Water You Doing? Comparing the Intergovernmental Responses to the Gold King Mine and TVA Coal Ash Spills

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Research Questions

- What are the legal frameworks and policies governing disaster recovery?
- Why do we see differences in terms of intergovernmental cooperation and conflict as stakeholders recovered from spills at the Kingston Coal Plant and the Gold King Mine?
Literature and Methods

**Literature**
- Wright (1988) Overlapping Federalism
- Focusing on intergovernmental cooperation and coordination

**Methods**
- Comparative Case Study
- EPA Gold King Mine Spill
- TVA Coal Ash Spill

Wright's third model of overlapping authority, moves beyond classical conceptions of federalism by suggesting that contemporary IGR involves “complex multi-unit interactions beyond the nation-state relationship” (Agranoff & Radin 2015, 141)
CERCLA and NIMS

- Regulatory and Organizational Framework Structure
- CERCLA
  - Time Critical vs. Non-Time Critical
- NCP, NIMS-ICS
National Map of Spills

**Spill:** GKM Spill  
**Location:** Silverton Colorado  
**Initial Spill Date:** August 5, 2015  
**Responsible Actor:** EPA  
**Areas Affected:** Communities and States of Colorado, New Mexico, Utah, Tribal Territories (~200 miles)

**Spill:** TVA Spill  
**Location:** Kingston Tennessee  
**Initial Spill Date:** December 22, 2008  
**Responsible Actor:** TVA  
**Areas Affected:** Tennessee and local communities (~6 miles)
<table>
<thead>
<tr>
<th>Date/Time</th>
<th>Major Event</th>
<th>Actor(s)</th>
<th>Phase</th>
</tr>
</thead>
<tbody>
<tr>
<td>December 22, 2008, 1:00am</td>
<td>Northwestern dike used to contain coal ash failed. 5.4 million CY of coal ash were released into the surrounding area.</td>
<td>TVA Kingston Fossil Plant EPA immediate OSC coordinated response</td>
<td>Time Critical</td>
</tr>
<tr>
<td>January 12, 2009</td>
<td>TDEC issued a Commissioner’s Order to TVA requiring comprehensive assessment and clean up</td>
<td>TDEC (Tennessee Dept. of Environment and Conservation) EPA</td>
<td>Time Critical</td>
</tr>
<tr>
<td>January 21, 2009</td>
<td>TVA submits written notification of toxins discharged in the spill</td>
<td>TVA reporting to the TERC (Tennessee emergency response commission)</td>
<td>Time Critical</td>
</tr>
<tr>
<td>May 11, 2009</td>
<td>TVA and EPA file an AOAC to govern the clean up and necessary orders TVA Spill declared Super-Fund site</td>
<td>TVA EPA TERC and TDEC</td>
<td>Time Critical</td>
</tr>
<tr>
<td>May 2010</td>
<td>Removal of 3.5mil CY of ash completed</td>
<td>TVA EPA TDEC</td>
<td>Time Critical</td>
</tr>
<tr>
<td>From May 2010 to December 2014</td>
<td>Phase 2 &amp; 3 non time critical removal gathering a total of 2.3mil CY of coal ash and assessment of risk from ash remaining in the environment</td>
<td>TVA EPA TDEC</td>
<td>Non-Time Critical</td>
</tr>
</tbody>
</table>
Gold King Mine Spill
<table>
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<tr>
<th>Date</th>
<th>Major Event</th>
<th>Actor Entrance</th>
<th>Phase</th>
</tr>
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<tbody>
<tr>
<td>Aug 5, 2015</td>
<td>Approximately three million gallons of acidic and heavy metal contaminated mine sludge accidentally released. CDP-WQCD alerts affected downstream users.</td>
<td>EPA, WQCD, Silverton, Durango, Southern Ute Tribe</td>
<td>Time Critical</td>
</tr>
<tr>
<td>Aug 6, 2015</td>
<td>EPA issues first public statement and open JIC. La Plata County and other locales issue order restricting river use. Alternative water supplies, Mine wastewater arrives in Durango.</td>
<td>EPA, CDP-WQCD, La Plata County, nearby localities</td>
<td>Time Critical</td>
</tr>
<tr>
<td>Aug 8-9, 2015</td>
<td>CDP-WQCD sampling data shows pH and metal concentrations decreasing to pre-event conditions. Mine wastewater reaches near Farmington, NM.</td>
<td>EPA, Navajo Nation, Colorado, Arizona, Utah, San Juan County</td>
<td>Time Critical</td>
</tr>
<tr>
<td>Sept 2015 - Oct 2016</td>
<td>EPA announces a temporary treatment plant, actors continue sampling and remedial investigations. September 7 (EPA declares GKM Superfund Site)</td>
<td>EPA</td>
<td>Time Critical</td>
</tr>
<tr>
<td>Nov 2016 - Jan 2017</td>
<td>EPA initiates transition to non-time critical as Gladstone TIP continues to treat water and EPA continues remedial investigations.</td>
<td>EPA</td>
<td>Non-Time Critical</td>
</tr>
</tbody>
</table>
Findings

**EPA Gold King**
- Time Critical
  - Generally Cooperative
  - Conflict ensues after emergency response
- 3 lawsuits
  - NM sues CO and EPA
  - Navajo Nation sues EPA
  - UT is expected to sue EPA
- Non-Time Critical
  - Conflictual

**TVA Kingston**
- Time Critical
  - Cooperative
- Non-Time Critical
  - Cooperative
Explanations for Cooperation

- Clear regulatory and organizational framework for time-critical actions under CERCLA, NIMS-ICS (initial actions)
  - Protection of public health and environment from exigent dangers
- Information Sharing/Testing
  - Low political/economic costs
Explanation for Conflict

- **Scope of Disaster**
  - 6 miles and 200 miles and multiple jurisdictions
  - Number of Actors Impacted

- **Timeline**
  - Conflict began after initial efforts contained spill

- **Historical Experiences**
Contributions and Future Directions

- Data supports overlapping model even under same law (CERCLA, NIMS-ICS)
- Begin process of understanding factors contributing to challenges within overlapping federalism
- Expanded federalism into under-researched area – environmental disaster recovery.
Questions?

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Deil Wright (1988)