

Wind and Wildlife



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Wind and Wildlife

- Potential wildlife impacts
- Wind development siting
- Development process
- Baker County wind and wildlife

Potential Wildlife Impacts

Collisions/strikes

- **Birds**
 - Most researched impact
 - Altamont Pass project in CA
 - Improvements in turbine design
 - Review of projects = 2.19 strikes/turbine (*West, Inc.*)
 - Stateline 454, 660 kw turbines (*West, Inc.*)
 - July 01 – Dec 03
 - 232 bird fatalities of 35 species

Potential Wildlife Impacts

Collisions/strikes

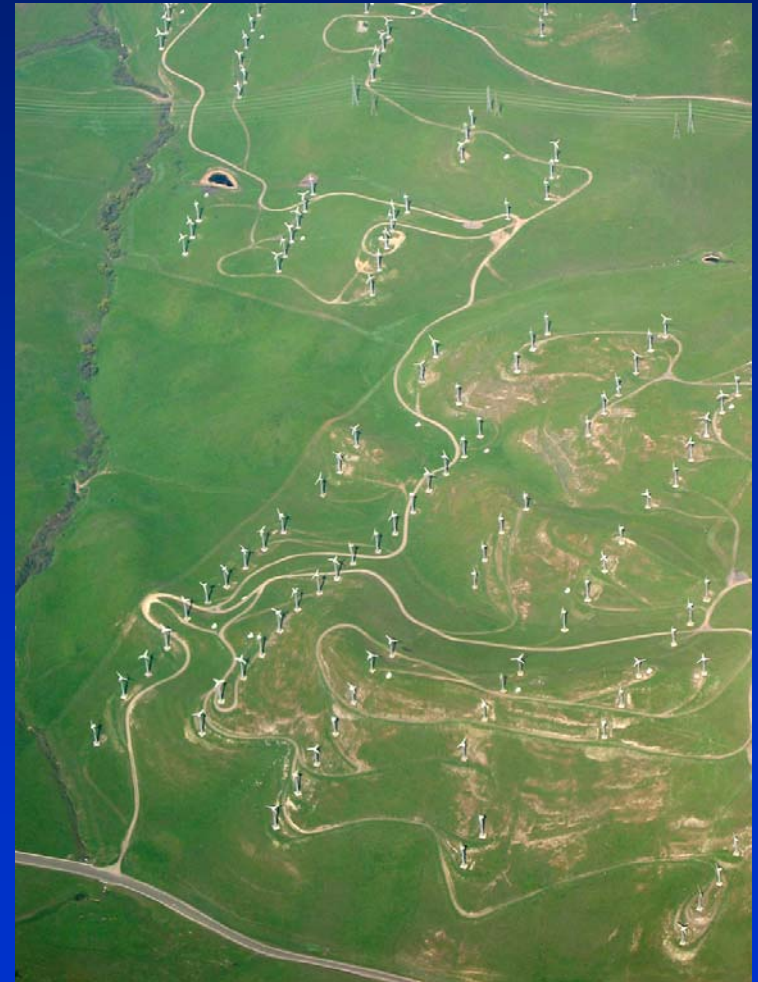
- **Bats**
 - 500 insects/hour
 - Significant mort.
 - Tower attraction?
 - Barotrauma



Potential Wildlife Impacts

Habitat

- Fragmentation
- Increased roads
- Noxious weeds
- Harassment
- Structure avoidance



Wind Project Siting



Wind Project Siting



Columbia Plateau Ecoregion Wind Energy Siting and Permitting Guidelines

Development Process

- **Macrositing**
- **Pre-project assessment**
- **Micro-siting**
- **Permit application**
- **Construction**
- **Monitoring**
- **Habitat mitigation**

Development Process

- **Macrositing**
 - review resource concerns
 - sage grouse habitat
 - big game winter range
 - important wildlife areas
 - migration routes
 - presence of T/E species
 - review of cumulative impacts
 - good time to consult with ODFW

Development Process

- **Pre-project assessment**
 - coordination with wildlife agencies
 - habitat mapping
 - raptor nest survey
 - bat/avian use surveys
 - T/E species surveys
 - sage grouse helicopter surveys

Development Process

Micro-siting

- after all resource data collected
- final project design
- location of towers/structures
- compromise

Development Process

- **Permit application**
 - **outline resource concerns**
 - **finalized mitigation plan**
 - acres/type habitat impacted
 - location/type habitat created
 - maintenance/monitoring
 - **ODFW mitigation policy**
 - state vs. county/federal process
 - ranks habitat 1 – 6

Development Process

- **Construction**
 - avoid sensitive areas
 - avoid sensitive times
 - sage grouse breeding season
 - big game winter period
 - restore temp disturbed areas

Development Process

- **Monitoring**
 - bird/bat carcass surveys
 - handling/reporting protocol
 - post project surveys

Development Process

- **Mitigation**
 - cons. easement
 - weed eradication
 - juniper removal
 - grazing mgmt.
 - create wetlands
 - riparian fencing
 - shrub planting



Baker County Issues

- Development of public land
- Native vs. impacted areas
- Big game winter range
- Sage grouse

Baker County Issues

Sage Grouse

- Populations decline
- Petitioned for federal listing
- Isolated/small population
- Highly fragmented landscape
- Sage grouse in windy areas
- ODFW recommend 3 mile buffer

Baker County Issues

Recommendations

- Use siting guidelines
- Properly site projects
- Prevent sage grouse listing
- Ensure sufficient mitigation

THE END

