

# Colorado's Prairie Future



*Oil and Gas Forecasts,  
Wildlife Impacts, and Solutions*

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## Topics

1. Introduction
  - The Nature Conservancy
  - Development by Design
2. Eastern Colorado Oil and Gas Assessment
3. Mountains to Plains Energy by Design



## 1. INTRODUCTION

## The Nature Conservancy

Around the World



In Colorado



## Development by Design (DbD)



Goal: No Net Loss

## DbD Projects for Today

Mountains to Plains Energy by Design  
(60,000 acres)



Eastern Colorado Oil  
and Gas Assessment  
(30 million acres)

**Intent:** Achieve  
goals for wildlife in  
light of oil and gas  
development

## Why Eastern Colorado?



- Ecologically important
- Escalating oil and gas development
- Limited protections for wildlife

## 2. EASTERN COLORADO OIL AND GAS ASSESSMENT



## Project Components

Wildlife Risk Assessment:  
**~80 species and habitats**




**DRAFT**

Wildlife Risk Assessment:  
**Potential High Impact Zones**

*Combines data from individual species and habitats*

Forthcoming



**DRAFT**

Risk = Exposure + Sensitivity + Current Status

## Sample Draft Results: Most at-risk species\*

**Botta's pocket gopher**



**Bald eagle nests**



**McCown's longspur**



- **Prairie grouse**
  - Greater prairie chicken production areas
  - Plains sharp-tailed grouse leks and production areas
- **Declining grassland birds**
  - Cassin's sparrow habitat
  - Chestnut-collared longspur habitat
  - Lark bunting habitat
- **Mule deer winter concentration areas**
- **Fish**
  - Brassy minnow locations
  - Iowa darter locations
  - Plains topminnow locations
- **Ornate box turtle**
- **Etc.**

\*Irrespective of current protections that may exist

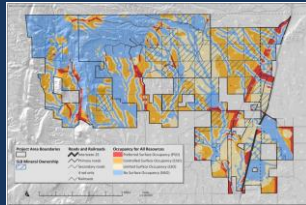
## Input & Outreach

- **Industry**
  - Colorado Oil and Gas Association
  - Petroleum engineer
  - Operators TBD
- **State government**
  - CO Parks & Wildlife
  - CO Department of Natural Resources
  - CO Oil and Gas Conservation Commission
  - CO State Land Board
  - Governor's Energy Office
- **Federal government**
  - U.S. Bureau of Land Mgmt. (Royal Gorge)
  - U.S. Fish & Wildlife Service
  - U.S. Forest Service (Pawnee, Comanche)
  - Natural Resources Conservation Service
- **Local government**
  - Colorado Counties, Inc.
- **Universities**
  - Colorado University – Boulder
  - Colorado State University
  - Colorado School of Mines
- **Nonprofits**
  - Colorado Natural Heritage Program
  - Colorado Wildlife Federation
  - Conservation Colorado
  - Partners for Fish & Wildlife
  - Playa Lakes Joint Venture
  - Rocky Mountain Bird Observatory
  - The Wilderness Society
  - Western Resource Advocates
- **Political**
  - U.S. Representatives
  - U.S. Senators

## Use of Results

- Landscape planning
- Best practice creation
- Mitigation bank
- Other?

Landscape planning example:  
Mountains to Plains Energy by Design



## 3. MOUNTAINS TO PLAINS ENERGY BY DESIGN



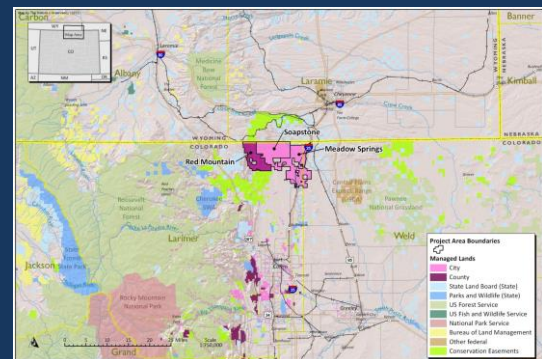
**Goal:**  
To allow for **reasonable energy development** while achieving **biological, cultural, scenic and recreational** resource conservation goals.

**Collaboration:**  
TNC, State Land Board, City of Fort Collins, Larimer County

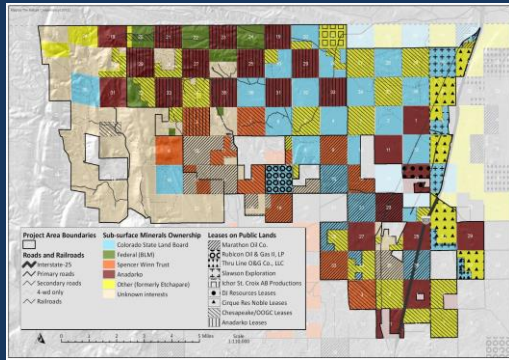




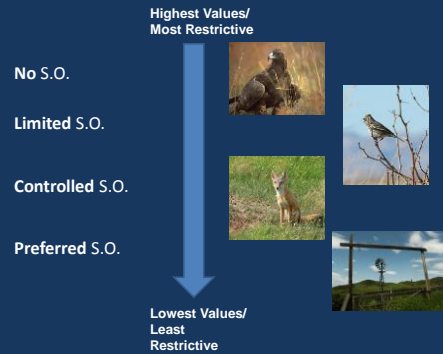

60,000 acres



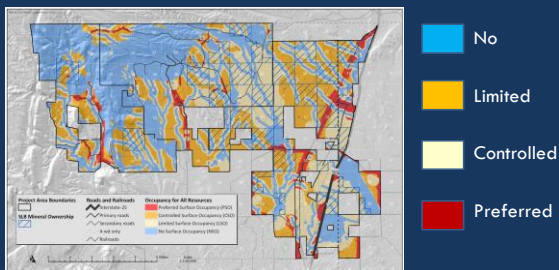
## Mineral ownership and leases



## Surface Occupancy Zones

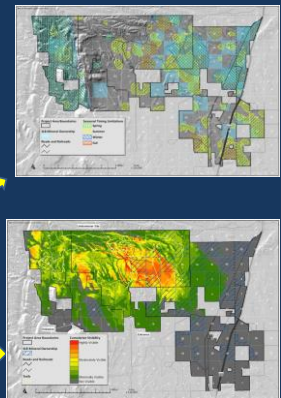


## Surface Occupancy Zones Biological and cultural values



## Add'l products

- Surface development standards & mitigation
- Resource maps
  - Seasonal timing limitations
  - Cultural resources potential
  - Scenic values



## Takeaways

- DbD allows protection and development
  - On public and private land
  - At different scales
- You can apply the same principles in your own locales: **Avoid → minimize → mitigate**

