Wildlife Issues With Oil and Gas Exploration

Peter D. McKone, CWB
Senior Project Director
pmckone@wcgrp.com
817-946-7379
Outline

» Nationwide Issues
» Regional Issues
» Industry Examples
» General Wildlife Impacts
» Best Practices
Nationwidewide 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
Nationwidewide Issues

 últimos

 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- Proposal for Listing was withdrawn by USFWS in 2012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?