamation prospects for any impacted landscapes
The US Route 6
Assets

- Water Trails
- Water Access Points
- State game lands
The US Route 6
Assets

• All assets
The US Route 6
And Marcellus Shale

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- Marcellus Shale
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