Eastern Oil and Gas Region

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Gas Drilling & Water Resources

• Stormwater
  – Construction
  – Post-construction
• Stream/Wetland Encroachments
• Chemical storage
• Drilling
• Water use
• Wastewater disposal
Eastern Region Responsibilities
Stormwater

• Construction
  – Erosion and Sedimentation
  – Required: E&S plan, possibly ESCGP-1

• Post-Construction
  – Increase stormwater runoff due to increase in impervious area (well pads, roads)
  – Required: Post-Construction Stormwater Management Plan/Site Restoration plan
Stream/Wetland Encroachments

- Need to cross streams and/or wetlands with access roads, gathering lines, etc.
- Potential impact to habitat
- Potentially effect stormwater conveyance
- Required: General permit or Joint permit from the Department for these activities
Chemical Storage and Use

• Chemicals stored on site and used during drilling and hydrofracturing
• Potential for spills - impacts to soil, surface water, groundwater
• Required: Preparedness, Prevention, and Contingency plan (PPC plan)
• Requires notification of Department and others
• Clean-up/remediation of spills required
Drilling

Eastern Region:

• Complaint investigations, inspections, compliance and enforcement
Water Use

- Hydraulic fracturing ("fracing") uses large quantities of water (+/- 5 million gallons)
- Potential impacts of water withdrawals to surface water and ground water
- Required: Water Management plan approved by DEP
- SRBC approval if within Susquehanna River basin
- DRBC approval if within Delaware River basin
Wastewater Disposal

• Portion of water used during hydraulic fracturing returns to the surface as “flowback”
• Potential impacts to surface and ground water if improperly disposed
• Required:
  – Identify disposal facilities in “Control and Disposal” part of PPC plan
  – Residual waste- must follow all reporting requirements and list disposal facility on site restoration report (Waste Management Program)
  – Treatment Plants need DEP approval to accept waste (Water Management Program)
Challenges

- Staffing
- Building a new program
- Volume and rate of activity
- Technology