



Wildlife Issues With Oil and Gas Exploration

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Outline

- › Nationwide Issues
- › Regional Issues
- › Industry Examples
- › General Wildlife Impacts
- › Best Practices

Nationwide Issues

› Federal Regulation –

› The Endangered Species Act (ESA)

- Threatened, Endangered, and Candidate Species
- Section 7 consultation
 - Interagency consultation
 - May affect (informal consultation) or likely to adversely affect (formal consultation)
- Section 10 consultation
 - non-Federal applicants
- Biological assessments and biological opinions
- Incidental take permits

Nationwide Issues

› The Migratory Bird Treaty Act (MBTA)

- Protects all migratory birds
 - Exceptions include non-native birds such as House sparrows and European starlings
- Illegal for anyone to take, possess, import, export, transport, sell, purchase, barter, or offer for sale, purchase, or barter, any migratory bird, or the parts, nests, or eggs of such a bird except under the terms of a valid permit issued pursuant to Federal regulations
- Incidental take permits

› The Bald and Golden Eagle Protection Act (BGEPA)

- Provides long-term species management and protection in addition to the ESA and MBTA

Regional Issues

- › State and Local Regulation
- › State-level threatened and endangered species regulation
 - › States often provide varying degrees of species regulation and/or have few resources for regulatory enforcement
- › Many state-listed species may also be federally listed or federal candidate species

Regional Issues

- › The Barnett Shale – Black-capped vireo, migratory birds
- › The Eagle Ford Shale – Texas tortoise, Texas horned lizard, spot-tailed earless lizard
- › The Permian Basin – Dunes sagebrush lizard, migratory birds
- › The Bakken Shale – Piping plovers, migratory birds, wintering elk
- › The Haynesville Shale – Red-cockaded woodpecker, Louisiana black bear, Louisiana pine snake
- › Oklahoma – American burying beetle
- › The Marcellus Shale – Mussels, bats

Example

- › Dunes sagebrush lizard
- › Permian Basin = 39.6 million acres
 - › Dunes sagebrush lizard occupies less than 2% of the basin
- › Effective Conservation Efforts
- › Candidate Conservation Agreements
 - › 2012 Texas Conservation Plan
 - Implement construction BMPs
 - Trench length/duration
 - Limit vegetation removal
 - Temporal construction limits
 - HDD
- › Proposal for Listing was withdrawn by USFWS in 2012
- › Frac sand operations have heated up the issue

General Wildlife Impacts

- › Habitat loss, degradation, fragmentation
 - › Occurs with any development (energy, residential, commercial, industrial, etc.)
 - › Cumulative effects of development can lead to reduction in populations
 - Monarch butterflies, mussels
- › Behavioral modifications to populations as a result of more wells, lease roads, etc.
 - › Can diminish breeding success
 - › Potential significant threats to population viability include avoidance due to increased vehicle traffic, construction of new roads or modification of existing ones, well pads and pipelines
 - › Stressors during critical life cycle periods
 - Pronghorn antelope, lesser prairie chickens

General Wildlife Impacts

- › Loss of wintering ranges for ungulates in colder climates
 - › Deer, elk
- › Loss of specialized habitat for specialists
- › Impacts to watersheds
 - › Mussels

Best Practices

- › Minimize habitat fragmentation by using existing roads and corridors whenever possible.
- › Avoid or protect sensitive areas, seek qualified help identifying these areas, and limit development and disturbance to agreed-upon development corridors.
- › Monitor surface and subsurface water quality.
- › Prevent erosion and contamination of topsoil.
- › Prevent the introduction or spread of invasive and exotic plants.
 - › Use only locally adapted native seed when possible to reclaim and re-vegetate sites.
- › Plan operations to minimize impacts to traditional land uses during development.

Best Practices

- › Maintain equipment
- › Restrict access to wildlife
 - › Fencing, flagging, netting, screening
- › Work with industry/environmental groups to get ahead of the curve
 - › Take efforts to avoid listing of species.
 - Development of best management practices
 - Conservation efforts
 - › Research

Questions?