



# Oil and Gas Development BMPs

*Marcellus & Manufacturing Development Conference*

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# Two Classes of E&S Permits

*Both Programs Rely on Best Management Practices*



- **WV Horizontal Well Control Act :: Well Pads & Access Roads**
  - Section 22-6A Well Work Permit – All associated earth disturbance activities
    - Erosion and Sediment Control Plan is a permit condition (35 CSR 8.55)
    - WV Erosion and Sediment Control Field Manual - Oil and Gas BMP Manual (May 2012)
      - PE Certification of plans and as-builts
      - Slope standards, compaction requirements, setbacks from streams and wetlands
  
- **WV Water Pollution Control Act :: Oil and Gas Facilities and Linear Projects**
  - Oil and Gas Construction Stormwater General Permit (January 2019)
    - Site registration for activities disturbing one acre or greater of land
    - Requirements for BMPs and enhanced BMPs in certain watersheds
    - Information submitted with registration application are terms and conditions of permit

# Erosion, Sediment Control and Stormwater Plans

## *Development of Plans and Compliance*



- **Develop Constructible Plans**
  - Regulatory requirements have prescriptive and performance based requirements
  - Consider the topographic changes the site will undergo
  - Review proposed design with construction engineers and construction contractors
  - Additional design time may reduce construction and compliance costs
  
- **Manage Construction to Ensure Compliance with Plan**
  - Develop compliance plan and have a multi-disciplinary compliance team
  - Construction schedule and technical compliance are achievable
  - Timely address corrective action and maintenance items
  
- **Wet Weather Stresses Plans and Systems**

# Water Well Protection BMPs

*Develop Baseline to Fully Evaluate Claims*



- **Pre-Drill Sampling Program**
  - Collect at least two rounds of pre-drill water samples
  - Sample all water wells and springs within 1,500 feet of pad
  
- **Post-Drill Sampling Program**
  - Sample water wells and springs within 1,500 feet of pad
  
- **Promptly Investigate All Complaints**
  - All complaints are reported and immediately investigated
    - May include resampling, yield testing, water system management review, hydrogeologic evaluations, meteorological, etc.
  - Complete investigations in a timely manner and communicate results