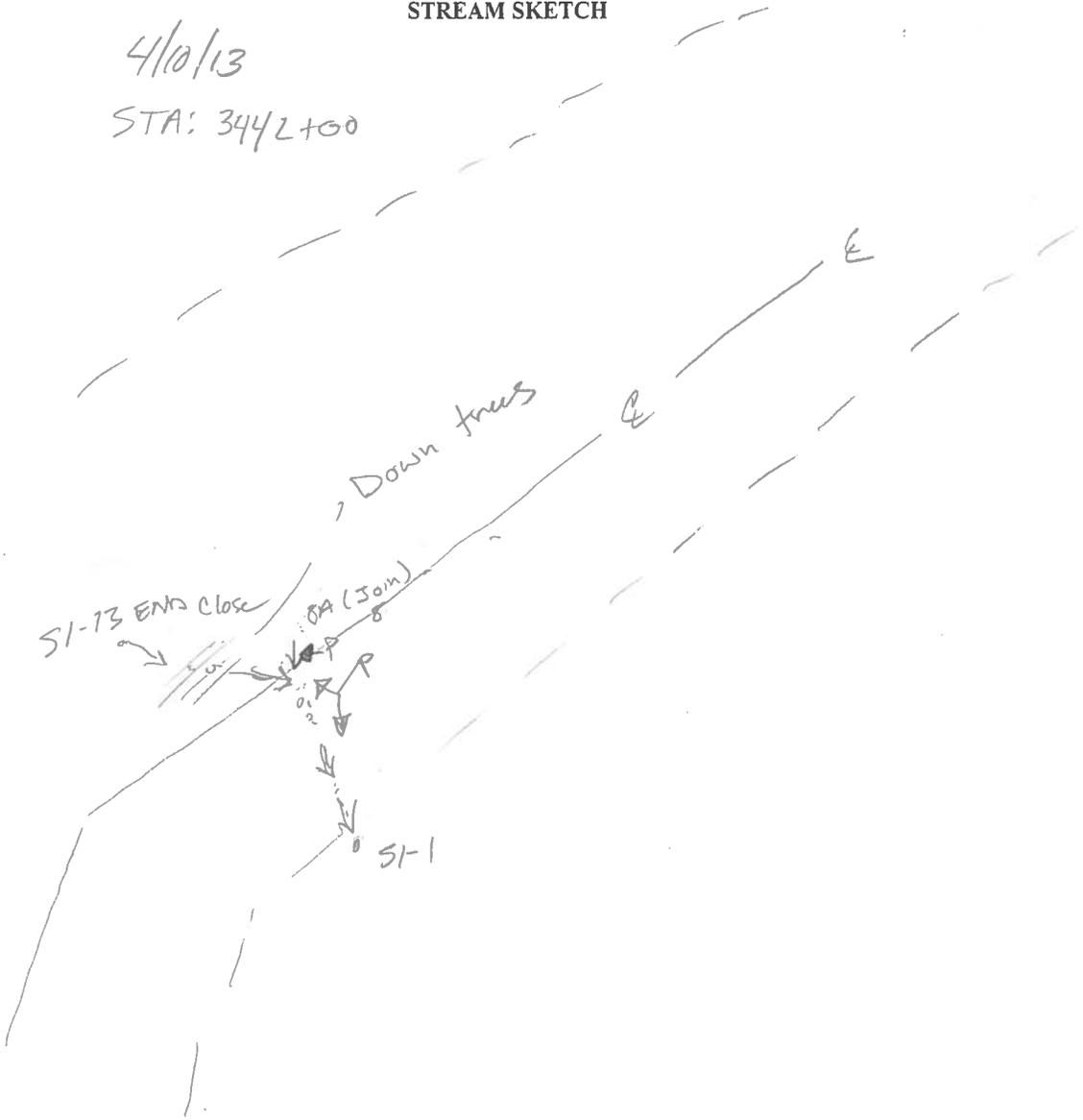




STREAM SKETCH

4/10/13

STA: 3442+00



(1-13)

Checklist:

- 
- 
- 
- 
- 
- 

Stream ID# = AB-31-S1

North arrow.

Detailed sketch of stream (Riffle, Run, Pool).

Natural and man-made features – roads, culverts, outcrops, structures, etc.

Photo locations.

Location of important wildlife sign.

**TETLP OPEN PROJECT  
STREAM SUMMARY**

STA'  
3445+00

OPEN Facility:  30"     36"    MP:     Compressor Station

Observers: JG, KC    Date: 4/10/13

Town: York    County: Belmont

Crossing Name/ID: A13-31-52    Recent Rain Event (date/amount): 3/31/13 < 0.5"

**Flow Characteristics**

Bank Full Width (average): 1.5'    Flow Conditions:  Flowing     Subsurface     Moist Channel     Dry

<u>Flow Type</u>		<u>Flow Velocity</u>		<u>Comments:</u>
<input type="checkbox"/> Perennial	<input type="checkbox"/> Intermittent	<input type="checkbox"/> Torrential	<input type="checkbox"/> Mod/Slow	<u>NO FLOW</u>
<input type="checkbox"/> Interstitial	<input checked="" type="checkbox"/> Ephemeral	<input type="checkbox"/> Fast	<input type="checkbox"/> Eddies	

Max Pool Depth:  > 40 cm/15.8 in     < 40 cm/15.8 in    Max Pool Depth: NA

Max Run Depth: NA

Riffle and Pool Width:  Same     Wider Pool     Wider Riffle NA

**Channel and Bank Characteristics**

<u>Channel Substrate %:</u>	<u>Origin</u>	<u>Quality</u>	<u>Bank Height</u>
<input type="checkbox"/> BLDR Slab	<input type="checkbox"/> Limestone	<u>Silted Stream Channel</u>	<u>2</u> ft
<input type="checkbox"/> Boulder	<input type="checkbox"/> Tills	<input type="checkbox"/> High	<u>Bank Erosion</u>
<input type="checkbox"/> Bedrock	<input type="checkbox"/> Wetlands	<input checked="" type="checkbox"/> Moderate	<u>L R</u>
<input type="checkbox"/> Cobble	<input checked="" type="checkbox"/> Hardpan	<input type="checkbox"/> Normal	<input type="checkbox"/> None- Some
<u>5</u> <input type="checkbox"/> Gravel	<input type="checkbox"/> Sandstone	<input type="checkbox"/> Free	<input type="checkbox"/> Moderate
<input type="checkbox"/> Sand	<input type="checkbox"/> Rip/Rap	<u>Embeddedness</u>	<input checked="" type="checkbox"/> High-Severe
<u>10</u> <input type="checkbox"/> Silt Mud	<input type="checkbox"/> Lacustrine	<input type="checkbox"/> Extensive	
<input type="checkbox"/> Clay Hardpan	<input type="checkbox"/> Shale	<input checked="" type="checkbox"/> Moderate	
<input type="checkbox"/> Peat-Muck	<input type="checkbox"/> Coal Fines	<input type="checkbox"/> Normal	
<input type="checkbox"/> Artificial		<input type="checkbox"/> None	
<u>85</u> <input type="checkbox"/> Woody/Leaf Debris			
<input type="checkbox"/> Fine Detritus			

Embedded Riffle/Run: NA

**Stream Cover**

<u>Instream Cover</u> (presence 0-3 [ranges 0, 1-33%, 33-66%, 66-100%])	<u>Instream Total Cover</u>	<u>Canopy Cover</u>
<input type="checkbox"/> Undercut Bank	<input type="checkbox"/> Extensive 25-75%	<input type="checkbox"/> 90-100%    Closed
<input type="checkbox"/> Overhanging Veg.	<input type="checkbox"/> High 25-75%	<input checked="" type="checkbox"/> 70-90%
<input type="checkbox"/> Shallows (slow moving)	<input checked="" type="checkbox"/> Mod. 5-25%	<input type="checkbox"/> 45-70%
<input type="checkbox"/> Rootmats	<input type="checkbox"/> Low <5%	<input type="checkbox"/> 10-45%
<input type="checkbox"/> Rootwads		<input type="checkbox"/> 0-10%    Open
<input type="checkbox"/> Boulders		
<input type="checkbox"/> Backwater		
<input type="checkbox"/> Aquatic Macrophytes		
<input type="checkbox"/> Logs or Woody Debris		

**Stream Morphology and Riparian Zone**

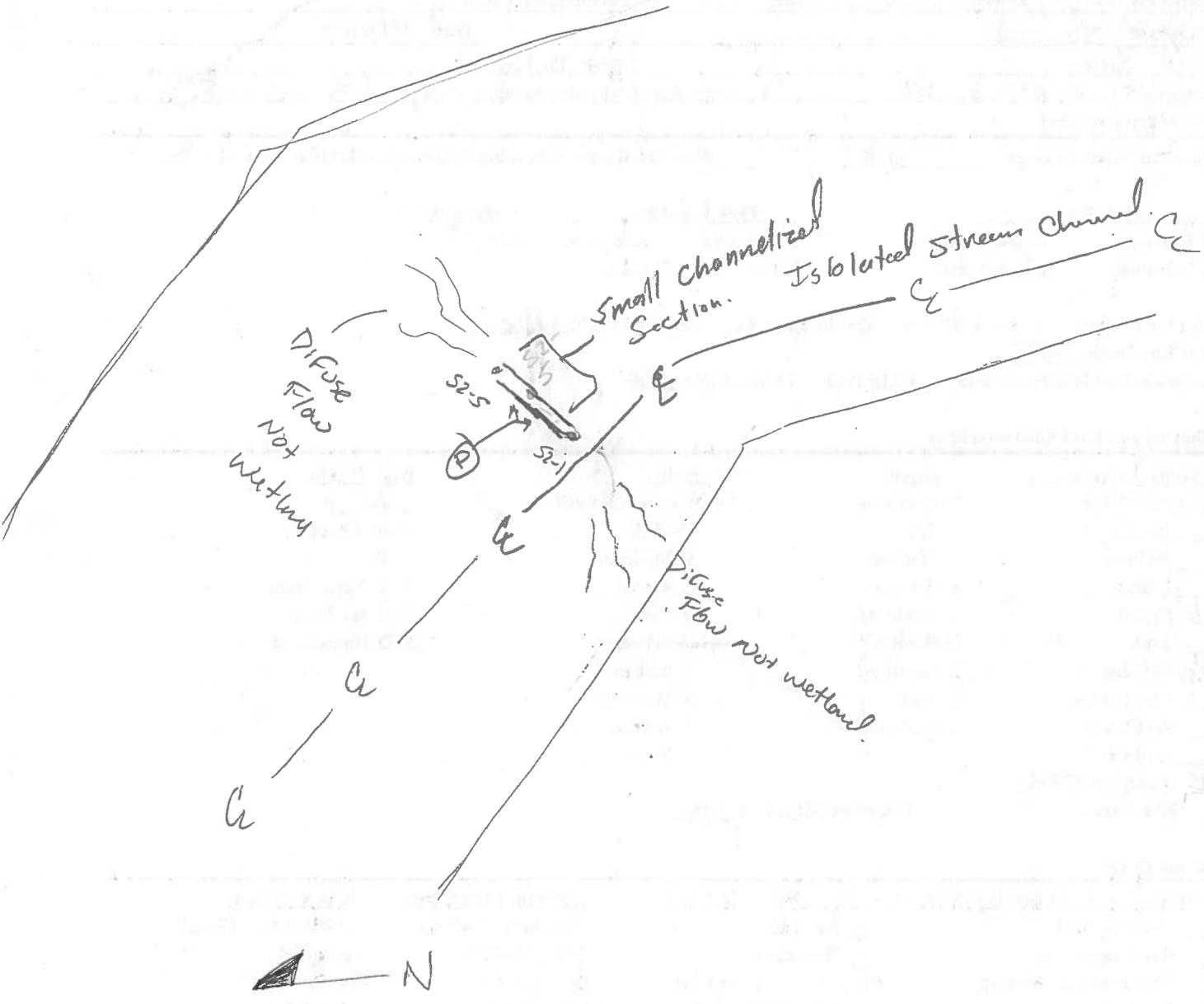
<u>Sinuosity</u>	<u>Gradient (estimate)</u>	<u>Riparian Zone</u> (Right/Left)	<u>Flood Plain Quality</u>
<input type="checkbox"/> High	<input type="checkbox"/> Flat (0.5/100 ft)	<input checked="" type="checkbox"/> Wide >50 m	<input checked="" type="checkbox"/> Forested
<input type="checkbox"/> Mod	<input type="checkbox"/> Mod Flat	<input type="checkbox"/> Mod 10-50 m	<input type="checkbox"/> Shrub or old field
<input type="checkbox"/> Low	<input type="checkbox"/> Mod (2/100 ft)	<input type="checkbox"/> Narrow 5-10 m	<input type="checkbox"/> Hay field
<input checked="" type="checkbox"/> None	<input type="checkbox"/> Mod Severe	<input type="checkbox"/> Very Narrow <5	<input type="checkbox"/> Active Pasture
# of Bends <u>0</u>	<input checked="" type="checkbox"/> Severe (10/100 ft)		<input type="checkbox"/> Row crops
			<input type="checkbox"/> Development

Stream Ecology and Associated Wildlife Comments (i.e. marcos, salamanders, fish):

STREAM SKETCH

STA: 3445+00

4/10/13



C  
(15)

Checklist:

- Stream ID# = A13-31 S2
- North arrow.
- Detailed sketch of stream (Riffle, Run, Pool).
- Natural and man-made features – roads, culverts, outcrops, structures, etc.
- Photo locations.
- Location of important wildlife sign.



Primary Headwater Habitat Evaluation Form

HHEI Score (sum of metrics 1, 2, 3) :

23

SITE NAME/LOCATION TETLP's OPEN Project  
 SITE NUMBER A13-31-S1 RIVER BASIN Ohio River East DRAINAGE AREA (mi<sup>2</sup>) 0.01  
 LENGTH OF STREAM REACH (ft) 121 LAT. .39.90905 LONG. -80.85382 RIVER CODE \_\_\_\_\_ RIVER MILE \_\_\_\_\_  
 DATE 4/10/13 SCORER J. Gravel, K. Caron COMMENTS Surveyed 226' total, 121' within proposed ROW

NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions

STREAM CHANNEL  NONE / NATURAL CHANNEL  RECOVERED  RECOVERING  RECENT OR NO RECOVERY  
 MODIFICATIONS:

**1. SUBSTRATE** (Estimate percent of every type of substrate present. Check *ONLY* two predominant substrate *TYPE* boxes (Max of 40). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.)

TYPE	PERCENT	TYPE	PERCENT
<input type="checkbox"/> BLDR SLABS [16 pts]	_____	<input type="checkbox"/> SILT [3 pt]	_____
<input checked="" type="checkbox"/> BOULDER (>256 mm) [16 pts]	5	<input checked="" type="checkbox"/> LEAF PACK/WOODY DEBRIS [3 pts]	80
<input type="checkbox"/> BEDROCK [16 pt]	_____	<input checked="" type="checkbox"/> FINE DETRITUS [3 pts]	5
<input checked="" type="checkbox"/> COBBLE (65-256 mm) [12 pts]	5	<input type="checkbox"/> CLAY or HARDPAN [0 pt]	_____
<input checked="" type="checkbox"/> GRAVEL (2-64 mm) [9 pts]	5	<input type="checkbox"/> MUCK [0 pts]	_____
<input type="checkbox"/> SAND (<2 mm) [6 pts]	_____	<input type="checkbox"/> ARTIFICIAL [3 pts]	_____

Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock 10 (A) 13 Four substrates equal 5%, points were averaged (B) 5

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: \_\_\_\_\_ TOTAL NUMBER OF SUBSTRATE TYPES: \_\_\_\_\_

**2. Maximum Pool Depth** (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check *ONLY* one box):

<input type="checkbox"/> > 30 centimeters [20 pts]	<input type="checkbox"/> > 5 cm - 10 cm [15 pts]
<input type="checkbox"/> > 22.5 - 30 cm [30 pts]	<input type="checkbox"/> < 5 cm [5 pts]
<input type="checkbox"/> > 10 - 22.5 cm [25 pts]	<input checked="" type="checkbox"/> NO WATER OR MOIST CHANNEL [0 pts]

COMMENTS \_\_\_\_\_ MAXIMUM POOL DEPTH (centimeters): 0

**3. BANK FULL WIDTH** (Measured as the average of 3-4 measurements) (Check *ONLY* one box):

<input type="checkbox"/> > 4.0 meters (> 13') [30 pts]	<input type="checkbox"/> > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]
<input type="checkbox"/> > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	<input checked="" type="checkbox"/> ≤ 1.0 m (≤ 3' 3") [5 pts]
<input type="checkbox"/> > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts]	

COMMENTS \_\_\_\_\_ AVERAGE BANKFULL WIDTH (meters) 0.6

**HHEI Metric Points**

Substrate Max = 40

18

A + B

---

Pool Depth Max = 30

0

---

Bankfull Width Max=30

5

This information must also be completed

**RIPARIAN ZONE AND FLOODPLAIN QUALITY** ☆NOTE: River Left (L) and Right (R) as looking downstream☆

RIPARIAN WIDTH		FLOODPLAIN QUALITY	
L	R	L	R
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> Wide >10m	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> Mature Forest, Wetland
<input type="checkbox"/>	<input type="checkbox"/> Moderate 5-10m	<input type="checkbox"/>	<input type="checkbox"/> Immature Forest, Shrub or Old Field
<input type="checkbox"/>	<input type="checkbox"/> Narrow <5m	<input type="checkbox"/>	<input type="checkbox"/> Residential, Park, New Field
<input type="checkbox"/>	<input type="checkbox"/> None	<input type="checkbox"/>	<input type="checkbox"/> Fenced Pasture
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Conservation Tillage
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Urban or Industrial
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Open Pasture, Row Crop
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Mining or Construction

COMMENTS \_\_\_\_\_

**FLOW REGIME** (At Time of Evaluation) (Check *ONLY* one box):

<input type="checkbox"/> Stream Flowing	<input checked="" type="checkbox"/> Moist Channel, isolated pools, no flow (Intermittent)
<input type="checkbox"/> Subsurface flow with isolated pools (Interstitial)	<input type="checkbox"/> Dry channel, no water (Ephemeral)

COMMENTS moist channel that becomes flowing stream

**SINUOSITY** (Number of bends per 61 m (200 ft) of channel) (Check *ONLY* one box):

<input type="checkbox"/> None	<input type="checkbox"/> 1.0	<input type="checkbox"/> 2.0	<input type="checkbox"/> 3.0
<input checked="" type="checkbox"/> 0.5	<input type="checkbox"/> 1.5	<input type="checkbox"/> 2.5	<input type="checkbox"/> >3

**STREAM GRADIENT ESTIMATE**

<input type="checkbox"/> Flat (0.5 ft/100 ft)	<input type="checkbox"/> Flat to Moderate	<input type="checkbox"/> Moderate (2 ft/100 ft)	<input type="checkbox"/> Moderate to Severe	<input checked="" type="checkbox"/> Severe (10 ft/100 ft)
---	---	---	---	---

**ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):**

QHEI PERFORMED? -  Yes  No QHEI Score N/A (If Yes, Attach Completed QHEI Form)

**DOWNSTREAM DESIGNATED USE(S)**

WWH Name: Trib to Captina Creek Distance from Evaluated Stream \_\_\_\_\_  
 CWH Name: \_\_\_\_\_ Distance from Evaluated Stream \_\_\_\_\_  
 EWH Name: \_\_\_\_\_ Distance from Evaluated Stream \_\_\_\_\_

**MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION**

USGS Quadrangle Name: Businessburg, OH NRCS Soil Map Page: \_\_\_\_\_ NRCS Soil Map Stream Order \_\_\_\_\_  
County: Belmont Township / City: York

**MISCELLANEOUS**

Base Flow Conditions? (Y/N): N Date of last precipitation: 3/31/13 Quantity: <0.25"

Photograph Information: See Photo Index

Elevated Turbidity? (Y/N): N Canopy (% open): 0-10

Were samples collected for water chemistry? (Y/N): N/A (Note lab sample no. or id. and attach results) Lab Number: N/A

Field Measures: Temp (°C) N/A Dissolved Oxygen (mg/l) N/A pH (S.U.) N/A Conductivity (µmhos/cm) N/A

Is the sampling reach representative of the stream (Y/N) N/A If not, please explain: N/A

Additional comments/description of pollution impacts: \_\_\_\_\_

**BIOTIC EVALUATION**

Performed? (Y/N): N (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)

Fish Observed? (Y/N) N Voucher? (Y/N) N Salamanders Observed? (Y/N) N Voucher? (Y/N) N  
Frogs or Tadpoles Observed? (Y/N) N Voucher? (Y/N) N Aquatic Macroinvertebrates Observed? (Y/N) N Voucher? (Y/N) N

Comments Regarding Biology: None observed

**DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed):**

Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location

Ephemeral stream, partially flowing to the northwest with high concentrations of leafy debris within the stream.

FLOW 



Primary Headwater Habitat Evaluation Form

HHEI Score (sum of metrics 1, 2, 3) :

14

SITE NAME/LOCATION TETLP's OPEN Project  
 SITE NUMBER A13-31-S2 RIVER BASIN Ohio River East DRAINAGE AREA (mi<sup>2</sup>) 0.01  
 LENGTH OF STREAM REACH (ft) 77 LAT. .39.9088 LONG. -80.8537 RIVER CODE \_\_\_\_\_ RIVER MILE \_\_\_\_\_  
 DATE 4/10/13 SCORER J. Gravel, K. Caron COMMENTS surveyed 88' total, 77' within proposed ROW

NOTE: Complete All Items on This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions

STREAM CHANNEL  NONE / NATURAL CHANNEL  RECOVERED  RECOVERING  RECENT OR NO RECOVERY  
 MODIFICATIONS:

**1. SUBSTRATE** (Estimate percent of every type of substrate present. Check *ONLY* two predominant substrate TYPE boxes (Max of 40). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.)

TYPE	PERCENT	TYPE	PERCENT
<input type="checkbox"/> <input type="checkbox"/> BLDR SLABS [16 pts]	_____	<input type="checkbox"/> <input checked="" type="checkbox"/> SILT [3 pt]	10
<input type="checkbox"/> <input type="checkbox"/> BOULDER (>256 mm) [16 pts]	_____	<input checked="" type="checkbox"/> <input type="checkbox"/> LEAF PACK/WOODY DEBRIS [3 pts]	85
<input type="checkbox"/> <input type="checkbox"/> BEDROCK [16 pt]	_____	<input type="checkbox"/> <input type="checkbox"/> FINE DETRITUS [3 pts]	_____
<input type="checkbox"/> <input type="checkbox"/> COBBLE (65-256 mm) [12 pts]	_____	<input type="checkbox"/> <input type="checkbox"/> CLAY or HARDPAN [0 pt]	_____
<input type="checkbox"/> <input type="checkbox"/> GRAVEL (2-64 mm) [9 pts]	5	<input type="checkbox"/> <input type="checkbox"/> MUCK [0 pts]	_____
<input type="checkbox"/> <input type="checkbox"/> SAND (<2 mm) [6 pts]	_____	<input type="checkbox"/> <input type="checkbox"/> ARTIFICIAL [3 pts]	_____

Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock 0 (A) 6 (B) 3  
 SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: \_\_\_\_\_ TOTAL NUMBER OF SUBSTRATE TYPES: \_\_\_\_\_

**2. Maximum Pool Depth** (Measure the maximum pool depth within the 61 meter (200 ft) evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check *ONLY* one box):

<input type="checkbox"/> > 30 centimeters [20 pts]	<input type="checkbox"/> > 5 cm - 10 cm [15 pts]
<input type="checkbox"/> > 22.5 - 30 cm [30 pts]	<input type="checkbox"/> < 5 cm [5 pts]
<input type="checkbox"/> > 10 - 22.5 cm [25 pts]	<input checked="" type="checkbox"/> NO WATER OR MOIST CHANNEL [0 pts]

COMMENTS \_\_\_\_\_ MAXIMUM POOL DEPTH (centimeters): 0

**3. BANK FULL WIDTH** (Measured as the average of 3-4 measurements) (Check *ONLY* one box):

<input type="checkbox"/> > 4.0 meters (> 13') [30 pts]	<input type="checkbox"/> > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]
<input type="checkbox"/> > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	<input checked="" type="checkbox"/> ≤ 1.0 m (≤ 3' 3") [5 pts]
<input type="checkbox"/> > 1.5 m - 3.0 m (> 4' 8" - 9' 7") [20 pts]	

COMMENTS \_\_\_\_\_ AVERAGE BANKFULL WIDTH (meters) 0.4'

**HHEI Metric Points**

Substrate Max = 40

9

A + B

---

Pool Depth Max = 30

0

---

Bankfull Width Max=30

5

This information must also be completed

**RIPARIAN ZONE AND FLOODPLAIN QUALITY** ☆NOTE: River Left (L) and Right (R) as looking downstream☆

RIPARIAN WIDTH		FLOODPLAIN QUALITY	
L	R	L	R
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> Wide >10m	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> Mature Forest, Wetland
<input type="checkbox"/>	<input type="checkbox"/> Moderate 5-10m	<input type="checkbox"/>	<input type="checkbox"/> Immature Forest, Shrub or Old Field
<input type="checkbox"/>	<input type="checkbox"/> Narrow <5m	<input type="checkbox"/>	<input type="checkbox"/> Residential, Park, New Field
<input type="checkbox"/>	<input type="checkbox"/> None	<input type="checkbox"/>	<input type="checkbox"/> Fenced Pasture
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Conservation Tillage
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Urban or Industrial
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Open Pasture, Row Crop
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Mining or Construction

COMMENTS \_\_\_\_\_

**FLOW REGIME** (At Time of Evaluation) (Check *ONLY* one box):

<input type="checkbox"/> Stream Flowing	<input checked="" type="checkbox"/> Moist Channel, isolated pools, no flow (Intermittent)
<input type="checkbox"/> Subsurface flow with isolated pools (Interstitial)	<input type="checkbox"/> Dry channel, no water (Ephemeral)

COMMENTS \_\_\_\_\_

**SINUOSITY** (Number of bends per 61 m (200 ft) of channel) (Check *ONLY* one box):

<input checked="" type="checkbox"/> None	<input type="checkbox"/> 1.0	<input type="checkbox"/> 2.0	<input type="checkbox"/> 3.0
<input type="checkbox"/> 0.5	<input type="checkbox"/> 1.5	<input type="checkbox"/> 2.5	<input type="checkbox"/> >3

**STREAM GRADIENT ESTIMATE**

<input type="checkbox"/> Flat (0.5 ft/100 ft)	<input type="checkbox"/> Flat to Moderate	<input type="checkbox"/> Moderate (2 ft/100 ft)	<input type="checkbox"/> Moderate to Severe	<input checked="" type="checkbox"/> Severe (10 ft/100 ft)
---	---	---	---	---

**ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):**

QHEI PERFORMED? -  Yes  No QHEI Score N/A (If Yes, Attach Completed QHEI Form)

**DOWNSTREAM DESIGNATED USE(S)**

WWH Name: Trib to Captina Creek Distance from Evaluated Stream \_\_\_\_\_  
 CWH Name: \_\_\_\_\_ Distance from Evaluated Stream \_\_\_\_\_  
 EWH Name: \_\_\_\_\_ Distance from Evaluated Stream \_\_\_\_\_

**MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION**

USGS Quadrangle Name: \_\_\_\_\_ NRCS Soil Map Page: \_\_\_\_\_ NRCS Soil Map Stream Order \_\_\_\_\_

County: Belmont Township / City: York

**MISCELLANEOUS**

Base Flow Conditions? (Y/N): N Date of last precipitation: 3/31/13 Quantity: <0.25"

Photograph Information: See Photo Index

Elevated Turbidity? (Y/N): N Canopy (% open): 10-30

Were samples collected for water chemistry? (Y/N): N/A (Note lab sample no. or id. and attach results) Lab Number: N/A

Field Measures: Temp (°C) N/A Dissolved Oxygen (mg/l) N/A pH (S.U.) N/A Conductivity (µmhos/cm) N/A

Is the sampling reach representative of the stream (Y/N) N/A If not, please explain: N/A

Additional comments/description of pollution impacts: \_\_\_\_\_

**BIOTIC EVALUATION**

Performed? (Y/N): N (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)

Fish Observed? (Y/N) N Voucher? (Y/N) N Salamanders Observed? (Y/N) N Voucher? (Y/N) N  
Frogs or Tadpoles Observed? (Y/N) N Voucher? (Y/N) N Aquatic Macroinvertebrates Observed? (Y/N) N Voucher? (Y/N) N

Comments Regarding Biology: None observed

**DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed):**

Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location

Ephemeral stream, no flow at time of survey, with a small channel with diffused hydrology at each end of the stream channel.

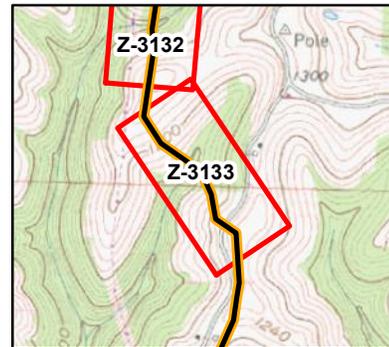
FLOW 

**OPEN 30" Mainline Waterbody Photographs  
Belmont County, Ohio**

**York Township MP 68.25  
A13-31-S1, S2**

<b>Photo 1</b>	<b>Photo 2</b>
	
<b>Photo 3</b>	<b>Photo 4</b>
	<p data-bbox="1166 1388 1224 1419">N/A</p>

Photo 1: Ephemeral stream 1, looking upstream to the east  
Photo 2: Ephemeral stream 1, looking downstream to the west  
Photo 3: Ephemeral stream 2, looking upstream to the east



**LEGEND**

- MILE POST
- PROPOSED PIPELINE
- PROPOSED ACCESS ROAD
- DELINEATED STREAM
- DELINEATED WATERBODY EDGE
- EXISTING ROAD CENTERLINE
- DELINEATED WATERBODY
- DELINEATED WETLAND
- PROPOSED PERMANENT EASEMENT
- PROPOSED CONSTRUCTION WORKSPACE
- MUNICIPALITY BOUNDARY

Data Sources: ESRI, Spectra, TRC, Hatch Mott MacDonald

Projection: NAD83, StatePlane  
Ohio NorthFIPS 3401  
US Survey Feet

**Spectra Energy Partners.**  
Texas Eastern Transmission, LP  
5408 Weatherford Court, Houston, TX 77056-6518 713.827.5400

Spectra Natural Gas Pipeline  
2015 OPEN Project  
Proposed 30in. Line NO. 73

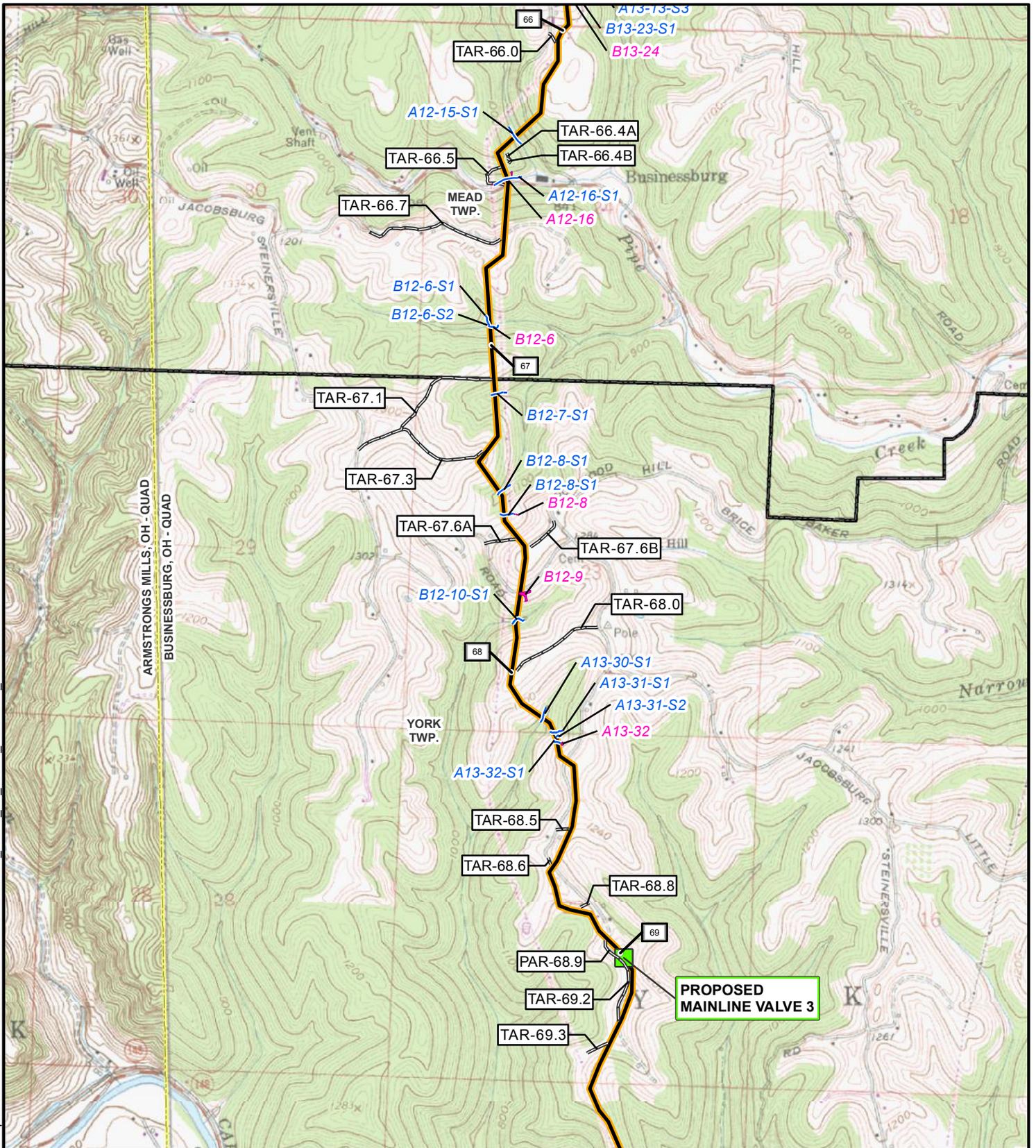
Natural Resource Maps  
Map Z-3133

**Hatch Mott MacDonald**  
100 Lower Woodloch Dr.  
Houston, TX 77056  
971.472.5200 FAX: 971.472.5214

Created: 02/19/2014

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

P:\Spectra\OPEN\Data\Prod\Work\GIS\W\XD\SPECTRA\_OPEN\_ES\_QUAD\_EXCERPT\_85x11.mxd



- |                                 |                         |                            |                             |
|---------------------------------|-------------------------|----------------------------|-----------------------------|
| MILE POST                       | DELINEATED WETLAND      | PROPOSED M&R STATION       | PROPOSED COMPRESSOR STATION |
| PROPOSED PIPELINE               | DELINEATED WATERBODY    | PROPOSED REGULATOR STATION | MUNICIPALITY BOUNDARY       |
| PROPOSED ACCESS ROAD            | PROPOSED STAGING AREA   | PROPOSED TAP VALVE         | COUNTY BOUNDARY             |
| EXISTING TEXAS EASTERN PIPELINE | PROPOSED MAINLINE VALVE |                            | USGS QUADRANGLE BOUNDARY    |
| DELINEATED STREAM CENTERLINE    |                         |                            |                             |



**TITLE: OPEN PROJECT  
DELINEATED STREAMS & WETLANDS - USGS QUAD MAP**

LOC.: BELMONT COUNTY, OHIO      REV. 0

CKD. BY: HMMHOL    ENG.      DATE: 02/2014    W.O.

DRN. BY: HMMHOL    SCALE: 1" = 2000'    DWG. NO.    Z-2021



Texas Eastern Transmission, LP  
5400 Westheimer Court, Houston, TX 77056-5310 713/627-5400

I.G.