EXTINGUISHMENT OF A COAL REFUSE BANK FIRE IN NORTHEAST PENNSYLVANIA

2014 NAAMLP Conference
September 22, 2014
PRESENTATION BREAKDOWN

- INQUIRY/INVESTIGATION
- DESIGN/DEVELOPMENT/PERMITTING
- CONSTRUCTION/EXTINGUISHMENT
- CHANGES/ISSUES
- RETROSPECT/MONITORING
Investigations Tools
Bank estimated to cover 4 acres and 80-100 feet in height
Fire Surface Expression 120’ X 120’
Typical Mine Map
Investigation Recommendation

Based on the following information:

• Incident happened suddenly
• AML Related SB (Surface Burning, gob on fire)
• Eligible for Title IV Funding
• Priority (threat to Health, Safety and welfare.
• Unknown site characteristics (lack of mine maps and how much gob is out there)

Investigation unit recommends and “Accelerated response Project” on December 18, 2013.
Environmental Assessment Process

- Site analysis & Proposal
- Resource agencies & Consultations
- Environmental Impacts
- Authorization to proceed request
Site analysis & Proposal

- Full site view
- Site delineation
- GPS locations
  1. Water bodies
  2. Wet land
  3. Structures or foundations
  4. Site access.
Project Area and Access Map
Resource agencies & consultations

- A Pennsylvania Natural Diversity Inventory (PNDI) Environmental Review
- Historic and Cultural Resources
- The U.S. Fish & Wildlife Service National Wetland Inventory
- The U.S Army Corp of Engineers (ACOE)
- The Pennsylvania *Fish and Boat Commission*
Environmental Impacts

The Major impact of this project will be to the following

• Hydrology
• Vegetation
• Fish and Wildlife Resources
• Air Quality
• Historic and Cultural Resources
Environmental Impacts

• Hydrology
Lackawanna River as a source of water
Effected Water Body A and Stream
Effected Water Body B
Unnamed Stream
Environmental Impacts

- Hydrology
- Vegetation
- Fish and Wildlife Resources
- Air Quality
- Historic and Cultural Resources
Historic and Cultural Resources
PROJECT BEGAN JANUARY 20
VIDEO OF FIRE – FEB. 24
FOAM ADDED TO FIGHT FIRE
FIRE EXTINGUISHED – MAY 9
## FINAL QUANTITIES

<table>
<thead>
<tr>
<th></th>
<th>ORIGINAL</th>
<th>FINAL</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Timeframe</strong></td>
<td>≈ 2 Months</td>
<td>Jan 20 - May 28</td>
</tr>
<tr>
<td></td>
<td>*Fire Extinguished May 8 (109 days)</td>
<td></td>
</tr>
<tr>
<td><strong>Fire Excavation</strong></td>
<td>50,000 CY</td>
<td>285,000 CY</td>
</tr>
<tr>
<td><strong>Water Used</strong></td>
<td>20 Mil. Gal.</td>
<td>164 Mil. Gal.</td>
</tr>
<tr>
<td><strong>Foam Used</strong></td>
<td>10,000 Gal.</td>
<td>35,000 Gal.</td>
</tr>
<tr>
<td><strong>Area of Site</strong></td>
<td>7.0 Acres</td>
<td>17.6 Acres</td>
</tr>
<tr>
<td><strong>Total Cost</strong></td>
<td>$741,000</td>
<td>$2,214,618</td>
</tr>
</tbody>
</table>
• Assume larger than appears.
• Plenty of E & S controls.
• Boreholes and Monitoring
• Plan for potential fires before they happen.
• Complaints
• Media
Further information regarding this presentation please contact:

Riyad Barkawi  rbarkawi@pa.gov
John Curley    jcurley@pa.gov
David Jansson  djansson@pa.gov
Bernard Walko  bwalko@pa.gov