

Renewable Energy and Wildlife

Colorado Parks and Wildlife

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Outline:

- CPW Energy and Land Use program
- CPW Consultation on Renewable Energy
- CPW High Priority Habitat
- CPW Wind and Solar Best Management Practices
- Where to access this information



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CPW Energy and Land Use Program

Statewide

- Statewide Energy Lead within Policy and Planning

Regional Teams

- Senior Resource Manager
 - Energy Liaison - Oil & Gas focus
 - Renewable Energy Liaison
 - Land Use Specialists
- Field staff: Area Wildlife Managers, District Wildlife Managers, terrestrial and aquatic biologists



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CPW's role in energy and land use

- Assess impacts to wildlife, habitat, and wildlife-related recreational opportunities
- Provide recommendations to avoid, minimize, and mitigate impacts to wildlife
- A recommending agency, not regulatory



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Energy and Land Use Permitting in Colorado

County or Municipal Planning Commissions through local land use authority, 1041 permits for *Areas and Activities of State Interest*

Public Utilities Commission (PUC) – regulatory authority investor-owned electric, gas and water utilities, municipal utilities and cooperative electric associations.

Rules Regulating Electric Utilities 4 CCR 723-3: Renewable Energy Standard Rule 3668: Environmental Impacts

Federal agencies if facility is proposed on Federal surface or if developing Federal minerals or geothermal resources associated with Federal minerals

State agencies where they have regulatory authority (ECMC, DRMS)



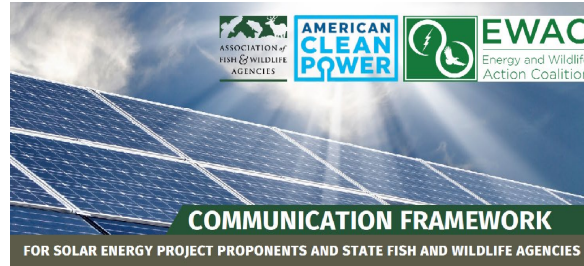
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Multiple drivers of renewable energy consultation with CPW

- Local Government process
- State process - PUC rule 3668
- Federal process
- Voluntary processes between industry and state wildlife agencies
 - Voluntary Land-based Wind Energy Guidelines (2012)
 - Solar and Wind Communication Frameworks



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CPW Renewable Energy Actions in SB24-212

29-20-404. Technical support for renewable energy projects (CPW)

Project specific technical support

Consultation frameworks
Site-specific consultation with
developer
Site-specific review for permitting
authority

Statewide technical support

High Priority Habitat
Solar Energy BMP document
Wind Energy BMP document



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Renewable Energy Consultation

- What are the technology-specific impacts and risks?
- What is the area of direct impact? Will there be impacts beyond that boundary?
- What are the options to avoid, minimize, mitigate impacts?
- Habitat
 - What habitat will be lost? How much?
 - What are the indirect effects of habitat fragmentation, displacement?
 - What is the value of that habitat within the local landscape?
- Effects on Individuals
 - What species are present?
 - Are there mortality risks for those species?
 - Will there be behavioral avoidance of the site?
 - How important is that piece of land for that species?
- Are the potential impacts to wildlife short term or long term?



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Wind Energy Consultation

Federal Land-based Wind Energy Guidelines

If developers follow guidelines, at a minimum see:

- 2 years of specialized field surveys
- Early consultation with agencies*
- Coordination between CPW and USFWS

Key factors:

Wind resource is localized

Wildlife concerns focused on collision risk and avoidance:

- Prairie chickens and grouse
- Golden eagles and other raptors
- Migratory and tree roosting bats



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Consultation on solar energy projects in Colorado

- No existing federal guidance
 - Less consistent consultation
 - Rarely have site-specific wildlife surveys for planning
 - Reliance on CPW for wildlife info
- Growth in utility scale projects in CO
- Resource is more widely distributed than wind
- Developer timelines considerably shorter than wind
- Impacts to wildlife are broad



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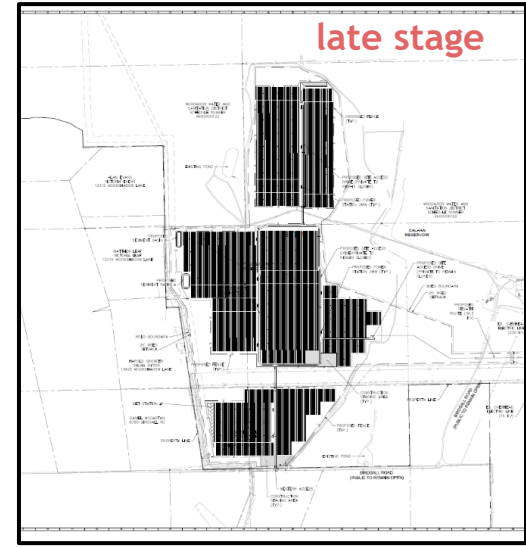
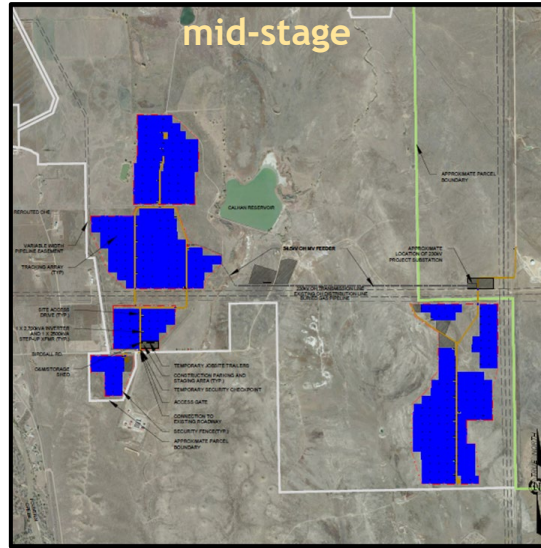
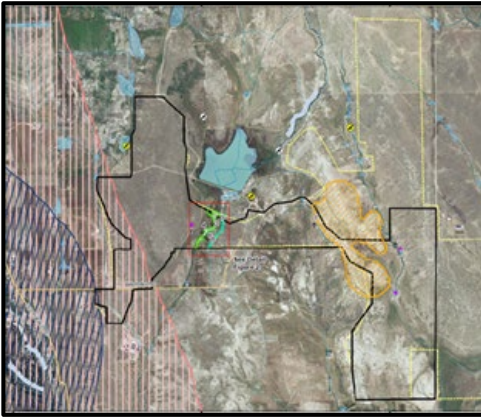
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Consultation on energy projects in Colorado

Timing of consultation is critically important



early stage

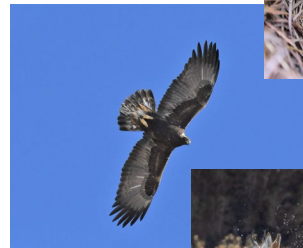
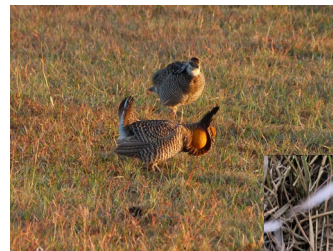


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CPW High Priority Habitat

- HPH is a subset of CPW species and habitat maps
 - Grouse and prairie chicken lek sites, nesting areas
 - Raptor active nest sites
 - Big game: critical winter and calving areas
 - Habitats for small mammals, birds, bats
 - Aquatic habitats: native species, sportfish, cutthroat
- Species and habitat maps included in HPH are not developed for any specific development or impact type
- HPH maps are updated annually

HPH maps are the start of the conversation



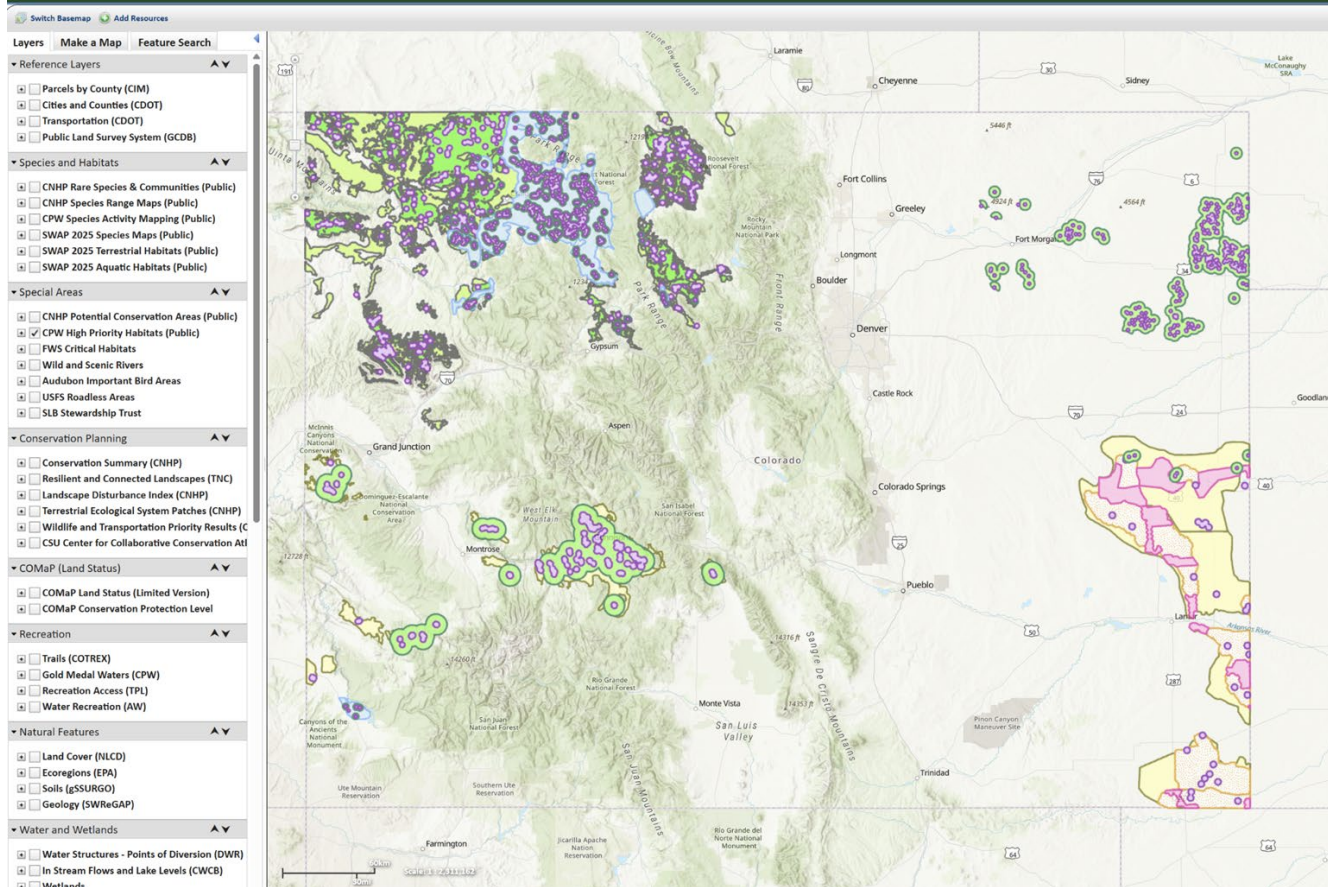
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CODEX: Colorado Conservation Data Explorer



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Renewable Energy and Wildlife Links

Where to access this information:

CPW Energy and Land Use page: <https://cpw.state.co.us/energy-development-and-land-use>

CPW staff contacts, High Priority Habitat Table and Maps, Wind and Solar Energy BMPs

Colorado Conservation Data Explorer CODEX: <https://cnhp.colostate.edu/maps/codex/>

Additional information sources:

USGS: [US Wind Turbine Database](#) / [US Large Scale Solar PV Database](#)

[Renewable Energy Wildlife Institute](#)

Siting models, The Nature Conservancy and others