



Conservation Priorities and Resources for SB 100 Transmission Planning for Renewable Energy

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Framing conditions: the need

- Climate change is the #1 global threat to biological diversity
- Developing and bringing clean, low-carbon sources of energy like wind to market is critical to abating this threat
- The conservation community is motivated to work with related industry sectors to help them become the best possible performers and achieve good outcomes for conservation globally *and* locally



Framing conditions: the challenge

For conservationists, wildlife and ecosystem challenges exist relative to conserving biological diversity while developing a robust, clean-energy future

At a very basic level, there are at least two major conservation concerns related to transmission infrastructure related to renewable energy:

- Direct mortality – strikes, roads, other infrastructure
- Habitat fragmentation (including wildlife displacement)

Today we have the opportunity to be ahead of the curve and proactively address these concerns



Framing conditions: CO context

- Colorado sustains roughly 900 wildlife species
- Coloradoans are motivated to do the right things environmentally - they want to conserve their natural heritage and wildlife and support renewable energy
- The Colorado conservation community is experienced in working with partners to find win-win solutions to natural resource concerns
- Our organization, our perspectives, and our knowledge are connected not only to local communities and places but also regionally and globally - providing a basis for better outcomes and opportunities to effectively share our work and successes



Conservation screening

Screening potential projects – sites and species, landscapes and ecosystems

- The best screens are resources to help transmission planners understand conservation concerns across large landscapes before specific routes are selected to identify and avoid potential problems
- Mapping important areas for conservation and sensitive resources in specific areas across states and regions



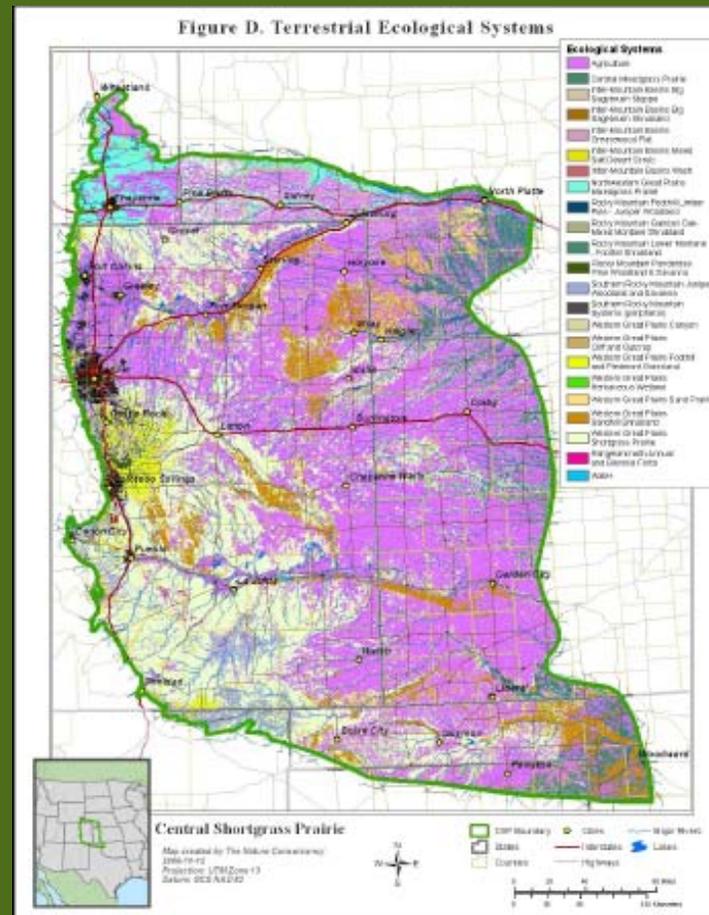
Credible conservation data sources

The Central Shortgrass Prairie Plan

CENTRAL SHORTGRASS PRAIRIE
ECOREGIONAL ASSESSMENT AND PARTNERSHIP INITIATIVE

Final Report
November 2006

This project was made possible by financial support from the Department of Defense Legacy Resource Management Program, Colorado Division of Wildlife and The Nature Conservancy. Other key participants included Colorado Association of Conservation Districts, Colorado Natural Heritage Program, Colorado State Land Board, Comanche National Grassland and Pawnee National Grassland, US Forest Service, Environmental Protection Agency, Directorate of Environmental Compliance and Management, Fort Carson, Natural Resources Conservation Service, NatureServe, Playa Lakes Joint Venture, Rocky Mountain Bird Observatory, and US Fish and Wildlife Service.



Goes beyond information in standard state and federal databases



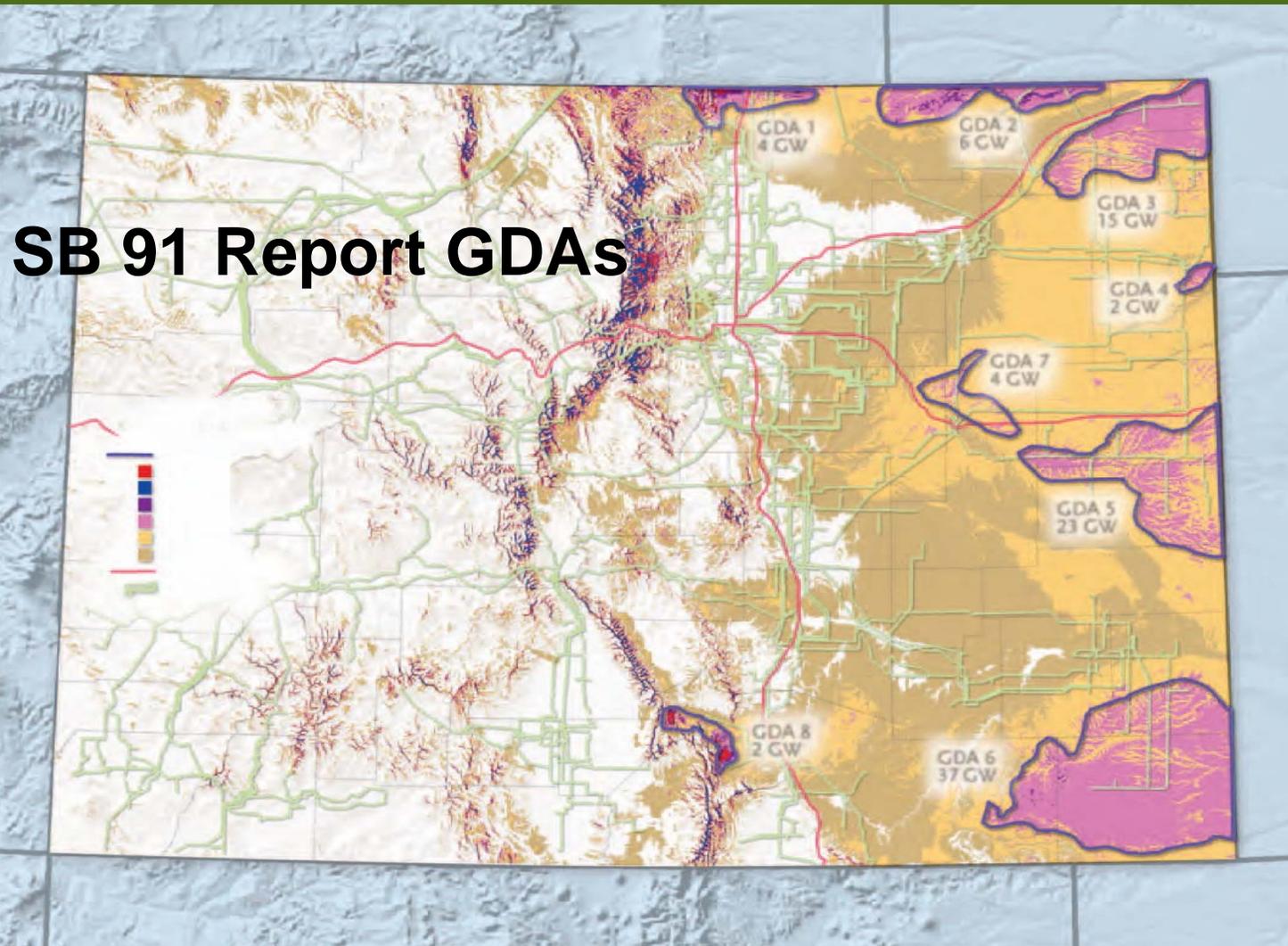
Credible conservation data sources

Over 30 organizations contributed to the development of the Central Shortgrass Prairie Plan. They include:

- American Birding Association
- Audubon Colorado
- Bureau of Land Management
- Colorado Division of Wildlife
- Natural Heritage Programs / Surveys / Databases (CO, KS, NM, OK, & WY)
- Colorado State University
- Colorado State Land Board
- Nebraska Game and Parks
- New Mexico Game and
- Rocky Mountain Bird Observatory
- The Nature Conservancy (CO, KS, NE, NM, OK, TX, & WY Chapters)
- University of Colorado
- USDA Natural Resources Conservation Service
- US Environmental Protection Agency
- US Department of Defense
- US Fish and Wildlife Service
- US Forest Service
- Wyoming Game and Fish



Credible wind resource data sources





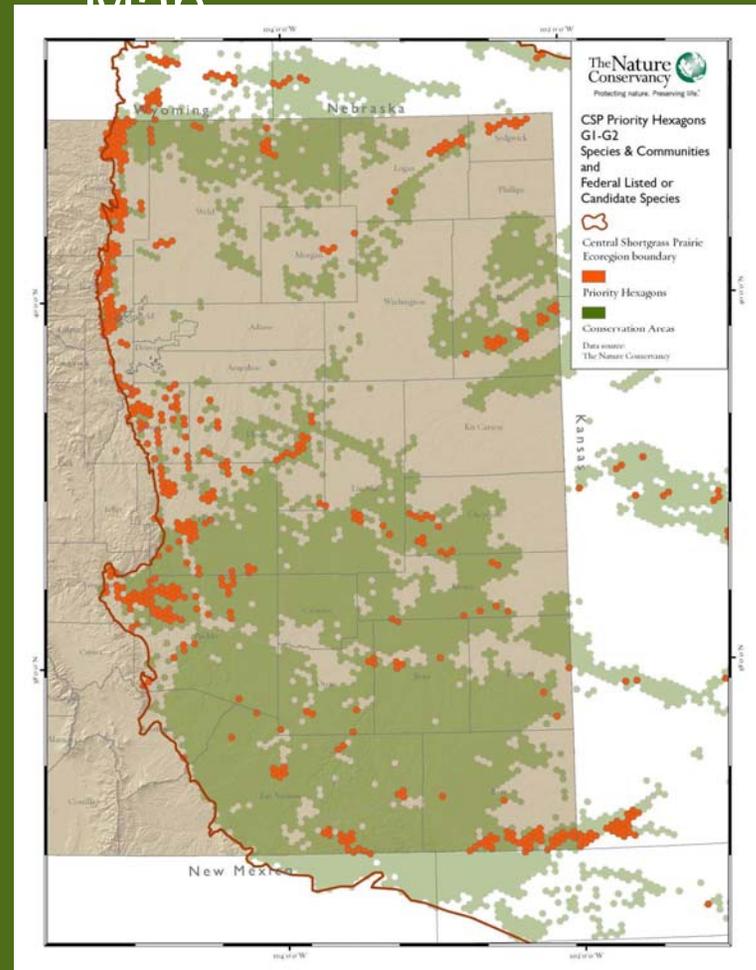
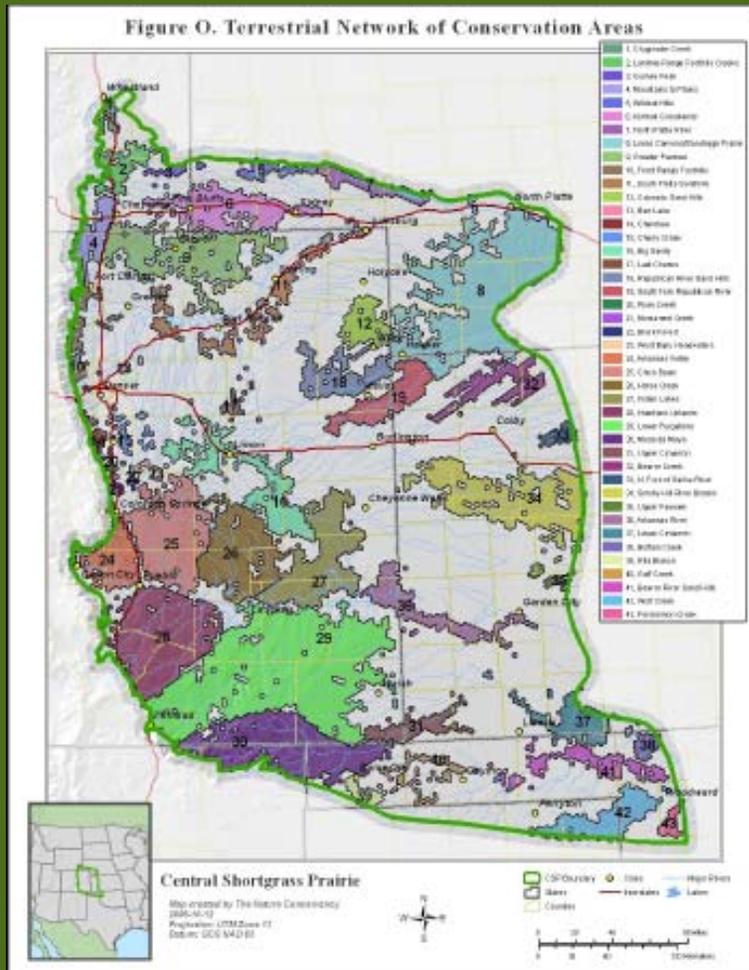
Conservation screening

- Existing information from the Central Shortgrass Prairie Plan *and* complementary sources can be mapped onto potential transmission routes to give planners an accurate and highly credible tool for route planning and analysis in Colorado
- At the level of specific routes, the conservation community can also work with planners to take “deeper dives” on data to identify concerns as *early* in the due diligence process as possible to address possible challenges



Conservation screening - maps

- CO Conservation Areas
- CO Irreplaceable Species Map





Conservation screening - maps

- Other possible maps:
 - Significant physiographic features potentially important to wildlife (e.g., rivers/riparian areas, cliff systems, etc.)
 - Known breeding sites for prairie chickens and other prairie grouse
 - Nesting concentrations of other sensitive bird species



Conservation screening

- Analyze transmission routes for important species or systems that may exist in them
- Analyze only for species or systems where there is a credible scientific basis for concern



Conservation screening

- Hierarchies of conservation concern may emerge from screening
- Relative to conservation, analysis will likely reveal that there are places where transmission would have low, moderate, or high impacts on wildlife and biodiversity
- There are likely to be large areas of low and moderate impacts and small areas of high impacts



Benefits summary

- Early identification of significant concerns - problem avoidance - “no surprises”
- Improves natural resource conservation/keeps natural heritage intact
- Saves time by consolidating access to information
- Establishes consistent understanding of concerns
- Proactively prevents regional problems
- Serves broad industry interests



Next steps

- Discussion – One key question
 - How can we most effectively ensure that conservation interests are most effectively addressed?



Conclusion

The Colorado conservation community is highly motivated to work with the industry at all levels to advance the development and market availability of clean, renewable energy, transmission, and associated infrastructure while seeking to avoid and otherwise address undue impacts to plants, animals, and ecosystems

The community believes that this can be done in a collaborative and mutually beneficial manner

We want to work together to find ways to do this right for all of the things we care about

Figure O. Terrestrial Network of Conservation Areas

