

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 constructing any road segment in the channel of an intermittent or perennial stream
- 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.
- Accelerate development under a "clustered-development concept" on a site-specific basis where Williams has a 100% mineral interest or control of mineral development
- 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
- Phase and concentrate development activities, so that large areas of undisturbed habitat for wildlife remain.
- Maintain undeveloped areas within development boundaries sufficient to allow wildlife to persist within development boundaries during all phases of construction, drilling, and production.
- 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
- Design road crossings of streams to allow fish passage at all flows and to minimize the generation of sediment.
- Design road crossings of streams at right angles to all riparian corridors and streams to minimize the area of disturbance to the extent possible.

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

- 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
- Williams 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.
- Avoid dust suppression activities within 300 feet of the ordinary high water mark of any reservoir, lake, wetland, or natural perennial or seasonally flowing stream or river where possible.
- Bore pipelines that cross perennial streams
- Install and use locked gates or other means to prevent unauthorized vehicular travel on roads and facility rights-of-way.