

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: #14-195

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

THRASHER

#14-195
Crestwood Marcellus Mid.

April 17, 2014

Mr. Bo Wristen, Floodplain Supervisor
Doddridge County Commission
118 East Court Street
West Union, WV 26456

FILED
2014 APR 21 PM 2:18
BETH A. ROGERS
COUNTY CLERK
DODDRIDGE COUNTY, WV

**RE: *Doddridge County Location Improvement Permit
Crestwood Marcellus Midstream, LLC
Wolfpen to Hardwood Pipeline
Doddridge County, West Virginia
Thrasher Project #101-015-0238***

To Mr. Wristen:

On behalf of Crestwood Marcellus Midstream (Crestwood), The Thrasher Group, Inc., is submitting to your office for review and approval an application package for a Doddridge County Location Improvement Permit for a proposed pipeline in the USGS New Milton 7.5 minute quadrangle of Doddridge County, WV and FIRM panel 235 of 325. The proposed area of interest (AOI) for the Wolfpen to Hardwood Pipeline consists of a seventy-five foot (75') construction right-of-way (ROW). The proposed area of interest (AOI) will originate at the Hardwood Well Pad located at approximately 39.249333° N, 80.65929° W. From there, the 12" steel pipeline will extend southwest within a proposed 75' wide construction right-of-way (ROW) to the Wolfpen well pad, located at approximately 39.241386° N, 80.671934° W. The proposed pipeline will be 5,535 LF in total, and its associated AOI will cover approximately 10.34 acres.

The proposed Wolfpen to Hardwood Pipeline will have no construction activities within the 100 year floodplain. The pipeline will traverse Wolfpen Run and an unnamed tributary of Wolfpen Run using open-cut construction methods.

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 the 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; therefore, no fees are associated with this permit. Approvals will be forwarded to your office upon receipt.

If any further documentation is required 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 jwilcox@thrashereng.com.

THRASHER

Mr. Wristen
April 17, 2014
Page 2 of 2

Sincerely,

THRASHER GROUP, INC.



JORDAN P. WILCOX
Environmental Scientist

Enclosures

#14-195
Crestwood Marcellus Mids
Wolf Pen to Hardwood Pipeline

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 Matt L. Jh

DATE 4/16/14

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 St., Suite 3800 Fort Worth, TX 76102

TELEPHONE NUMBER: (817) 339-5400

BUILDER'S NAME: _____

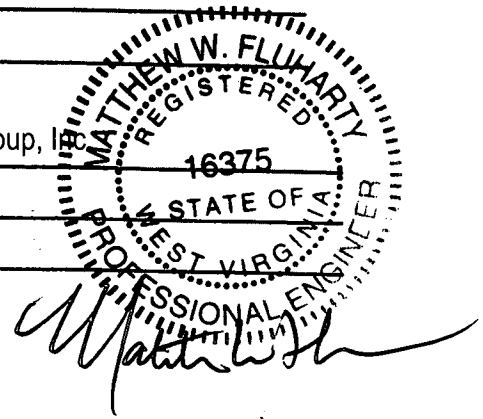
ADDRESS: _____

TELEPHONE NUMBER: _____

ENGINEER'S NAME: MATTHEW W. FLUHARTY, PE, The Thrasher Group, Inc. _____

ADDRESS: 600 White Oaks Blvd., Bridgeport, WV 26330 _____

TELEPHONE NUMBER: (304) 624-4108 _____



PROJECT LOCATION: _____

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

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 Flaherty
 SIGNATURE: Matthew W Flaherty DATE: 4/16/14

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 _____

DATE 5-2-14

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: _____

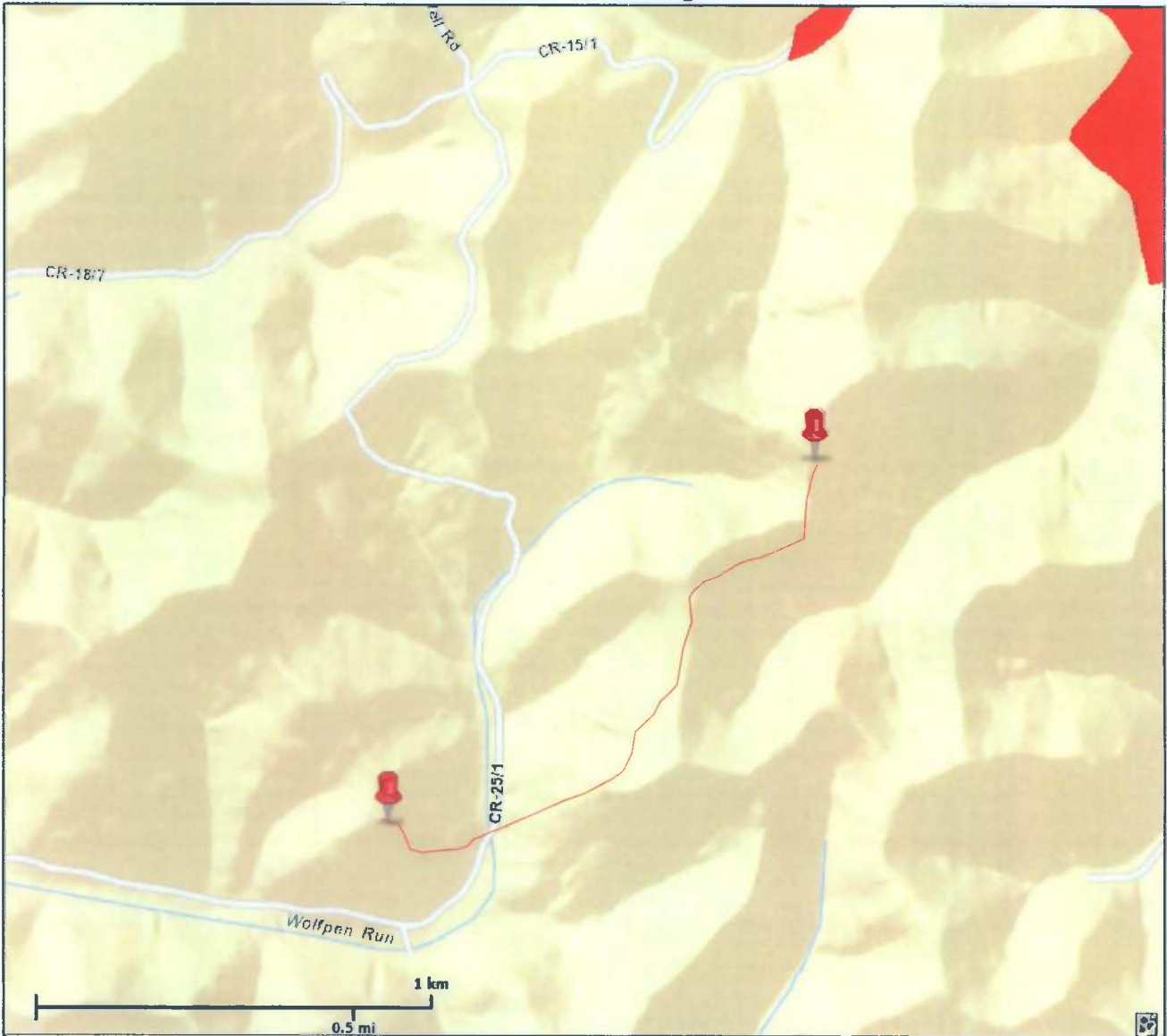
OWNER'S ADDRESS: _____

**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 4/8/2014



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:

Elevation:

Location (long, lat):

Location (UTM 17N):

FEMA Issued Flood Map:

Contacts:

CRS Information:

Parcel Number:



Drive 8.6 mi, 17 min

Directions from Court St to Wolf Pen Rd



○ Court St

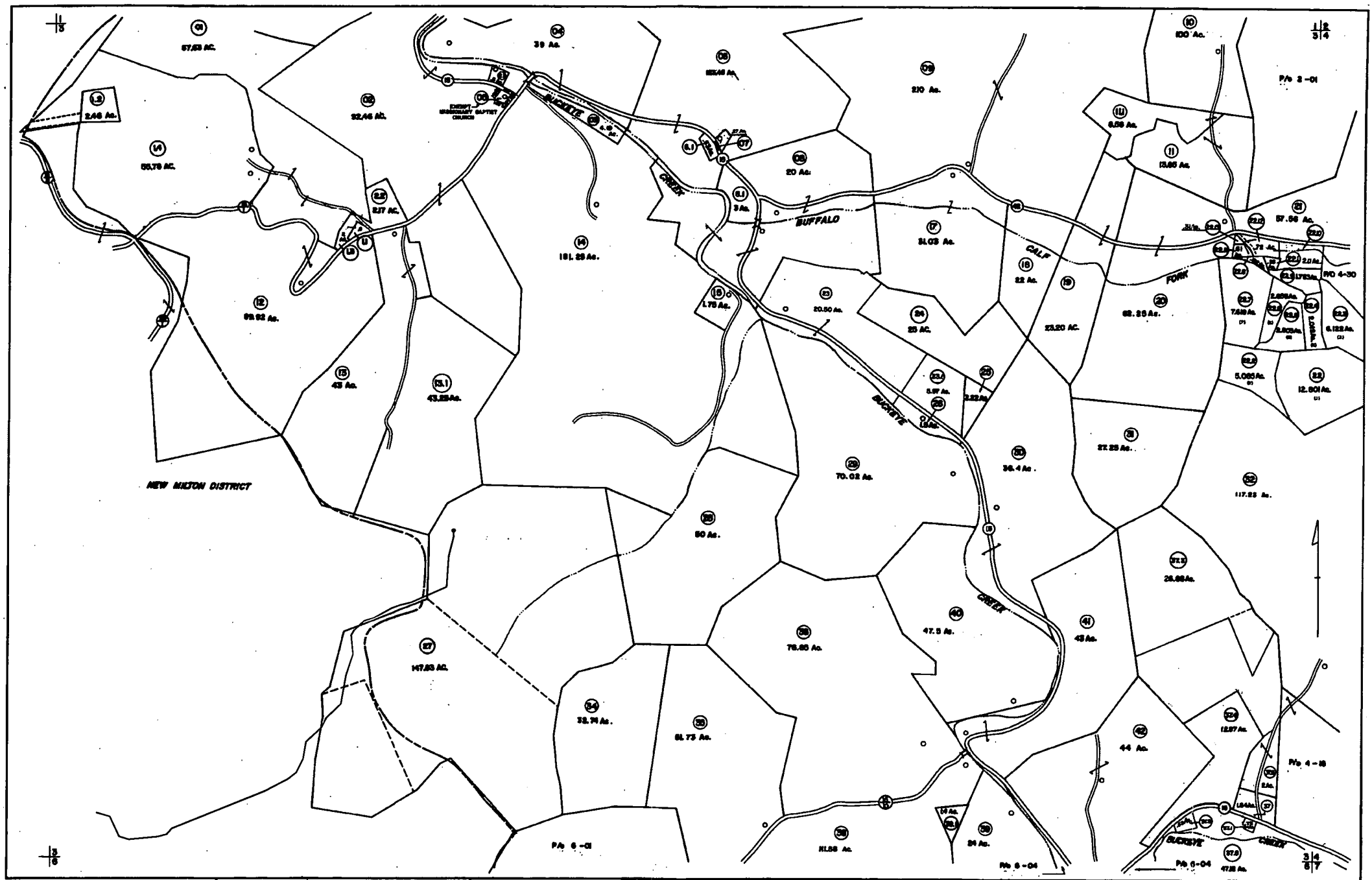
West Union, WV 26456

- ↑ 1. Head **northeast** on **Columbia St** toward **W Main St** 269 ft
- ↘ 2. Take the 2nd **right** onto **E Main St** 0.2 mi
- ↘ 3. Turn **right** onto **WV-18 S** 6.8 mi
- ↙ 4. Turn **left** onto **Co Rte 25/Meathouse Fork** 0.4 mi
- ↙ 5. Turn **left** onto **Wolf Pen Rd** 1.1 mi

⊙ Wolf Pen Rd

New Milton, WV 26411

These directions are for planning purposes only. You may find that construction projects, traffic, weather, or other events may cause conditions to differ from the map results, and you should plan your route accordingly. You must obey all signs or notices regarding your route.



FOR TAX PURPOSES ONLY
 Report by
L. ROBERT KIMBALL
 Consulting Engineer
 Ebensburg, Pennsylvania

Legend

Property line	Original lot line	Bound for another lot	Bound for another lot - 1/2 in.
Map of general or number	Parcel or lot number - 1/2 in.	Apprentice	Right of way
Computation line			
Surveyed line			
County line			

Revisions

NO.	DATE	BY	REVISION
1	1/15/22	JK	Original
2	1/15/22	JK	Original
3	1/15/22	JK	Original
4	1/15/22	JK	Original
5	1/15/22	JK	Original
6	1/15/22	JK	Original
7	1/15/22	JK	Original
8	1/15/22	JK	Original
9	1/15/22	JK	Original
10	1/15/22	JK	Original
11	1/15/22	JK	Original
12	1/15/22	JK	Original
13	1/15/22	JK	Original
14	1/15/22	JK	Original
15	1/15/22	JK	Original
16	1/15/22	JK	Original
17	1/15/22	JK	Original
18	1/15/22	JK	Original
19	1/15/22	JK	Original
20	1/15/22	JK	Original
21	1/15/22	JK	Original
22	1/15/22	JK	Original
23	1/15/22	JK	Original
24	1/15/22	JK	Original
25	1/15/22	JK	Original
26	1/15/22	JK	Original
27	1/15/22	JK	Original
28	1/15/22	JK	Original
29	1/15/22	JK	Original
30	1/15/22	JK	Original
31	1/15/22	JK	Original
32	1/15/22	JK	Original
33	1/15/22	JK	Original
34	1/15/22	JK	Original
35	1/15/22	JK	Original
36	1/15/22	JK	Original
37	1/15/22	JK	Original
38	1/15/22	JK	Original
39	1/15/22	JK	Original
40	1/15/22	JK	Original
41	1/15/22	JK	Original
42	1/15/22	JK	Original
43	1/15/22	JK	Original
44	1/15/22	JK	Original
45	1/15/22	JK	Original
46	1/15/22	JK	Original
47	1/15/22	JK	Original
48	1/15/22	JK	Original
49	1/15/22	JK	Original
50	1/15/22	JK	Original
51	1/15/22	JK	Original
52	1/15/22	JK	Original
53	1/15/22	JK	Original
54	1/15/22	JK	Original
55	1/15/22	JK	Original
56	1/15/22	JK	Original
57	1/15/22	JK	Original
58	1/15/22	JK	Original
59	1/15/22	JK	Original
60	1/15/22	JK	Original
61	1/15/22	JK	Original
62	1/15/22	JK	Original
63	1/15/22	JK	Original
64	1/15/22	JK	Original
65	1/15/22	JK	Original
66	1/15/22	JK	Original
67	1/15/22	JK	Original
68	1/15/22	JK	Original
69	1/15/22	JK	Original
70	1/15/22	JK	Original
71	1/15/22	JK	Original
72	1/15/22	JK	Original
73	1/15/22	JK	Original
74	1/15/22	JK	Original
75	1/15/22	JK	Original
76	1/15/22	JK	Original
77	1/15/22	JK	Original
78	1/15/22	JK	Original
79	1/15/22	JK	Original
80	1/15/22	JK	Original
81	1/15/22	JK	Original
82	1/15/22	JK	Original
83	1/15/22	JK	Original
84	1/15/22	JK	Original
85	1/15/22	JK	Original
86	1/15/22	JK	Original
87	1/15/22	JK	Original
88	1/15/22	JK	Original
89	1/15/22	JK	Original
90	1/15/22	JK	Original
91	1/15/22	JK	Original
92	1/15/22	JK	Original
93	1/15/22	JK	Original
94	1/15/22	JK	Original
95	1/15/22	JK	Original
96	1/15/22	JK	Original
97	1/15/22	JK	Original
98	1/15/22	JK	Original
99	1/15/22	JK	Original
100	1/15/22	JK	Original

STATE OF WEST VIRGINIA
DODDRIDGE COUNTY
 Office of Assessor

GREENBRIER DISTRICT
SHEET 03
 Date, Aerial Photography area, 1922
 Photo No. 21,122
 Date, Map, JULY, 1923
 Scale, 1" = 400'

**Crestwood Marcellus
Midstream LLC**

Wolfpen to Hardwood Pipeline

THRASHER GROUP, INC. PROJECT # 101-015-0238

DODDRIDGE COUNTY LOCATION

IMPROVEMENT PERMIT

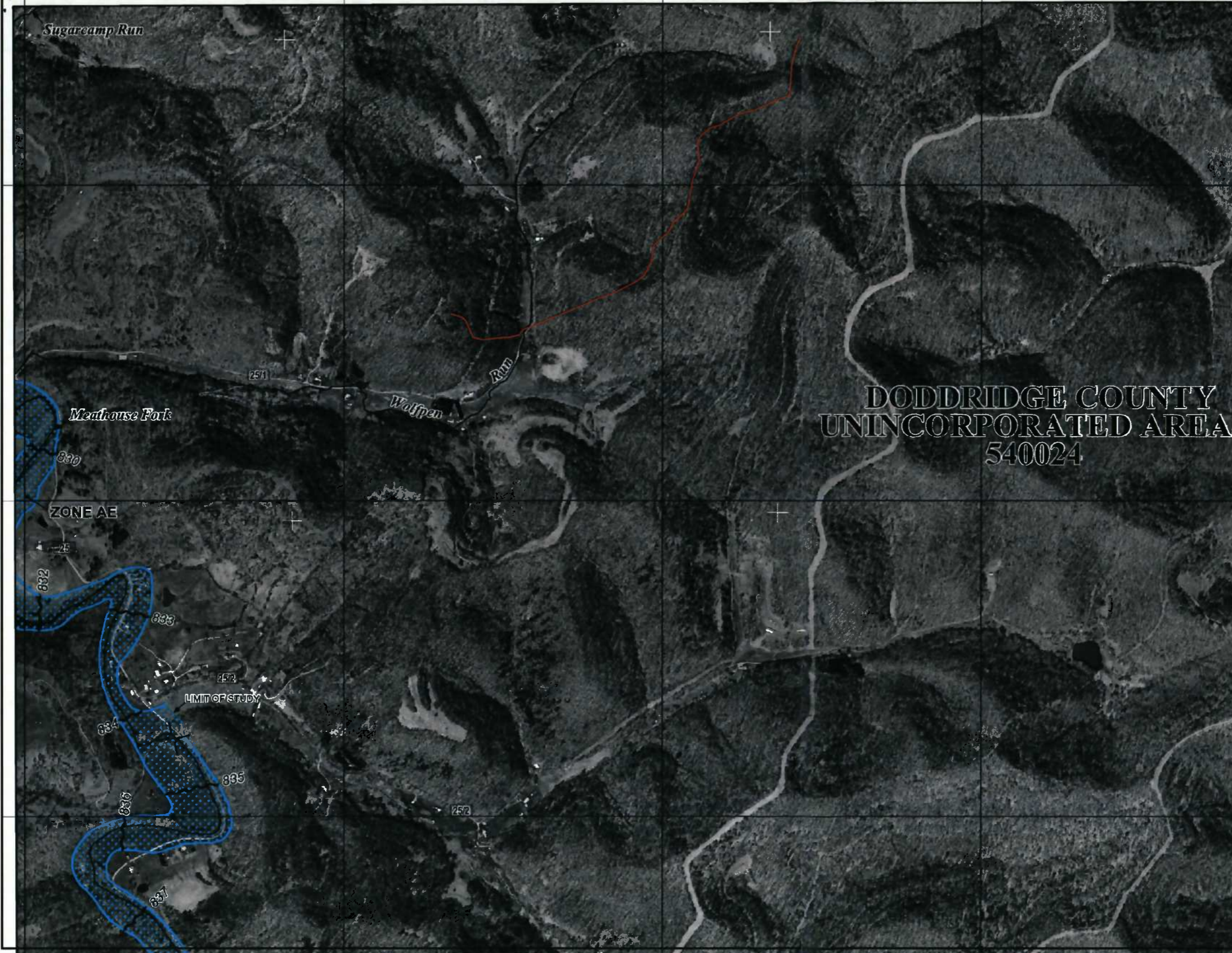
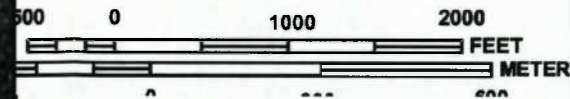


5°

JOINS PANEL 0145



MAP SCALE 1" = 1000'



DODDRIDGE COUNTY UNINCORPORATED AREA 540024

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0235C

FIRM

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

PANEL 235 OF 325
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
DODDRIDGE COUNTY	540024	0235	C

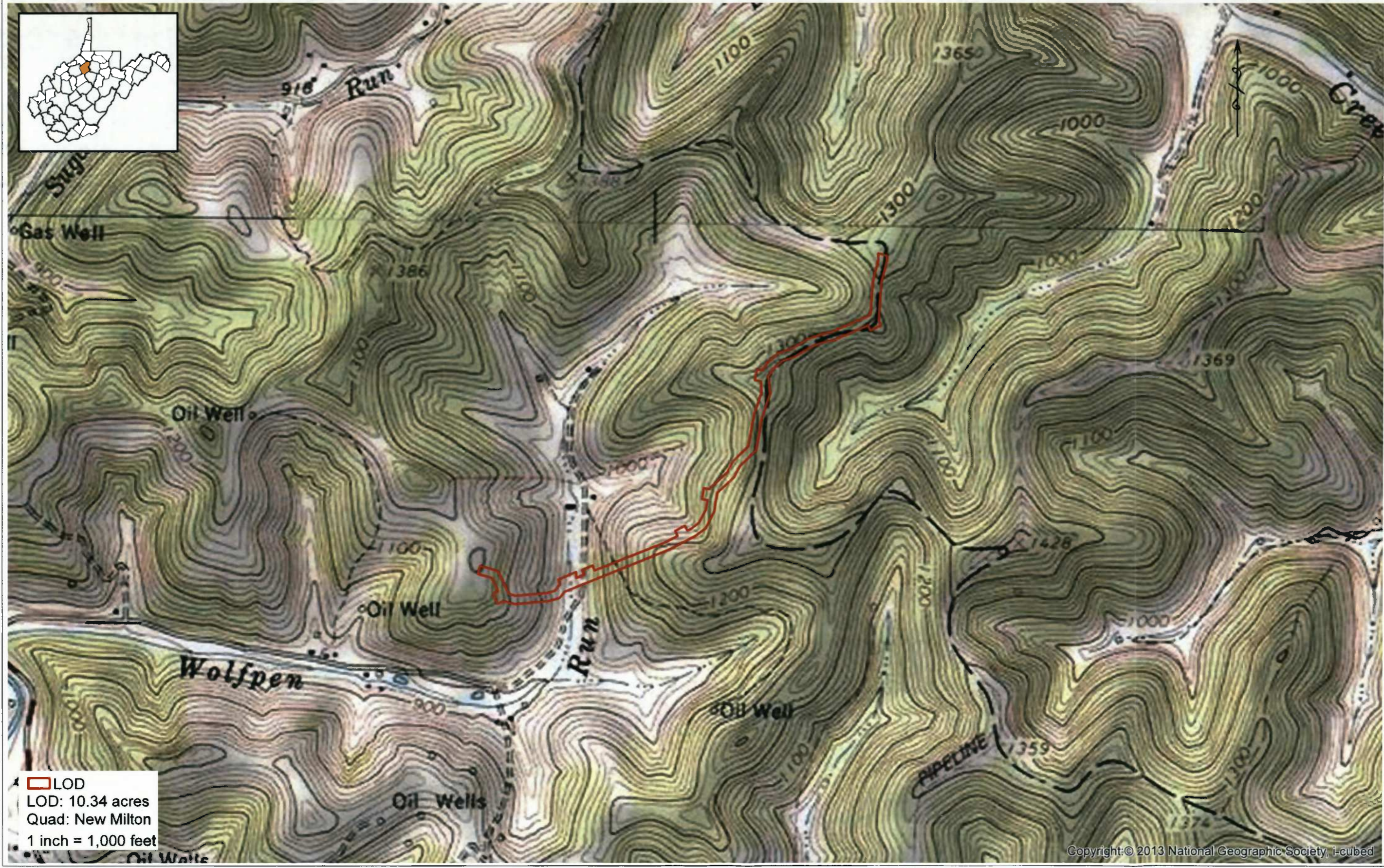
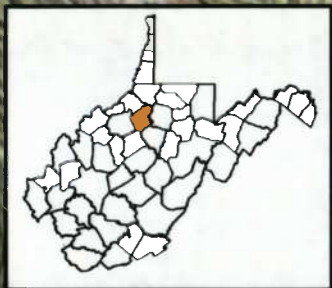
Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.




MAP NUMBER
54017C0235C
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.msc.fema.gov



 LOD
 LOD: 10.34 acres
 Quad: New Milton
 1 inch = 1,000 feet

THRASHER

Figure 1: Site Location
 Wolfpen to Hardwood Pipeline
 Doddridge County - West Virginia

4/1/2014



Copyright © 2013 National Geographic Society, i-cubed



 NWI
 LOD
1 inch = 400 feet

Note: NWI data is downloaded from the US Fish & Wildlife website and used without any edits or modifications.

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

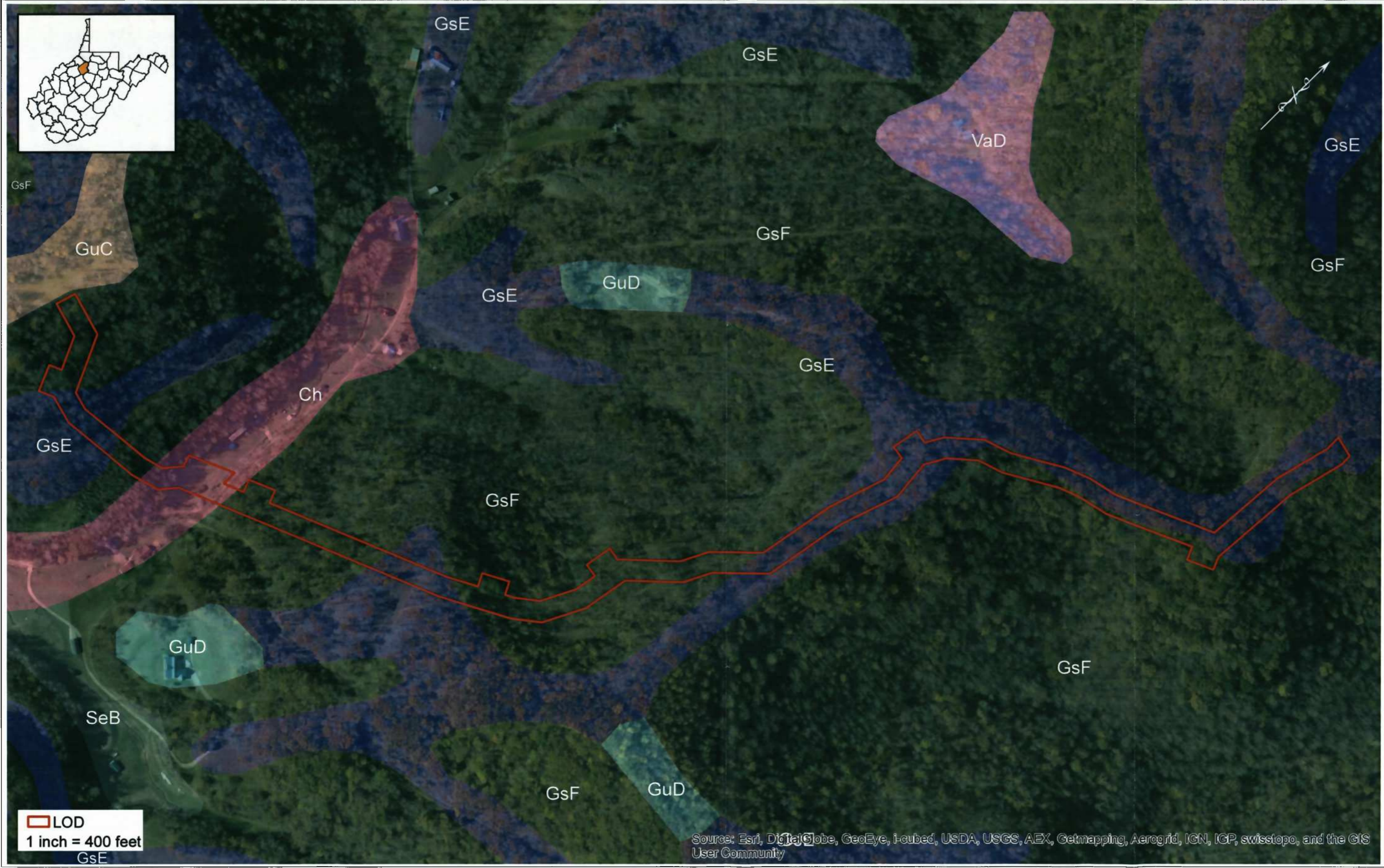
Figure 2: NWI Mapper
Wolfpen to Hardwood Pipeline
Doddridge County - West Virginia



THRASHER

4/11/2014

By: martin



By: Martin

LOD
1 inch = 400 feet

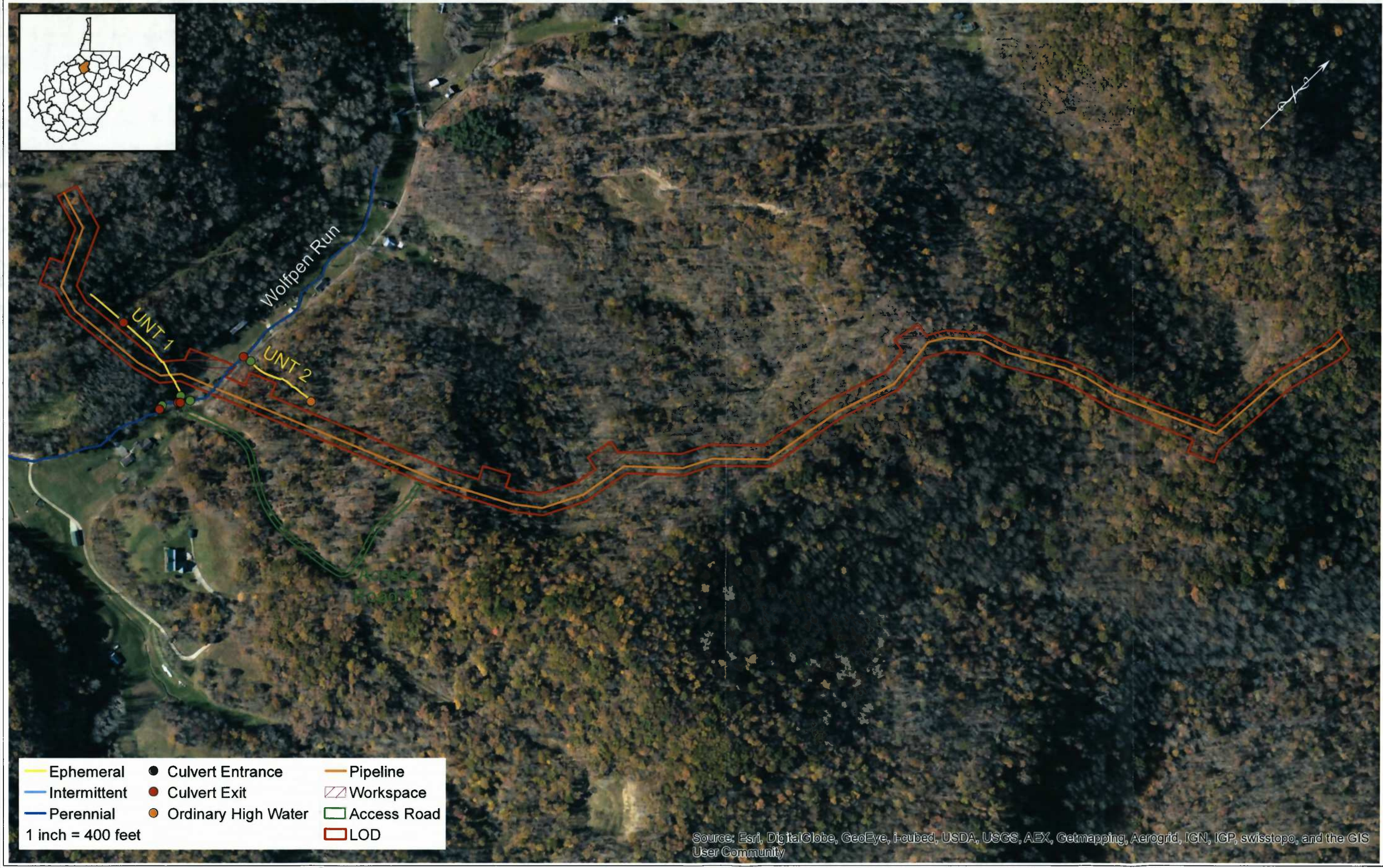
Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

THRASHER

Figure 3: Soil Types
Wolfpen to Hardwood Pipeline
Doddridge County - West Virginia



4/11/2014



- | | | |
|-------------------|---------------------|-------------|
| Ephemeral | Culvert Entrance | Pipeline |
| Intermittent | Culvert Exit | Workspace |
| Perennial | Ordinary High Water | Access Road |
| 1 inch = 400 feet | LOD | |

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

THRASHER

Figure 4: Delineation
Wolfpen to Hardwood Pipeline
Doddridge County - West Virginia



4/11/2014

THRASHER

April 17, 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
Wolfpen to Hardwood Pipeline, Doddridge County, West Virginia
Thrasher Project #101-015-0238***

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 New Milton 7.5 minute quadrangle of Doddridge County, WV.

The proposed area of interest (AOI) for the Wolfpen to Hardwood Pipeline consists of a 75' wide right-of-way (ROW) which contains approximately 10.34 acres. The proposed 12" steel pipeline originates at the Hardwood Well Pad, located at approximate coordinates 39.249334° N / 80.65929° W. From there it extends approximately 5,535 linear feet southwest to the Wolfpen Well Pad, located at approximate coordinates 39.241386° N / 80.671934° W. The proposed project will also involve expanding an existing access road as well as creating five (5) 50' x 100' and two (2) 50 x 175' workspaces.

Thrasher staff identified three (3) streams and zero (0) wetlands during field investigations. Two (2) of the identified streams, Wolfpen Run and UNT-1, 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 Wolfpen to Hardwood Pipeline AOI.

Of the 10.34 acres contained within the AOI, approximately 8.89 acres are forested and will require timbering before construction can commence. Please see attached forested

THRASHER

U.S. Fish and Wildlife Services
April 17, 2014
Page 2 of 2

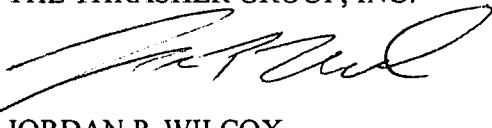
acreage map. In addition, no specific Indiana Bat habitat, portals or caves were identified within the intended AOI.

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 jwilcox@thrashereng.com.

Sincerely,

THE THRASHER GROUP, INC.



JORDAN P. WILCOX
Environmental Scientist

Enclosures

THRASHER

April 17, 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
Wolfpen to Hardwood Pipeline, Doddridge County, West Virginia
Thrasher Project #101-015-0238***

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 New Milton 7.5 minute quadrangle of Doddridge County, WV.

The proposed area of interest (AOI) for the Wolfpen to Hardwood Pipeline consists of a 75' wide right-of-way (ROW) which contains approximately 10.34 acres. The proposed 12" steel pipeline originates at the Hardwood Well Pad, located at approximate coordinates 39.249334° N / 80.65929° W. From there it extends approximately 5,535 linear feet southwest to the Hardwood Well Pad, located at approximate coordinates 39.241386° N / 80.671934° W. The proposed project will also involve expanding an existing access road as well as creating two (2) 50 x 175' and five (5) 50 x 100' workspaces.

Thrasher staff identified three (3) streams and zero (0) wetlands during field investigations. Two (2) of the identified streams, Wolfpen Run and UNT-1, 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 Wolfpen to Hardwood Pipeline AOI.

Of the 10.34 acres contained within the AOI, approximately 8.89 acres are forested and will require timbering before construction can commence. Please see attached forested

THRASHER

Ms. Sargent
Page 2 of 2
April 14, 2014

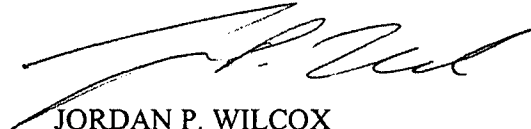
acreage map. In addition, no specific Indiana Bat habitat, portals or caves were identified within the intended AOI.

The USGS topographical map and aerial imagery map contained herein depict the proposed pipeline 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 jwilcox@thrashereng.com.

Sincerely,

THE THRASHER GROUP, INC.



JORDAN P. WILCOX
Environmental Scientist

Enclosures

THRASHER

April 17, 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
Wolfpen to Hardwood Pipeline, Doddridge County, West Virginia
Thrasher Project #101-015-0238***

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 New Milton 7.5 minute quadrangle of Doddridge County, WV.

The proposed area of interest (AOI) for the Wolfpen to Hardwood Pipeline consists of a 75' wide right-of-way (ROW) which contains approximately 10.34 acres. The proposed 12" steel pipeline originates at the Hardwood Well Pad, located at approximate coordinates 39.249334° N / 80.65929° W. From there it extends approximately 5,535 linear feet southwest to the Wolfpen Well Pad, located at approximate coordinates 39.241386° N / 80.671934° W. The proposed project will also involve expanding an existing access road as well as creating two (2) 50 x 175' and five (5) 50 x 100' workspaces.

Thrasher staff identified three streams (3) streams and zero (0) wetlands during field investigations. Two (2) of the identified streams, Wolfpen Run and UNT-1, 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 Wolfpen to Hardwood pipeline AOI.

THRASHER

Mr. Scarberry
Page 2 of 2
April 17, 2014

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.

If any further documentation or permitting is required 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 jwilcox@thrashereng.com.

Sincerely,

THE THRASHER GROUP, INC.



JORDAN P. WILCOX
Environmental Scientist

Enclosures

OFFICE OF LAND AND STREAMS
STREAM ACTIVITY APPLICATION

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

2. Date: April 17, 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):
Jordan P. Wilcox, 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 Wolfpen to Hardwood Pipeline will consist of a 12" buried steel natural gas pipeline within the USGS New Milton 7.5 minute quadrangle of Doddridge County, WV. The proposed area of interest (AOI) for the Wolfpen to Hardwood Pipeline consists of a 75' wide right-of-way (ROW) which contains approximately 10.34 acres. The proposed 12" steel Wolfpen to Hardwood Pipeline originates at the Hardwood Well Pad located at approximately 39.249334° N / 80.65929° W. From there it extends 5,535 linear feet southwest to the Wolfpen Well Pad located at 39.241386° N / 80.671934° W. The proposed project will also involve expanding an existing access road as well as creating two (2) 50' x 175' and five (5) 50' x 100' workspaces.

Three (3) streams, UNT 1, UNT 2, and Wolfpen Run, were identified during field investigations conducted for the Wolfpen to Hardwood Pipeline construction. Two (2) streams, Wolfpen Run and UNT 1, shall be crossed using open-cut methods. The remaining aquatic resource is outside the AOI and no impact is anticipated. 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 and mapping.

(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:
Unnamed tributary of Wolfpen Run and Wolfpen Run
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: June 2014
Date activity is expected to be complete: November 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 Type of approval: Nationwide Permit 12 Submittal
(412) 395-7170
(412) 395-7157
Identification No.: _____ Date of approval: Pending

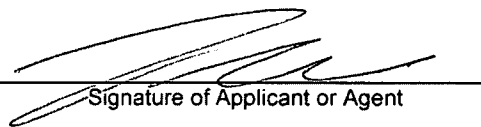
Issuing agency: County Commission Type of approval: DCLIP
Flood Plain Coordinator
Identification No.: _____ Date of approval: _____

Issuing agency: City Government Type of approval: _____
(if in City Limits the County isn't needed)
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: 12"
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: 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

THRASHER

April 17, 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
Wolfpen to Hardwood Pipeline, Doddridge County, West Virginia
Thrasher Project #101-015-0238***

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 New Milton 7.5 minute quadrangle of Doddridge County, WV.

The proposed area of interest (AOI) for the Wolfpen to Hardwood Pipeline consists of a 75' wide right-of-way (ROW) which contains approximately 10.34 acres. The proposed 12" steel pipeline originates at the Hardwood Well Pad, located at approximate coordinates 39.249334° N / 80.65929° W. From there it extends approximately 5,535 linear feet southwest to the Wolfpen Well Pad, located at approximate coordinates 39.241386° N / 80.671934° W. The proposed project will also involve expanding an existing access road as well as creating two (2) 50 x 175' and five (5) 50 x 100' workspaces.

Thrasher staff identified three (3) streams and zero (0) wetlands during field investigations. Two (2) of the identified streams, Wolfpen Run and UNT-1, 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 Wolfpen to Hardwood Pipeline AOI.

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 within the AOI as well as typical habitat within the intended AOI.

THRASHER

Ms. Pierce
Page 2 of 2
April 17, 2014

The attached slope map depicts that the majority of the pipeline is located along 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 jwilcox@thrashereng.com.

Sincerely,

THE THRASHER GROUP, INC.



JORDAN P. WILCOX
Environmental Scientist

Enclosures