

# Commercial/Industrial Floodplain Development Permit

Doddridge County, WV Floodplain Management

This permit has been issued to **Antero Resources**, and is for the approved commercial and/or industrial development project associated with this permit that impacts the FEMA-designated floodplain and/or floodway of Doddridge County, WV, pursuant to the rules and regulations established by all applicable Federal, State and local laws and ordinances, including the Doddridge County Floodplain Ordinance. This permit must be posted at the site of work as to be clearly visible, and must remain posted during entirety of development.

Permit: #14-257 ~ Antero Resources ~ Trent Tank Pad to Wagner Tank
Pad Surface Waterline

Date Approved: 08/14/2014 Expires: N/A

Issued to: Antero Resources POC: Emily Kijowski 303-357-7310

Company Address: 1615 Wynkoop Street

**Denver, CO 80202** 

**Project Address: Greenbrier District** 

Lat/Long: 39.208758N/80.629920W to 39.212318N / 80.604306W

Purpose of development: Surface waterline construction. Project does not impact floodplain.

Issued by: Edwin L./Bo/ Wriston, Doddridge County FPM (or designee)

Date: 08/14/2014

#### Legal Advertisement:

#### **Doddridge County**

#### Floodplain Permit Application

Please take notice that on the 11<sup>th</sup> day of August, 2014

#### **Antero Resources**

filed an application for a Floodplain Permit to develop land located at or about:

#### **Greenbrier District**

39.208758N/80.629920W to 39.212318N / 80.604306

Permit #14-257 Trent Tank Pad to Wagner Tank Pad Surface Waterline

(Note: This project is not within the floodplain)

The Application is on file with the Clerk of the County Court and may be inspected or copied during regular business hours. As this project is outside the FEMA identified floodplain of Doddridge County, Doddridge County Floodplain Management has no regulatory authority.

Any interested persons who desire to

comment shall present the same in writing by September 8, 2014, delivered to:

Clerk of the County Court

118 E. Court Street, West Union, WV 26456

Beth A Rogers, Doddridge County Clerk

Edwin L. "Bo" Wriston. Doddridge County Flood Plain Manager





#### 2814 AUG 11 PM 2:00

August 8, 2014

DETH ALPOGERS COUNTY CLERK COUNTY, WY Antero Resources 1615 Wynkoop Street Denver, CO 80202 Office 303.357.7310 Fax 303.357.7315

Doddridge County Commission

Attn: Bo Wriston, Doddridge County Floodplain Manager

118 East Court Street, Room 102

West Union, WV 26456

Mr. Wriston:

Antero Resources Corporation (Antero) would like to submit a Doddridge County Floodplain permit application for our proposed Trent Tank Pad to Wagner Tank Pad Surface Waterline. Our project is located in Doddridge County. The proposed development within the floodplain consists of the site preparation and construction of waterline. The proposed waterline will be 2.13 miles long with a total Area of Interest of 84 acres. No impacts to jurisdictional waters are proposed from this project. Based on FEMA Flood Map 54017C0255C with an effective date of October 4, 2011, no portion of this of the project is located in an identified Flood Hazard Area.

Enclosed you will find the following:

- ➤ Doddridge County Floodplain Permit Application
- ➤ FIRM Map
- > WV Flood Tool Map
- Design Plans/Agency Correspondence

If you have any questions please feel free to contact me at (303) 357-7232.

Thank you in advance.

Sincerely,

Emily Kijowski

Permit Representative

Antero Resources Corporation

mily m

Enclosures

# DODDRIDGE COUNTY FLOODPLAIN DEVELOPMENT PERMIT APPLICATION

# SECTION 1: GENERAL PROVISIONS (APPLICANT TO READ AND SIGN)

- 1. No work may start until a permit is issued.
- 2. The permit may be revoked if any false statements are made herein.
- 3. If revoked, all work must cease until permit is re-issued.
- 4. Development shall not be used or occupied until a Certificate of Compliance is issued.
- 5. The permit will expire if no work is commenced within six months of issuance.
- **6.** Applicant is hereby informed that other permits may be required to fulfill local, state, and federal requirements.
- 7. Applicant hereby gives consent to the Floodplain Administrator/Manager or his/her representative to make inspections to verify compliance.
- 8. I, THE APPLICANT CERTIFY THAT ALL STATEMENTS HEREIN AND IN ATTACHMENTS TO THIS APPLICATION ARE, TO THE BEST OF MY KNOWLEDGE, TRUE AND ACCURATE.

APPLICANT'S SIGNATURE\_

**DATE\_August 8. 2014** 

SECTION 2: PROPOSE DEVELOPMENT (TO BE COMPLETED BY APPLICANT).

IF THE APPLICANT IS NOT A NATURAL PERSON, THE NAME, ADDRESS, AND TELEPHONE NUMBER OF A NATURAL PERSON WHO SHALL BE APPOINTED BY THE APPLICANT TO RECEIVE NOTICE PURSUANT TO ANY PROVISION OF THE CURRENT DODDRIDGE COUNTY FLOODPLAIN ORDINANCE.

APPLICANT'S NAME: Antero Midstream LLC - Randy Kloberdanz,

ADDRESS: 1615 Wynkoop Street, Denver, CO 80202

TELEPHONE NUMBER: Contact Emily Kijowski: (303)-357-7232

BUILDER'S NAME: Antero Midstream LLC
ADDRESS: 1615 Wynkoop Strett, Denver, CO 80202
TELEPHONE NUMBER: (303)-357-7310
ENGINEER'S NAME: Allstar Ecology
ADDRESS: 1582 Meadowdale Road, Fairmont, WV, 26554
TELEHONE NUMBER: (866)-213-2666
PROJECT LOCATION:
NAME OF SURFACE OWNER/OWNERS (IF NOT THE APPLICANT) Please see attached Land Owner
Information
ADDRESS OF SURFACE OWNER/OWNERS (IF NOT THE APPLICANT) Please see attached Land Owner
Information
DISTRICT:
DATE/FROM WHOM PROPERTY
DISTRICT: DATE/FROM WHOM PROPERTY PURCHASED:
DISTRICT:
DISTRICT: DATE/FROM WHOM PROPERTY PURCHASED: LAND BOOK DESCRIPTION: Please see attached Land Owner Information DEED BOOK REFERENCE: Please see attached Land Owner Information
DISTRICT: DATE/FROM WHOM PROPERTY PURCHASED: LAND BOOK DESCRIPTION: Please see attached Land Owner Information DEED BOOK REFERENCE: Please see attached Land Owner Information TAX MAP REFERENCE: Please see attached Land Owner Information
DATE/FROM WHOM PROPERTY  PURCHASED: LAND BOOK DESCRIPTION: Please see attached Land Owner Information  DEED BOOK REFERENCE: Please see attached Land Owner Information  TAX MAP REFERENCE: Please see attached Land Owner Information  EXISTING BUILDINGS/USES OF PROPERTY: None
DATE/FROM WHOM PROPERTY  PURCHASED:  LAND BOOK DESCRIPTION: Please see attached Land Owner Information  DEED BOOK REFERENCE: Please see attached Land Owner Information  TAX MAP REFERENCE: Please see attached Land Owner Information  EXISTING BUILDINGS/USES OF PROPERTY: None  NAME OF AT LEAST ONE ADULT RESIDING IN EACH RESIDENCE LOCATED UPON THE SUBJECT  PROPERTY Please see attached Land Owner Information
DATE/FROM WHOM PROPERTY  PURCHASED:  LAND BOOK DESCRIPTION: Please see attached Land Owner Information  DEED BOOK REFERENCE: Please see attached Land Owner Information  TAX MAP REFERENCE: Please see attached Land Owner Information  EXISTING BUILDINGS/USES OF PROPERTY: None  NAME OF AT LEAST ONE ADULT RESIDING IN EACH RESIDENCE LOCATED LIPON THE SUBJECT
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identify the project location.

# DESCRIPTION OF WORK (CHECK ALL APPLICABLE BOXES) A. STRUCTURAL DEVELOPMENT

	ACI	IVIII				STR	UCTUI	RAL TYPE	
X 0 0 0 0	New Structory Addition Alteration Relocation Demolition Manufacture		bil Home		0 0 0 0 0	Resid Non- Comb	lential resider	(1 – 4 Family) (more than 4 Family) ntial (floodproofing) Jse (res. & com.) nt	
В.	OTHER DEV	/EOPL	MENT ACTIV	/ITIES:					
0 0 0 0 0 0 0	Watercourse Drainage Im Road, Street Subdivision	e Altero proven ;, or Bri (includi /ater or	Mining for STRUCTUF cation (including nents (including dge Construct ng new expan Sewer Systen fy)	ng dredg ng culver ion sion)	ing and ch	T chec	X ked ab modif	Pipelining ove) ication)	

### C. STANDARD SITE PLAN OR SKETCH

- 1. SUBMIT ALL STANDARD SITE PLANS, IF ANY HAVE BEEN PREPARED.
- 2. IF STANDARD SITE PLANS HAVE NOT BEEN PREPARED:

  SKETCH ON A SEPARATE 8 ½ X 11 INCH SHEET OF PAPER THE SHAPE AND LOCATION OF THE LOT. SHOW THE LOCATION OF THE INTENDED CONSTRUCTION OR LAND USE INDICATING BUILDING SETBACKS, SIZE & HEIGHT. IDENTIFY EXISTING BUILDINGS, STRUCTURES OR LAND USES ON THE PROPERTY.
- 3. SIGN AND DATE THE SKETCH.

ACTUAL TOTAL CONSTRUCTION COSTS OF THE COMPLETE DEVELOPMENT
IRRESPECTIVE OF WHETHER ALL OR ANY PART OF THE SUBJECT PROPOSED
CONSTRUCTION PROJECT IS WITHIN THE FLOODPLAIN \$ N/A - Location is not within the floodplain

D. ADJACENT AND/OR AFFECTED LANDOWNERS:

OF THE SURFACE TRACT (UP & DOWN STREAM) UPON WHICH THE PROPOSED **ACTIVITY WILL OCCUR AND ALL OTHER SURFACE OWNERS UP & DOWN STREAM)** WHO OWN PROPERTY THAT MAY BE AFFECTED BY FLOODING AS IS DEMONSTRATED BY A FLOODPLAIN STUDY OR SURVEY (IF ONE HAS BEEN COMPLETED). NAME: N/A-No properties sharing an NAME: ADDRESS: immediate and common boundary ADDRESS: up or down stream due to the location not being in floodplain NAME:\_\_\_\_ NAME:\_\_\_\_ ADDRESS: ADDRESS: 1. NAME AND ADDRESS OF AT LEAST ONE ADULT RESIDING IN EACH RESIDENCE LOCATED UPON ANY ADJACENT PROPERTY AT THE TIME THE FLOODPLAIN PERMIT APPLICATION IS FILED AND THE NAME AND ADDRESS OF AT LEAST ONE ADULT RESIDING IN ANY HOME ON ANY PROPERTY THAT MAY BE AFFECTED BY FLOODING AS IS DEMONSTRATED BY A FLOODPLAIN STUDY OR SURVEY. NAME: N/A-No properties sharing an NAME:\_\_\_\_\_ ADDRESS: \_immediate and common boundary ADDRESS: up or down stream due to the location not being in floodplain NAME:\_\_\_\_ NAME:\_\_\_\_ ADDRESS: ADDRESS:

1. NAME AND ADDRESS OF ALL OWNERS OF SURFACE TRACTS ADJACENT TO THE AREA

#### E. CONFIRMATION FORM

THE APPLICANT ACKNOWLEDGES, AGREES, AND CONFIRMS THAT HE/IT WILL PAY WITHIN 30 DAYS OF RECEIPT OF INVOICE BY THE COUNTY FOR ALL EXPENSES RELATIVE TO THE PERMIT APPLICATION PROCESS GREATER THAN THE REQUIRED DEPOSIT FOR EXPENSES INCLUDING:

- (A) PERSONAL SERVICE OF PROCESS BY THE DODDRIDGE COUNTY SHERIFF AT THE RATES PERMITTED BY LAW FOR SUCH SERVICE.
- (B) SERVICE BY CERTIFIED MAIL RETURN RECEIPT REQUESTED.
- (C) PUBLICATION.

#### **Land Owner Information**

Land associated with this project is owned by Todd Alan and Roberta Devericks and Blaine W Jr. and Jacque Devericks (Greenbrier District, Map 10, Parcel 17), Junior Perine (Greenbrier District, Map 10, Parcel 15), William A, William E, Everett and James McClain, Barbara Campbell, Lenora Lattea, Mary Jean Calvert (Greenbrier District, Map 10, Parcel 20.1), Elizabeth and Edwin Cox and Theresa Cutlip (Greenbrier District, Map 10, Parcel 13), John and Carole Bunten and Karen McKinney (Greenbrier District, Map 10, Parcel 11), Clarence Jr. and Deborah Trent (Greenbrier District, Map 10, Parcel 18), John and Carole Bunten and Marshall Jr. and Judith Nestor (Greenbrier District, Map 10, Parcel 11), William Williamson (New Milton District, Map 13, Parcel 20), Franklin Fidler (Greenbrier District, Map 10, Parcel 26), Michael Messina (Greenbrier District, Map 10, Parcel 20.2), and Junior Perine (Greenbrier District, Map 10, Parcel 21).

- COURT REPORTING SERVICES AT ANY HEARINGS REQUESTED BY THE APPLICANT. (D)
- CONSULTANTS AND/OR HEARING EXPERTS UTILIZED BY DODDRIDGE COUNTY (E) FLOODPLAIN ADMINISTRATOR/MANAGER OR FLOODPLAIN APPEALS BOARD FOR REVIEW OF MATERIALS AND/OR TESTIMONY REGARDING THE EFFICACY OF GRANTING OR DENYING THE APPLICANT'S FLOODPLAIN PERMIT.

NAN	ME (PRINT):	
SIGN	IATURE:	<b>DATE:</b> August 8, 2014
Afte Adm	r completing SECTION 2, APPLICANT should submit form to inistrator/Manager or his/her representative for review.	o Floodplain
SEC Adn	TION 3: FLOODPLAIN DETERMINATION (to be continuity of the continui	npleted by Floodplain
THE	PROPOSED DEVELOPMENT:	
THE	PROPOSED DEVELOPMENT IS LOCATED ON:	
FIRM	Panel:	
Date	d:	
[]	Is <u>NOT</u> located in a Specific Flood Hazard Area (Notify a w is complete and <b>NO FLOOPLAIN DEVELOPMENT PERMI</b>	pplicant that the application T IS REQUIRED).
[] .	Is located in Special Flood Hazard Area. FIRM zone designation	. :
	100-Year flood elevation is:	NGVD (MSL)
[]	Unavailable	
[]	The proposed development is located in a floodway. FBFM Panel No	Dated
[]	See section 4 for additional instructions.	

[]

SEC Floo	TION 4: ADDITIONAL INFORMATION REQUIRED (To be completed by odplain Administrator/Manager or his/her representative)
	applicant must submit the documents checked below before the application can be
proc	essed.
0.	A plan showing the location of all existing structures, water bodies, adjacent roads, lot dimensions and proposed development.
[]	Development plans, drawn to scale, and specifications, including where applicable: details for anchoring structures, storage tanks, proposed elevation of lowest floor, (including basement or crawl space), types of water resistant materials used below the first floor, details of flood proffing of utilities located below the first floor and details of enclosures below the first floor. Also
0	Subdivision or other development plans (If the subdivision or development exceeds 50 lots or 5 acres, whichever is the lesser, the applicant must provide 100-year flood elevations if they are not otherwise available).
[]	Plans showing the extent of watercourse relocation and/or landform alterations.
[]	Top of new fill elevationFt. NGVD (MSL).  For floodproofing structures applicant must attach certification from registered engineer or architect.
[]	Certification from a registered engineer that the proposed activity in a regulatory floodway will not result in any increase in the height of the 100-year flood. A copy of all data and calculations supporting this finding must also be submitted.
[]	Manufactured homes located in a floodplain area must have a West Virginia

DATE

SIGNED\_

Federal Emergency Management Agency (FEMA).

Contractor's License and a Manufactured Home Installation License as required by the

Other:					
ION 5: PERI	MIT DETERMINATION (To be completed by Electric				
ION 5: PERMIT DETERMINATION (To be completed by Floodplain Administrator/Manager or his/her representative)					
County on M	mined that the proposed activity (type is or is not) in conformance with f the Floodplain Ordinance adopted by the County Commission of Doddridg lay 21, 2013. The permit is issued subject to the conditions attached to and f this permit.				
SIGNED	DATE				
with the prov	lain Administrator/Manager found that the above was not in conformance visions of the Doddridge County Floodplain Ordinance and/or denied that the applicant may complete an appealing process below.				
APPEALS:	Appealed to the County Commission of Doddridge County? [] Yes {} No Hearing Date:				
	County Commission Decision - Approved [] Yes [] No				

# SECTION 6: AS-BUILT ELEVATIONS (To be submitted by APPLICANT before Certificate of Compliance is issued).

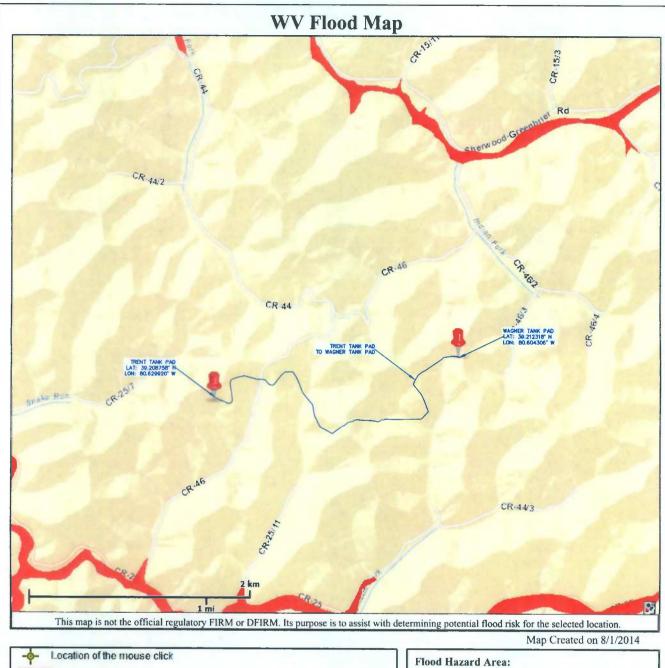
The following information must be provided for project structures. This section must be completed by a registered professional engineer or a licensed land surveyor (or attach a certification to this application).

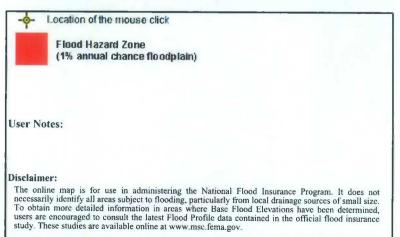
## COMPLETE 1 OR 2 BELOW:

1	Actual (As-Built) Elevation of the top of the lowest floor (including basement or crawl space isFT. NGVD (MSL)
2	Actual (As Built) elevation of floodproofing isFT. NGVD (MSL)
Note:	Any work performed prior to submittal of the above information is at risk of the cant.
SECT Admi	ION 7: COMPLIANCE ACTION (To be completed by the Floodplain
Adm	inistrator/Manager or his/her representative).
as app	oodplain Administrator/Manager or his/her representative will complete this section slicable based on inspection of the project to ensure compliance with the Doddridge y Floodplain Ordinance.
INS	SPECTIONS:
	DATE:BY: DEFICIENCIES ? Y/N
со	MMENTS
ECTIO	ON 8: CERTIFICATE OF COMPLIANCE (To be completed by Floodplain
Admin	istrator/Manager or his/her representative).
ertifica	ate of Compliance issued: DATE:

# CERTIFICATE OF COMPLIANCE FOR DEVELOPMENT IN SPECIAL FLOOD HAZARD AREA (OWNER MUST RETAIN)

	PERMIT NUMBER: PERMIT DATE:	
PURPO		
CONSTRUCTION LOCATION	DN:	
		_
OWNER'S ADDRESS:		
	·	
THE FOLLOWING MUST BI ADMINISTRATOR/MANAG	E COMPLETED BY THE FLOODPLAIN GER OR HIS/HER AGENT.	
COMPLIANCE IS HER FLOODPLAIN ORDINANCE DODDRIDGE COUNTY ON I	REBY CERTIFIED WITH THE REQUIREMENT OF THE ADOPTED BY THE COUNTY COMMISSION OF MAY 21, 2013.	
SIGNED		

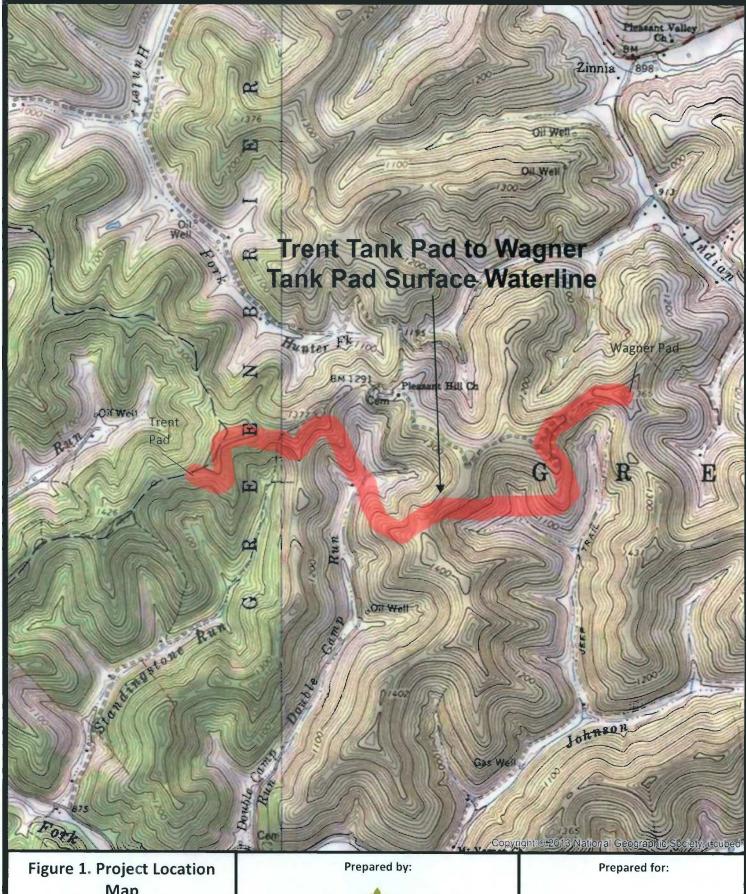




WV Flood Tool is supported by FEMA, WV NFIP Office, and WV GIS Technical Center

(http://www.MapWV.gov/flood)

Elevation: N/A
Location (long, lat):
Location (UTM 17N):
FEMA Issued Flood Map:
Contacts:
CRS Information:
Parcel Number:



Map

Trent Tank Pad to Wagner Tank Pad **Surface Waterline** 

39.206546°N, -80.616680°W

Portions of the New Milton and Big Isaac 7.5' Quadrangles



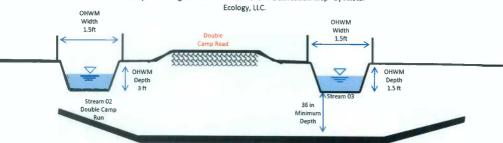
1582 Meadowdale Road, Fairmont WV, 26554 866-213-2666



Figure 4.
Stream & Road Bore Crossing
Crossing #1 (Stream 02 and Stream 03)
(39°12'30.611"N, 80°37'11.658"W)



Excerpt from "Figure 2 Stream and Wetland Delineation Map" by AllStar



12" diameter HDPE Waterline



#### **Typical Stream Cross-Section**

View Downstream Not to Scale Trent Tank Pad to Wagner Tank Pad Waterline Stream Crossing #2 (Stream 04) Stream 04 will be bridged above OHWM



Excerpt from "Jurisdictional Streams and Wetlands Map, Figure 2" by AllStar Ecology, LLC.



# Attachment A. Agency Correspondence



July 8, 2014

**Delivery Method: US Mail** 

Attn: Ms. Elizabeth Stout U.S. Fish and Wildlife Service West Virginia Field Office Ecological Services 694 Beverly Pike Elkins, WV 26241

Re: Threatened and Endangered Species Consultation Trent Tank Pad to Wagner Tank Pad Project

> Doddridge County, WV Antero Resources Corporation

#### Dear Ms. Stout:

AllStar Ecology, LLC (ASE) is submitting this consultation on behalf of Antero Resources Corporation (Antero) for the Trent Tank Pad to Wagner Tank Pad Project. Please address any questions or comments regarding this consultation to:

Brett F. Fletcher
Senior Environmental Scientist & Regulatory Manager
Antero Resources
1625 17<sup>th</sup> Street, Suite 300
Denver, CO 80202
(720) 666-2814
bfletcher@anteroresources.com

#### 1.0 PROJECT DESCRIPTION

Antero has proposed the construction of the Trent Tank Pad to Wagner Tank Pad Project in Doddridge County, WV. ASE completed a stream and wetland delineation of the site Area of Interest (AOI) which involves the proposed installation of a surface waterline between the Trent Tank Pad and the Wagner Tank Pad in Doddridge County, West Virginia (WV). Total area of the AOI is 84 acres with no proposed tree clearing (Figure 1).



The coordinates to the approximate center of the proposed AOI are 39.206546°N, -80.616680°W located on the United States Geological Survey (USGS) topographical map of the New Milton and Big Isaac 7.5' Quadrangle (Figure 1). Directions to the site are as follows: From US-50W, take exit toward Downtown/Salem and take a right onto County Rd 50/73/ Main St for 1.2 miles. Continue onto South St. for 0.2 miles, Patterson Rd for 0.2 miles, Patterson Fork Rd. for 2.1 miles. Turn slightly left onto Co Rte 15/Sherwood-Greenbrier Rd. for 2.9 miles. Turn left onto Co Rte 46/2 and continue for 0.5 miles. Take a slight right onto Standing Stone Rd and continue on road for 1.9 miles.

The majority of the Trent Tank Pad to Wagner Tank Pad Surface Waterline AOI consisted of existing cleared right-of-way, wooded hillsides, and wooded ridgetops. The forested areas along the were dominated by sugar maple (*Acer saccharum*), tulip poplar (*Liriodendron tulipifera*), and red maple (*Acer rubrum*).

#### 2.0 THREATENED AND ENDANGERED SPECIES IN RITCHIE COUNTY, WV

Rare, threatened, and endangered species located within Doddridge County, WV include the Indiana bat (Myotis sodalis), clubshell mussel (Pleurobema clava), and snuffbox mussel (Epioblasma triquetra) Rayed bean mussel (Villosa fabalis). (Table 1).

Table 1. Threatened and Endangered Species Known to Occur in Doddridge County, WV

Common Name	Scientific Name	Scientific Name Nearest Known Habitat (miles)	
Indiana Bat	Myotis sodalis	15.0 miles NE of AOI	Endangered
Snuffbox Mussel	Epioblasma triquetra	.8 miles Meathouse Fork	Endangered
Clubshell Mussel	Pleurobema clava	.8 miles to Meathouse fork	Endangered
Rayed bean Mussel	Villosa fabalis	7.4 miles to Middle Island Creek	Endangered

# 3.0 POTENTIAL THREATENED AND ENDANGERED SPECIES HABITAT IN PROJECT AOI

Indiana bats are restricted to underground hibernacula during winter, with preferred areas being caves located in karst areas. However, Indiana bats will also use other cave-like areas, mostly abandoned mine portals. During the summer, Indiana bats roost mainly under exfoliating bark on dead or nearly dead trees, but will also use crevices in trees as roost sites. They will also utilize live trees with exfoliating bark to a lesser extent, mostly hickory species (*Carya* spp.). They select larger trees, which provide more room for roosting and better thermal advantages. They also select trees which are either located near edges or extend above the surrounding trees as these trees provide more sunlight and are easier and



safer to approach. Spring and fall roosting areas are usually located near the hibernacula and are similar to summer roosting areas. Indiana bats prefer foraging areas, such as water bodies and open areas, to be near the roosting areas (USFWS Indiana Bat Recovery Plan, p. 51-69).

The snuffbox, rayed bean, and clubshell mussels require high-quality waters with gravel/cobble substrate and are most often found in runs slightly below riffles. They are found in streams and small to medium rivers. These mussels are extremely susceptible to pollution and siltation and require clear water (USFWS Endangered Species Page).

Within the Trent Tank Pad to Wagner Tank Pad AOI, Indiana bat habitat was considered marginal. No suitable snags were documented throughout the AOI. In addition, no potential habitat for bald eagles was located on or near the site. No caves or mine portals were found onsite.

#### 4.0 PROPOSED IMPACTS

Based on the proposed operation to complete the waterline, no impacts to aquatic resources are anticipated from the Trent Tank Pad to Wagner Tank Pad Project. The project proposes no disturbance (Figure 2) to upland forests found onsite. Impacts to endangered bat species are not anticipated. Photos are provided documenting site cover types (Figure 3). Any stream crossings will be cribbed above the OHWM with the exception of Stream 2 and 3 which will be bored using horizontal directional boring. Wetlands will be avoided or bridged.

#### **Habitat Impacts**

There are no proposed impacts to either aquatic or terrestrial habitats. No impacts to rare, threatened, or endangered species are anticipated.

#### 5.0 Avoidance and Minimization of Impacts

The Trent Tank Pad to Wagner Tank Pad Project was designed to avoid impacts to sensitive species and critical habitat. No streams or wetlands will be impacted by this project. Avoidance of tree removal will ensure no incidental take of Indiana bats.

#### Waterline Bore Contingency Plan

In an effort to minimize water body impacts Antero Resources is proposing to HDD and conventionally bore under jurisdictional aquatic features. In the unlikely event that boring fails or is abandoned, this statement will serve as a contingency



plan. The USFWS and ACOE will be notified in the case of either remote situation and consulted with on the remediation process.

After an inadvertent return event, Antero will do the following:

- Consult with USFWS and DEP
- · Immediately contain the returned material
- Secondary containment measures including silt fence, sand bags, turbidity curtains, water pumps and any other BMPs will be installed as necessary.
- A mussel investigation will promptly begin, as necessary.
- As a standard operating procedure, after approximately two (2) days, Antero will attempt to bore again.

In the event that subsequent boring will not be successful and must be abandoned, Antero proposes an open cut ditch crossing contingency under NWP #12.

#### 6.0 SUMMARY

In our professional opinion, no impacts to sensitive species or habitat will occur during the construction of the Trent Tank Pad to Wagner Tank Pad Project. By avoiding tree clearing and impacts to aquatic resources, impacts to endangered species are not anticipated. We request concurrence with the above determinations from the USFWS.

Should you have any questions please do not hesitate to contact Brett Fletcher at (720) 666-2814 or bfletcher@anteroresources.com. We appreciate your timely review of this request.

Sincerely,

Terry Burhans
Environmental Scientist II
AllStar Ecology, LLC.
Cc: Brett F. Fletcher, Antero Resources

Enclosures (3):

Figure 1- USGS Topographic Map

Figure 2- Delineation Maps

Figure 3- Habitat Photographs



July 8, 2014

Ms. Barbara Sargent W.V. Division of Natural Resources Natural Heritage Program PO Box 67 Elkins, WV 26241

RE: Trent Tank Pad to Wagner Tank Pad Surface Waterline Environmental Review

Ms. Sargent,

Antero Resources Corporation has proposed the construction of the Trent Tank Pad to Wagner Tank Pad Surface Waterline in Doddridge County, West Virginia. This involves the installation of a 12 inch diameter high density polyethylene (HDPE) waterline with a maximum pressure of 200 pounds per square inch (psi) connecting the Trent Tank Pad to the Wagner Tank Pad. The project also involves horizontally directional drilling (HDD) under the Stream 2 and Stream 3. No tree clearing is proposed. The Area of Interest (AOI) totaled 84 acres.

Rare, threatened, and endangered species that are known to occur in Doddridge County, WV include the Indiana bat (Myotis sodalis), clubshell mussel (Pleurobema clava), rayed bean mussel (Villosa fabalis), and snuffbox mussel (Epioblasma triquetra). The proposed site was located 0.8 miles away from the buffer for the clubshell and snuffbox mussels and 7.4 miles away from the buffer for the rayed bean mussel. The site is 15 miles from buffers of any known terrestrial locations of rare, threatened, or endangered species. No caves or mine portals were observed on the site. Since no tree clearing will take place during the installation of the waterline, no impacts to Indiana bats are expected.

The proposed project is in the Middle Island Creek watershed. The Middle Island Creek (HUC# 05030201) is a traditional navigable waterway. Any stream crossings will be cribbed above the OHWM with the exception of Stream 2 and 3 which will be bored using HDD. Wetlands will be avoided or bridged. Disturbances to streams, streambeds and wetlands are not proposed; therefore impacts to freshwater mussels are not anticipated. Enclosed is a delineation map, site photo exhibit, as well as a location map of the project located on the USGS New Milton and Big Isaac Quadrangles.

Please contact me with any questions or concerns.

Thank you,

Terry Burhans AllStar Ecology, LLC 858 243 9900 (direct line) terry@allstarecology.com cc: Amanda Fernley - Antero Cole Kilstrom - Antero Brett Fletcher - Antero 1615 WynkoopStreet Denver, CO 80202

AllStar Ecology, LLC 1582 Meadowdale Road, Fairmont, WV 26554 Phone/Fax: 1-866-213-2666 www.allstarecology.com



July 11, 2013

Office of Land and Streams Building 74, Room 200 324 Fourth Avenue South Charleston, WV 25303

#### RE: Trent Tank Pad To Wagner Tank Pad Surface Waterline Stream Activity Permit Application

Antero Resources Corporation has proposed the construction of the Trent Tank Pad to Wagner Tank Pad Surface Waterline Project. This involves the installation of a 12 inch high density polyethylene in Doddridge County, West Virginia. Attached with this letter is the Stream Activity Application for the proposed stream crossings at the Trent Tank Pad to Wagner Tank Pad Surface Waterline Project. Also included is a project location map, and cross-sectional drawing for the proposed stream crossings.

The proposed stream crossings include one crossing at Double Camp Run, and one at an unnamed tributary. Both streams are tributaries of Middle Island Creek of the Ohio River (HUC# 05030201). Crossing 1 will bore no less than 36 inches under Double Camp Run (Stream 2) and Stream 3 using horizontal directional drilling. Crossing 2 will be bridged above and outside of the OHWM of Stream 4 using cribbing. No fill will be placed within the OHWM. Details and location of the crossing are included in the, project location map, delineation map, and cross sectional drawings.

Please contact me with any questions or concerns.

Thank you,

Terry Burhans AllStar Ecology, LLC 858-243-9900 (direct line) terry@allstarecology.com cc: Trent Tank Pad to Wagner
Tank Pad Surface Waterline
Brett Fletcher - Antero
Amanda Fernly - Antero
1625 17th Street
Denver, CO 80202

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#### STATE OF WEST VIRGINIA, COUNTY OF DODDRIDGE, TO WIT

I, Virginia Nicholson, Editor of THE HERALD RECORD, a weekly newspaper published regularly, in Doddridge County, West Virginia, Do Hereby Certify That the Accompanying Legal Notice was published in said paper for . . . . . . successive weeks beginning with the issue ending with the issue of that said notice contains . . . 1.8.9. amounts to the sum of \$ . 2.! FOR FIRST PUBLICATION, SECOND **PUBLICATION IS 75% OF THE FIRST PUBLICATION** and each publication thereafter EDITOR **SWORN TO AND SUBSCRIBED NOTARY PUBLIC** 



