



Environmental Due Diligence for New Oil and Gas Pipelines

Presented by

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KEY POINTS

- **Timing is everything!**
- **Know the regulations and permitting requirements.**
- **Start from the desktop.**
- **Focus on what matters.**

TIMING

- **Identify the longest potential permitting requirement and allow for it. Work backwards!**
- **Coordination with landman is critical. ROW access limits field work.**
 - **Allow for changes to route. Stay flexible!**
- **Allow for seasonal limitations**
 - **Protected species surveys.**
 - **Snow in northern climates.**

KEY DUE DILIGENCE ISSUES

- **Federal/State/Tribal Land.**
- **Contaminated Land Limitations.**
- **Streams, Ponds, and Wetlands (Section 404).**
- **Protected Species.**
- **Cultural Resources.**
- **Odds and Ends.**
 - **Storm Water Permits.**
 - **Sand and Gravel Permits.**
 - **Easement Requirements.**

KEY DUE DILIGENCE ISSUES

Federal/State/Tribal Land

- **Generally require more rigorous environmental documentation and review.**
 - **Federal Land: NEPA documentation.**
 - **State and Tribal Land: “NEPA-like” documentation.**
- **Allow time for review.**

KEY DUE DILIGENCE ISSUES

Contaminated Land

- **Not required! This is a risk management issue.**
- **Phase I Environmental Site Assessment approach.**
 - **Historic landfills and uncontrolled disposal sites.**
 - **Proximity to known releases of hazardous waste or fuel.**
 - **Proximity to high potential sources (e.g., dry cleaners, fuel terminals).**
- **Screen entire route, but focus on urban areas.**
 - **Historic aerials and topographic maps on exception basis in remote areas.**
 - **Sanborn maps and city directories only available for urban areas.**
- **Follow up with field assessment of suspect locations.**

KEY DUE DILIGENCE ISSUES

Section 404 Compliance

- **Almost always cross some feature that is subject to Section 404 of the Clean Water Act, and usually several.**
- **Often, no coordination with regulatory agencies (Corps of Engineers) required.**
 - **Nature of feature.**
 - **How crossed (trenched, suspended, bored).**
- **Desktop review followed by focused field evaluation.**

KEY DUE DILIGENCE ISSUES

Protected Species

- **Federal Threatened and Endangered Species.**
- **State Threatened and Endangered Species/Species of Concern.**
- **Migratory Birds.**
- **Golden and Bald Eagles.**

KEY DUE DILIGENCE ISSUES

Cultural Resources

- **Broad reach of historic or prehistoric resources:**
 - **Buildings.**
 - **Roads.**
 - **Other man-made features of historic significance: dipping vats, stills, etc.**
 - **Archaeological sites.**

KEY REGULATORY ISSUES

Federal/State/Tribal Land

- **Will probably have to address all regulatory issues in NEPA or “NEPA-like” document.**

Contaminated Land

- **Exposure of workers to contaminated excavated surface and subsurface soil and shallow groundwater.**
- **Disposal of contaminated soil and groundwater.**
- **Could potentially assume liability for contamination.**

KEY REGULATORY ISSUES

Section 404 Compliance

- **Nationwide Permit 12 – Utility Line Activities.**
 - **Limited to “loss” of 0.5 acre of Waters of the U.S. Restored trench is not a loss! Boring under a stream is also not a loss!**
 - **Limitation is for “single and complete project”.**
 - Usually, each crossing is “single and complete”.
 - **Preconstruction Notification (application) is required if:**
 - **Mechanized clearing in forested wetland.**
 - **Crossing navigable waters (Section 10) – e.g., Trinity River.**
 - **More than 500 feet in WOUS for any “single and complete project”.**
 - **Line runs parallel to stream in WOUS.**
 - **“Loss” of > 0.1 ac for any “single and complete project”.**
- **Individual Permit.**

KEY REGULATORY ISSUES

Protected Species

➤ **Federal.**

▪ **Endangered Species Act.**

- Protects designated “Critical Habitat” and “take” on all properties. “Take” includes “harass” and “harm”.

▪ **Migratory Bird Treaty Act.**

- Very long list of birds.
- Narrow interpretation of “take”.

▪ **Golden and Bald Eagle Protection Act.**

➤ **State.**

▪ **Threatened and Endangered Species (“Species of Concern”)**

- Longer list than Federal.
- Usually more narrow interpretation of “take”.

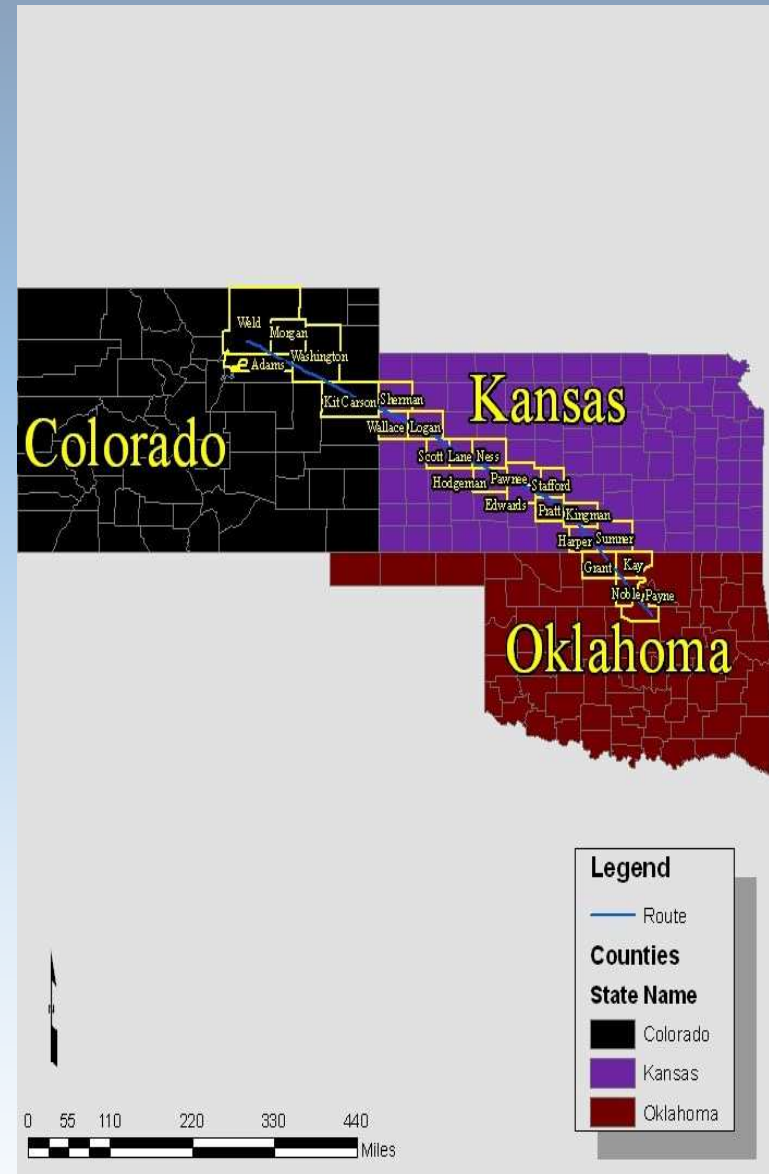
KEY REGULATORY ISSUES

Cultural Resources

- **National Historic Preservation Act requires consideration of historic resources.**
 - **404 permit (including NWP 12) requires compliance with NHPA).**
- **State agencies (e.g., Texas Historical Commission).**
- **Federal/State/Tribal land managers often require more rigorous documentation.**

CASE HISTORY

- **525-Mile Oil Pipeline from Cushing, OK to Plattsville, CO. Later extended to Laramie, WY.**
- **New ROW.**



CASE HISTORY (Contd)

Federal/State/Tribal Land

- **Federal, state, and tribal lands were avoided in order to fast-track the project.**
- **Pawnee land was crossed in CO extension.**
 - **“NEPA-like” documentation.**

CASE HISTORY (Contd)

Contaminated Land

ASTM FEDERAL & STATE DATABASE LISTS		
Database	Search Distance (Mile)	No. of Facilities Listed
Federal, State, and Local Records		
No Further Remedial Action Planned (NFRAP)	0.50	2
Resource Conservation and Recovery Information System –Generators (RCRA-GEN)	0.25	3
Emergency Response Notification System (ERNS)	0.25	3
State Spills 90	0.25	7
State/Tribal Solid Waste Landfills (SWL)	0.50	2
State/Tribal Leaking Underground Storage Tank (LUST)	0.50	3
State/Tribal Underground Storage Tank Database (UST/AST)	0.25	11

CASE HISTORY (Contd)

Section 404

- **Plan was to trench small streams and wetlands and bore under rivers (“navigable waters”).**
- **Began with desktop analysis, considering NWP 12 PCN requirements: topographic maps, aerial photos, USFWS wetland inventory maps.**
 - **Potential forested wetlands.**
 - **More than 500 feet in WOUS at any single location.**
 - **Lines running parallel to stream in WOUS.**

CASE HISTORY (Contd)

Section 404 (Contd)

Stream ID	Stream Name	Map Analysis				VISIT	PCN
		NWI*	Forest	>450 ft	Parallel		
OK_001	Unnamed tributary to Skull Creek						
OK_002	Unnamed tributary to Cimarron River						
OK_003	Unnamed tributary to Cimarron River	X				X	
OK_004	Unnamed tributary to Short Creek	X					
OK_005	Short Creek		X			X	
OK_006	Cimarron River			X		X	X

CASE HISTORY (Contd)

Section 404 (Contd)

- **326 stream/wetland crossings required 169 field visits and PCNs for 60 locations.**
- **Based on field visits, changes made at 75 crossings:**
 - **Forested wetlands avoided.**
 - **Reduce crossings of braided streams.**
 - **Parallel runs avoided.**
 - **Ponds avoided.**

CASE HISTORY (Contd)

Section 404 (Contd)

- **Tulsa, Kansas City, and Omaha Corps Districts.**
- **No IPs required – all NWP 12 authorizations.**
- **Authorizations issued by all three districts.**

CASE HISTORY (Contd)

Protected Species

- **Identified potential habitat by desktop, and field surveys.**
- **Addressed federal species in PCNs.**
 - **Arkansas Darter.**
 - **Arkansas River Shiner.**
 - **Topeka Shiner.**
 - **Bald Eagle.**
 - **Interior Least Tern.**
 - **Lesser Prairie Chicken (had to avoid a lek).**
 - **Piping Plover.**
 - **Whooping Crane.**

CASE HISTORY (Contd)

Protected Species (Contd)

- **State species and migratory birds addressed internally (no specific reporting requirements for NWP).**
- **Construction personnel made aware of potential state species.**
- **Clearing of high-potential migratory bird nesting areas cleared in non-nesting season.**

CASE HISTORY (Contd)

Cultural Resources

- **Desktop screening.**
 - Review of existing information from state historical agencies.
 - Topographic maps.
 - Soil maps.
- **High potential sites evaluated in field.**
 - Shovel testing.
- **A few cultural sites in vicinity of ROW, but none in ROW and no impacts were anticipated.**
- **Approved by SHPO and Corps.**

COST/SCHEDULE FACTORS

- 1. Length of route.**
- 2. Geography.**
 - **Arid west Texas has fewer aquatic features, less diversity of habitat, and fewer cultural resources than east Texas.**
- 3. Individual Permits and federal, state, and tribal lands add time to the process.**
- 4. Access issues and constantly changing ROW alignments can create significant delays and inefficiencies.**

RULES OF THUMB/LESSONS LEARNED

- 1. Due diligence is performed to (1) reduce liability and construction delays/costs and (2) provide information for necessary permits/authorizations. KNOW THE DIFFERENCE AND SCOPE ACCORDINGLY.**
- 2. Know the regulatory requirements and WORK BACKWARDS. Otherwise, it's just a research project.**
- 3. Let the initial desktop work focus the field work.**
- 4. Communicate with the regulatory agencies. They're all different and every day is a new day.**
- 5. Be prepared for ROW changes while in the field. It's going to happen.**

QUESTIONS?

