

American Society of Mining and Reclamation
“Exploring New Frontiers in Reclamation”

Regional Variance in Site Selection for Land Disturbing Activities in Oklahoma

Blackbird Environmental, LLC

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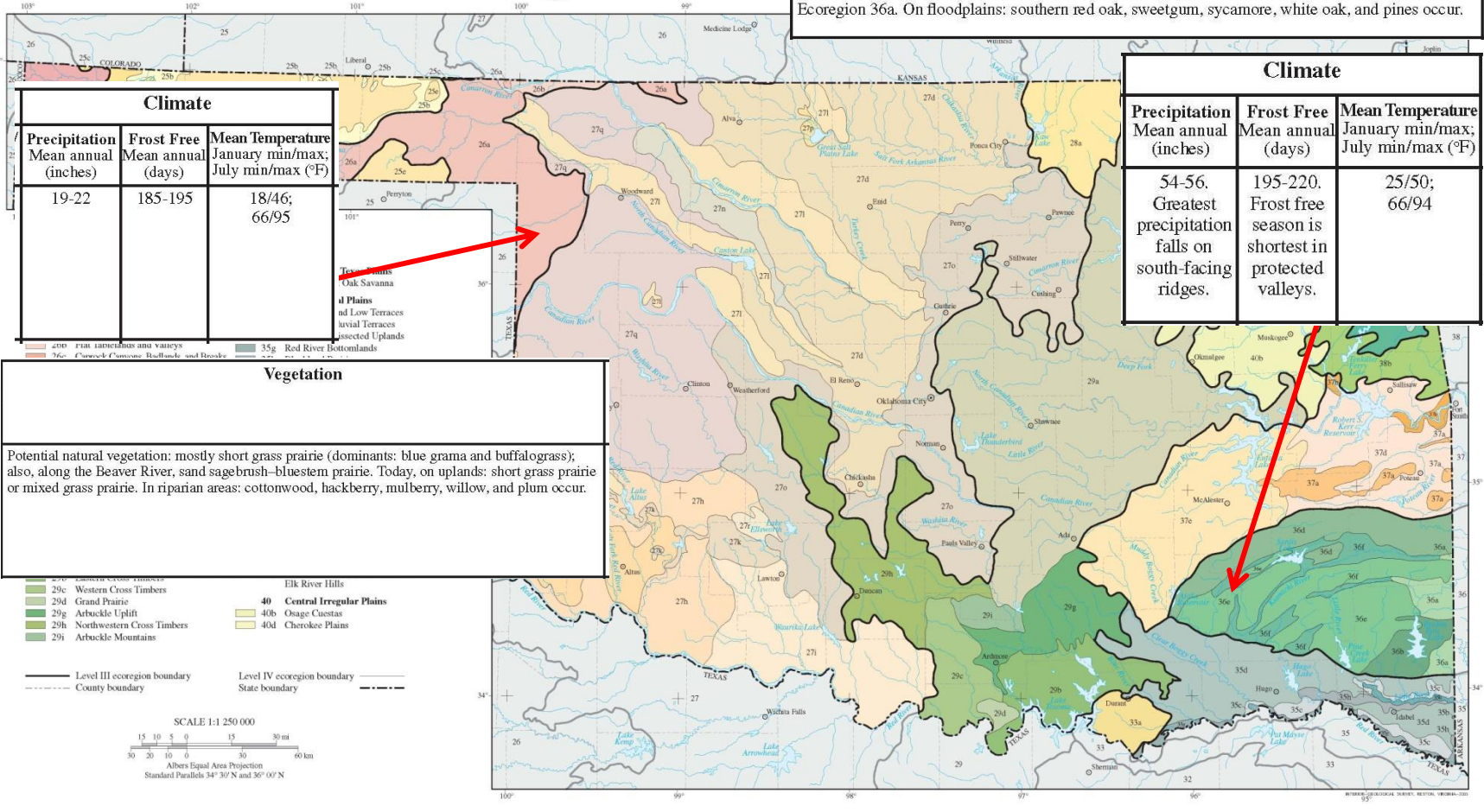
Presentation Overview

- Oklahoma's Natural Resources
 - East vs. West Comparison
- Waters of the United States
 - Examples in Eastern and Western Oklahoma
- Protected Species
 - Habitat Specialist and Habitat Generalists
- Permitting Challenges In Oklahoma
 - Federal Nexus of CWA Section 404 Permitting

Ecoregions of

Vegetation

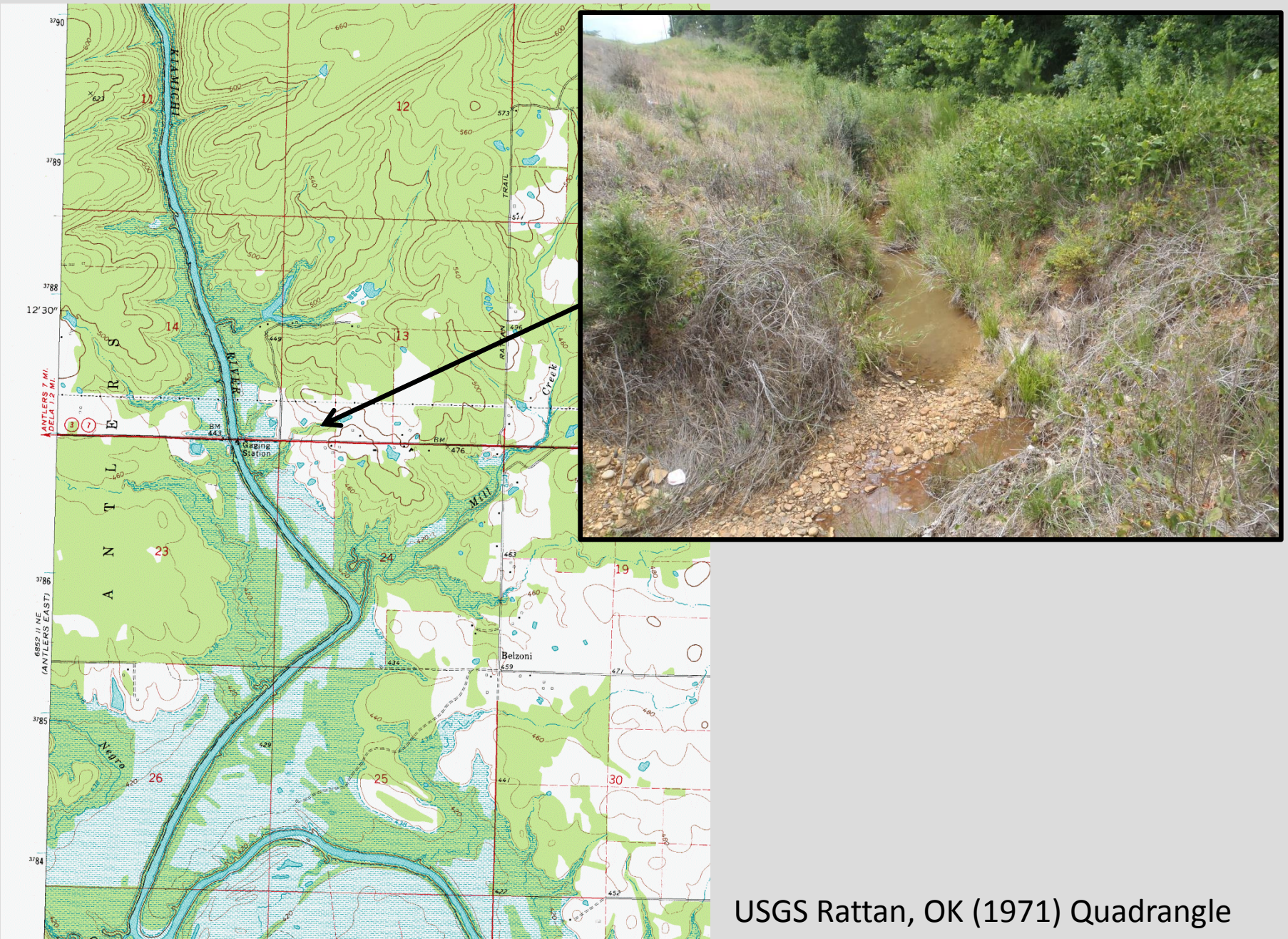
Potential natural vegetation: oak-hickory-pine forest. Native on uplands: mixed shortleaf pine-upland deciduous forests. Native along streams: bottomland forests with a rich diversity of understory trees and shrubs. Loblolly pine is not native to Ecoregion 36 in Oklahoma. Today, on uplands: extensive commercial pine plantations and oak-hickory-pine forests occur. Loblolly pine and shortleaf pine are common, but mixed oak-hickory-pine forests now cover less than 20% of Ecoregion 36a. On floodplains: southern red oak, sweetgum, sycamore, white oak, and pines occur.



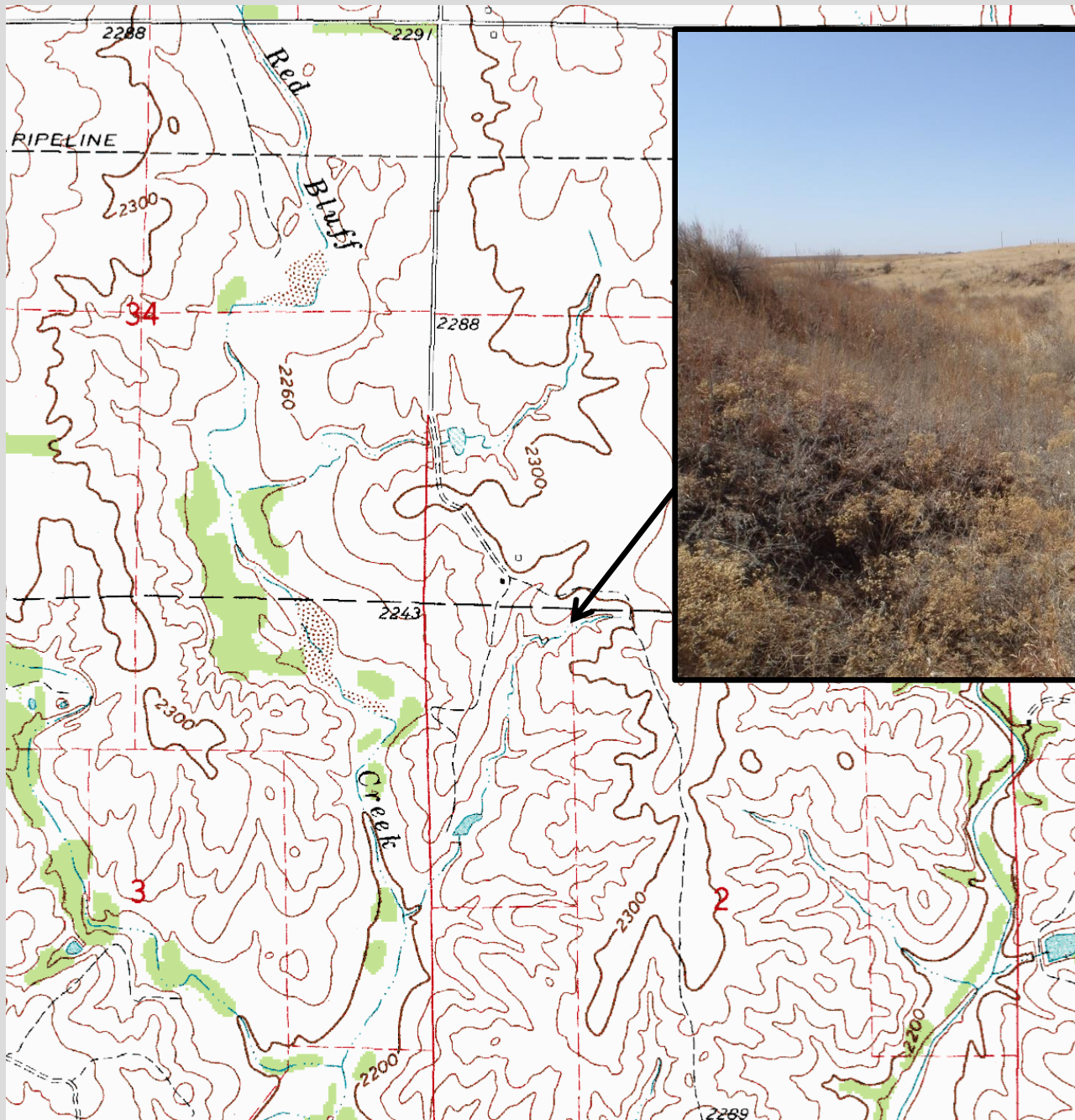
Woods, A.J., Omernik, J.M., Butler, D.R., Ford, J.G., Henley, J.E., Hoagland, B.W., Arndt, D.S., and Moran, B.C. 2005. Ecoregions of Oklahoma (color poster with map, descriptive text, summary tables, and photographs): Reston, Virginia, U.S. Geological Survey (map scale 1:1,250,000).

Protected Waters of the United States

- Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403)
- Federal Water Pollution Control Act of 1972, Clean Water Act, Section 404
- “All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide...”
- “Tributaries of waters identified in this section...”



USGS Rattan, OK (1971) Quadrangle



USGS Arnett SE, OK (1983)
Quadrangle

ESA Protected Species

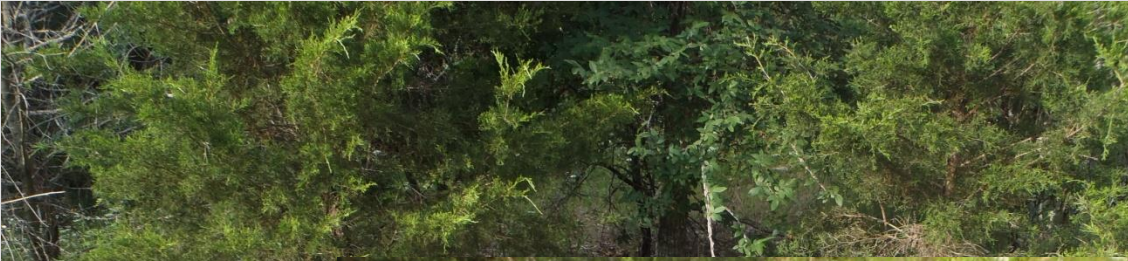
- **Take:** “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.”
- **Endangered Species:** “any species which is in danger of extinction throughout all or a significant portion of its range...”
- **Threatened Species:** “any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.”

Oklahoma Threatened and Endangered Species

- 9 Threatened Species
 - 1 Bird
 - 3 Mammals
 - 1 Mussel
 - 4 Fishes
- 10 Endangered Species
 - 4 Birds
 - 4 Mussels
 - 1 Plant
 - 1 Insect
- American Burying Beetle (*Nicrophorus americanus*)
- Lesser Prairie Chicken (*Tympanuchus pallidicinctus*)

American Burying Beetle

- Habitat Generalist
 - Native Grasslands
 - Grazed Pasture
 - Riparian Zones
 - Forested Ridges and Valleys
- Carrion Beetle Feeding Primarily on Small Birds and Mammals
- Life History Includes Active and Overwintering Periods Followed by Emergence and Reproduction
- Life Span is Typically One (1) Year



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Lesser Prairie-Chicken

- North American Grouse Species
- Habitat Includes
 - Sand Sagebrush
 - Sand Shinnery Oak
 - Mixed Grass
- Life History Habitat Components include
 - Nesting Habitat
 - Brood-Rearing Habitat
 - Summer Habitat and Autumn/Winter Habitat
 - Lek Habitat



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ABB ICP and WAFWA RWP

- Oil and Gas Industry Conservation Plan (ICP)
 - Permits Take of ABB Incidental to Activities Associated with Oil and Gas
 - 2014 and 2015 Oil and Gas Construction Activities and Maintenance Activities for 20 Years
- WAFWA Region-Wide Conservation Plan (RWP)
 - Supports Special ESA Section 4(d) Ruling Not Prohibiting Take Incidental to Activities Associated with Participants Enrolled in RWP.
 - BMP along with Mitigation Measures

Clean Water Act, Section 404

Permitting

- Individual Permits vs. Nationwide Permits
- Preconstruction Notification
- General Condition 18
 - “No activity is authorized under any NWP which is likely to directly or indirectly jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will directly or indirectly destroy or adversely modify the critical habitat of such species. No activity is authorized under any NWP which “may affect” a listed species or critical habitat, unless Section 7 consultation addressing the effects of the proposed activity has been completed. “

**Thank You For Your Time
Any Questions?**

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