

Antero Resources Piceance Corporation
Porter B Pad – Proposed Best Management Practices (BMPs)
June 2010

- **Drilling and Production**

- No reserve, drill cuttings or frac/flowback pits will be constructed (wildlife protection measure)
- Closed loop (pitless) drilling system will be implemented (wildlife protection measure)
- Well pads will be constructed with perimeter berm on downslope area
- Well pads, access roads will be graveled to reduce fugitive dust, sediment run-off
- Above-ground facilities will be located to minimize visual effects (e.g. production tanks will be low profile tanks and painted to mitigate visual impacts) (wildlife protection measure)
- Combustor controls will be used to mitigate odors during flowback testing and production phases of development (wildlife protection measure)
- Well completions will utilize “green” flowback completion technologies and/or flares to reduce odors from plug drillout, and venting of salable and non-salable gas
- High level alarms will be installed on production tanks
- Production tank containment area will be lined with plastic (wildlife protection measure)

- **Invasive Non-Native Vegetation Control**

- Weed management plan will be developed and implemented to monitor and control noxious and invasive weeds (wildlife protection measure)
- Noxious weed control includes three treatments per year
- Existing weed infestations will be mapped prior to the development of each pad, access road and pipeline when practicable
- Reclamation/revegetation will be used as a weed management tool

- **Planning Infrastructure and Development Activities**

- Directional drilling will be implemented to minimize habitat loss and habitat fragmentation (wildlife protection measure)
- Remote monitoring using SCADA systems to reduce truck traffic, fugitive dust (wildlife protection measure)
- Water pipeline infrastructure will be installed concurrently with the gas pipeline infrastructure where possible (wildlife protection measure)
- SPCC inspections will be conducted quarterly
- Water used for well completions and drilling will be piped to location from a local water source (wildlife protection measure)
- Flow back water will be trucked off until a permanent water infrastructure is in-place

- Baseline and post drilling/completion water well testing will be performed for permitted water wells within ½ mile of down-hole location
- **Stormwater Management**
 - Facilities will be operated with a Water Quality Control Division (WQCD) stormwater construction permit.
 - Stormwater BMPs in accordance with the Stormwater Management Plan will be implemented in a manner that minimizes erosion, transport of sediment offsite, and site degradation (wildlife protection measure)
 - Inspections will be conducted every two weeks or monthly and in accordance with WQCD General Permit to confirm that applicable BMPs are in place, maintained and functioning properly.
- **Public Water System Protection Section 317B(d)**
 - Best management practices will be implemented to contain any unintentional releases of fluids for locations within 500 feet of surface water
 - Locations within 500 feet of surface water will ensure 110 percent secondary containment for any volume of fluids contained at a well site during drilling and completion operations
- **Seed Mixes**
 - Seed mixes will be certified weed-free
 - Sites will be reclaimed with wildlife friendly seed-mixes in consultation with CDOW or in accordance with the terms and conditions of the Surface Use Agreement (SUA)