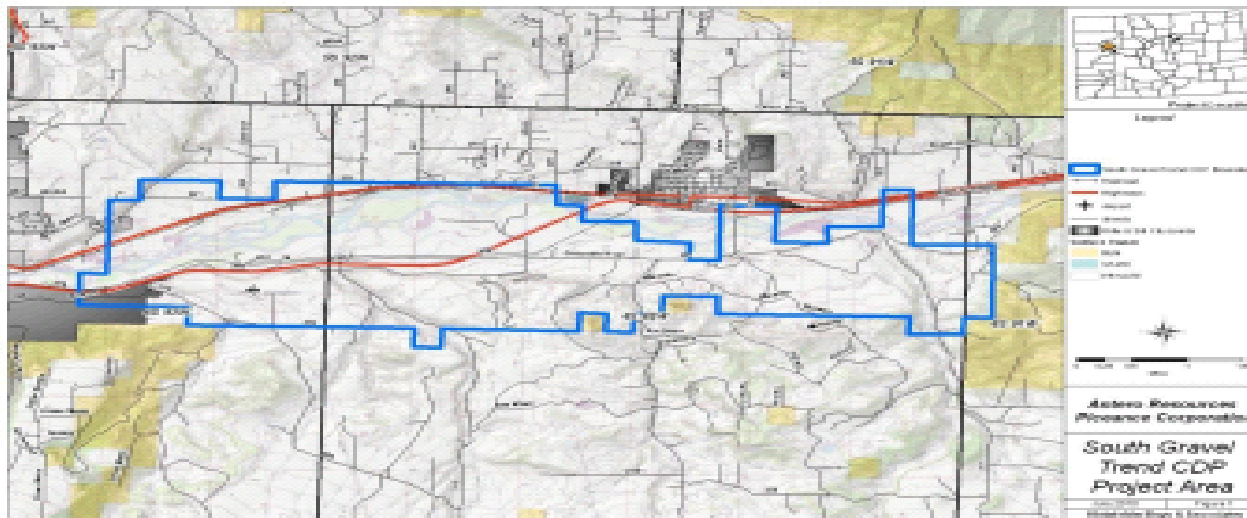


**ANTERO RESOURCES PICEANCE CORPORATION
SOUTH GRAVEL TREND
COMPREHENSIVE DRILLING PLAN (CDP)**



In Cooperation with

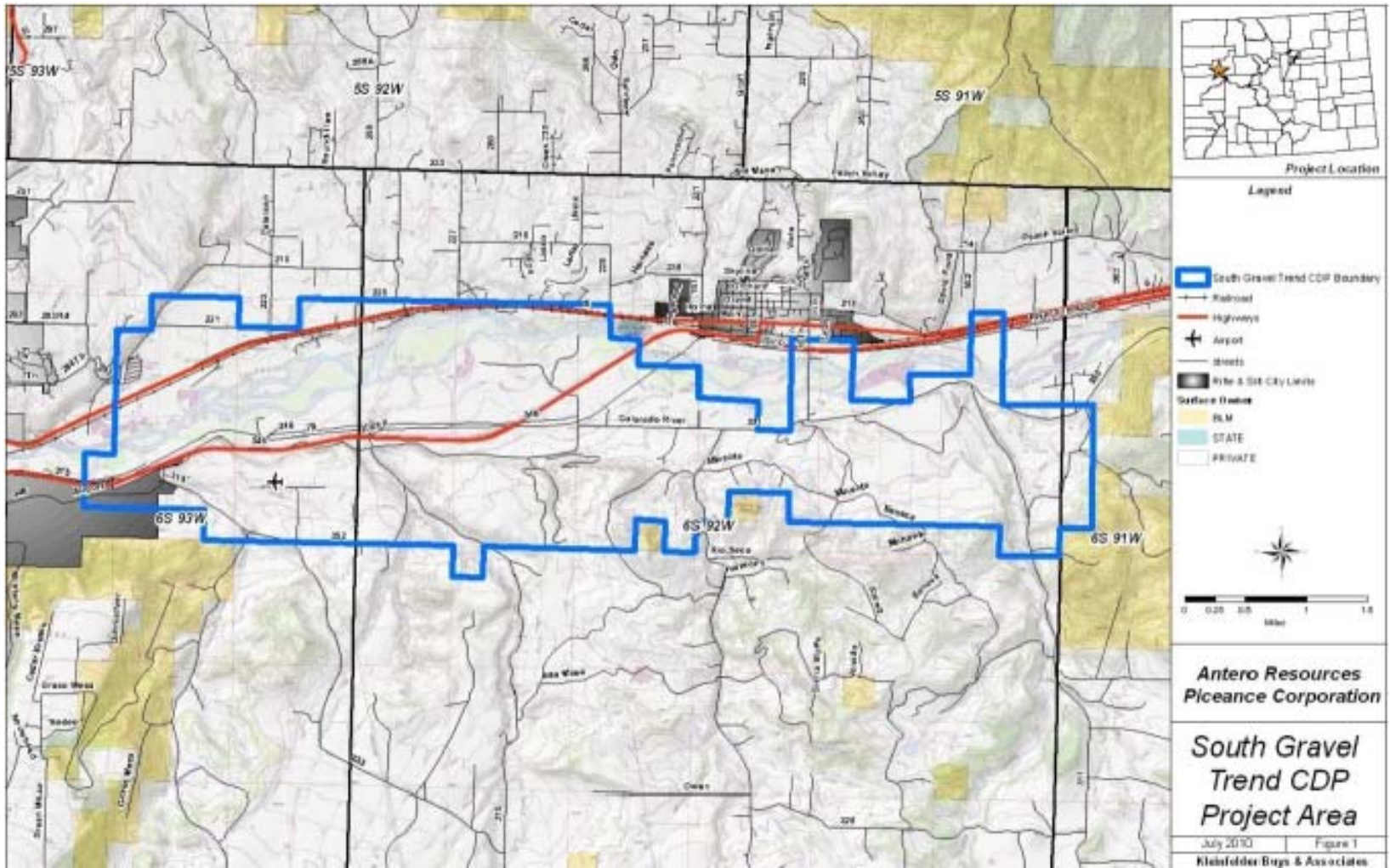


Antero's six (6) year development plans within the SGT PA include the following primary components:

- Construction of 21 new well pads and potential expansion of 41 existing well pads;
- Directional drilling of approximately seven hundred and eighty (780) wells**;
- Construction of 17.85 miles (94,248 feet) of new Rights-Of-Way (ROWs) which will contain:
 - Co-located road/water pipeline/gas pipeline = 1.8 miles (9,504 feet)
 - Co-located road/water pipeline = 1.5 miles (7,920 feet)
 - Co-located water pipeline/gas pipeline = 5.0 miles (26,400 feet)
 - Gas pipeline = 5.16 miles (27,244 feet)
 - Road = 2.4 miles (12,672 feet)
 - Water pipeline = 2.0 miles (10,560); and
- Use of one or two drilling rigs per year for the initial term of the CDP (6 years) with the potential range of rig usage varying from zero rigs to a maximum of six (6) rigs.
- If necessary, Antero or a third party contractor will permit and construct an additional compressor station at Dry Hollow (NW/SE, Sec. 16, T6S R92W) located within the PA boundary in accordance with all applicable laws and regulations.

(**This is the highest probability scenario. The range of well development may vary from approximately four hundred (400) to eight hundred and fifty (850) wells depending on variable conditions)

All surface disturbance associated with the components described above would occur on private lands. For additional information and details regarding the proposed construction and associated drilling activities, please refer to **Sections III & IV** of this document.



Project Location

Legend

- South Gravel Trend CDP Boundary
- Railway
- Highways
- Airport
- Streets
- Mine & City Limits
- Surface Owner**
- BLM
- STATE
- PRIVATE



**Antero Resources
Piceance Corporation**

**South Gravel
Trend CDP
Project Area**

July 2010 Figure 1

Kleinfelder Berg & Associates

Production Water that is not recycled for reuse in completion operations is conveyed to one of two water injection facilities within the PA; these facilities are located at the Valley Farms D and Valley Farms F well pad locations. Water injection pressures are achieved using a skid mounted, electrically powered generator pumping facility which is enclosed in a metal sided building approximately 40'x12'x12' (assists with winterization and noise reduction). A natural gas powered electric generator may be added to the site as an alternate power source in the event of electric grid power failure or down time. If added, this generator will be housed in a separate building with comparable winterization and noise reduction mitigations in place.

Production Water transfer locations will be COGCC approved locations or facilities, such as storage tanks on well pads, multi-well pits or centralized E&P Waste Management Facilities. Best management practices for spill prevention and control will be applied at each transfer location. Antero will be responsible for measuring and recording the volumes of Production Water transferred to or received from another operator utilizing a Record of Transfer.

To facilitate conservation of precious fresh water supplies, Antero has entered into a Production Water Reuse and Waste Minimization Plan (“Reuse Plan”) with another operator in the Piceance Basin, incorporating input from COGCC into said Reuse Plan. The Reuse Plan provides, when an operator’s demand for fracture stimulation fluids exceeds its current and foreseeable supply of Production Water, it may request additional supplies of Production Water from the other operator. If available, the other operator then transfers its Production Water as needed to satisfy the demand. Sharing via transfer of Production Water between operators represents a best management practice that promotes fresh water conservation, waste minimization, recycling, and re-use; consistent with the stated objectives of various State regulatory agencies (CDOW, CDPHE and COGCC). This Reuse Plan is intended to satisfy the requirements of COGCC Rule 907.a(3) for the reuse and recycling of exploration and production (“E&P”) waste, which states:

Reuse and recycling. To encourage and promote waste minimization, operators may propose plans for managing E&P waste through beneficial use, reuse, and recycling by submitting a written management plan to the Director for approval on a Sundry Notice, Form 4, if applicable. Such plans shall describe, at a minimum, the type(s) of waste, the proposed use of the waste, method of waste treatment, product quality assurance, and shall include a copy of any certification or authorization that may be required by other laws and regulations. The Director may require additional information.

Sensitive Wildlife Habitat designations present within the PA, as shown on [Exhibit 6B](#), include:

- Bald Eagle Active Nest Site
- Bald Eagle Winter Roost Sites
- Elk Winter Concentration Area
- Mule Deer Critical Winter Range

On September 1, 2009, Antero submitted the “Antero Comprehensive Drilling Plan (CDP) Mitigation Analysis Workflow” to the CDOW, which provided a step-by-step overview of the process for quantifying direct and indirect development impacts on wildlife resources. Antero has prepared a Comprehensive Drilling Plan Mitigation Assessment and an agreed upon Best Management Practices (“BMP”) Conditions Of Approval (“COA”) list in consultation with the Colorado Division of Wildlife. The Wildlife Mitigation Plan ([Exhibit 7](#)) was signed by CDOW and Antero on March 24, 2010. A comprehensive list of Antero’s efforts to mitigate its impact on wildlife, including interactions with CDOW specifically is attached here as [Exhibit 10B](#).

In addition, Antero will obtain surface owner consent allowing for these mitigation projects on the specific property prior to beginning said project as required by COGCC Rule 216(e). Additional wildlife mitigation measures are described in **Section IV.D** below.

D. Surface Owner Consultation

Antero's oil and gas leasehold encompasses approximately 7,950 acres within the larger 8,200 acre SGT CDP Project Area ([Exhibit 10D](#)). As early as 2004, Antero began to negotiate leases from mostly private mineral owners in the area (as demonstrated in [Exhibit 10E](#)). Where the mineral interests have been severed from the surface interests, Antero has, and will continue to attempt to negotiate separate surface use agreements with affected surface owners. A list of the surface owners and the status of the surface use agreement for the respective well pads is provided as [Exhibit 10F](#). In the event there is not a surface use agreement or similar for a property, Antero is committed to continuing to negotiate as necessary, and further acknowledges it may be subject to financial assurance obligations pursuant to COGCC Rule 703.

Antero's negotiation of individual surface use agreements with individual surface owners, whether separate surface use agreements if the mineral and interests are severed or otherwise as part of the mineral lease, ensures that site-specific requirements and specific surface owner preferences are taken into account. In addition to typically addressing locations of wells and associated facilities and impacts of well operations (including such matters as lighting, hours of operation, and mitigation of visual impacts), the individual surface use agreement sets out the compensation due to the surface owner from Antero for Antero's use of that surface owner's property. Because the broad scope of Antero's negotiations of the surface use agreement attempts to cover the full development scenario upfront, and Antero's need to obtain operational certainty, Antero typically seeks and obtains from the surface owners waivers of additional rights to consult or object later in the process concerning matters covered within the surface use agreement.

E. Local Government and Community Outreach

Despite the fact that the formal CDP process did not begin until 2008 following the promulgation of the new rules, Antero had begun actively consulting with the local community as early as 2004. In 2004, in addition to beginning to negotiate mineral leases, Antero began voluntary meetings with government regulators, surface owners, local residents and other interested groups. These meetings culminated in the development and implementation of the RSNC Community Development Plan ([Exhibit 9](#)). The RSNC Community Development Plan describes Antero's voluntary commitment to inform and obtain input from the local community including: attending community meetings and hosting educational courses for local residents. A thorough list of the interactions with the local government, residents, surface owners and other interested parties is attached as [Exhibit 10G](#).

The RSNC Community Development Plan was created with the input and assistance of over 150 local residents and was endorsed by the following nine local governments and public interest organizations:

- The Grand Valley Citizens Alliance
- Galaxy Energy
- The Town of New Castle
- The Town of Silt
- The City of Rifle
- Garfield County
- Western Colorado Congress
- Western Organization of Resource Councils
- The Oil and Gas Accountability Project

Pursuant to Rule 216(c)(12), below is a non-exhaustive list of the parties who have provided substantive input on Antero's operations and potential impacts, as well as input regarding potential mitigation measures:

- RSNC Community Development Plan Contributors (listed above)
- Surface Owners ([Exhibit 10G](#))
- Local Residents
- Garfield County Board of County Commissioners
- Township of Silt
- Township of New Castle
- Municipality of Rifle
- Fire Departments and Emergency Services
- Local Emergency Planning Committee ("LEPC")
- Grand River Hospital District
- Garfield County Planning Departments
- Garfield County Oil and Gas Liaison
- Garfield County Environmental Health
- Garfield County Road & Bridge
- Rifle Watershed Protection
- Rifle Chamber of Commerce
- Silt Chamber of Commerce
- Mineota Estates Homeowners Association
- Various Water Ditch Companies

(1) Oil & Gas Wells and Pads

As of August 2011, Antero has constructed forty-one (41) pads within the PA with two-hundred and three (203) directional wells drilled from these pads and an additional two-hundred and fifty-five (255) wells approved to be drilled from these pads. The locations of these well pads and associated quantification of existing drilled wells and approved wells not yet drilled can be found in **Table 3** below:

Table 3. Antero's Existing Pads, Drilled Wells and Approved Permits in the SGT CDP

Pad	Surface Location	Current # of Drilled Wells	Current # of Approved Permits (Wells Available to Drill)
Arroyo A	NESE Sec 16 6S 92W	4	0
Burckle A	NWSE Sec 16 6S 92W	10	4
Coloroso A	Lot 4 Sec 7 6S 92W	4	7
Dever A	SWSE Sec 18 6S 92W	10	7
Dever C	SWNW Sec 17 6S 92W	5	7
Dixon A	SWNE Sec 18 6S 92W	0	16
Dixon Federal B	NWSW Sec 15 6S 92W	12	4
Frei A	SWSW Sec 7 6S 91W	4	18
Gentry B	SENE Sec 17 6S 92W	4	10
Gentry C	SESE Sec 17 6S 92W	9	2
Gentry E	SESW Sec 17 6S 92W	4	7
Gypsum Ranch A	SWNW Sec 14 6S 93W	3	0
Gypsum Ranch B	NWNE Sec 14 6S 93W	5	8
Hangs A	SWSE Sec 9 6S 92W	2	3
Hangs B	SWSW Sec 9 6S 92W	2	6
Hoffmeister A	NWNE Sec 12 6S 93W	0	9
Island Park B	NESE Sec 7 6S 92W	2	7
Left Hand Federal A	SWSW Sec 16 6S 92W	5	5
McLin B	NENE Sec 13 6S 92W	4	16
McPherson A	NENW Sec 16 6S 93W	4	7
Norcross A	NESW Sec 13 6S 93W	12	5
North Bank A	SENE Sec 12 6S 93W	4	2
North Bank B	NENE Sec 12 6S 93W	4	3
North Bank C	NESW Sec 12 6S 93W	7	4
North Bank E	SWNW Sec 12 6S 93W	4	13
O'Toole A	SESE Sec 16 6S 92W	9	0
River Ranch A	NWSW Sec 8 6S 92W	5	1
River Ranch B	SENE Sec 8 6S 92W	2	7
River Ranch C	NESW Sec 8 6S 92W	1	5
Robinson A	SWSW Sec 8 6S 92W	4	4
Robinson C	SENE Sec 17 6S 92W	9	5
Snyder A	NWNW Sec 13 6S 93W	10	8
Snyder C	SESE Sec 12 6S 93W	3	5
Valley Farms B	SENE Sec 16 6S 92W	8	0
Valley Farms C	SWNW Sec 15 6S 92W	5	2
Valley Farms D	NENW Sec 15 6S 92W	4	10
Valley Farms E	SENE Sec 15 6S 92W	5	6
Valley Farms F	NWSW Sec 14 6S 92W	8	15
Valley Farms I	NESW Sec 13 6S 92W	2	12
Valley Farms J	NWNW Sec 13 6S 92W	0	4
Weinreis A	SWNW Sec 16 6S 92W	4	1

Table 4. Existing Water Wells in the SGT CDP

Use	Number of Wells	Aquifer	Depth Range
Commercial	17	Unnamed Aquifer	54' – 80'
Domestic/Household	100	Unnamed Aquifer	90' – 620'
Fire	1	Unnamed Aquifer	80'
Industrial	1	Unnamed Aquifer	60'
Irrigation	5	Unnamed Aquifer	52' – 100'
Monitoring	24	Unnamed Aquifer	12' – 240'
Stock	3	Unnamed Aquifer	50' – 69'

The Colorado Division of Water Resources statewide water well application database also indicates that there are 34 water well permits issued within the PA. A summary of the permits is provided below in **Table 5**:

Table 5. Permitted Water Wells in the SGT CDP

Use	Number of Wells	Aquifer
Commercial	8	Unnamed Aquifer
Domestic/Household	11	Unnamed Aquifer
Municipal	2	Unnamed Aquifer
Monitoring Well	13	Unnamed Aquifer

(2) Highways, Roads, Utilities, Transmission Corridors, etc.

Major roadways bisect the PA including Interstate 70, Highway 6, Highway 13, River Frontage Road, and several county roads. The D&RG Western Railroad and the Garfield County Regional Airport are also located within the PA. A major electrical transmission line runs through the PA. A transportation network map is attached as [Exhibit 17A](#).

On average, each newly constructed well pad location (see Table 6 below for a summary of proposed new pads) or expanded pad would be approximately three (3) acres in size. Additional acreage on existing pads is needed to accommodate drilling equipment and additional wellheads and production facilities. If a well proves unproductive or uneconomic, all areas not required for production of existing wells would be reclaimed following well plugging and abandonment in compliance with COGCC Rule 319. As Antero continues to use closed-loop drilling systems, the well pads would not require reserve pits. Construction of twenty-one (21) well pads would initially disturb approximately 100-110 acres within the PA. Following drilling of the last well on an individual pad, the rig would be dismantled and mobilized to another location, and interim reclamation would occur within 180 days after all of the wells on each well pad have been drilled and completed. Topsoil previously windrowed along the edges of each well pad location would be re-spread across the disturbed areas, and each of these areas would then be seeded with a seed mixture prescribed by the COGCC. Drilling and completion schematics are attached as [Exhibit 16](#).

Table 6. Antero's Proposed Pads in the CDP

Well Pad	Surface Location
B&L C	NWNW Sec 14 6S 93W
Green A	NENE Sec 11 6S 93W
Hangs C	NESW Sec 9 6S 92W
Hangs E	SE NW Sec 9 6S 92W
McLin A	SESW Sec 12 6S 92W
McLin C	NESE Sec 13 6S 92W
Peterson A	NENW Sec 12 6S 92W
Reid A	NENW Sec 8 6S 92W
Reid B	NWNW Sec 9 6S 92W
River Ranch D	NWSE Sec 8 6S 92W
Valley Farms A	NESE Sec 9 6S 92W
Valley Farms G	NENW Sec 12 6S 92W
Valley Farms H	NESE Sec 14 6S 92W
Valley Farms K	SWSW Sec 12 6S 92W
Valley Farms L	SESE Sec 11 6S 92W
Valley Farms M	NENE Sec 14 6S 92W
Valley Farms N	SWSW Sec 11 6S 92W
Valley Farms O	SWSW Sec 10 6S 92W
Vix Ranch A	SWNW Sec 11 6S 92W
WSDC A	SENW Sec 11 6S 93W
WSDC B	SENW Sec 11 6S 93W