Fossil Fuel Transportation in the Ceded Lands of the Yakama Nation

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The Confederated Tribes and Bands of the Yakama Nation

- The Yakama Nation is a Federally Recognized Sovereign Government pursuant to the Treaty of 1855 (12 stat. 951) with the United States of America.
  - Ratified by Congress; U.S. Constitution, Article 6
  - Rights, Privileges and Guarantees
The Yakama Treaty of 1855: Article III

The Reservation, Ceded Lands, and Usual & Accustomed Areas

Since time immemorial, the health, spirit, and cultures of the Yakama have been sustained by the water, salmon, game, roots, and berries of our homeland—our sacred First Foods.
The Yakama People have been Impacted by a History of Energy Development

Hanford

Hydro-Electric

Wind
Impacts to Our Reserved Resources

- Impacts to Our Natural & Cultural Resources
  - Loss and fragmentation of access
  - Known and unknown cumulative effects

- Significance of Resources
  - Our Natural resources are our Cultural Resources
  - We have a responsibility to protect them for generations yet born.
  - We continue to hunt, fish and gather for subsistence and ceremonial purposes

- Significance of Archaeological Resources
  - Sacred and sensitive resources
  - Part of a living Culture; Irreplaceable
  - Protected by Treaty, State and Federal Law
The Degradation and Injustice to Our Land and Resources Continues with Fossil Fuel Transportation
Coal Transportation

- Not Very Many Research Projects or Studies Conducted
- EPA 1978 – Environmental Assessment of Coal Transportation
- Three Current Studies – Preliminary
  - USGS – Mobility/Accumulation
  - NOAA – Fish Embryos
  - UW – Air Quality
Coal Transportation

- Need to Quantify & Discuss the Cumulative Impacts

- From the Origins to the End
  - Uncovered, Open Top
  - BNSF “500-2000 lbs lost per car”
  - Typical 125 car train up to 250,000 lbs LOST
  - Powder River Basin Coal is Softer, Breaks Down Faster

- Chemical Surfactants are Applied to Minimize Dust
  - No Spray in 100% Effective
  - Surfactants may threaten Human Health
  - Also Contaminate Surface Water, Ground Water, and Soil
  - Pollute the Air
  - Harm Flora and Fauna
Coal Transportation

- Contains Harmful Contaminants

- Heavy Metals
  - Arsenic, Lead, Mercury, Chromium, Nickel and Selenium

- PAHs (Polycyclic Aromatic Hydrocarbons)
  - Benzopyrene and 6 others are Carcinogens

- Extras of Transporting
  - Diesel Exhaust
  - Global CO2
  - Air Pollution from Asia
Coal Transportation

- Coal Dust Harms Aquatic Life

- Salmon and Steelhead runs through the Columbia River Basin
  - Fish Habitat & Growth
  - $$ Spent to Restore

- Filter Feeders: Mussels, Eels & Oysters
  - Bioavailable Toxins Enter Easily

- Rain Run-Off, Storm Water and Waste Water
  - Contains: Copper, Aluminum, Iron and Nickel
  - Highly Acidic
  - Devastate Delicate Aquatic Chemistry
When is it Going to Stop?

- The Transport of Oil by Rail is New and on the Rise
Washington Marine and Rail Oil Transport Study

Oil imports to WA by Mode (2003-2013)

- 19 Trains a Week
- 30,000+ Gallons per Car
- 100+ Cars per Unit Train
- 3 Million+ Gallons per Train
- ~60 Million Gallons per Week
The Yakama Nation is yet again bearing the costs of energy development.

<table>
<thead>
<tr>
<th>Bakken Crude</th>
<th>vs</th>
<th>Tar Sands Oil</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lighter, Sweet Crude – Floats on Water</td>
<td></td>
<td>A combination of clay, sand, water, and heavy black viscous oil called <em>bitumen</em>.</td>
</tr>
<tr>
<td>Higher concentrations of light end petroleum hydrocarbons, PAHs (Methane, Propane, Ethane and Butane)</td>
<td></td>
<td>Dense and Extremely Viscous – Sinks in Water</td>
</tr>
<tr>
<td>Highly Flammable and More Volatile than other Crude Oils</td>
<td></td>
<td><strong>Bituminous sands</strong>, a type of Unconventional Petroleum Deposit</td>
</tr>
<tr>
<td>May Contain Hydrogen Sulfide in High Concentrations</td>
<td></td>
<td>Must be diluted with a cocktail of other petroleum compounds before it is able to flow through pumps or pipelines for transport</td>
</tr>
<tr>
<td>Record Volumes moving by Rail</td>
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</tbody>
</table>
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Aliceville, AL and Kalamazoo, MI
In the Yakama Language, there is no word for “Mitigation” – No word to describe repairing the Lands and Waters that have been Degraded or Destroyed.
The Yakama Nation has demonstrated success in protecting Treaty resources through litigation:

- US v Oregon
- US v Washington

The Yakama Nation is prepared to take all necessary measures to protect its resources guaranteed by the Treaty of 1855 (12 Stat. 951).


- Hossfield, Roderick and Rod Hatt, “PRB Coal Degredation – Causes and Cures,” PRB Coal User’s Group

