

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: #14-197

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

#14-197

April 17, 2014

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

**RE: *Doddridge County Location Improvement Permit
Crestwood Marcellus Midstream, LLC
Hardwood to Tie In Pipeline
Doddridge County, West Virginia
Thrasher Project #101-015-0209***

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

FILED

To Mr. Wristen:

On behalf of Crestwood Appalachia Pipeline LLC (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 and Smithburg 7.5 minute quadrangles of Doddridge County, WV. The proposed area of interest (AOI) for the Hardwood to Tie-In consists of a seventy-five foot (75') construction right-of-way (ROW). The proposed buried 12" steel Hardwood to Tie In pipeline originates at the Hardwood Well Pad located at approximately N 39.257367 / W 80.651194. From there it extends approximately 4,510 LF to an above ground riser located in a 150' x 150' Tie-In area located at the coordinates, N 39.249334 / W 80.65929. The proposed project will also involve expanding an existing access road as well as creating addition 50' x 100' workspaces.

The proposed Hardwood to Tie In pipeline is located entirely out of the floodplain. Please see attached WV Flood Tool Map and FEMA issued FIRM Map (Doddridge County Panel 145 of 325) with the pipeline overlaid.

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 above-ground structures are proposed to be constructed within the 100 year floodplain. Note that all required federal and state permit applications have been submitted for the project and are attached. Approvals will be forwarded to your office upon receipt.


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

THRASHER

Mr. Wristen
Page 2 of 2
April 17, 2014

Sincerely,

THRASHER GROUP, INC.


Tyler L. Spear
Environmental Scientist
Enclosures

R:\015-0209 Crestwood- Hardwood to Tie In Pipeline\Documents\Permitting\Environmental\Correspondence\DCLIP\CoverLetter

**Crestwood Marcellus
Midstream LLC**

Hardwood to Tie In Pipeline

THRASHER GROUP, INC. PROJECT # 101-015-0209

DODDRIDGE COUNTY LOCATION

IMPROVEMENT PERMIT

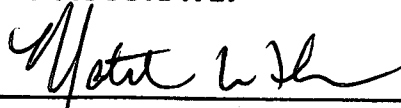


**DODDRIDGE COUNTY
FLOODPLAIN DEVELOPMENT PERMIT APPLICATION**

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

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: _____

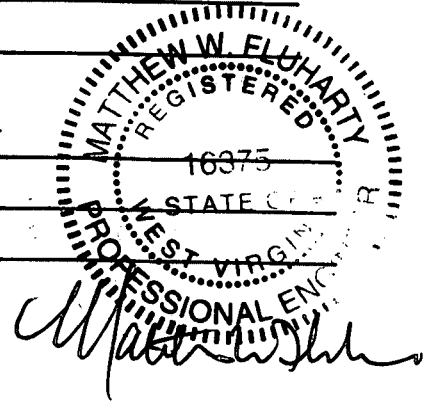
ADDRESS: _____

TELEPHONE NUMBER: _____

ENGINEER'S NAME: Matthew 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**).

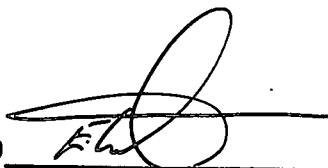
Is located in Special Flood Hazard Area.
 FIRM zone designation _____
 100-Year flood elevation is: _____ NGVD (MSL)

Unavailable

The proposed development is located in a floodway.
 FBFM Panel No. _____ Dated _____

See section 4 for additional instructions.

SIGNED



DATE

4/24/14

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** _____

Hardwood to Tie In Pipeline Project
Jurisdictional Features Stream and Wetland Delineation Photo Log
4/1/2014



1) Wetland 1 (PEM) facing North



2) Wetland 1 (PEM) facing South



3) Wetland 1 (PEM) facing East



4) Wetland 1 (PEM) facing West

Hardwood to Tie In Pipeline Project
Jurisdictional Features Stream and Wetland Delineation Photo Log
4/1/2014



5) Wetland 1 (PEM) Test Pit



6) Wetland 1 (PEM) Soil Profile



7) UNT 1 (INT) facing Upstream



8) UNT 1 (INT) facing Downstream

Hardwood to Tie In Pipeline Project
Jurisdictional Features Stream and Wetland Delineation Photo Log
4/1/2014



9) UNT 2 (EPH) facing Upstream



10) UNT 2 (EPH) facing Downstream



11) UNT 3 (EPH) facing upstream



12) UNT 3 (EPH) facing downstream

Hardwood to Tie In Pipeline Project
Jurisdictional Features Stream and Wetland Delineation Photo Log
4/1/2014



13) UNT 4 (INT) facing Upstream

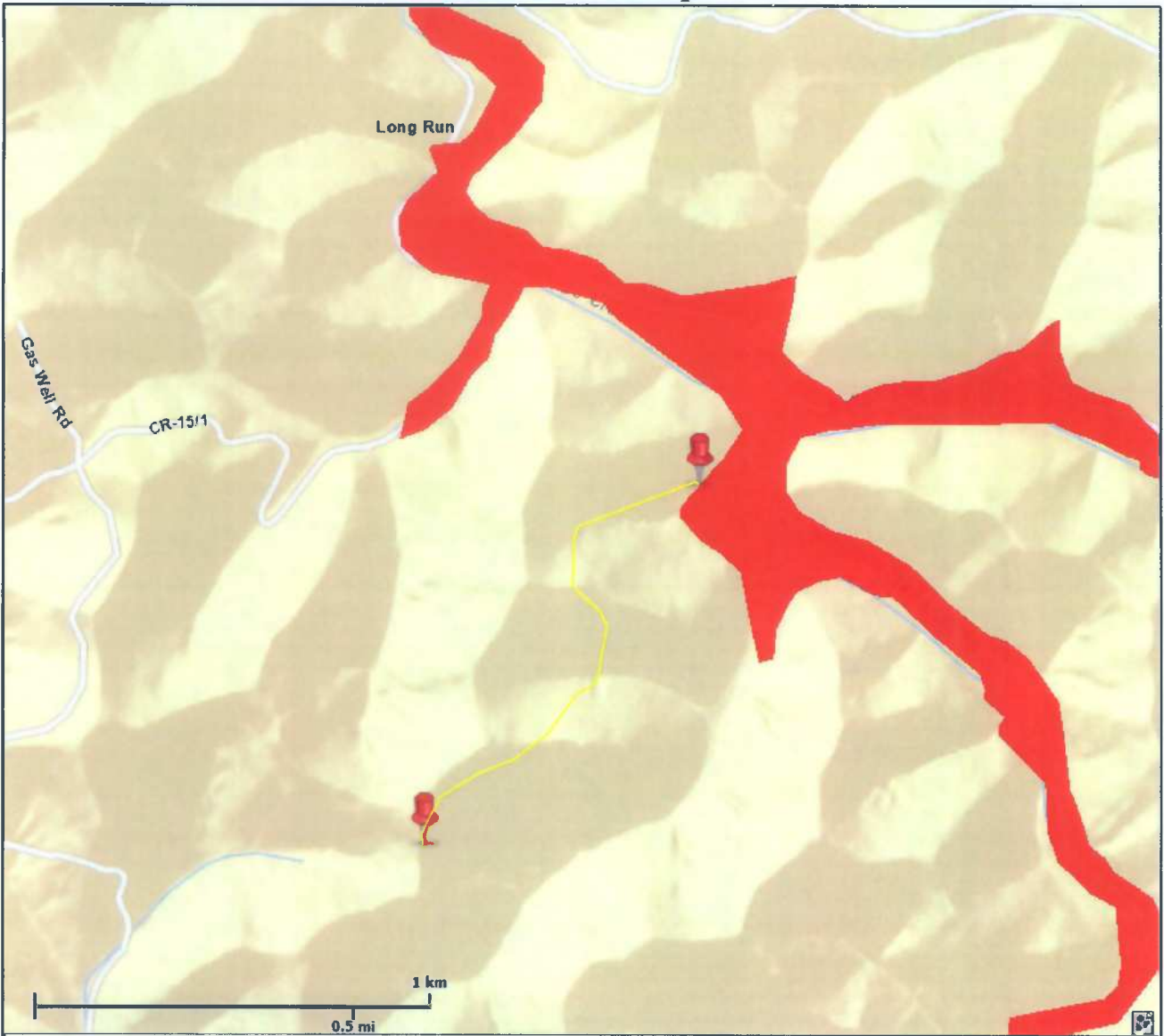


14) UNT 4 (INT) facing Downstream



Typical above ground riser valve

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 4/14/2014



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: N/A

Location (long, lat):

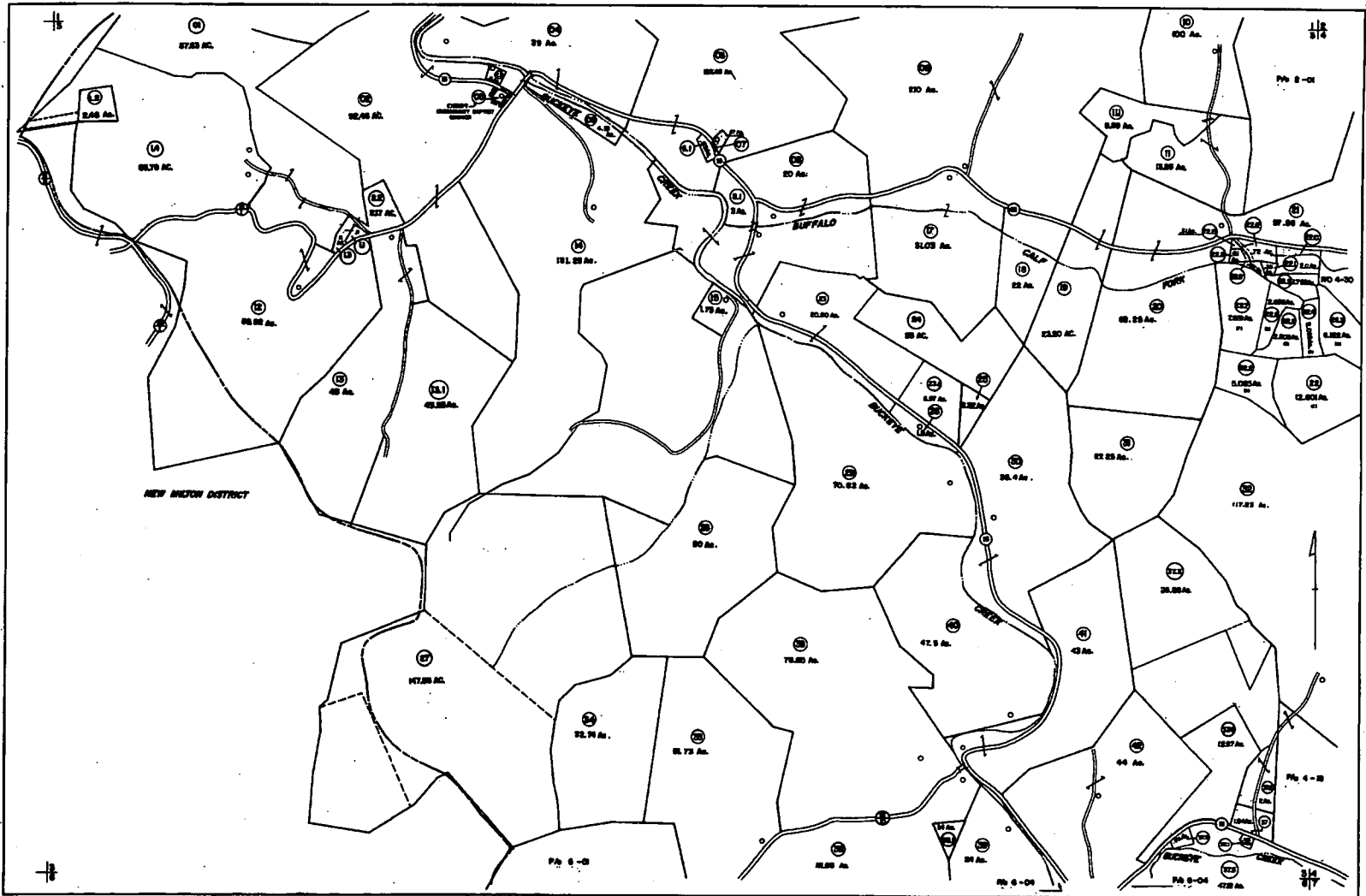
Location (UTM 17N):

FEMA Issued Flood Map:

Contacts:

CRS Information:

Parcel Number:



FOR TAX PURPOSES ONLY

Prepared by
L. ROBERT KIMBALL
 Consulting Engineer
 Shandberg, Pennsylvania

Legend

Boundary line	---	Section line	---
Map of grantor or holder	---	Bound by water	---
Occupancy line	---	Bound by water under 6 inch	---
Section line	---	Subroad	---
County line	---		

Residence

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	-----

STATE OF WEST VIRGINIA
 DODDRIDGE COUNTY
 Office of Assessor

GREENBRIER DISTRICT
 SHEET 05

Date Aerial Photography 1951, 1952
 Photo No. 21, 22
 Date Map 1951, 1952
 Scale 1" = 400'



Drive 10.1 mi, 17 min

Directions from Doddridge County Court Clerk to Oak, WV, USA



○ Doddridge County Court Clerk

118 E Court St #102, West Union, WV 26456

Take WV-18 S to US-50 E

0.8 mi / 3 min

- ↑ 1. Head **northwest** on Court St toward Church St 79 ft
- ↘ 2. Take the 1st **right** onto Church St 256 ft
- ↘ 3. Take the 2nd **right** onto E Main St 0.2 mi
- ↘ 4. Turn **right** onto WV-18 S 0.5 mi



Turn **left** onto US-50 E

5.6 mi / 6 min



Drive to **Co Rte 15/Blacklick Rd/Sherwood-Greenbrier Rd** in Oak

3.6 mi / 8 min

- 6. Turn **right** at **Co Rte 50/35** 0.1 mi
- 7. Take the 1st **right** onto **Co Rte 15/Blacklick Rd/Sherwood-Greenbrier Rd**
i Continue to follow **Co Rte 15/Blacklick Rd** 0.4 mi
- ⤵ 8. Turn **left** onto **Blacklick Rd/Long Run Rd/Sherwood-Greenbrier Rd**
i Continue to follow **Blacklick Rd/Sherwood-Greenbrier Rd** 1.6 mi
- 9. Turn **right** onto **Co Rte 15/Blacklick Rd/Sherwood-Greenbrier Rd**
i Destination will be on the right 1.4 mi



📍 Oak, WV, USA

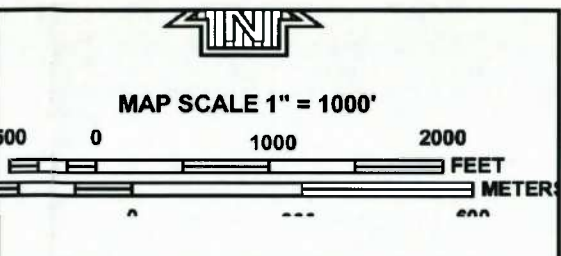
County Route 15

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.

Map data ©2014 Google



**DODDRIDGE COUNTY
UNINCORPORATED AREAS
540024**



NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0145C

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

PANEL 145 OF 325
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

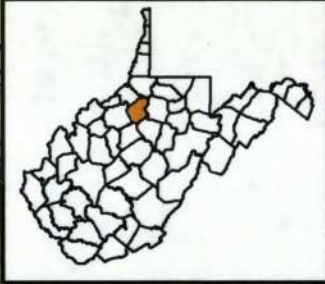
COMMUNITY	NUMBER	PANEL	SUFFIX
DODDRIDGE COUNTY	540024	0145	C


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
54017C0145C
MAP REVISED
OCTOBER 4, 2011
 Federal Emergency Management Agency

JOINS PANEL 0235

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: 7.93 Acres
 Quads: New Milton
 Smithburg
 1 inch = 1,000 feet

THRASHER

Figure 1: Site Location
 Hardwood to Tie-in
 Doddridge County - West Virginia

4/15/2014



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. There are no wetland areas near this location according to this data.

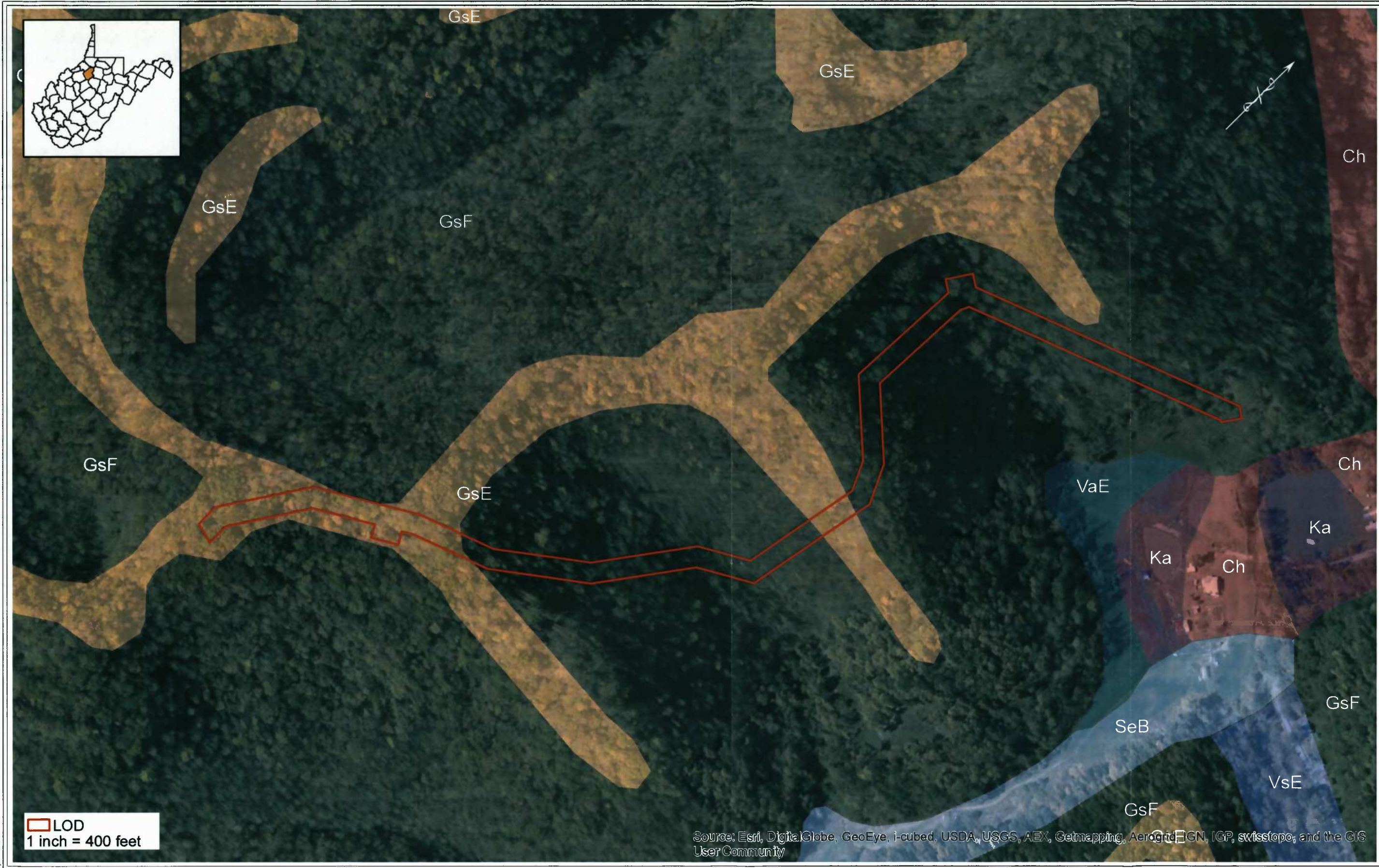
Source: Esri, DigitalGlobe, GeoEye, Earthstar, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

THRASHER

Figure 2: NWI Mapper
Hardwood to Tie-in
Doddridge County - West Virginia



4/15/2014



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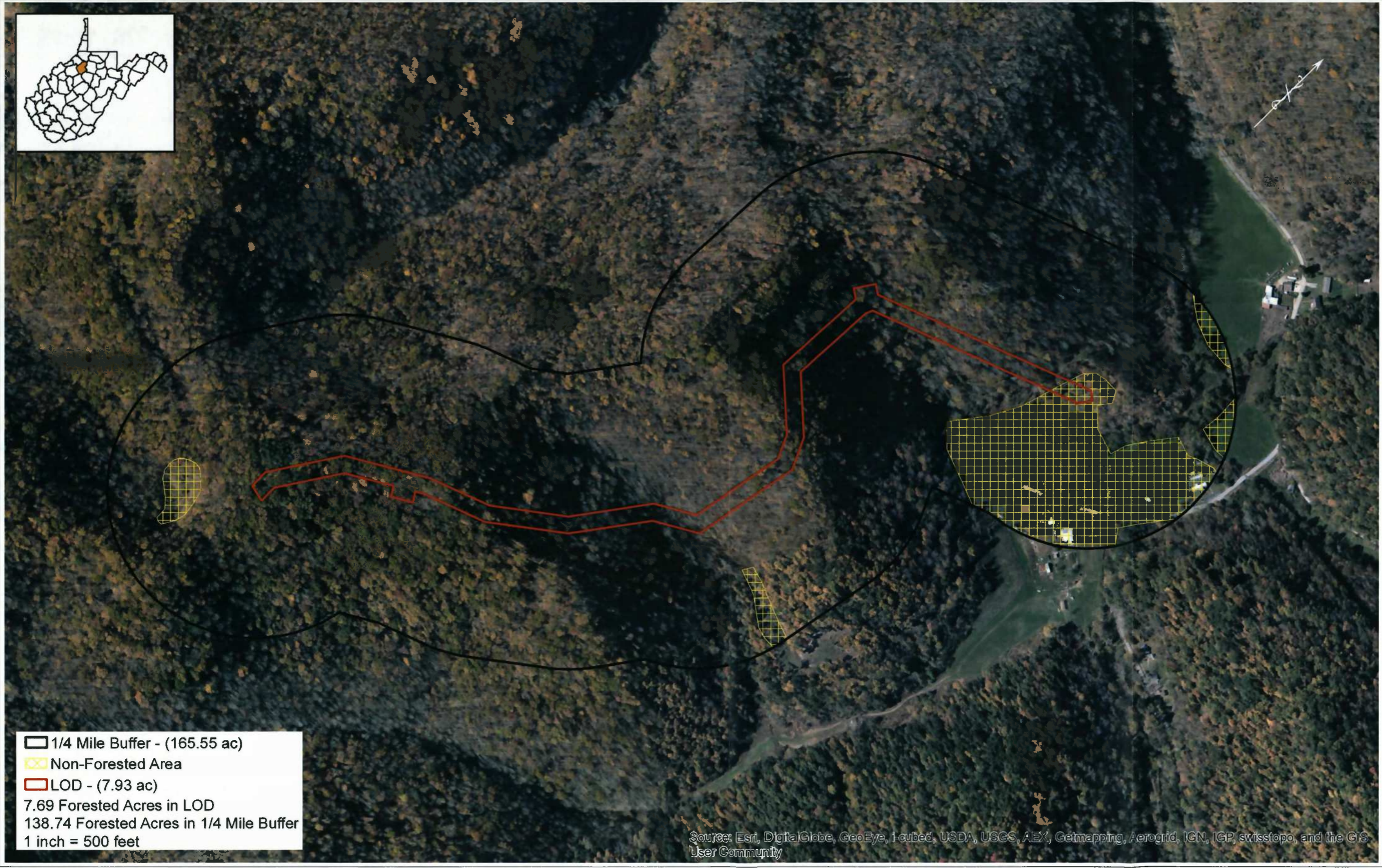
Figure 3: Soil Types
Hardwood to Tie-in
Doddridge County - West Virginia



4/15/2014

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

By: T.Davis



1/4 Mile Buffer - (165.55 ac)
Non-Forested Area
LOD - (7.93 ac)
7.69 Forested Acres in LOD
138.74 Forested Acres in 1/4 Mile Buffer
1 inch = 500 feet

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

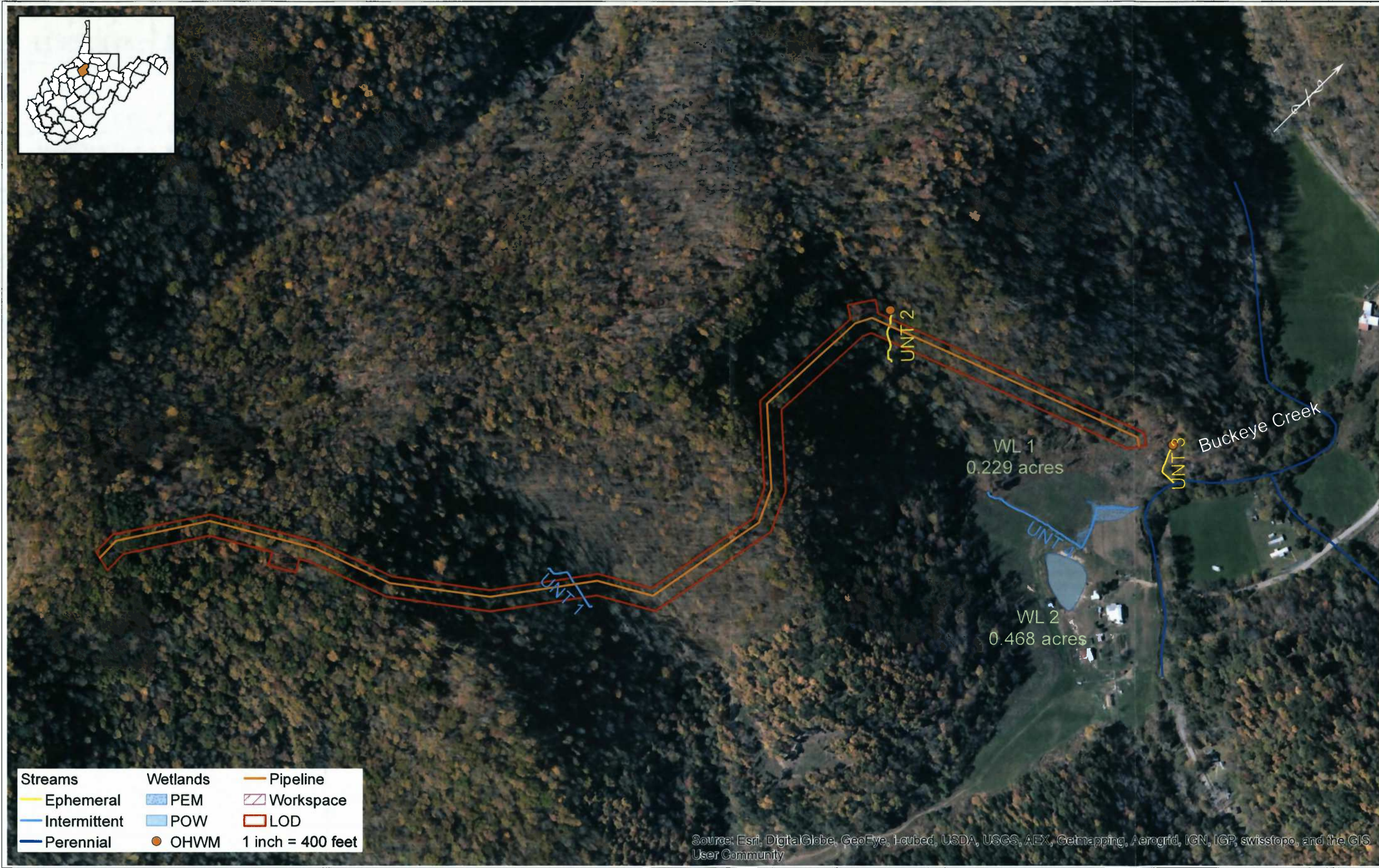
THRASHER

Forested Acres
Hardwood to Tie-in
Doddridge County - West Virginia



4/15/2014

By: T.Davis



Streams	Wetlands	Pipeline
— Ephemeral	PEM	— Workspace
— Intermittent	POW	— LOD
— Perennial	OHWM	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 4: Delineation
Hardwood to Tie-in
Doddridge County - West Virginia



4/16/2014

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
Hardwood Tie In Pipeline, Doddridge County, West Virginia
Thrasher Project #101-015-0209***

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 and Smithburg 7.5 minute quadrangles of Doddridge County, WV.

The proposed area of interest (AOI) for the Hardwood to Tie In pipeline consists of a 75' wide right-of-way (ROW) which contains approximately 8.45 acres. The proposed 12" steel Hardwood to Tie In pipeline originates at the Hardwood Well Pad located at approximately 39.249334 N / 80.65929 W. From there it extends 4,510 LF north east to an above ground riser located in a 150' x 150' Tie-In area at the coordinates, 39.257367 N / 80.651194 W. The proposed project will also involve expanding an existing access road as well as creating additional 50' x 100' workspaces.

Thrasher staff identified five (5) streams and two (2) wetlands during field investigations. Two (2) 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 Hardwood to Tie In 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
April 17, 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 tspear@thrashereng.com.

Sincerely,

THE THRASHER GROUP, INC.



Tyler L. Spear
Environmental Scientist
Enclosure

R:\015-0209 - Crestwood - Hardwood to Tie In Pipeline -
Environmental\Documents\Permitting\Environmental\Correspondence\WVDNR OLS\Cover Letter

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
Hardwood to Tie In Pipeline, Doddridge County, West Virginia
Thrasher Project #101-015-0209***

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 and Smithburg 7.5 minute quadrangles of Doddridge County, WV.

The proposed area of interest (AOI) for the Hardwood to Tie In pipeline consists of a 75' wide right-of-way (ROW) which contains approximately 8.45 acres. The proposed 12" steel Hardwood to Tie In pipeline originates at the Hardwood Well Pad located at approximately 39.249334 N / 80.65929 W. From there it extends 4,510 LF north east to an above ground riser located in a 150' x 150' Tie-In area at the coordinates, 39.257367 N / 80.651194 W. The proposed project will also involve expanding an existing access road as well as creating additional 50' x 100' workspaces.

Thrasher staff identified five (5) streams and two (2) wetlands during field investigations. Two (2) 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 Hardwood to Tie In pipeline AOI.

Of the 8.45 acres contained within the AOI, approximately 7.71 acres are forested and will require timbering before construction can commence. Please see attached forested

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Ms. Sargent
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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 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 tspear@thrashereng.com.

Sincerely,

THE THRASHER GROUP, INC.



Tyler L. Spear
Environmental Scientist
Enclosure

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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
Hardwood to Tie In Pipeline, Doddridge County, West Virginia
Thrasher Project #101-015-0209***

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 and Smithburg 7.5 minute quadrangles of Doddridge County, WV.

The proposed area of interest (AOI) for the Hardwood to Tie In pipeline consists of a 75' wide right-of-way (ROW) which contains approximately 8.45 acres. The proposed 12" steel Hardwood to Tie In pipeline originates at the Hardwood Well Pad located at approximately 39.249334 N / 80.65929 W. From there it extends 4,510 LF north east to an above ground riser located in a 150' x 150' Tie-In area at the coordinates, 39.257367 N / 80.651194 W. The proposed project will also involve expanding an existing access road as well as creating additional 50' x 100' workspaces.

Thrasher staff identified five (5) streams and two (2) wetlands during field investigations. Two (2) 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 Hardwood to Tie In 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.

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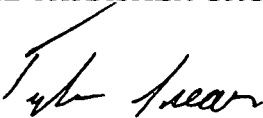
Ms. Pierce
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The attached slope map depicts that the majority of the pipeline is located on terrain which consists of slope greater than 20 percent. During field investigations, no historical buildings or archaeological resources were discovered onsite.

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 tspear@thrashereng.com.

Sincerely,

THE THRASHER GROUP, INC.


Tyler L. Spear
Environmental Scientist

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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
Hardwood to Tie-In Pipeline, Doddridge County, West Virginia
Thrasher Project #101-015-0209***

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 and Smithburg 7.5 minute quadrangles of Doddridge County, WV.

The proposed area of interest (AOI) for the Hardwood to Tie-In pipeline consists of a 75' wide right-of-way (ROW) which contains approximately 8.45 acres. The proposed 12" steel Hardwood to Tie-In pipeline originates at the Hardwood Well Pad located at approximately 39.249334 N / 80.65929 W. From there it extends 4,510 LF north east to an above ground riser located in a 150' x 150' Tie-In area at the coordinates, 39.257367 N / 80.651194 W. The proposed project will also involve expanding an existing access road as well as creating additional 50' x 100' workspaces.

Thrasher staff identified five (5) streams and two (2) wetlands during field investigations. Two (2) 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 Hardwood to Tie-In pipeline AOI.

Of the 8.45 acres contained within the AOI, approximately 7.71 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.

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U.S. Fish and Wildlife Services
April 17, 2014
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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 tspear@thrashereng.com.

Sincerely,

THE THRASHER GROUP, INC.



Tyler L. Spear
Environmental Scientist

Enclosure

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