

Commercial/Industrial Floodplain Development Permit

Doddridge County, WV Floodplain Management

This permit has been issued to Crestwood Marcellus Midstream LLC, 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: #14-189-1

Date Approved: 07/02/2014

Expires: N/A

Issued to: Thrasher

POC: Matthew Fluharty

800-273-6541

Company Address:

Project Address:

Firm: N/A

Purpose of development: Pipeline. Project does not impact floodplain.

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

Date: 07/02/2014

For additional information regarding this permit, please contact
Doddridge County Floodplain Manager at 304.873.2631, or via email at
doddridgecountyfpm@gmail.com
118 East Court Street; West Union, WV 26456

**DODDRIDGE COUNTY
FLOODPLAIN APPLICATION PERMIT FEES**

Accessory Building and/or Appurtenant Structures ----- \$100.00
(examples: garage, storage or pole building, carport)
(the total cost of which do not exceed \$10,000.00)

Accessory Building and/or Appurtenant Structures, Additions and/or Substantial Improvement to Single Family Residential or Manufactured Homes, New Single or Multi-Family Residential and Commercial Structures or Substantial Improvement to existing Commercial Structures, Commercial Land Use Changes and Land Altering Activities
(commercial structures includes buildings used for business purposes)
(the total costs of which exceed \$10,000.00 but do not exceed \$50,000.00) ----- \$250.00

Accessory Building and/or Appurtenant Structures, Additions and/or Substantial Improvement to Single Family Residential or Manufactured Homes, New Single or Multi-Family Residential and Commercial Structures or Substantial Improvement to existing Commercial Structures, Commercial Land Use Changes and Land Altering Activities
(commercial structures includes buildings used for business purposes)
(the total costs of which exceed \$50,000.00 plus \$2.00 per \$1,000.00 to cover costs over \$50,000.00) ----- \$350.00

New Industrial Structures or Additions and/or Substantial Improvement to Existing Industrial Structures, changes in Land Use and Land Altering Activities for Industrial purposes
(industrial structures includes oil and/or natural gas wells, roads, bridges, tank pads, and Buildings used or associated with oil and natural gas purposes)
(the total costs of which do not exceed \$100,000.00) ----- \$500.00

New Industrial Structures or Additions and/or Substantial Improvement to Existing Industrial Structures, changes in Land Use and Land Altering Activities for Industrial purposes
(industrial structures includes oil and/or natural gas wells, roads, bridges, tank pads, and Buildings used or associated with oil and natural gas purposes)
(the total costs of which exceed \$100,000.00 plus \$5.00 per \$1,000.00 in costs over \$100,000.00) ----- \$1,000.00

Maximum Fee: In no event shall any Floodplain Application Permit Fee charged under the Doddridge County Floodplain Ordinance exceed the sum of \$25,000.00.

TRANSACTION REPORT

P.01

MAY-07-2014 WED 02:01 PM

FOR: DODDRIDGE CO. CLERK

304 873 1840

SEND

DATE	START	RECEIVER	TX TIME	PAGES	TYPE	NOTE	M#	DP
MAY-07	02:01 PM	3046247831	44"	4	FAX TX	OK	006	

TOTAL : 44S PAGES: 4

#14-189
Crestwood Marcellus
Wagner P/L.

**DODDRIDGE COUNTY
FLOODPLAIN DEVELOPMENT PERMIT APPLICATION**

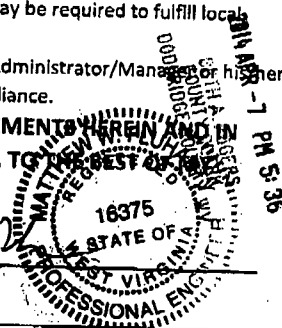
SECTION 1: GENERAL PROVISIONS (APPLICANT TO READ AND SIGN)

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

Wagner P/L
4/4/14



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: Crestwood Marcellus Midstream LLC.

ADDRESS: 801 Cherry Street, Suite 3800, Unit 20, Fort Worth TX, 76102

TELEPHONE NUMBER: (817) 339-5400

#14-189
Crestwood Marcellus
Wagner P/L.

**DODDRIDGE COUNTY
FLOODPLAIN DEVELOPMENT PERMIT APPLICATION**

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

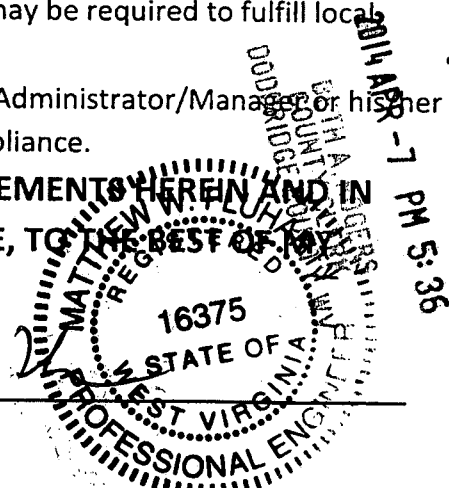
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APPLICANT'S SIGNATURE

Matthew W. Elum

DATE

4/4/14



FILED

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: Crestwood Marcellus Midstream LLC.

ADDRESS: 801 Cherry Street, Suite 3800, Unit 20, Fort Worth TX, 76102

TELEPHONE NUMBER: (817) 339-5400

BUILDER'S NAME: To be determined - request conditional approval

ADDRESS: _____

TELEPHONE NUMBER: _____

ENGINEER'S NAME: Matthew Fluharty, PE The Thrasher Group INC.

ADDRESS: 600 White Oaks Boulevard, PO Box 940, Bridgeport WV 26330

TELEPHONE NUMBER: (800) 273-6541

PROJECT LOCATION:

NAME OF SURFACE OWNER/OWNERS (IF NOT THE APPLICANT) _____

ADDRESS OF SURFACE OWNER/OWNERS (IF NOT THE APPLICANT) _____

DISTRICT: _____

DATE/FROM WHOM PROPERTY

PURCHASED: _____

LAND BOOK DESCRIPTION: _____

DEED BOOK REFERENCE: _____

TAX MAP REFERENCE: _____

EXISTING BUILDINGS/USES OF PROPERTY: _____

NAME OF AT LEAST ONE ADULT RESIDING IN EACH RESIDENCE LOCATED UPON THE SUBJECT PROPERTY _____

ADDRESS OF AT LEAST ONE ADULT RESIDING IN EACH RESIDENCE LOCATED UPON THE SUBJECT PROPERTY _____

To avoid delay in processing the application, please provide enough information to easily identify the project location.

DESCRIPTION OF WORK (CHECK ALL APPLICABLE BOXES)

A. STRUCTURAL DEVELOPMENT

ACTIVITY

STRUCTURAL TYPE

- | | |
|--------------------------------------------------|-----------------------------------------------------------|
| <input type="checkbox"/> New Structure | <input type="checkbox"/> Residential (1 – 4 Family) |
| <input type="checkbox"/> Addition | <input type="checkbox"/> Residential (more than 4 Family) |
| <input type="checkbox"/> Alteration | <input type="checkbox"/> Non-residential (floodproofing) |
| <input type="checkbox"/> Relocation | <input type="checkbox"/> Combined Use (res. & com.) |
| <input type="checkbox"/> Demolition | <input type="checkbox"/> Replacement |
| <input type="checkbox"/> Manufactured/Mobil Home | |

B. OTHER DEVELOPMENT ACTIVITIES:

- Fill Mining Drilling Pipelining
- Grading
- Excavation (except for STRUCTURAL DEVELOPMENT checked above)
- Watercourse Altercation (including dredging and channel modification)
- Drainage Improvements (including culvert work)
- Road, Street, or Bridge Construction
- Subdivision (including new expansion)
- Individual Water or Sewer System
- Other (please specify)
-

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 \$ 0.00

D. ADJACENT AND/OR AFFECTED LANDOWNERS:

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

NAME: _____
 ADDRESS: _____

NAME: _____
 ADDRESS: _____

NAME: _____
 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: _____
 ADDRESS: _____

NAME: _____
 ADDRESS: _____

NAME: _____
 ADDRESS: _____

NAME: _____
 ADDRESS: _____

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.

- (D) COURT REPORTING SERVICES AT ANY HEARINGS REQUESTED BY THE APPLICANT.
- (E) CONSULTANTS AND/OR HEARING EXPERTS UTILIZED BY DODDRIDGE COUNTY 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.

NAME (PRINT): Matthew W Fleharty

SIGNATURE: Matthew W Fleharty DATE: 4/4/14

After completing SECTION 2, APPLICANT should submit form to Floodplain Administrator/Manager or his/her representative for review.

SECTION 3: FLOODPLAIN DETERMINATION (to be completed by Floodplain Administrator/Manager or his/her representative)

THE PROPOSED DEVELOPMENT:

THE PROPOSED DEVELOPMENT IS LOCATED ON:

FIRM Panel: _____

Dated: _____

Is **NOT** located in a Specific Flood Hazard Area (Notify applicant that the application review is complete and **NO FLOODPLAIN DEVELOPMENT PERMIT 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.

SIGNED

Ralph Dandow

DATE

4-8-14

SECTION 4: ADDITIONAL INFORMATION REQUIRED (To be completed by Floodplain Administrator/Manager or his/her representative)

The applicant must submit the documents checked below before the application can be processed.

- 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 _____

- 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 elevation _____ Ft. 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 Contractor's License and a Manufactured Home Installation License as required by the Federal Emergency Management Agency (FEMA).

Other:

SECTION 5: PERMIT DETERMINATION (To be completed by Floodplain Administrator/Manager or his/her representative)

I have determined that the proposed activity **(type is or is not)** in conformance with provisions of the Floodplain Ordinance adopted by the County Commission of Doddridge County on May 21, 2013. The permit is issued subject to the conditions attached to and made part of this permit.

SIGNED _____ DATE _____

If the Floodplain Administrator/Manager found that the above was not in conformance with the provisions of the Doddridge County Floodplain Ordinance and/or denied that application, 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

CONDITIONS: _____

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 is _____ FT. NGVD (MSL)
- 2 Actual (As Built) elevation of floodproofing is _____ FT. NGVD (MSL)

Note: Any work performed prior to submittal of the above information is at risk of the applicant.

SECTION 7: COMPLIANCE ACTION (To be completed by the Floodplain Administrator/Manager or his/her representative).

The Floodplain Administrator/Manager or his/her representative will complete this section as applicable based on inspection of the project to ensure compliance with the Doddridge County Floodplain Ordinance.

INSPECTIONS:

DATE: _____ BY: _____
DEFICIENCIES ? Y/N

COMMENTS _____

SECTION 8: CERTIFICATE OF COMPLIANCE (To be completed by Floodplain Administrator/Manager or his/her representative).

Certificate of Compliance issued: DATE: _____ BY: _____

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

PERMIT NUMBER: _____

PERMIT DATE: _____

PURPOSE –

CONSTRUCTION LOCATION: _____

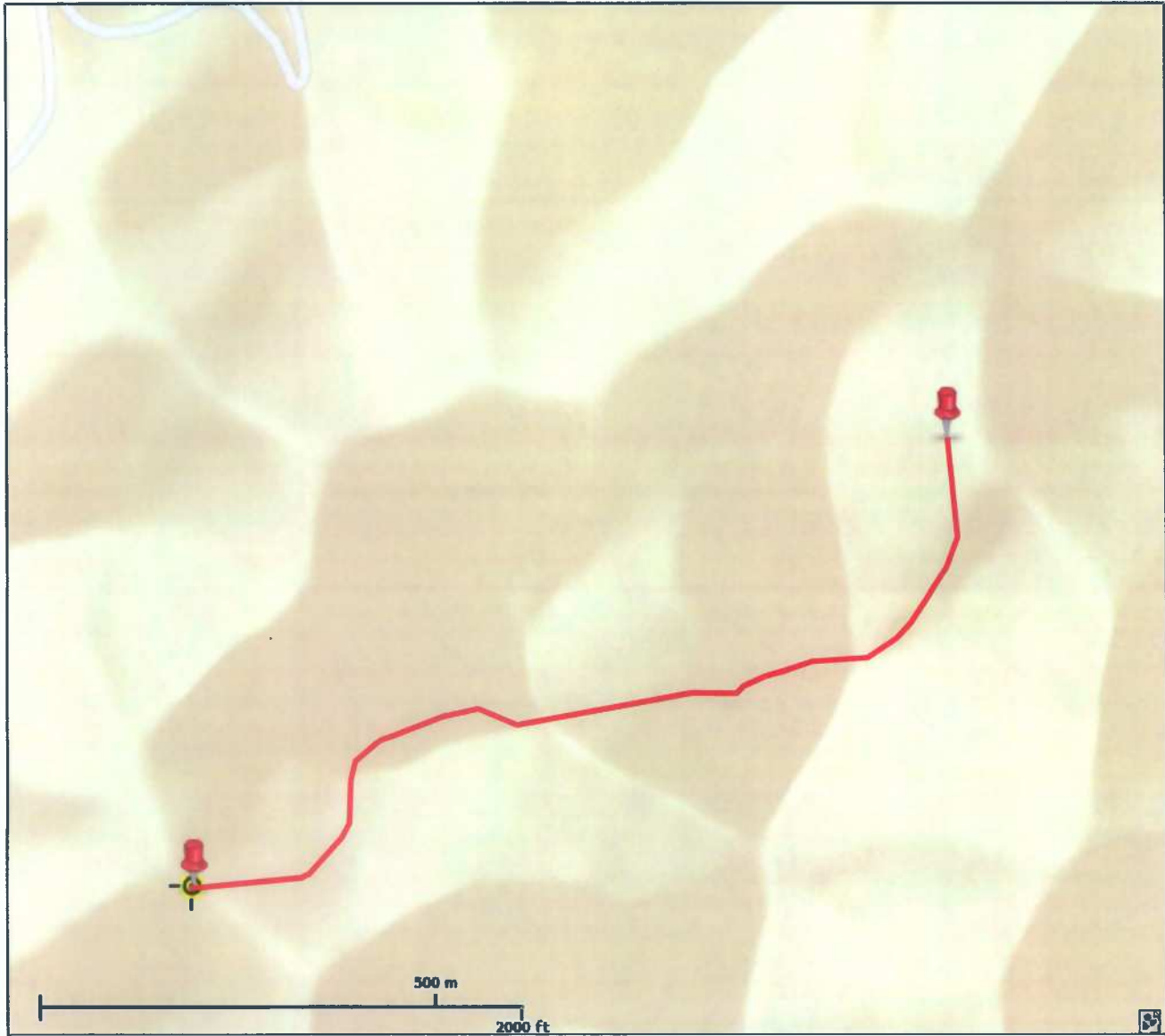
OWNER'S ADDRESS: _____

**THE FOLLOWING MUST BE COMPLETED BY THE FLOODPLAIN
ADMINISTRATOR/MANAGER OR HIS/HER AGENT.**

**COMPLIANCE IS HEREBY CERTIFIED WITH THE REQUIREMENT OF THE
FLOODPLAIN ORDINANCE ADOPTED BY THE COUNTY COMMISSION OF
DODDRIDGE COUNTY ON MAY 21, 2013.**

SIGNED _____ **DATE** _____

WV Flood Map



This map is not the official regulatory FIRM or DFIRM. Its purpose is to assist with determining potential flood risk for the selected location.

Map Created on 3/27/2014



Location of the mouse click



Flood Hazard Zone
(1% annual chance floodplain)

User Notes:

Disclaimer:

The online map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. To obtain more detailed information in areas where Base Flood Elevations have been determined, users are encouraged to consult the latest Flood Profile data contained in the official flood insurance study. These studies are available online at www.msc.fema.gov.

WV Flood Tool is supported by FEMA, WV NFIP Office, and WV GIS Technical Center
(<http://www.MapWV.gov/flood>)

Flood Hazard Area: Selected site is NOT WITHIN any identified flood hazard area. Unmapped flood hazard areas may be present.

Elevation: About 1424 feet

Location (long, lat): 80.615480 W, 39.204960 N

Location (UTM 17N): (533200, 4339592)

FEMA Issued Flood Map: 54017C0255C

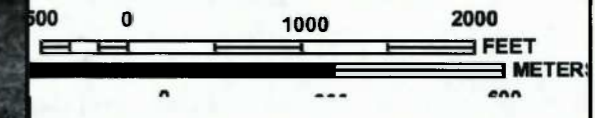
Contacts: Doddridge County

CRS Information: No CRS information available

Parcel Number:



MAP SCALE 1" = 1000'



NFP
 NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0255C

FIRM
FLOOD INSURANCE RATE MAP
DODDRIDGE COUNTY,
WEST VIRGINIA
AND INCORPORATED AREAS

PANEL 255 OF 325
 (SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
DODDRIDGE COUNTY	540024	0255	C

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.





MAP NUMBER
 54017C0255C
 MAP REVISED
 OCTOBER 4, 2011

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.mec.fema.gov



 NWI
 AOI - 75'
 1 inch = 300 feet

Note: NWI data is downloaded from the US Fish & Wildlife website and used without any edits or modifications. There are no wetland areas near this location according to this data.

Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

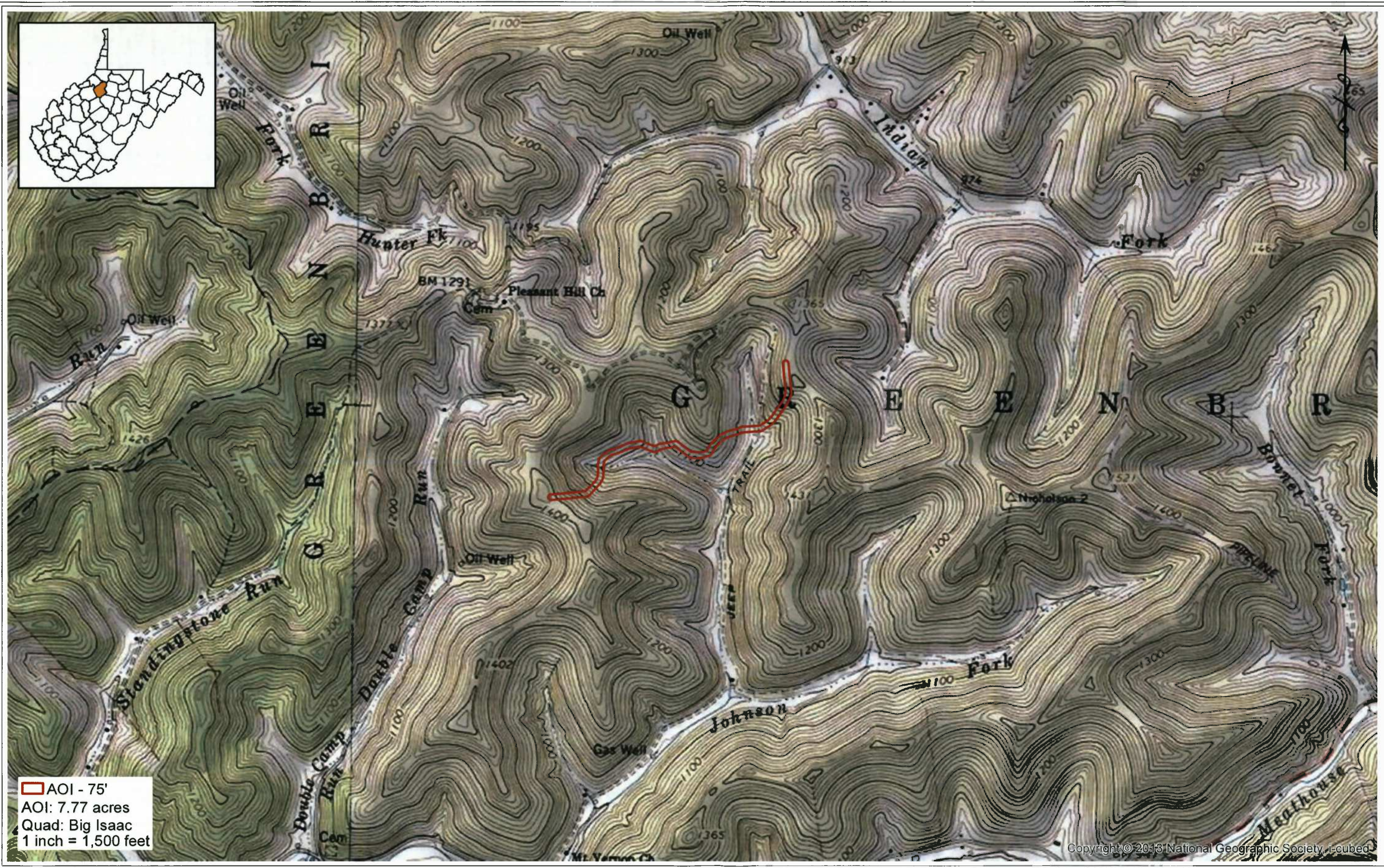
THRASHER

Figure 2: NWI Mapper
 Wagner Pipeline
 Doddridge County - West Virginia



3/28/2014

By: demasters



By: demasters

THRASHER

Figure 1: Site Location

Wagner Pipeline
Doddridge County - West Virginia

3/28/2014



Copyright © 2013 National Geographic Society, i-cubed



AOI - 75'
1 inch = 300 feet

Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Figure 3: Soil Types
Wagner Pipeline
Doddridge County - West Virginia

THRASHER



3/28/2014

Doddridge County, West Virginia

GsE—Gilpin-Peabody complex, 15 to 35 percent slopes, very stony

Map Unit Setting

Mean annual precipitation: 35 to 52 inches
Mean annual air temperature: 39 to 64 degrees F
Frost-free period: 144 to 173 days

Map Unit Composition

Gilpin and similar soils: 50 percent
Peabody and similar soils: 35 percent

Description of Gilpin

Setting

Landform: Hillslopes
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Crest, nose slope, side slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Very stony fine-loamy residuum weathered from shale and siltstone

Properties and qualities

Slope: 15 to 35 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Low (about 4.7 inches)

Interpretive groups

Farmland classification: Not prime farmland
Land capability (nonirrigated): 7s
Hydrologic Soil Group: C
Other vegetative classification: Very Rocky, Acid Soils (RA3)

Typical profile

0 to 3 inches: Silt loam
3 to 10 inches: Silt loam
10 to 23 inches: Channery silty clay loam
23 to 33 inches: Very channery silt loam
33 to 43 inches: Bedrock

Description of Peabody

Setting

Landform: Hillslopes
Landform position (two-dimensional): Shoulder, backslope
Landform position (three-dimensional): Nose slope, side slope
Down-slope shape: Convex
Across-slope shape: Convex

Custom Soil Resource Report

Parent material: Very stony clayey residuum weathered from interbedded sedimentary rock

Properties and qualities

Slope: 15 to 35 percent

Depth to restrictive feature: 20 to 40 inches to lithic bedrock; 20 to 40 inches to paralithic bedrock

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water capacity: Low (about 3.3 inches)

Interpretive groups

Farmland classification: Not prime farmland

Land capability (nonirrigated): 7s

Hydrologic Soil Group: D

Typical profile

0 to 3 inches: Silt loam

3 to 7 inches: Silty clay loam

7 to 21 inches: Clay

21 to 27 inches: Very channery silty clay

27 to 33 inches: Bedrock

33 to 43 inches: Bedrock

GsF—Gilpin-Peabody complex, 35 to 70 percent slopes, very stony

Map Unit Setting

Mean annual precipitation: 35 to 52 inches

Mean annual air temperature: 39 to 64 degrees F

Frost-free period: 144 to 173 days

Map Unit Composition

Gilpin and similar soils: 50 percent

Peabody and similar soils: 30 percent

Description of Gilpin

Setting

Landform: Hillslopes

Landform position (two-dimensional): Summit, shoulder, backslope

Landform position (three-dimensional): Crest, nose slope, side slope

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Very stony fine-loamy residuum weathered from shale and siltstone

Properties and qualities

Slope: 35 to 70 percent

Custom Soil Resource Report

Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Low (about 4.7 inches)

Interpretive groups

Farmland classification: Not prime farmland
Land capability (nonirrigated): 7s
Hydrologic Soil Group: C
Other vegetative classification: Very Rocky, Acid Soils (RA3)

Typical profile

0 to 3 inches: Silt loam
3 to 10 inches: Silt loam
10 to 23 inches: Channery silty clay loam
23 to 33 inches: Very channery silt loam
33 to 43 inches: Bedrock

Description of Peabody

Setting

Landform: Hillslopes
Landform position (two-dimensional): Shoulder, backslope
Landform position (three-dimensional): Nose slope, side slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Very stony clayey residuum weathered from interbedded sedimentary rock

Properties and qualities

Slope: 35 to 70 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock; 20 to 40 inches to paralithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Low (about 3.3 inches)

Interpretive groups

Farmland classification: Not prime farmland
Land capability (nonirrigated): 7s
Hydrologic Soil Group: D

Typical profile

0 to 3 inches: Silt loam
3 to 7 inches: Silty clay loam
7 to 21 inches: Clay
21 to 27 inches: Very channery silty clay
27 to 33 inches: Bedrock
33 to 43 inches: Bedrock

GuC—Gilpin-Upshur complex, 8 to 15 percent slopes

Map Unit Setting

Mean annual precipitation: 35 to 52 inches
Mean annual air temperature: 39 to 64 degrees F
Frost-free period: 144 to 173 days

Map Unit Composition

Upshur and similar soils: 40 percent
Gilpin and similar soils: 40 percent

Description of Gilpin

Setting

Landform: Hillslopes
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Crest, nose slope, side slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Fine-loamy residuum weathered from shale and siltstone

Properties and qualities

Slope: 8 to 15 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Low (about 4.7 inches)

Interpretive groups

Farmland classification: Farmland of statewide importance
Land capability (nonirrigated): 3e
Hydrologic Soil Group: C
Other vegetative classification: Acid Loams (AL3)

Typical profile

0 to 3 inches: Silt loam
3 to 10 inches: Silt loam
10 to 23 inches: Channery silty clay loam
23 to 33 inches: Very channery silt loam
33 to 43 inches: Bedrock

Description of Upshur

Setting

Landform: Hillslopes
Landform position (two-dimensional): Summit, shoulder

Custom Soil Resource Report

Landform position (three-dimensional): Crest, nose slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Clayey residuum weathered from interbedded sedimentary rock

Properties and qualities

Slope: 8 to 15 percent
Depth to restrictive feature: 40 to 60 inches to paralithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Moderate (about 6.7 inches)

Interpretive groups

Farmland classification: Farmland of statewide importance
Land capability (nonirrigated): 4e
Hydrologic Soil Group: C

Typical profile

0 to 2 inches: Silt loam
2 to 6 inches: Silt loam
6 to 11 inches: Silty clay
11 to 20 inches: Clay
20 to 35 inches: Clay
35 to 46 inches: Clay
46 to 57 inches: Silty clay loam
57 to 67 inches: Bedrock

GuD—Gilpin-Upshur complex, 15 to 25 percent slopes

Map Unit Setting

Mean annual precipitation: 35 to 52 inches
Mean annual air temperature: 39 to 64 degrees F
Frost-free period: 144 to 173 days

Map Unit Composition

Upshur and similar soils: 40 percent
Gilpin and similar soils: 40 percent

Description of Gilpin

Setting

Landform: Hillslopes
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Crest, nose slope, side slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Fine-loamy residuum weathered from shale and siltstone

Custom Soil Resource Report

Properties and qualities

Slope: 15 to 25 percent

Depth to restrictive feature: 20 to 40 inches to lithic bedrock

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water capacity: Low (about 4.7 inches)

Interpretive groups

Farmland classification: Farmland of statewide importance

Land capability (nonirrigated): 4e

Hydrologic Soil Group: C

Other vegetative classification: Acid Loams (AL3)

Typical profile

0 to 3 inches: Silt loam

3 to 10 inches: Silt loam

10 to 23 inches: Channery silty clay loam

23 to 33 inches: Very channery silt loam

33 to 43 inches: Bedrock

Description of Upshur

Setting

Landform: Hillslopes

Landform position (two-dimensional): Summit, shoulder

Landform position (three-dimensional): Nose slope, crest

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Clayey residuum weathered from interbedded sedimentary rock

Properties and qualities

Slope: 15 to 25 percent

Depth to restrictive feature: 40 to 60 inches to paralithic bedrock

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water capacity: Moderate (about 6.7 inches)

Interpretive groups

Farmland classification: Farmland of statewide importance

Land capability (nonirrigated): 6e

Hydrologic Soil Group: C

Typical profile

0 to 2 inches: Silt loam

2 to 6 inches: Silt loam

6 to 11 inches: Silty clay

11 to 20 inches: Clay

20 to 35 inches: Clay

35 to 46 inches: Clay

Custom Soil Resource Report

46 to 57 inches: Silty clay loam
57 to 67 inches: Bedrock



Stream

- Ephemeral
- Intermittent
- 1 inch = 300 feet

I/E

- OHWM
- Pipeline
- AOI - 75'

Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Figure 4: Delineation
Wagner Pipeline
Doddridge County - West Virginia

THRASHER



4/2/2014

By: TDavis



1/4 Mile Buffer
Non-Forested Area
AOI - 75'
7.73 Forested acres in AOI
159.45 Forested acres in 1/4 Mile Buffer
1 inch = 450 feet

Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

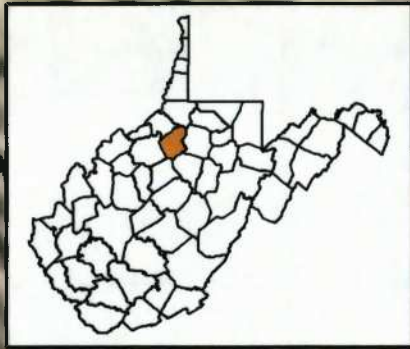
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Forested Acres
Wagner Pipeline
Doddridge County - West Virginia



3/28/2014

By: demasters



- Under 20% Slope
- Over 20% Slope
- AOI - 75'
- 1 inch = 300 feet



THRASHER

Slope
Wagner Pipeline
Doddridge County - West Virginia

3/28/2014



Copyright © 2013 National Geographic Society, i-cubed

By: demasters

THRASHER

#14-189
Crestwood Marcellus Midstream
Wagner P/L
FILED

2014 APR -7 PM 5:36

BETH A. ROGERS
COUNTY CLERK
DODDRIDGE COUNTY, WV

April 3, 2014
Doddridge County Commission
118 East Court Street
West Union, WV 26456

**RE: *Doddridge County Location Improvement Permit
Crestwood Marcellus Midstream LLC
Wagner Pipeline, Doddridge County, West Virginia
Thrasher Group Project # 101-015-0229***

Mr. Wellings:

On behalf of Crestwood Marcellus Midstream LLC (Crestwood), The Thrasher Group Inc. (Thrasher), is submitting to your office for review and approval an application package for a Doddridge County Location Improvement Permit for a proposed project in the USGS Salem and Big Isaac 7.5 minute quadrangle of Doddridge County, West Virginia.

Crestwood plans to construct a pipeline which will be used to transport raw natural gas from the Stark compressor station to a compressor station.

The proposed area of interest (AOI) for the Wagner pipeline consists of a 75' wide right-of-way (ROW) which contains approximately 7.77 acres. The proposed 16" steel Wagner pipeline originates at the Wagner Well Pad located at approximately 39.210172 N / 80.604345 W. From there it extends 4,300 LF south west to the Stark Compressor Site located at 39.20505 N / 80.615439 W. Both the proposed Wagner pipeline and access road are located completely outside of the 100-year flood elevation area.

The USGS topographical map, aerial imagery map, FIRM map, and WV Flood Tool Map contained herein depict the proposed limits of disturbance associated with the proposed construction. Additionally, please see attached permit application, and permit fee worksheet, as well as copies of all required federal and state permit applications. No construction is proposed in the flood plain so there are no fees associated with this permit. Permit approvals will be sent in once they are received.

THRASHER

Doddridge County Commission
April 3, 2014
Page 2 of 2

If any further documentation is required for this project, or if any questions may arise, please feel free to contact me at your earliest convenience at (304) 624-4108 or rboustany@thrashereng.com.

Sincerely,

THRASHER GROUP, INC.



Ryan S. Boustany
Staff Engineer

Enclosures

R:\015-0229 - Crestwood - Wagner Pipeline - Environmental\Documents\Permitting\Environmental\Correspondence\DCLIP

THRASHER

April 3, 2014

Ms. Barbara Sargent, Environmental Resources Specialist
Wildlife Diversity Unit
WV Division of Natural Resources, Wildlife Resources Division
P.O. Box 67
Elkins, WV 26241

**RE: *Rare, Threatened and Endangered Species Review
Crestwood Marcellus Midstream LLC
Wagner Pipeline, Doddridge County, West Virginia
Thrasher Project #101-015-0229***

Dear Ms. Sargent:

On behalf of Crestwood Marcellus Midstream LLC (Crestwood), The Thrasher Group, Inc. (Thrasher), is submitting to your office, a request for habitat assessment for any rare, threatened and endangered (RTE) wildlife resources for a proposed linear pipeline project in the USGS Big Isaac 7.5 minute quadrangle of Doddridge County, WV.

The proposed area of interest (AOI) for the Wagner pipeline consists of a 75' wide right-of-way (ROW) which contains approximately 7.77 acres. The proposed 16" steel Wagner pipeline originates at the Wagner Well Pad located at approximately 39.210172 N / 80.604345 W. From there it extends 4,300 LF south west to the Stark Compressor Site located at 39.20505 N / 80.615439 W.

Thrasher staff identified ten streams (10) streams and zero (0) wetlands during field investigations. Four (4) of the identified streams will be crossed and temporarily impacted using open cut construction methods. After the pipeline is installed the stream will be restored to original contour, slope, and grade at the time of completion. Thrasher understands all material removed during excavation will be temporarily side cast and used for backfill. The intended AOI will be returned to the original contour, slope, and grade at the time of completion. The attached delineation mapping depicts all findings associated with the proposed Wagner pipeline AOI.

Of the 7.77 acres contained within the AOI, approximately 7.73 acres are forested and will require timbering before construction can commence. Please see attached forested acreage map. In addition, no specific Indiana Bat habitat, portals or caves were identified within the intended AOI.

THRASHER

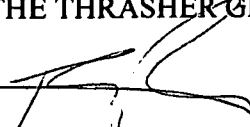
Ms. Sargent
Page 2 of 2
April 3, 2014

The USGS topographical map and aerial imagery map contained herein depict the proposed pipeline route and the proposed 75' construction right of way. The included photo log displays all identified aquatic resources within the AOI as well as typical habitat along the proposed pipeline right of way.

If any further documentation or permitting is required for this project, or if any questions may arise please feel free to contact me at your earliest convenience at (304) 624-4108 or rboustany@thrashereng.com.

Sincerely,

THE THRASHER GROUP, INC.



RYAN S. BOUSTANY
Staff Engineer
Enclosure

R:\015-0229 - Crestwood - Wagner Pipeline - Environmental\Documents\Permitting\Environmental\Correspondence\WVDNR
RTE\Cover Letter

THRASHER

April 3, 2014

Ms. Susan Pierce, Deputy State Historic Preservation Officer
The Cultural Center
1900 Kanawha Blvd., E.
Charleston, WV 25305-0300

**RE: *WVSHPO Section 106 Review
Crestwood Marcellus Midstream LLC
Wagner Pipeline, Doddridge County, West Virginia
Thrasher Project #101-015-0229***

Dear Ms. Pierce:

On behalf of Crestwood Marcellus Midstream LLC (Crestwood), The Thrasher Group, Inc. (Thrasher), is submitting to your office a review for environmental due diligence a proposed pipeline project in the USGS Big Isaac 7.5 minute quadrangle of Doddridge County, WV.

The proposed area of interest (AOI) for the Wagner pipeline consists of a 75' wide right-of-way (ROW) which contains approximately 7.77 acres. The proposed 16" steel Wagner pipeline originates at the Wagner Well Pad located at approximately 39.210172 N / 80.604345 W. From there it extends 4,300 LF south west to the Stark Compressor Site located at 39.20505 N / 80.615439 W.

Thrasher staff identified ten streams (10) streams and zero (0) wetlands during field investigations. Four (4) of the identified streams will be crossed and temporarily impacted using open cut construction methods. After the pipeline is installed the stream will be restored to original contour, slope, and grade at the time of completion. Thrasher understands all material removed during excavation will be temporarily side cast and used for backfill. The intended AOI will be returned to the original contour, slope, and grade at the time of completion. The attached delineation mapping depicts all findings associated with the proposed Wagner pipeline AOI.

The USGS topographical map and aerial imagery map contained herein depict the proposed site. The included photo log displays all aquatic resources within the AOI as well as typical habitat within the intended AOI.

THRASHER

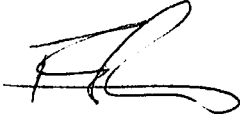
Ms. Pierce
Page 2 of 2
April 3, 2014

The attached slope map depicts that the majority of the pipeline is located on terrain which consists of slope greater than 20 percent. During field investigations, no historical buildings or archaeological resources were discovered onsite.

If any further consultation with your agency is required for this project, or if any questions may arise please feel free to contact me at your earliest convenience at (304) 624-4108 or rboustany@thrashereng.com.

Sincerely,

THE THRASHER GROUP, INC.



RYAN S. BOUSTANY
Staff Engineer

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THRASHER

April 3, 2014

U.S. Fish and Wildlife Service
West Virginia Field Office
694 Beverly Pike
Elkins, WV 26241

**RE: *Project Review Request
Crestwood Marcellus Midstream LLC
Wagner Pipeline, Doddridge County, West Virginia
Thrasher Project #101-015-0229***

To whom it may concern:

On behalf of Crestwood Marcellus Midstream LLC (Crestwood), The Thrasher Group, Inc. (Thrasher) is submitting to your office a project review request for a proposed linear pipeline project in the USGS Big Isaac 7.5 minute quadrangle of Doddridge County, WV.

The proposed area of interest (AOI) for the Wagner pipeline consists of a 75' wide right-of-way (ROW) which contains approximately 7.77 acres. The proposed 16" steel Wagner pipeline originates at the Wagner Well Pad located at approximately 39.210172 N / 80.604345 W. From there it extends 4,300 LF south west to the Stark Compressor Site located at 39.20505 N / 80.615439 W.

Thrasher staff identified ten streams (10) streams and zero (0) wetlands during field investigations. Four (4) of the identified streams will be crossed and temporarily impacted using open cut construction methods. After the pipeline is installed the stream will be restored to original contour, slope, and grade at the time of completion. Thrasher understands all material removed during excavation will be temporarily side cast and used for backfill. The intended AOI will be returned to the original contour, slope, and grade at the time of completion. The attached delineation mapping depicts all findings associated with the proposed Wagner pipeline AOI.

Of the 7.77 acres contained within the AOI, approximately 7.73 acres are forested and will require timbering before construction can commence. Please see attached forested acreage map. In addition, no specific Indiana Bat habitat, portals or caves were identified within the intended AOI.

THRASHER


U.S. Fish and Wildlife Services
April 3, 2014
Page 2 of 2

The USGS topographical map and aerial imagery map contained herein depict the proposed pipeline right of way. The included photo log displays all aquatic resources identified within the AOI as well as typical habitat within the intended AOI. The CD included with this submittal contains shapefiles depicting the extent of the proposed AOI.

If any further documentation or permitting is requested for this project, or if any questions or concerns should arise, please feel free to contact me at your earliest convenience at (304) 624-4108 or rboustany@thrashereng.com.

Sincerely,

THE THRASHER GROUP, INC.



RYAN S. BOUSTANY
Staff Engineer

Enclosure

R:\015-0229 - Crestwood - Wagner Pipeline -
Environmental\Documents\Permitting\Environmental\Correspondence\USFWS\CoverLetter

THRASHER

April 3, 2014

Mr. Joe Scarberry, Supervisor
Office of Land and Streams
WV Division of Natural Resources
324 Fourth Avenue, Room 200
South Charleston, WV 25303-1228

**RE: *Stream Activity Application
Crestwood Marcellus Midstream LLC
Wagner Pipeline, Doddridge County, West Virginia
Thrasher Project #101-015-0229***

Dear Mr. Scarberry:

On behalf of Crestwood Marcellus Midstream LLC (Crestwood), The Thrasher Group, Inc. (Thrasher), is submitting the following packet and Stream Activity Application to your office for a proposed linear pipeline project in the USGS Big Isaac 7.5 minute quadrangle of Doddridge County, WV.

The proposed area of interest (AOI) for the Wagner pipeline consists of a 75' wide right-of-way (ROW) which contains approximately 7.77 acres. The proposed 16" steel Wagner pipeline originates at the Wagner Well Pad located at approximately 39.210172 N / 80.604345 W. From there it extends 4,300 LF south west to the Stark Compressor Site located at 39.20505 N / 80.615439 W.

Thrasher staff identified ten streams (10) streams and zero (0) wetlands during field investigations. Four (4) of the identified streams will be crossed and temporarily impacted using open cut construction methods. After the pipeline is installed the stream will be restored to original contour, slope, and grade at the time of completion. Thrasher understands all material removed during excavation will be temporarily side cast and used for backfill. The intended AOI will be returned to the original contour, slope, and grade at the time of completion. The attached delineation mapping depicts all findings associated with the proposed Wagner pipeline AOI.

The USGS topographical map and aerial imagery map contained herein depict the proposed site. The included photo log displays all identified aquatic resources within the AOI as well as typical habitat within the intended AOI.

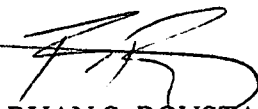
THRASHER

Mr. Scarberry
Page 2 of 2
March XX, 2014

If any further documentation or permitting is required for this project, or if any questions may arise please feel free to contact me at your earliest convenience at (304) 624-4108 or rboustany@thrashereng.com.

Sincerely,

THE THRASHER GROUP, INC.



RYAN S. BOUSTANY
Staff Engineer
Enclosure

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OLS\Cover Letter

OFFICE OF LAND AND STREAMS
STREAM ACTIVITY APPLICATION

1. Name of Applicant: Crestwood Marcellus Midstream LLC
(Landowner)

2. Date: April 3, 2014

3. Complete mailing address of applicant: 801 Cherry St., Suite 3400, Unit 20, Fort Worth, TX 76102

Telephone Number: (817) 339-5400

Fax Number: (817) 339-5540

E-Mail Address: mjones@crestwoodlp.com

4. Name, address, telephone number, and title of applicant's authorized agent (i.e. contractor employed by landowner):
Ryan S. Boustany, The Thrasher Group, Inc. 600 White Oaks Boulevard, PO Box 940, Bridgeport, WV 26330

Please if you want the approval sent to the agent

5. Describe the proposed activity, its purpose and intended use after completion, type of equipment to be used in the stream, amount of material to be dredged (if any), plan for disposing of dredged materials, length of stream/bank to be worked or type and size of structure to be placed in the stream (i.e. length and width of bridge, diameter and length of culvert). **One copy of a map (topographical or detailed, hand-drawn) showing exact location of the work site (enabling Officials to locate site) must accompany this application, and all other information that may be important to this application.**

The proposed Wagner pipeline will consist of a 16" buried steel natural gas pipeline within the USGS Big Isaac 7.5 minute quadrangle of Doddridge County, WV. The proposed area of interest (AOI) for the Wagner pipeline consists of a 75' wide right-of-way (ROW) which contains approximately 7.77 acres. The proposed 16" steel Wagner pipeline originates at the Wagner Well Pad located at approximately 39.210172 N / 80.604345 W. From there it extends 4,300 LF south west to the Stark Compressor Site located at 39.20505 N / 80.615439 W.

Construction of the proposed Stewart pipeline will involve ten (10) stream crossings. These stream crossings are unnamed tributaries of Johnson Fork. Four (4) aquatic resources shall be crossed using open-cut methods. Standard construction equipment (i.e.- bulldozers and excavators) shall be used to accomplish construction of the proposed line.

All discharge (Fill) activities will utilize native soil and will be returned to the original contour. The pipeline excavation depth will be approximately 60 inches (5 feet), and upon installation the pipeline will have a minimum cover of 42 inches (3.5 feet). Standard construction equipment (i.e. bulldozers and excavators) shall be used to accomplish construction of the proposed line.

For more information, please see the attached photo log, mapping, and Table 1 - Stream Crossings and Impacts.

(if additional space is required, continue on a separate sheet)

6. Please the proposed use:
Private: _____ Public: _____ Commerical:
(person use) (Government Agency) (Business)

7. Location where proposed activity exists or will occur:

Name of Water Way (if unnamed or unknown tributary, provide the stream that is flows into)
Doddridge Salem Salem
County District (taxable) Closest City or Town

8. Date activity is proposed to commence: May 2014
Date activity is expected to be complete: September 2014

9. Is any portion of the activity for which authorization is sought now complete? Yes _____ No
(If the answer is "Yes", give reasons in Section 5 including month and year the activity was completed)

10. Below is a list of entities that may require permits. Please list all approvals or certifications required by other Government Agencies for the above-described activity:

Issuing agency: Corps of Engineers – (304) 399-5710 (412) 395-7170 (412) 395-7157	Type of approval: <u>Nationwide Permit 12 Submittal</u>
Identification No.: _____	Date of approval: <u>Pending</u>
Issuing agency: County Commission Flood Plain Coordinator	Type of approval: _____
Identification No.: _____	Date of approval: _____
Issuing agency: City Government (if in City Limits the County isn't needed)	Type of approval: _____
Identification No.: _____	Date of approval: _____

11. Has any agency denied approval for the activity described herein? Yes _____ No
(if "Yes", explain in Section 5 and/or attach a copy of the denial)

12: If activity is a pipeline construction (that is, gas, water, or sewer) give:
Material pipeline is made of: Gas - Steel
Size of Pipeline: 16"
Maximum pressure of the pipeline: Maximum Anticipated Operating Pressure (MAOP) - 1440 psi
Please provide the appropriate line number and if a Gathering or Well Line provide the A.P.I. Well Number:
Transmission: _____ Distribution: _____ Gathering: x Well Line: _____ A.P.I Well Number: _____

13: Application is hereby made for authorization to conduct the activities described herein. I certify that I am familiar with the information in this application, and that to the best of my knowledge and belief such information is true, complete and accurate. I further certify that I possess the authority to undertake the proposed activities.



Signature of Applicant or Agent

Office of Land and Streams
Building 74, Room 200
324 Fourth Avenue
South Charleston, WV 25303
Phone Number 304-558-3225
Fax Number 304-558-6048

Crestwood Marcellus Midstream, LLC
Wagner Pipeline

Photo Log
Stream and Wetland Delineation
3/7/14

- 1) UNT-1 (ephemeral) facing upstream
- 2) UNT-1 (ephemeral) facing downstream
- 3) UNT-2 (ephemeral) facing upstream
- 4) UNT-2 (ephemeral) facing downstream
- 5) UNT-3 (ephemeral) facing upstream
- 6) UNT-3 (ephemeral) facing downstream
- 7) UNT-1 (intermittent) facing upstream
- 8) UNT-1 (intermittent) facing downstream
- 9) UNT-4 (intermittent) facing upstream
- 10) UNT-4 (intermittent) facing downstream
- 11) UNT-5 (ephemeral) facing upstream
- 12) UNT-5 (ephemeral) facing downstream
- 13) UNT-6 (ephemeral) facing upstream
- 14) UNT-6 (ephemeral) facing downstream
- 15) UNT-7 (intermittent) facing upstream
- 16) UNT-7 (intermittent) facing downstream
- 17) UNT-8 (intermittent) facing upstream
- 18) UNT-8 (intermittent) facing downstream
- 19) UNT-9 (ephemeral) facing upstream
- 20) UNT-9 (ephemeral) facing downstream
- 21) UNT-8 (intermittent) facing upstream
- 22) UNT-8 (intermittent) facing downstream
- 23) UNT-10 (ephemeral) facing upstream
- 24) UNT-10 (ephemeral) facing downstream



1) UNT-1 (ephemeral) facing upstream



2) UNT-1 (ephemeral) facing downstream



3) UNT-2 (ephemeral) facing upstream



4) UNT-2 (ephemeral) facing downstream



5) UNT-3 (ephemeral) facing upstream



6) UNT-3 (ephemeral) facing downstream



7) UNT-1 (intermittent) facing upstream



8) UNT-1 (intermittent) facing downstream



9) UNT-4 (intermittent) facing upstream



10) UNT-4 (intermittent) facing downstream



11) UNT-5 (ephemeral) facing upstream



12) UNT-5 (ephemeral) facing downstream



13) UNT-6 (ephemeral) facing upstream



14) UNT-6 (ephemeral) facing downstream



15) UNT-7 (intermittent) facing upstream



16) UNT-7 (intermittent) facing downstream



17) UNT-8 (intermittent) facing upstream



18) UNT-8 (intermittent) facing downstream



19) UNT-9 (ephemeral) facing upstream



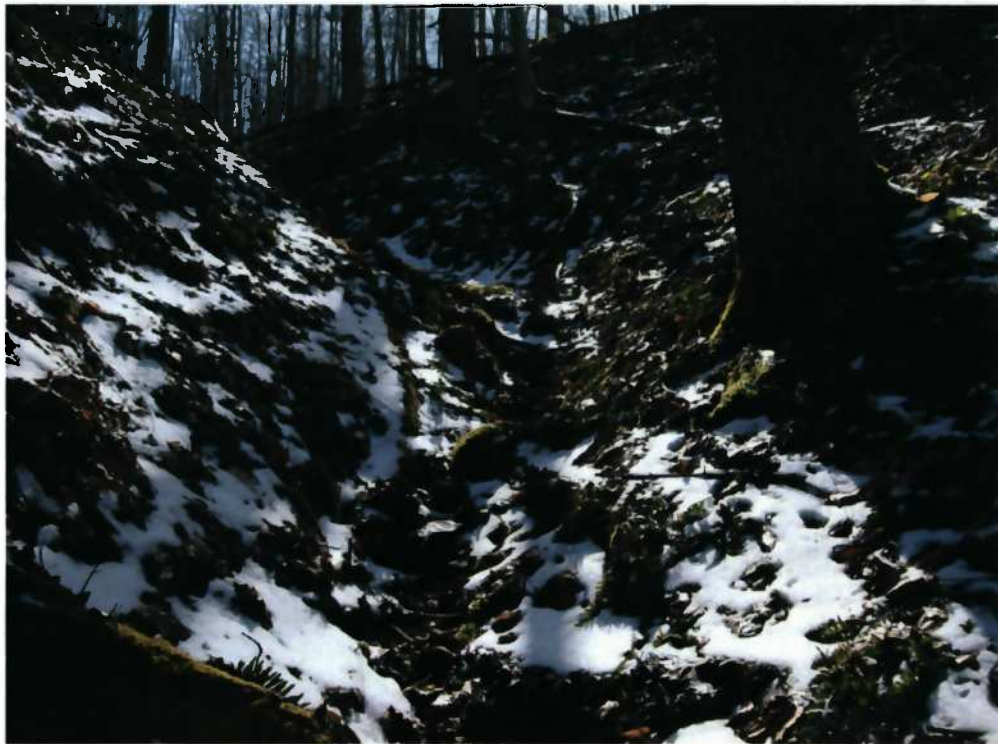
20) UNT-9 (ephemeral) facing downstream



21) UNT-8 (intermittent) facing upstream



22) UNT-8 (intermittent) facing downstream



23) UNT-10 (ephemeral) facing upstream



24) UNT-10 (ephemeral) facing downstream

Att. Ryan Boustany

304-624-7831

Fax