



Colorado Plateau Native Plant Initiative Oil and Gas Industry Perspective



Overview

- Company Background
- Habitat Types
- Types of Disturbance
- Mitigation Focused on the Enhancement of Native Plant Communities
- Conclusion



Company Background

- Largest Natural Gas Producer in the State of Colorado
 - Produce Approximately (850 MMCF/day)
 - Enough energy to heat approximately 3 million homes
- Drilled over 3,500 wells in the Piceance Basin
- Currently running 11 drilling rigs
- Industry Innovation Leader
 - Fit for purpose rigs (Flex Rigs and Directional Drilling)
 - Green Completions (Decreased Flaring of Gas)
 - Centralized Fracturing Operations (Decrease Truck Traffic and Overall Footprint)
 - Year Round Drilling Program (Decrease Wildlife Impacts)
 - Centralized Water Collection (Decrease Truck Traffic)
 - Planning Processes (Work closely with Agencies on development strategies)

Habitat Types

- Four Habitat Types
- Operation Ranges from approximately 4,600 to 9,000 ft in elevation
 - Low Elevation Salt Desert Scrub



Habitat Types

- Pinyon-Juniper Woodland



Habitat Types

- Mixed Mountain Shrub



Habitat Types

- Spruce-Fir Forest



Well Pads

- Pads are typically 300' X 350' surface areas= 2.41 acres of operational surface
 - This generally equates to a 3-6 acres of disturbance per site depending on topography, number of wells drilled, etc...
 - Many new wells are placed on previously disturbed pad sites where drilling has previously occurred.
 - Reclaim most site back down to 1.5 acres
 - 3 acre disturbance = 1.5 acres reclaimed, 1.5 acres operational surface
 - 6 acre disturbance = 4.5 acres reclaimed, 1.5 acres operational surface



Roads

- Roads are typically 28' wide X length of the road (varies)
 - 24' running surface with 2' shoulders
 - Average Road length for our well pads are currently 2,300 ft
 - 28' X 2300' = 1.47 acres of disturbance
 - After construction the road cuts and fills are stabilized and seeded.



Pipelines

- Pipeline ROWs are typically 50' X length of the pipeline (varies)
 - We typically install a 8-10" gas line and 4" water line
 - ROW sizes could be expanded if a larger diameter pipe is installed or multiple lines are installed.
 - 50' ROW is used to allow safe travel of equipment, workers, pipe, etc...
 - Average Pipeline ROW length for our operations is under 5 miles
 - 50' X 26400' = 30.30 acres of disturbance
 - After installation of the pipe the trench is buried, re-graded to match natural topography, topsoil is spread and the entire area is seeded.



Mitigation Focused on the Enhancement of Native Plant Communities

- Alternative
 - Restore the productivity of elk and mule deer winter range through the development of diverse, sustainable native plant communities.
- Compensatory
 - Improve or increase the functionality of declining native habitats in order to offset impacts of disturbances associated with oil and gas development.



Mitigation Focused on the Enhancement of Native Plant Communities

- Good Neighbor
 - Voluntarily support or participate in wildlife habitat projects and habitat improvement projects.
- Land Stewardship
 - Commitment to the management of private company owned properties with a focus on wildlife, environment, safety, public perception and future landscape.



Conclusion

- Industry will continue to meet America's energy demands.
- Reclamation efforts are challenged by the plant species we currently have available.
- Industry represents a stable and predictable future demand for seed.

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