

## PLANNING BMP's

- \* Share/consolidate corridors for pipeline ROWs to the maximum extent possible.
- \* Maximize the utility of surface facilities by developing multiple wells from a single pad (directional drilling), and by co-locating multipurpose facilities (for example, well pads and compressors) to avoid unnecessary habitat fragmentation and disturbance of additional geographic areas.
- \* Minimize newly planned activities and operations within 300 feet of the ordinary high water mark of any reservoir, lake, wetland, or natural perennial or seasonally flowing stream or river.
- \* Locate roads outside of drainages where possible and outside of riparian habitat.
- \* Avoid new surface disturbance and placing new facilities in key wildlife habitats in consultation with CDOW.
- \* Minimize the number, length, and footprint of oil and gas development roads
- \* Use existing roads where possible
- \* Combine utility infrastructure (gas, electric, and water) planning with roadway planning to avoid separate utility corridors
- \* Combine and share roads to minimize habitat fragmentation
- \* Where possible, consolidate pipeline and existing roadways, or roadways that are planned for development
- \* Place roads to avoid obstructions to migratory routes for wildlife, and to avoid displacement of wildlife from public to private lands.
- \* Design roads with visual and auditory buffers or screens (e.g., topographic barriers, vegetation, and distance).
- \* Maximize the use of directional drilling to minimize habitat loss/fragmentation
- \* Maximize use of long-term centralized tank batteries to minimize traffic
- \* Maximize use of remote completion/frac operations to minimize traffic
- \* Maximize use of remote telemetry for well monitoring to minimize traffic
- \* Minimize the duration of development and avoid repeated or chronic disturbance of developed areas. Complete all anticipated drilling within a phased, concentrated, development area during a single, uninterrupted time period.

## CONSTRUCTION BMP's

- \* Close and reclaim roads not necessary for development, including removing all bridges and culverts and recontouring/reclaiming all stream crossings.
- \* Structures for perennial or intermittent stream channel crossings should be constructed using appropriately sized bridges or culverts

## DRILLING/COMPLETIONS BMP's

- \* Use centralized hydraulic fracturing operations.
- \* Install and maintain adequate measures to exclude all types of wildlife (e.g., big game, birds, and small rodents) from all fluid pits (e.g., fencing, netting, and other appropriate exclusion measures).
- \* Conduct well completions with drilling operations to limit the number of rig moves and traffic.

## PRODUCTION/RECLAMATION BMP's

- \* Restore both form and function of impacted wetlands and riparian areas and mitigate erosion.
- \* Remove well pad and road surface materials that are incompatible with post-production land use and re-vegetation requirements
- \* Use only certified weed-free native seed in seed mixes, except for non-native plants that benefit wildlife
- \* WPX Energy will use certified, weed free grass hay, straw, hay or other mulch materials used for the reseeding and reclamation of disturbed areas.

- \* Install exclusionary devices to prevent bird and other wildlife access to equipment stacks, vents and openings.
- \* Reduce visits to well-sites through remote monitoring (i.e. SCADA) and the use of multi-function contractors.