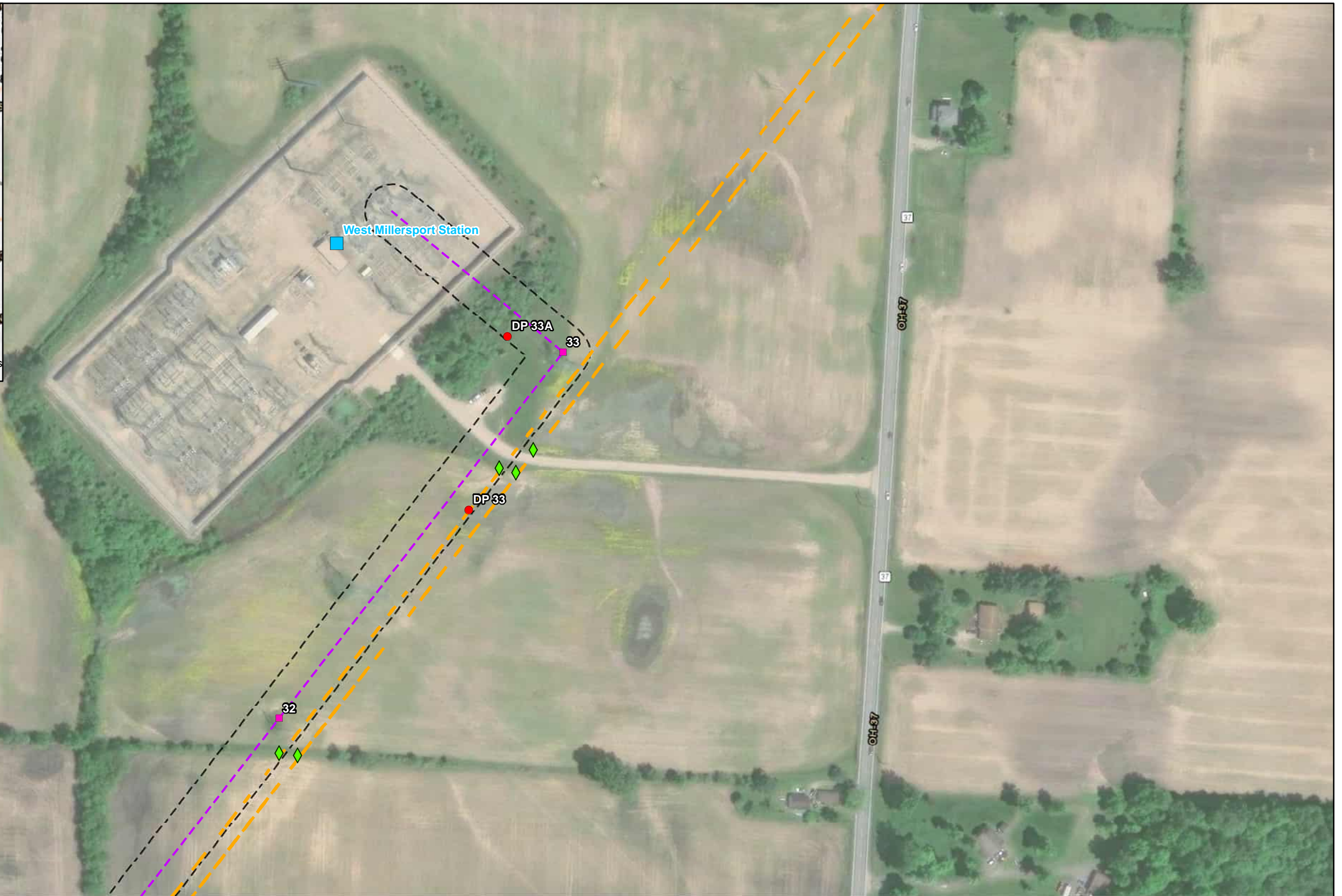
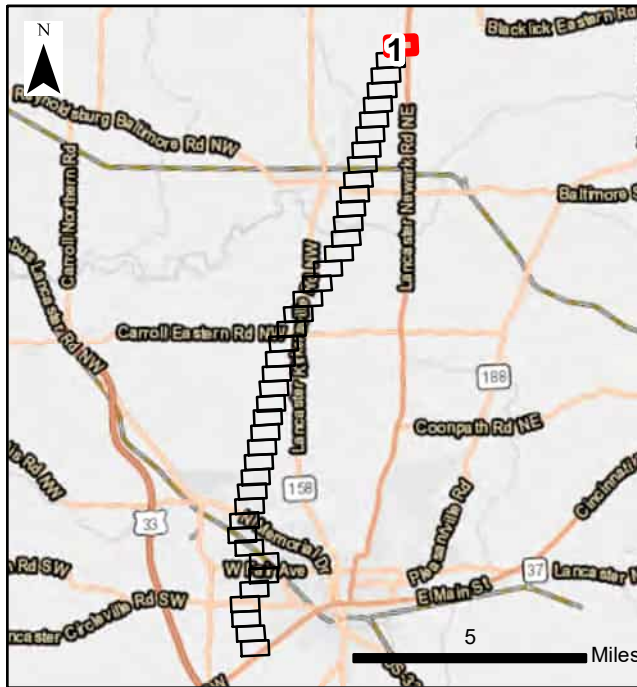



Case No. 24-0689-EL-BLN
Part 2 of 2




 8600 Smiths Mill Road
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PROJECT NO.:
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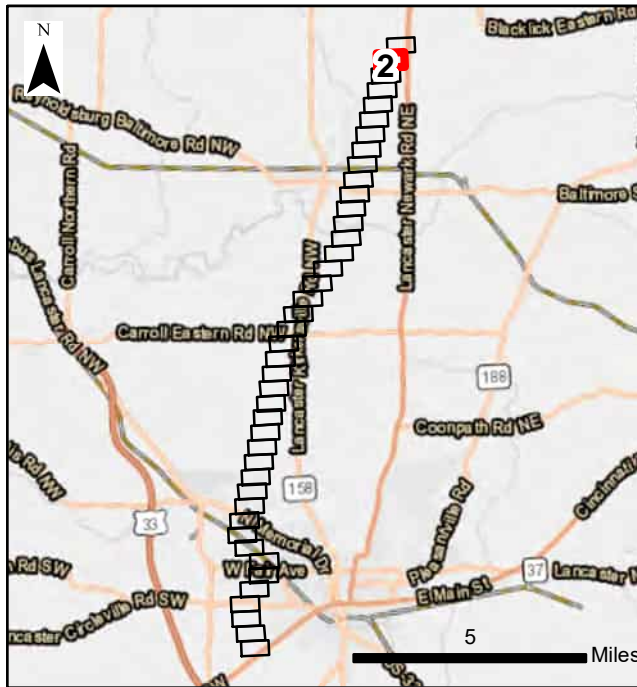
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 04/28/2024
 BASE LAYER:
 Aerial Imagery (2022)

LEGEND:			
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	Existing Station		Existing Utility
	Existing Transmission Line		Potential Obstacle
	Proposed Transmission Line		Existing Culvert
	Environmental Study Area		Data Point
	Distribution Pole		Topography
	Swale		Roadside Ditch
	Stream		Guardrail
	Pond		Existing Fence
	Wetland PEM		Gas Line
			Railroad

TITLE:
DELINEATION MAP


SITE:
 West Lancaster – South Baltimore
 – West Millersport 138kV Rebuild
 Fairfield County, Ohio


 0 100 200 Feet
 SCALE:
 1:2,400
 FIGURE:
4
Page 1 of 42




 8600 Smiths Mill Road
 New Albany, Ohio 43054
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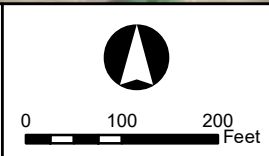
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 CREATED BY:
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 Aerial Imagery (2022)

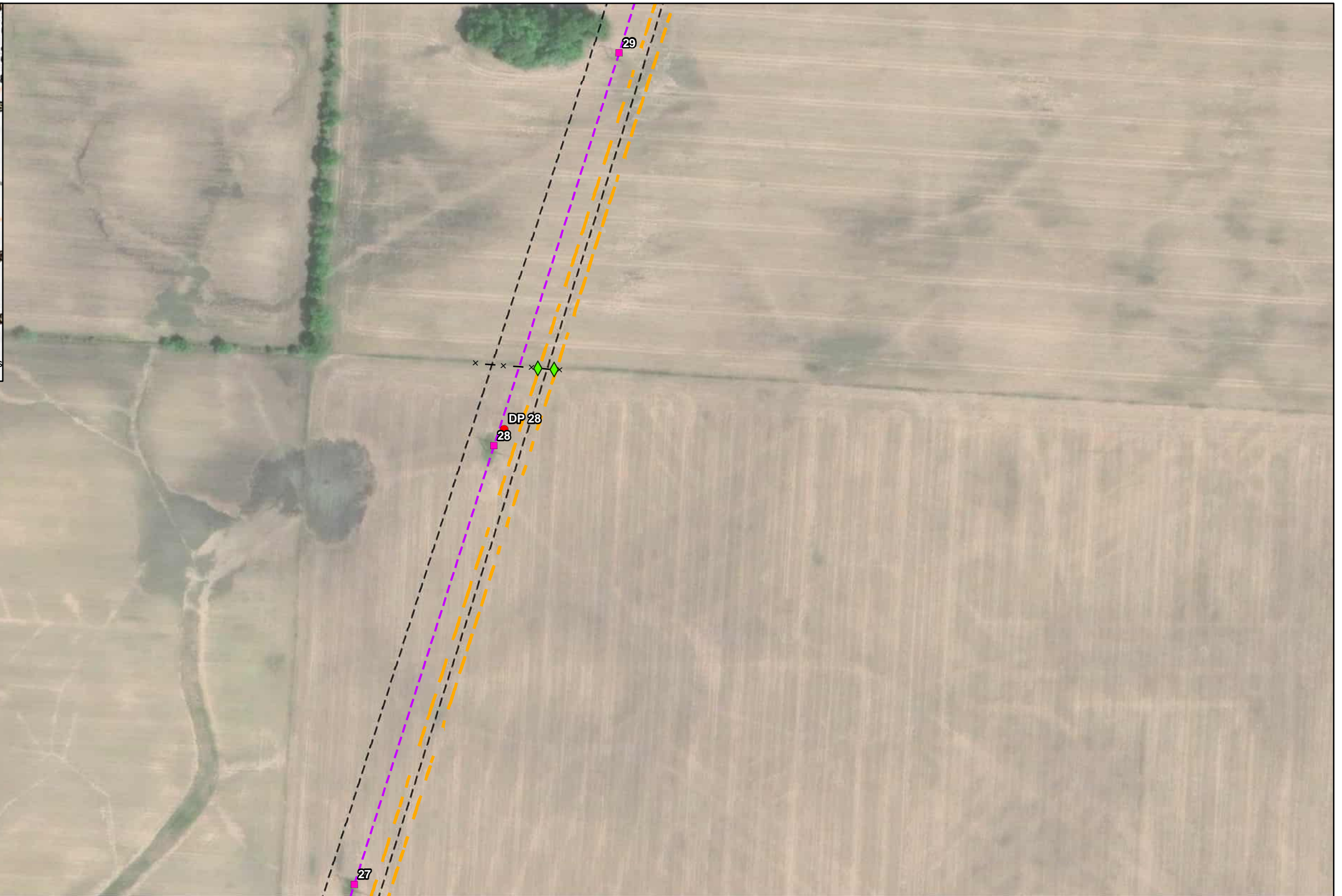
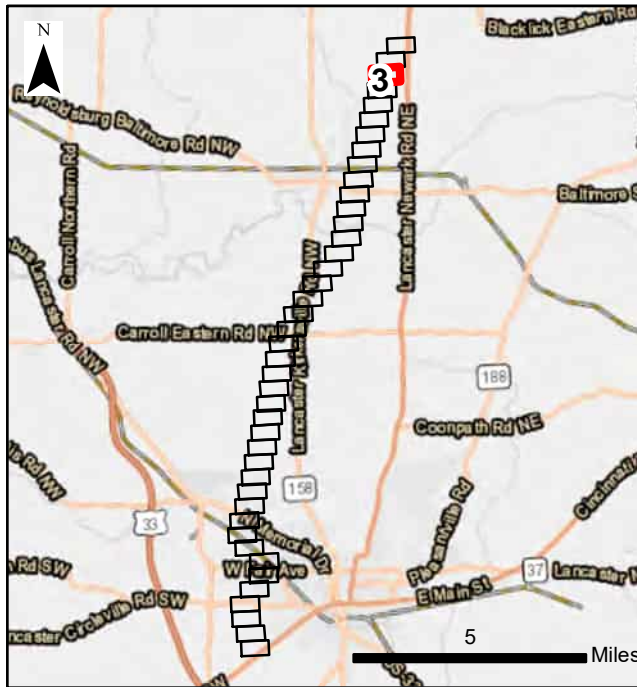
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Existing Station	Existing Utility
Existing Transmission Line	Potential Obstacle
Proposed Transmission Line	Existing Culvert
Environmental Study Area	Data Point
Distribution Pole	Topography
Swale	Roadside Ditch
Guardrail	Existing Fence
Gas Line	Railroad
Stream	
Pond	
Wetland PEM	

TITLE:
DELINEATION MAP




SITE:
 West Lancaster – South Baltimore
 – West Millersport 138kV Rebuild
 Fairfield County, Ohio

SCALE:
 1:2,400
 FIGURE:
4
Page 2 of 42




 8600 Smiths Mill Road
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PROJECT NO.:
 210180.182
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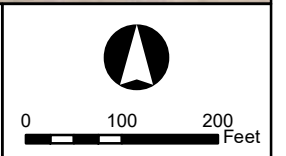

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DATE:
 04/28/2024
 BASE LAYER:
 Aerial Imagery (2022)

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Existing Station	Existing Utility
Existing Transmission Line	Potential Obstacle
Proposed Transmission Line	Existing Culvert
Environmental Study Area	Data Point
Distribution Pole	Topography
Swale	Roadside Ditch
Guardrail	Existing Fence
Gas Line	Railroad
Stream	Pond
Wetland PEM	

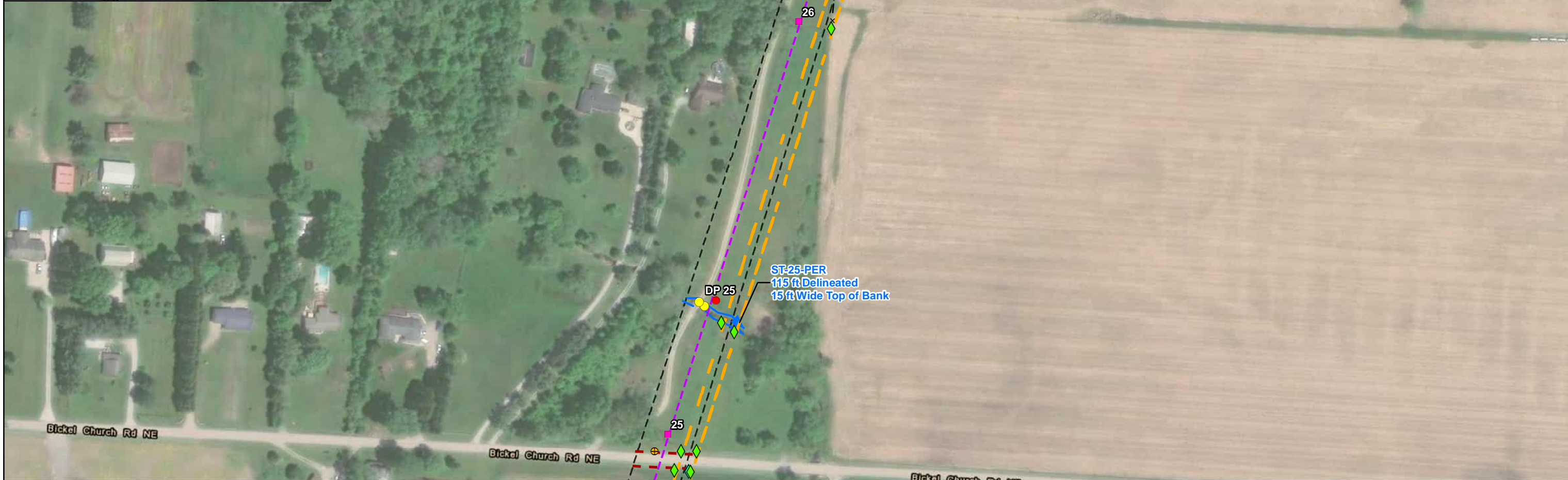
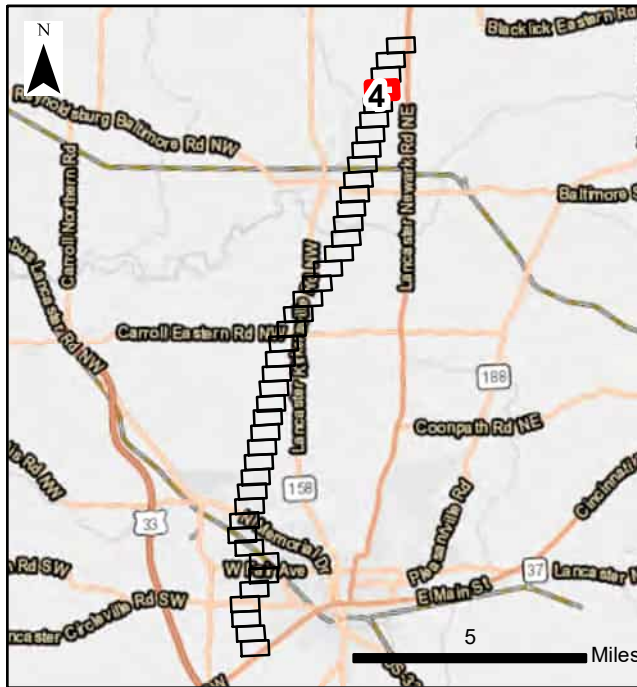
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DELINEATION MAP



SITE:
 West Lancaster – South Baltimore
 – West Millersport 138kV Rebuild
 Fairfield County, Ohio

SCALE:
 1:2,400
 FIGURE:
4
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AMERICAN ELECTRIC POWER
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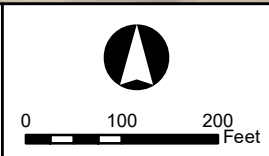
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DATE:
04/28/2024
BASE LAYER:
Aerial Imagery (2022)

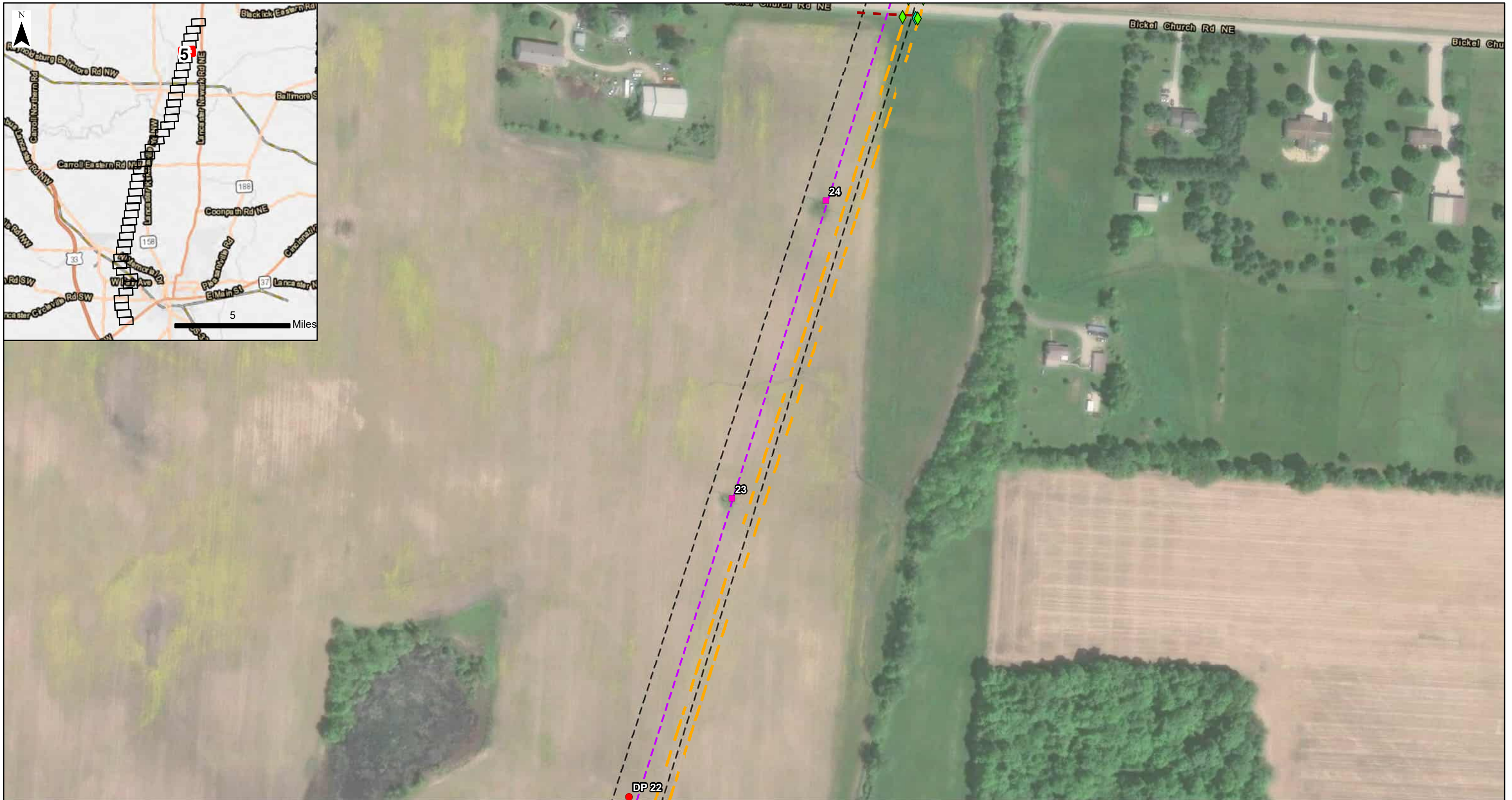
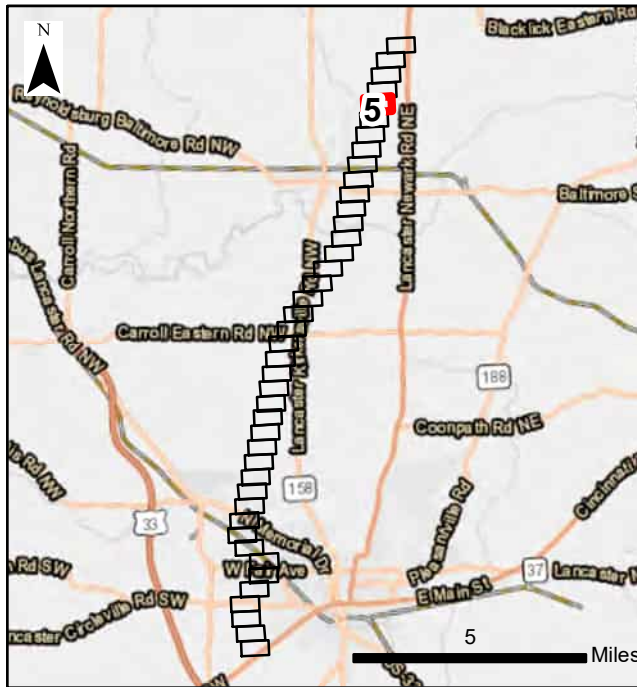
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■ Existing Station	◆ Existing Utility
--- Existing Transmission Line	◆ Potential Obstacle
--- Proposed Transmission Line	● Existing Culvert
--- Environmental Study Area	● Data Point
⊕ Distribution Pole	--- Topography
--- Swale	--- Roadside Ditch
--- Guardrail	× - × Existing Fence
--- Gas Line	+++ Railroad
→ Stream	→ Pond
■ Wetland PEM	

TITLE:
DELINEATION MAP




SITE:
West Lancaster – South Baltimore
– West Millersport 138kV Rebuild
Fairfield County, Ohio

SCALE:
1:2,400
FIGURE:
4
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 8600 Smiths Mill Road
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PROJECT NO.:
 210180.182
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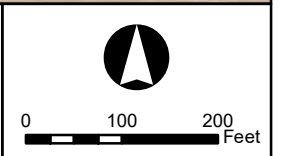

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DATE:
 04/28/2024
 BASE LAYER:
 Aerial Imagery (2022)

LEGEND:		
Existing Structure	Stormwater Inlet	Swale
Existing Station	Existing Utility	Roadside Ditch
Existing Transmission Line	Potential Obstacle	Guardrail
Proposed Transmission Line	Existing Culvert	Existing Fence
Environmental Study Area	Data Point	Gas Line
Distribution Pole	Topography	Railroad
		Stream
		Pond
		Wetland PEM

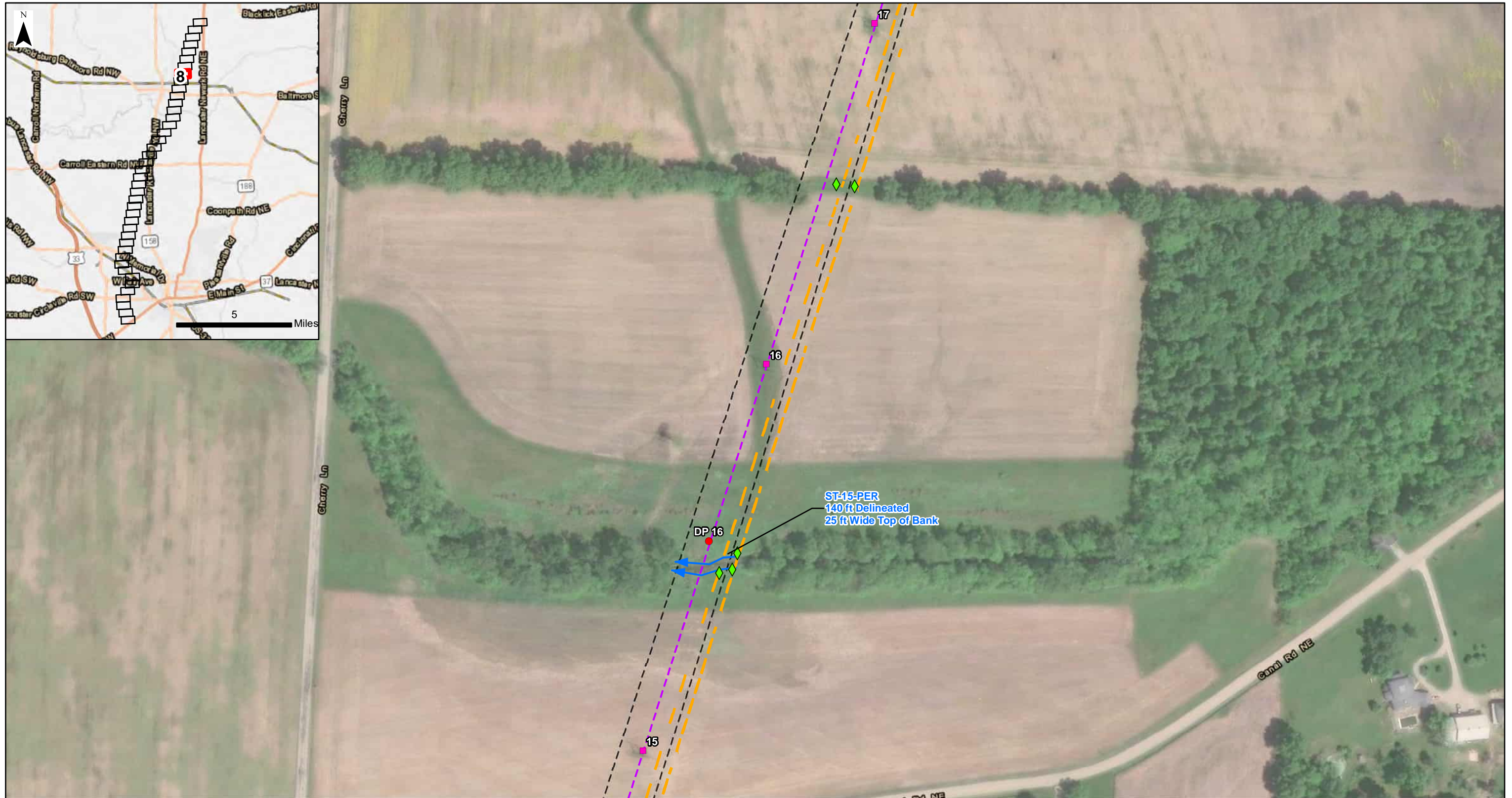
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DELINEATION MAP




SITE:
 West Lancaster – South Baltimore
 – West Millersport 138kV Rebuild
 Fairfield County, Ohio

SCALE:
 1:2,400
 FIGURE:
4
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 8600 Smiths Mill Road
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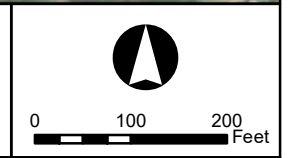
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DATE:
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 BASE LAYER:
 Aerial Imagery (2022)

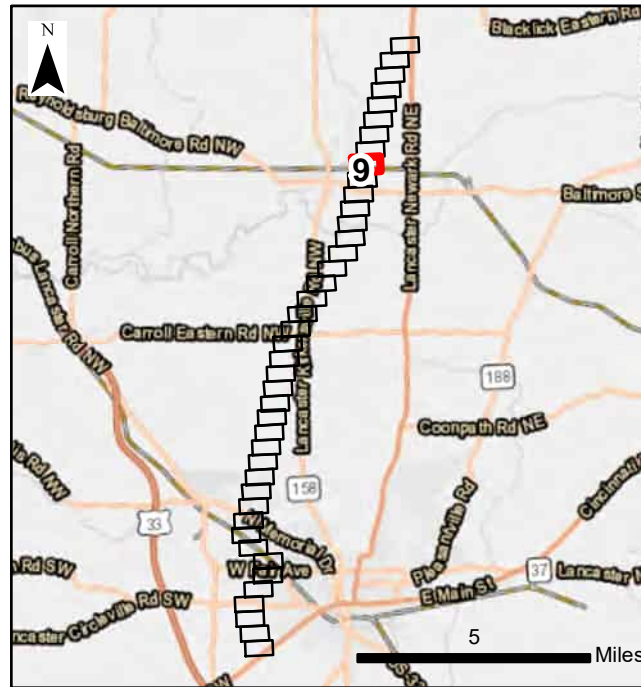
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	Existing Station
	Existing Utility
	Existing Transmission Line
	Potential Obstacle
	Proposed Transmission Line
	Existing Culvert
	Environmental Study Area
	Data Point
	Distribution Pole
	Topography
	Swale
	Roadside Ditch
	Guardrail
	Existing Fence
	Gas Line
	Railroad
	Stream
	Pond
	Wetland PEM

TITLE:
DELINEATION MAP




SITE:
 West Lancaster – South Baltimore
 – West Millersport 138kV Rebuild
 Fairfield County, Ohio

SCALE:
 1:2,400
 FIGURE:
4
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 8600 Smiths Mill Road
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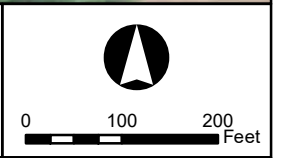
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DATE:
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 BASE LAYER:
 Aerial Imagery (2022)

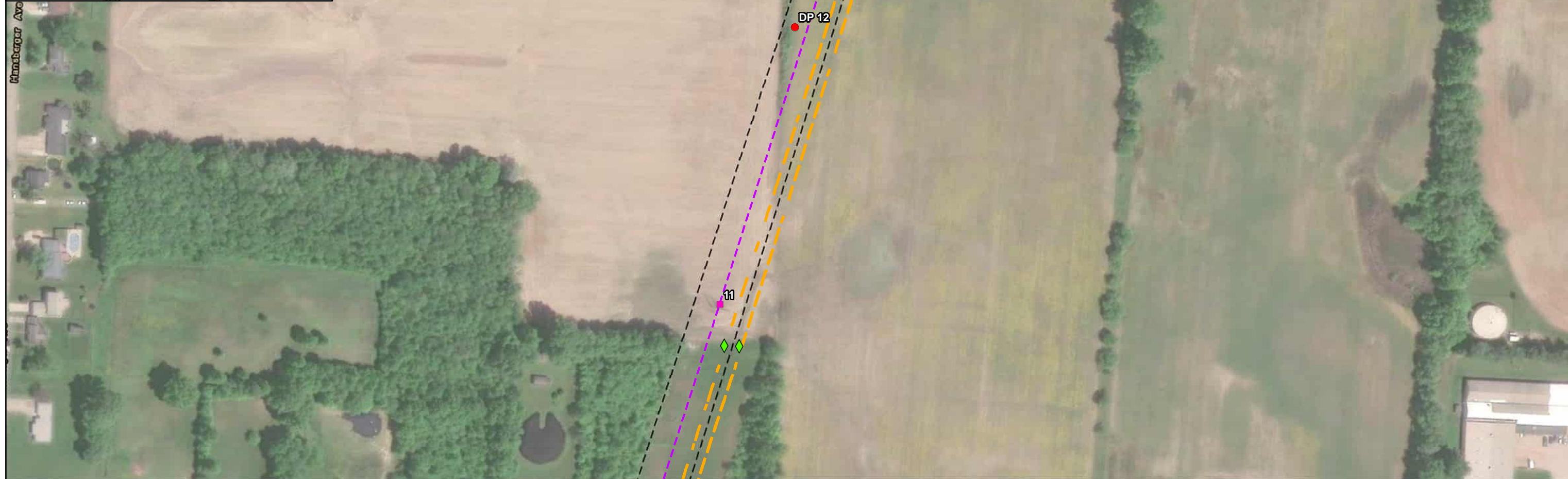
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Existing Station	Existing Utility
Existing Transmission Line	Potential Obstacle
Proposed Transmission Line	Existing Culvert
Environmental Study Area	Data Point
Distribution Pole	Topography
Swale	Roadside Ditch
Guardrail	Existing Fence
Stream	Gas Line
Pond	Railroad
Wetland PEM	

TITLE:
DELINEATION MAP



SITE:
 West Lancaster – South Baltimore
 – West Millersport 138kV Rebuild
 Fairfield County, Ohio

SCALE:
 1:2,400
 FIGURE:
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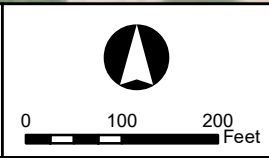
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DATE:
04/28/2024
BASE LAYER:
Aerial Imagery (2022)

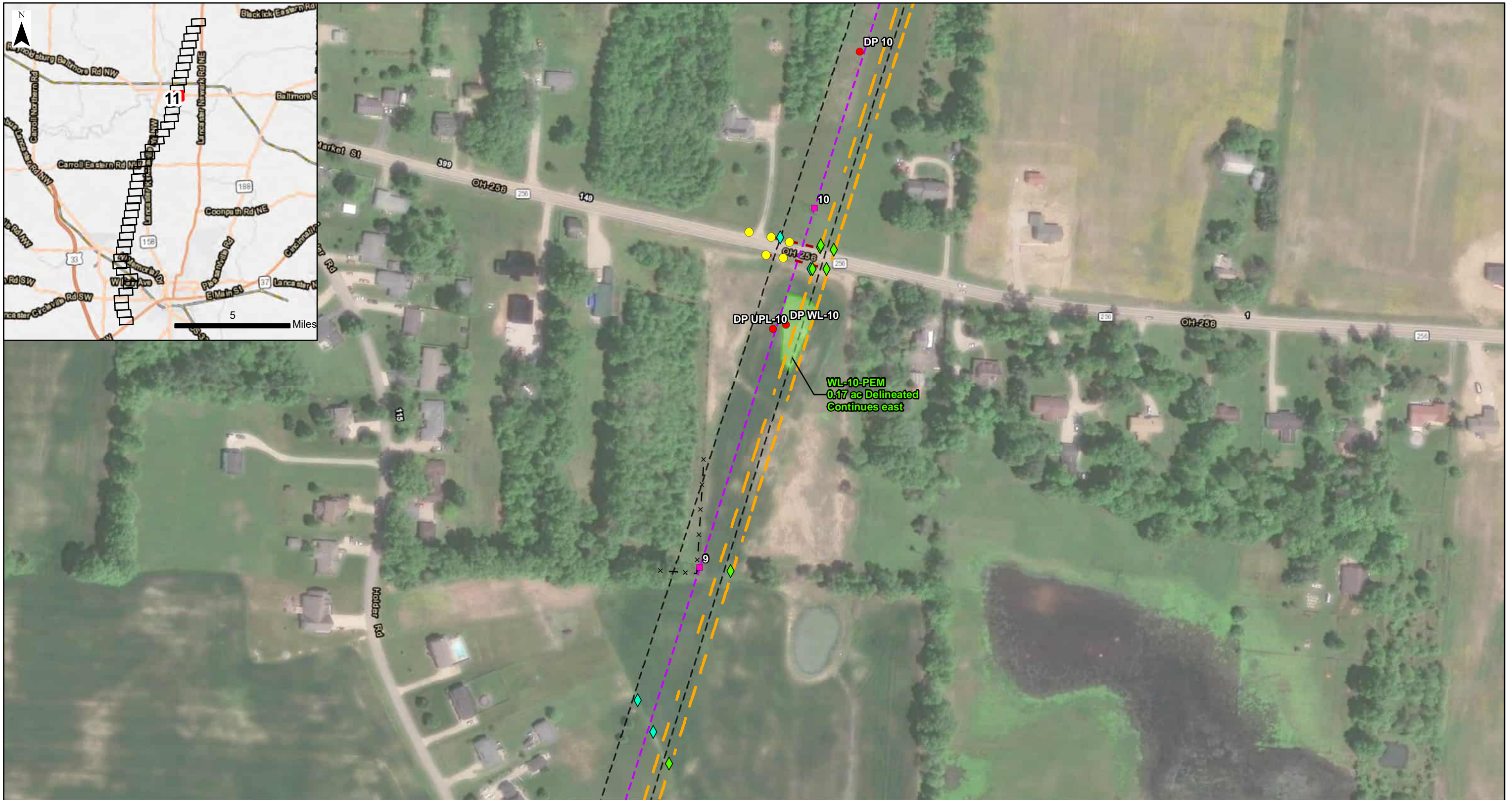
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■ Existing Station	◆ Existing Utility
--- Existing Transmission Line	◆ Potential Obstacle
--- Proposed Transmission Line	● Existing Culvert
--- Environmental Study Area	● Data Point
● Distribution Pole	- - Topography
--- Swale	--- Roadside Ditch
--- Guardrail	× - × Existing Fence
--- Gas Line	+++ Railroad
→ Stream	→ Pond
■ Wetland PEM	


TITLE:
DELINEATION MAP




SITE:
West Lancaster – South Baltimore
– West Millersport 138kV Rebuild
Fairfield County, Ohio

SCALE:
1:2,400
FIGURE:
4
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 8600 Smiths Mill Road
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PROJECT NO.:
 210180.182
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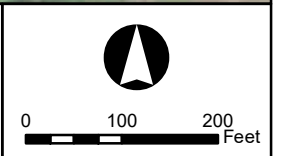

 619 N. Pennsylvania Street
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DATE:
 04/28/2024
 BASE LAYER:
 Aerial Imagery (2022)

LEGEND:	
Existing Structure	Stormwater Inlet
Existing Station	Existing Utility
Existing Transmission Line	Potential Obstacle
Proposed Transmission Line	Existing Culvert
Environmental Study Area	Data Point
Distribution Pole	Topography
Swale	Roadside Ditch
Stream	Guardrail
Pond	Existing Fence
Wetland PEM	Gas Line
	Railroad

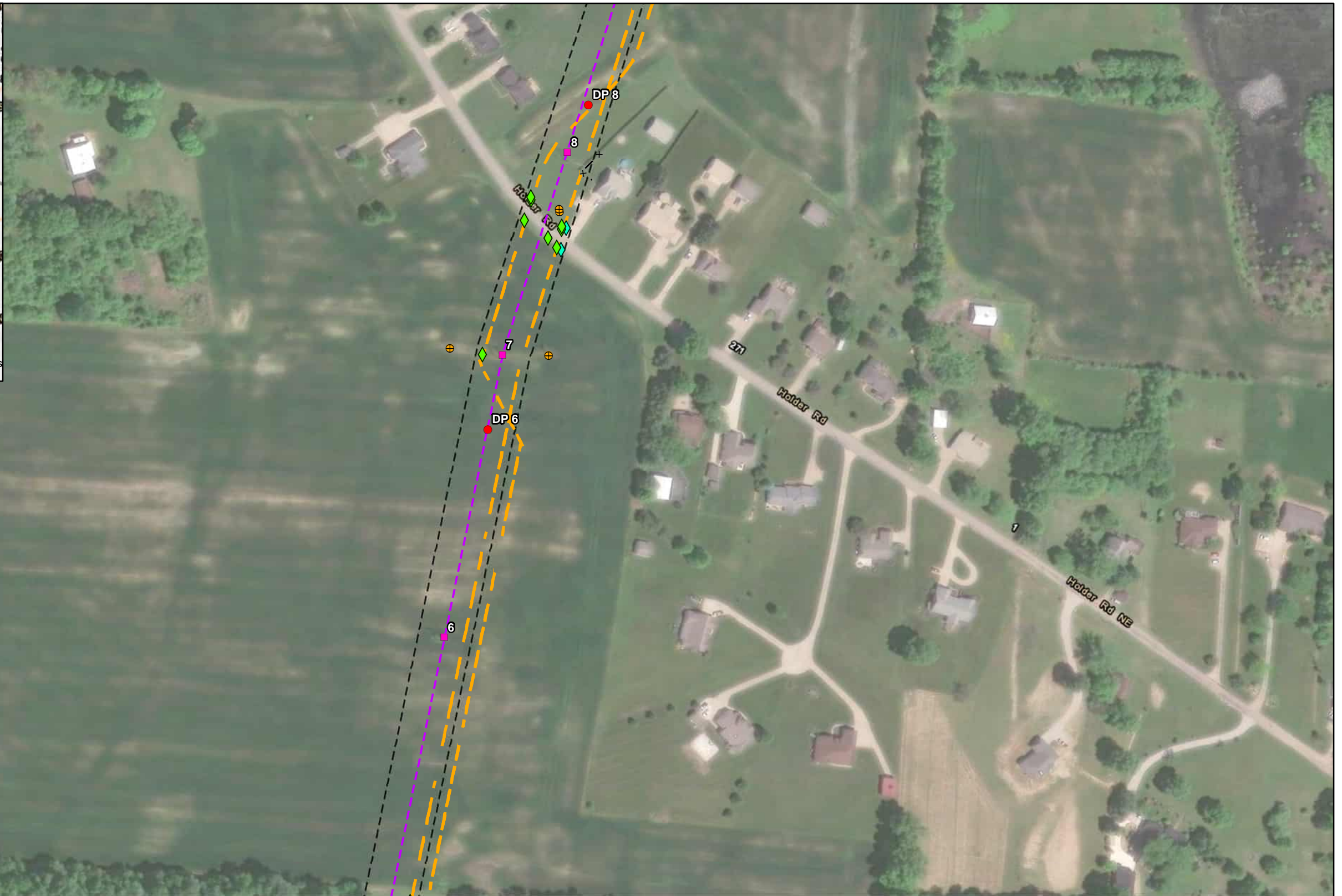
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DELINEATION MAP




SITE:
 West Lancaster – South Baltimore
 – West Millersport 138kV Rebuild
 Fairfield County, Ohio

SCALE:
 1:2,400
 FIGURE:
4
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 8600 Smiths Mill Road
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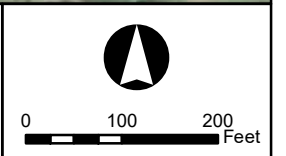
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DATE:
 04/28/2024
 BASE LAYER:
 Aerial Imagery (2022)

LEGEND:	
Existing Structure	Stormwater Inlet
Existing Station	Existing Utility
Existing Transmission Line	Potential Obstacle
Proposed Transmission Line	Existing Culvert
Environmental Study Area	Data Point
Distribution Pole	Topography
Swale	Roadside Ditch
Guardrail	Existing Fence
Gas Line	Railroad
Stream	Pond
Wetland PEM	

TITLE:
DELINEATION MAP




SITE:
 West Lancaster – South Baltimore
 – West Millersport 138kV Rebuild
 Fairfield County, Ohio

SCALE:
 1:2,400
 FIGURE:
4
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 8600 Smiths Mill Road
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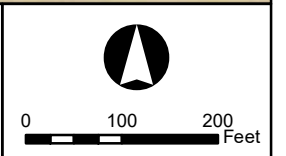
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DATE:
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 BASE LAYER:
 Aerial Imagery (2022)

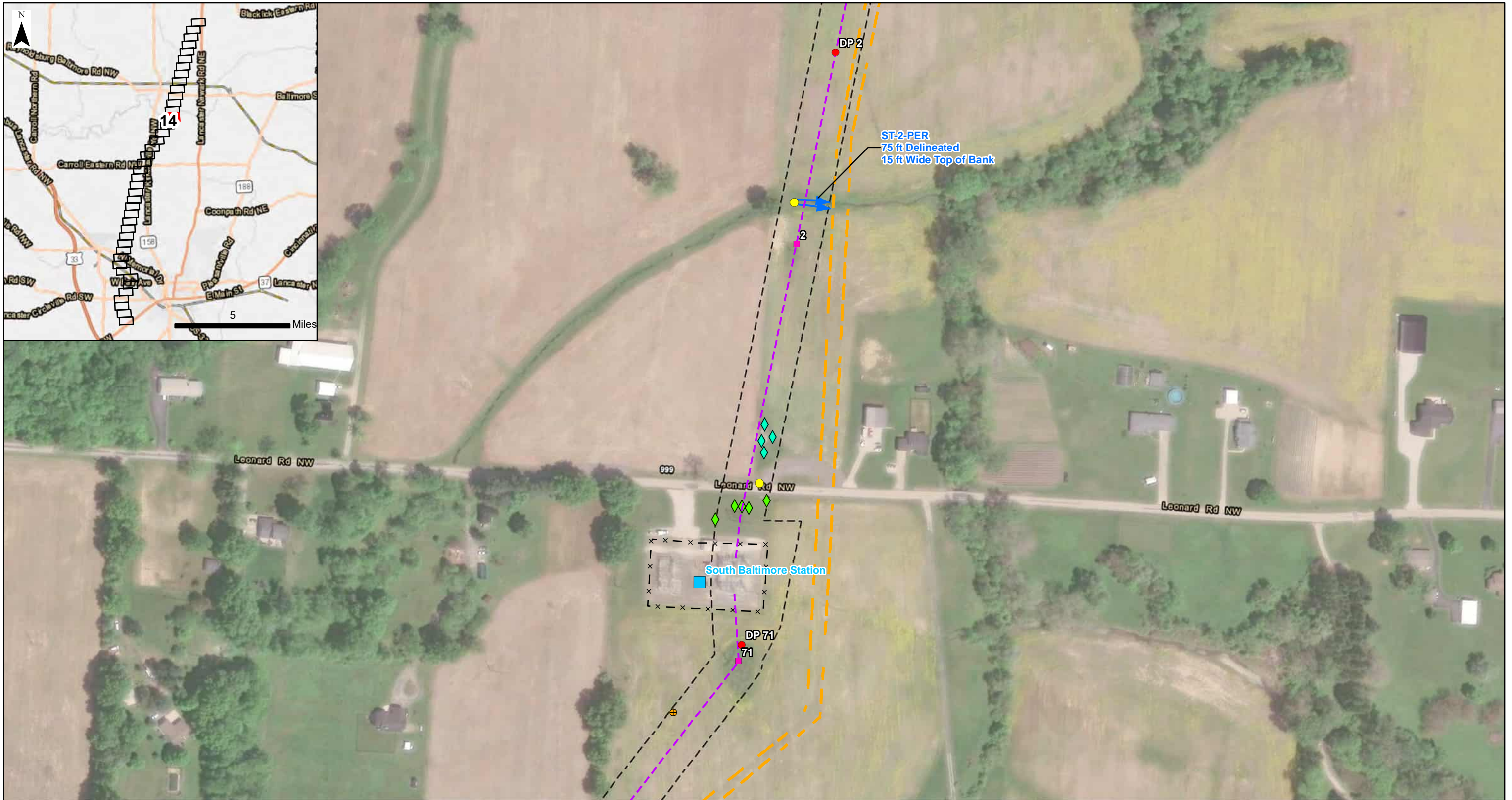
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Existing Station	Existing Utility
Existing Transmission Line	Potential Obstacle
Proposed Transmission Line	Existing Culvert
Environmental Study Area	Data Point
Distribution Pole	Topography
Swale	Roadside Ditch
Stream	Guardrail
Pond	Existing Fence
Wetland PEM	Gas Line
	Railroad

TITLE:
DELINEATION MAP



SITE:
 West Lancaster – South Baltimore
 – West Millersport 138kV Rebuild
 Fairfield County, Ohio

SCALE:
 1:2,400
 FIGURE:
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AMERICAN ELECTRIC POWER
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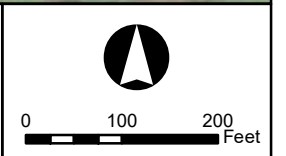
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210180.182
CREATED BY:
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619 N. Pennsylvania Street
Indianapolis, IN 46204
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DATE:
04/28/2024
BASE LAYER:
Aerial Imagery (2022)

LEGEND:	
■ Existing Structure	■ Stormwater Inlet
■ Existing Station	◆ Existing Utility
--- Existing Transmission Line	◆ Potential Obstacle
--- Proposed Transmission Line	● Existing Culvert
- - - Environmental Study Area	● Data Point
⊕ Distribution Pole	- - Topography
--- Swale	--- Roadside Ditch
--- Guardrail	× - × Existing Fence
--- Gas Line	+++ Railroad
→ Stream	■ Pond
■ Wetland PEM	

TITLE:
DELINEATION MAP




SITE:
West Lancaster – South Baltimore
– West Millersport 138kV Rebuild
Fairfield County, Ohio

SCALE:
1:2,400
FIGURE:
4
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 8600 Smiths Mill Road
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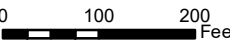

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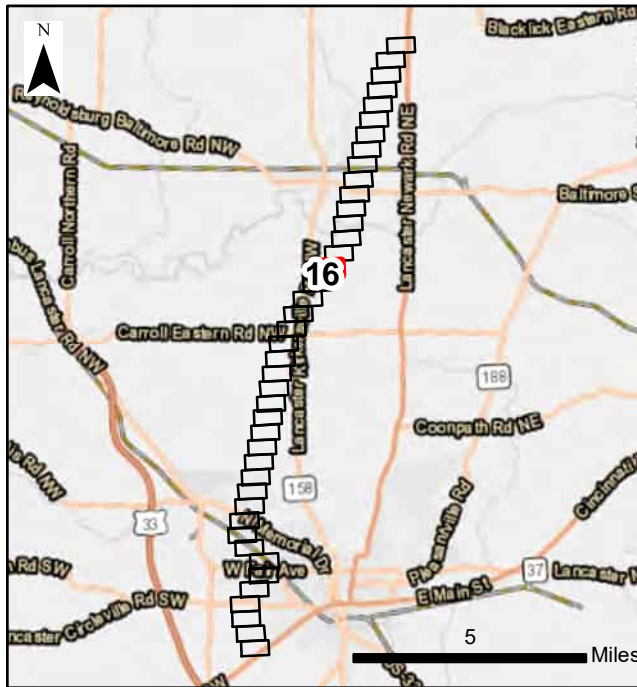
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 Aerial Imagery (2022)

LEGEND:	
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■ Existing Station	◆ Existing Utility
--- Existing Transmission Line	◆ Potential Obstacle
--- Proposed Transmission Line	● Existing Culvert
- - - Environmental Study Area	● Data Point
⊕ Distribution Pole	- - Topography
■ Swale	- - Roadside Ditch
--- Guardrail	× - × Existing Fence
--- Gas Line	+++ Railroad
→ Stream	■ Pond
■ Wetland PEM	

TITLE:
DELINEATION MAP


SITE:
 West Lancaster – South Baltimore
 – West Millersport 138kV Rebuild
 Fairfield County, Ohio



 SCALE:
 1:2,400
 FIGURE:
4
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 8600 Smiths Mill Road
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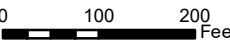

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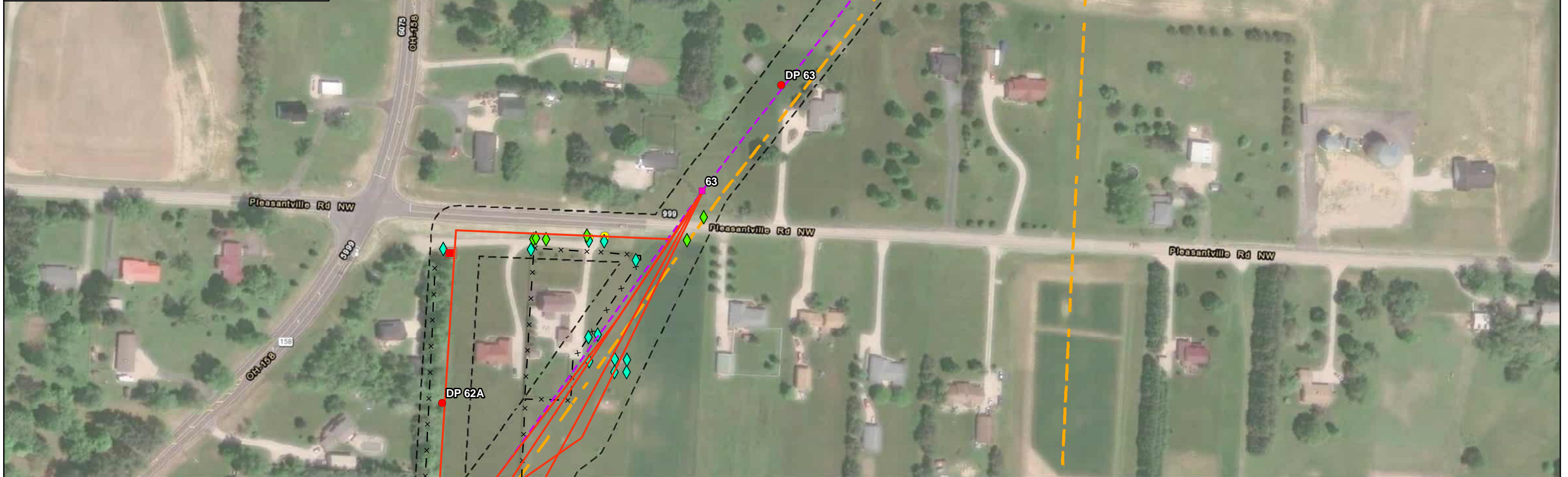
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 Aerial Imagery (2022)

LEGEND:	
Existing Structure	Stormwater Inlet
Existing Station	Existing Utility
Existing Transmission Line	Potential Obstacle
Proposed Transmission Line	Existing Culvert
Environmental Study Area	Data Point
Distribution Pole	Topography
Swale	Roadside Ditch
Guardrail	Existing Fence
Stream	Gas Line
Pond	Railroad
Wetland PEM	

TITLE:
DELINEATION MAP

SITE:
 West Lancaster – South Baltimore
 – West Millersport 138kV Rebuild
 Fairfield County, Ohio



 SCALE:
 1:2,400
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AMERICAN ELECTRIC POWER
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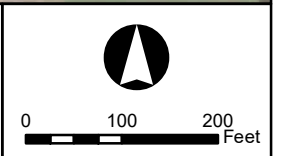
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CREATED BY:
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DATE:
04/28/2024
BASE LAYER:
Aerial Imagery (2022)

LEGEND:			
■ Existing Structure	■ Stormwater Inlet	— Swale	→ Stream
■ Existing Station	◆ Existing Utility	- - Roadside Ditch	■ Pond
- - Existing Transmission Line	◆ Potential Obstacle	— Guardrail	■ Wetland PEM
— Proposed Transmission Line	● Existing Culvert	x - x Existing Fence	
- - - Environmental Study Area	● Data Point	— Gas Line	
● Distribution Pole	- - Topography	+++ Railroad	

TITLE:
DELINEATION MAP



SITE:
West Lancaster – South Baltimore
– West Millersport 138kV Rebuild
Fairfield County, Ohio

SCALE:
1:2,400
FIGURE:
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AMERICAN ELECTRIC POWER
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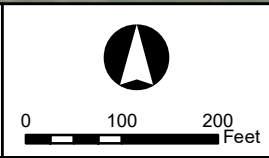
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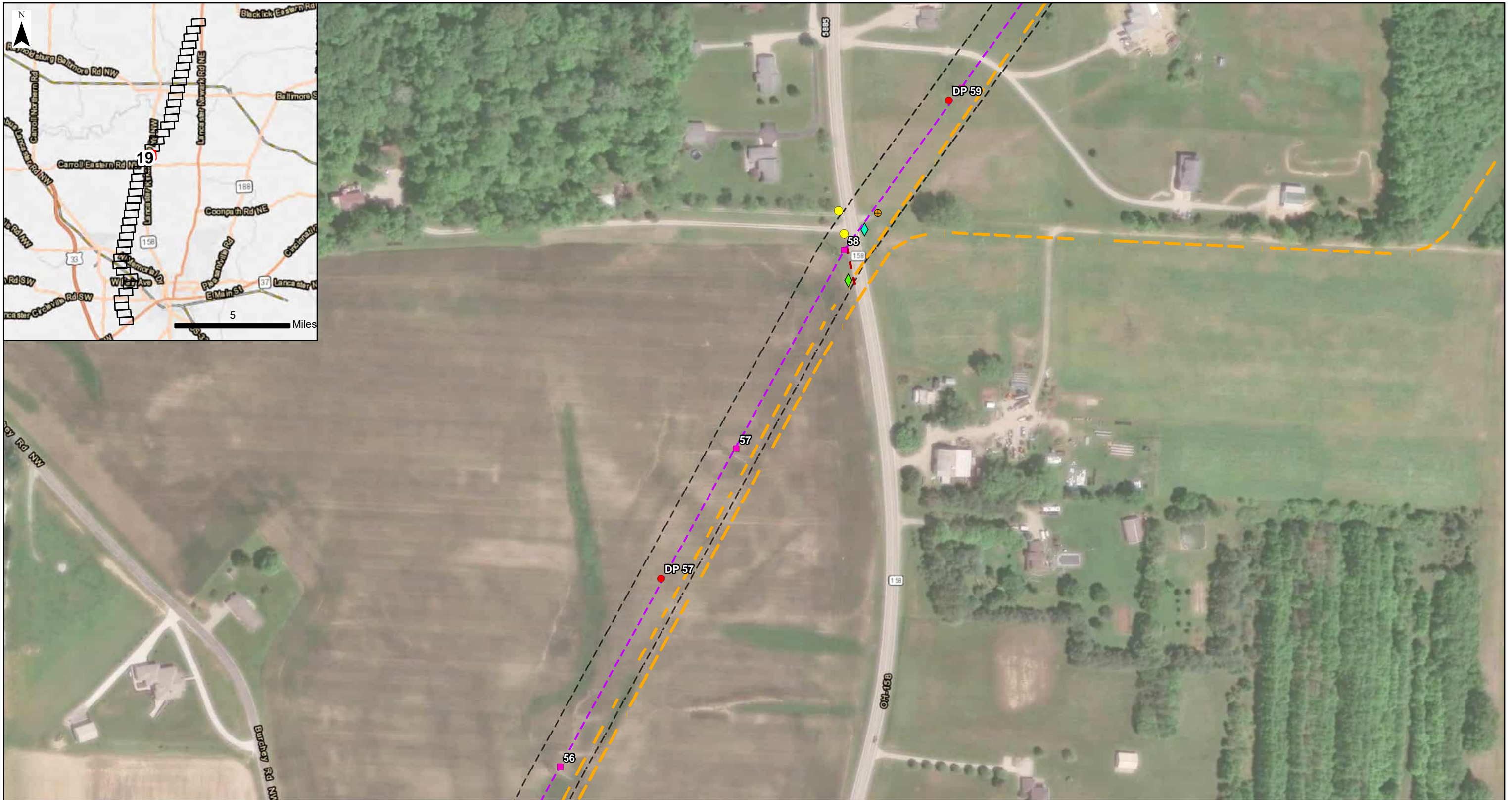
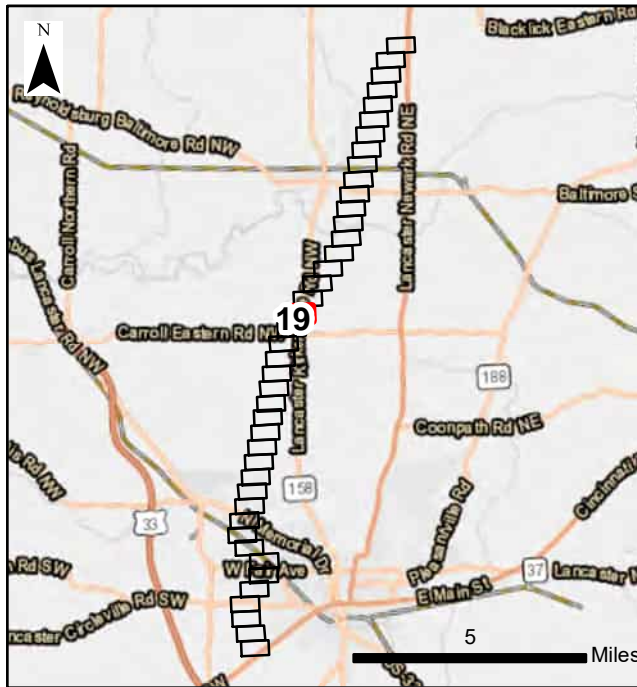
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■ Existing Station	◆ Existing Utility
--- Existing Transmission Line	◆ Potential Obstacle
— Proposed Transmission Line	● Existing Culvert
- - - Environmental Study Area	● Data Point
⊕ Distribution Pole	- - Topography
■ Swale	--- Roadside Ditch
■ Guardrail	× - × Existing Fence
■ Gas Line	+++ Railroad
■ Stream	■ Pond
■ Wetland PEM	

TITLE:
DELINEATION MAP



SITE:
West Lancaster – South Baltimore
– West Millersport 138kV Rebuild
Fairfield County, Ohio

SCALE:
1:2,400
FIGURE:
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AMERICAN ELECTRIC POWER
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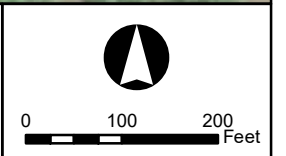
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www.v3co.com

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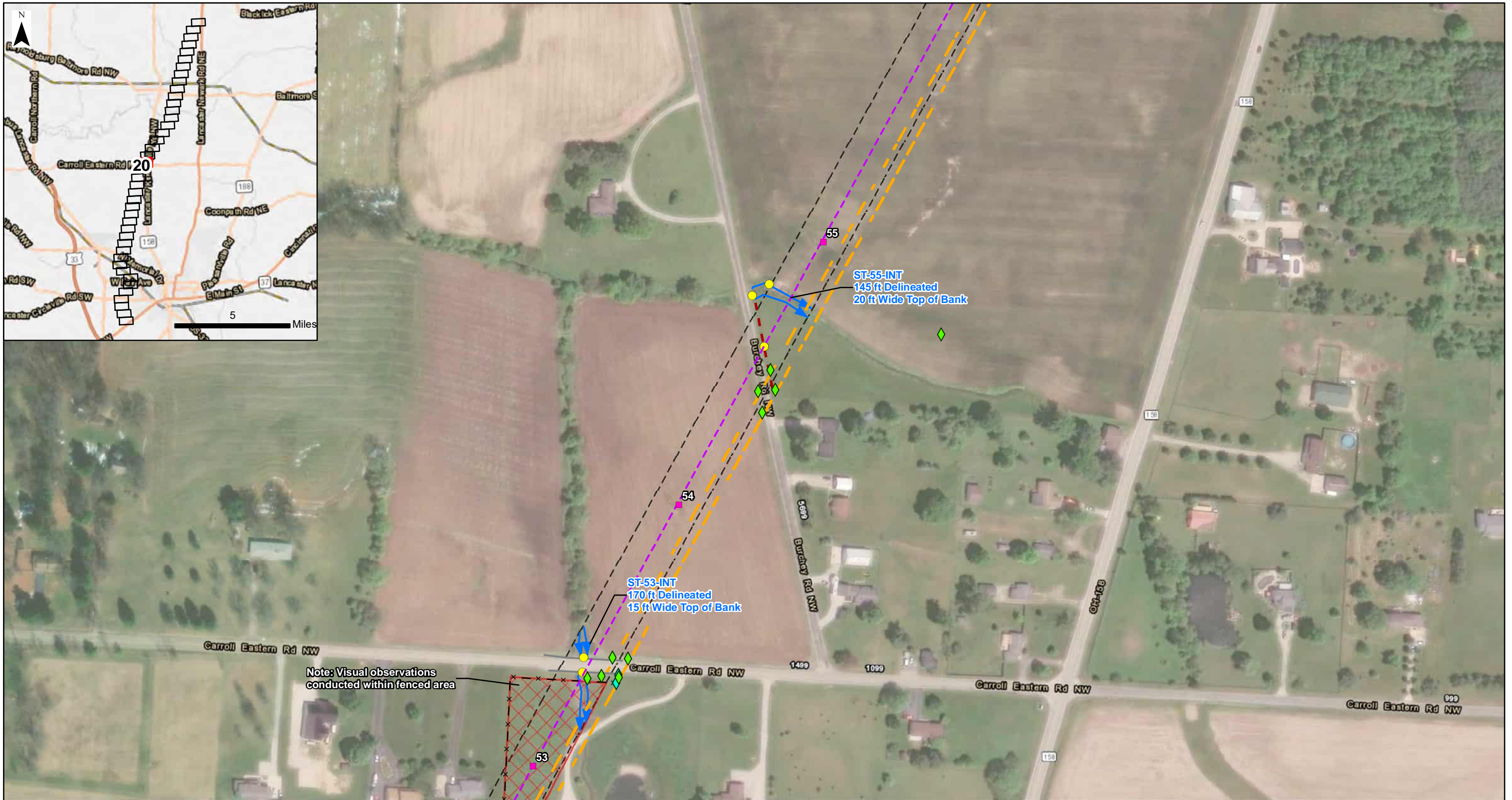
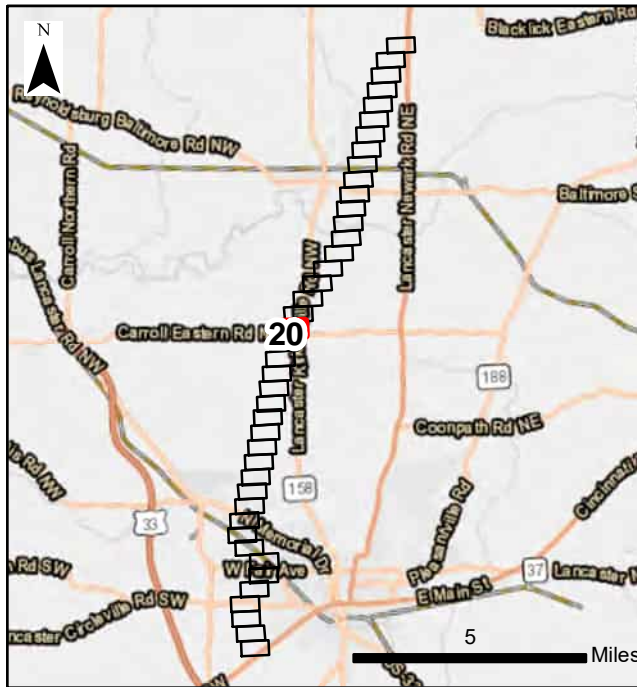
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■ Existing Station	◆ Existing Utility
--- Existing Transmission Line	◆ Potential Obstacle
--- Proposed Transmission Line	● Existing Culvert
--- Environmental Study Area	● Data Point
⊕ Distribution Pole	- - Topography
--- Swale	--- Roadside Ditch
--- Guardrail	× - × Existing Fence
--- Gas Line	+++ Railroad
→ Stream	→ Pond
→ Wetland PEM	

TITLE:
DELINEATION MAP



SITE:
West Lancaster – South Baltimore
– West Millersport 138kV Rebuild
Fairfield County, Ohio

SCALE:
1:2,400
FIGURE:
4
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AMERICAN ELECTRIC POWER
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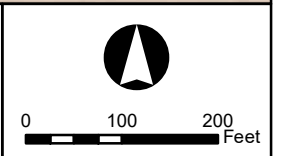
PROJECT NO.:
210180.182
CREATED BY:
ODS

V3
619 N. Pennsylvania Street
Indianapolis, IN 46204
www.v3co.com

DATE:
04/28/2024
BASE LAYER:
Aerial Imagery (2022)

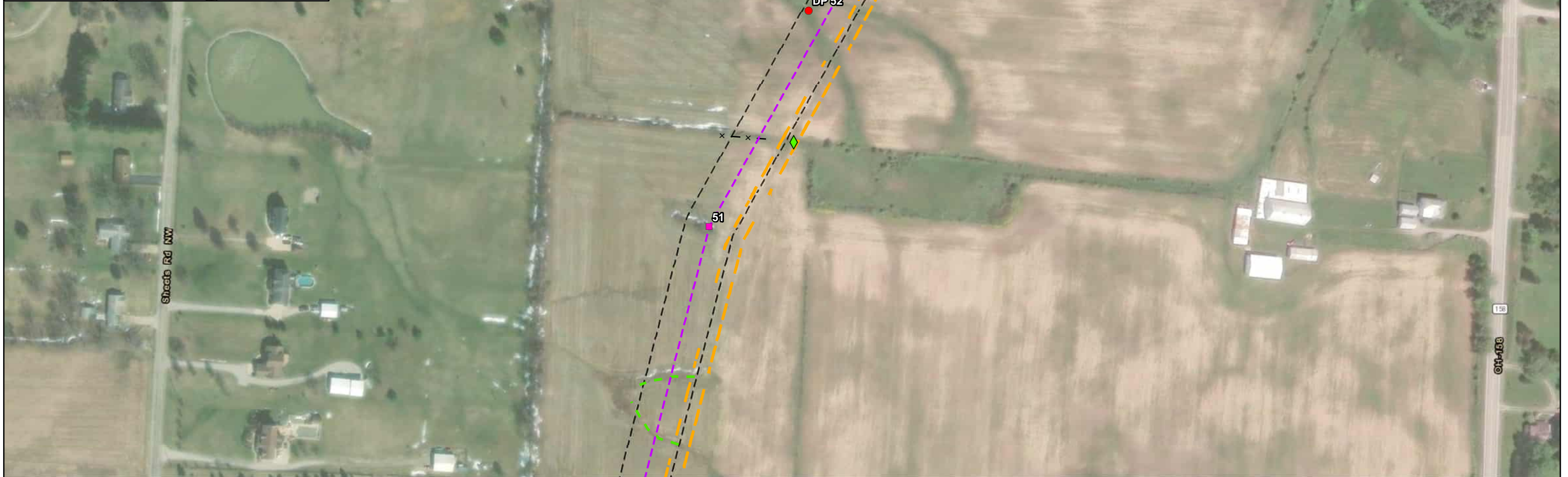
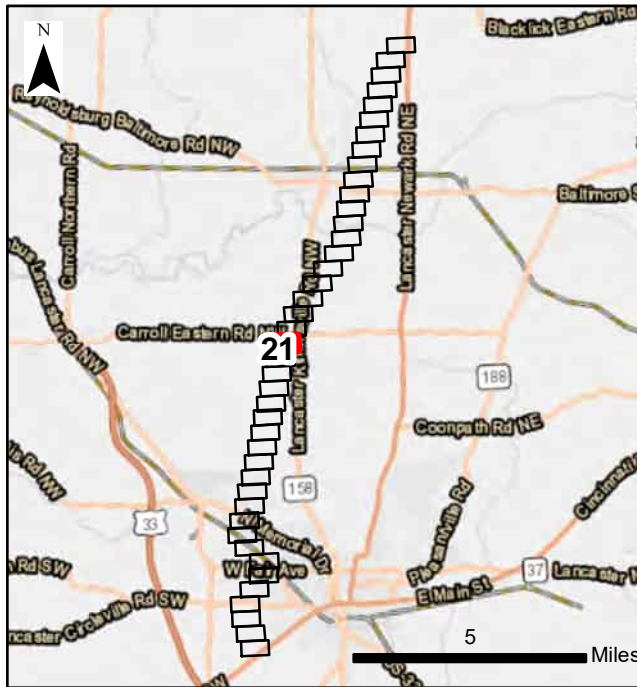
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■ Existing Structure	■ Stormwater Inlet
■ Existing Station	◆ Existing Utility
--- Existing Transmission Line	◆ Potential Obstacle
--- Proposed Transmission Line	● Existing Culvert
--- Environmental Study Area	● Data Point
● Distribution Pole	--- Topography
■ Swale	--- Roadside Ditch
--- Guardrail	--- Existing Fence
--- Gas Line	+++ Railroad
→ Stream	■ Pond
■ Wetland PEM	

TITLE:
DELINEATION MAP




SITE:
West Lancaster – South Baltimore
– West Millersport 138kV Rebuild
Fairfield County, Ohio

SCALE:
1:2,400
FIGURE:
4
Page 20 of 42




 8600 Smiths Mill Road
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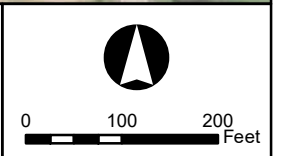
PROJECT NO.:
 210180.182
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 ODS


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 Indianapolis, IN 46204
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DATE:
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 BASE LAYER:
 Aerial Imagery (2022)

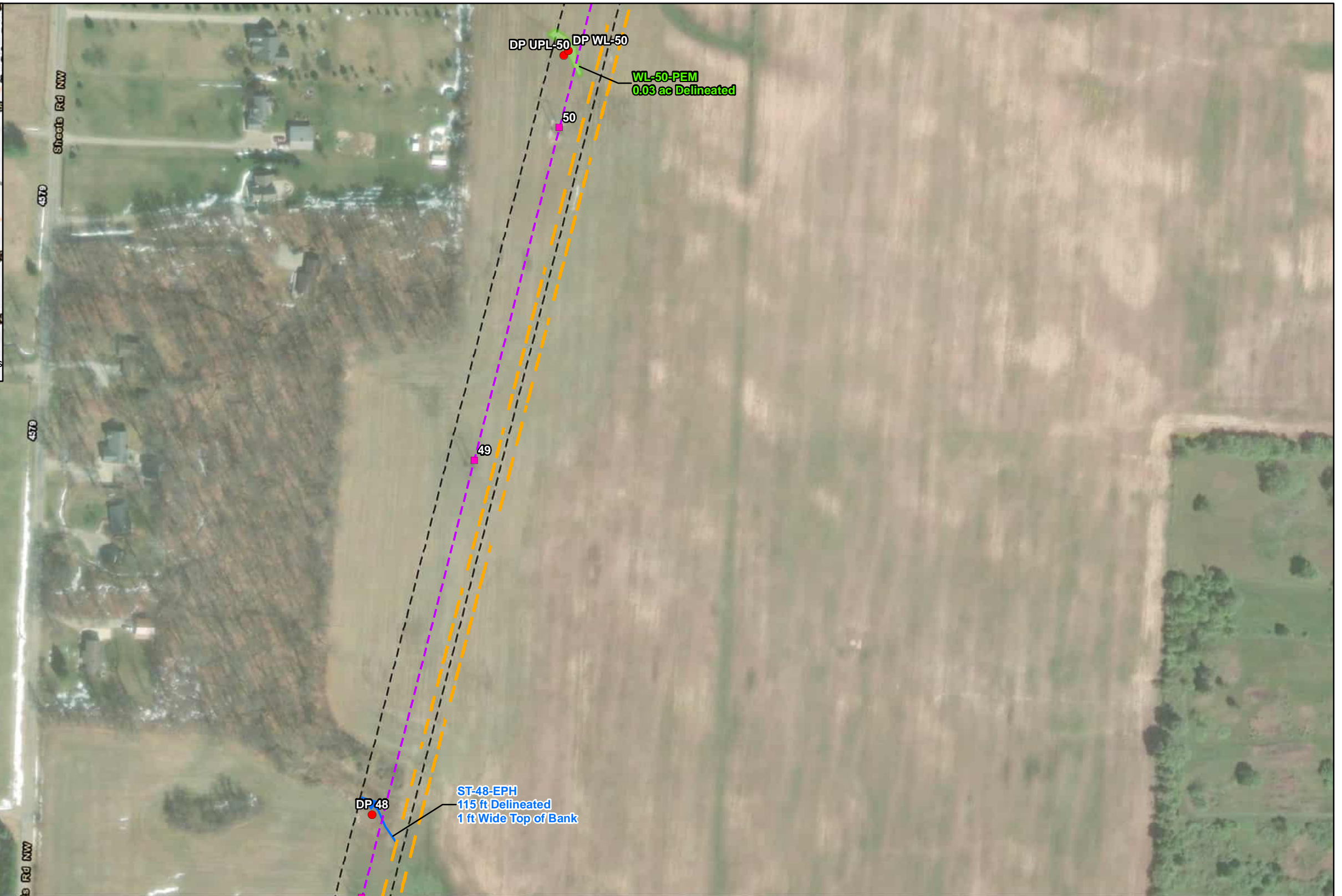
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Existing Station	Existing Utility
Existing Transmission Line	Potential Obstacle
Proposed Transmission Line	Existing Culvert
Environmental Study Area	Data Point
Distribution Pole	Topography
Swale	Roadside Ditch
Stream	Guardrail
Pond	Existing Fence
Wetland PEM	Gas Line
	Railroad

TITLE:
DELINEATION MAP




SITE:
 West Lancaster – South Baltimore
 – West Millersport 138kV Rebuild
 Fairfield County, Ohio

SCALE:
 1:2,400
 FIGURE:
4
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 8600 Smiths Mill Road
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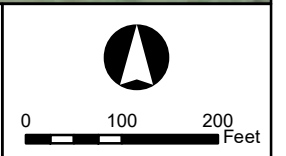
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 BASE LAYER:
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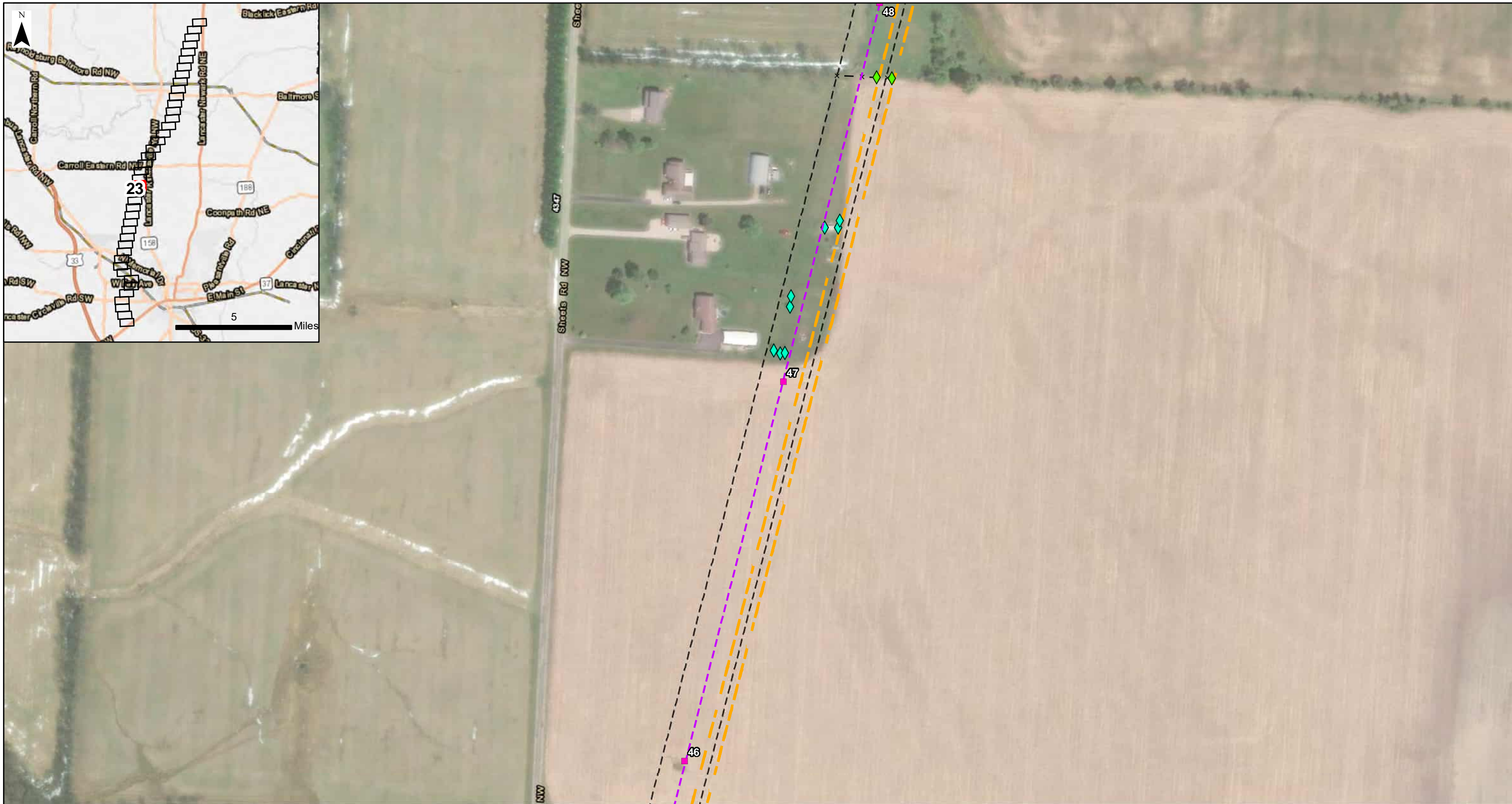
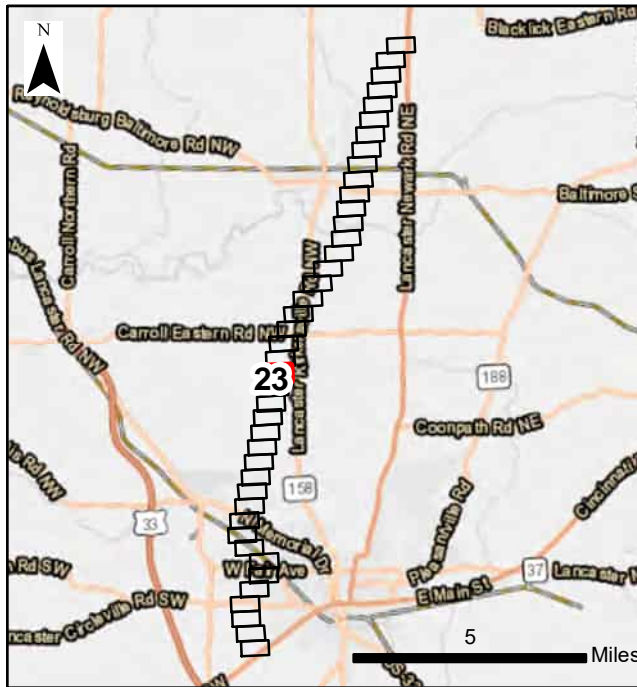
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	Existing Station
	Existing Transmission Line
	Proposed Transmission Line
	Environmental Study Area
	Existing Culvert
	Data Point
	Distribution Pole
	Stormwater Inlet
	Existing Utility
	Potential Obstacle
	Existing Culvert
	Data Point
	Topography
	Swale
	Roadside Ditch
	Guardrail
	Existing Fence
	Gas Line
	Railroad
	Stream
	Pond
	Wetland PEM

TITLE:
DELINEATION MAP



SITE:
 West Lancaster – South Baltimore
 – West Millersport 138kV Rebuild
 Fairfield County, Ohio

SCALE:
 1:2,400
 FIGURE:
4
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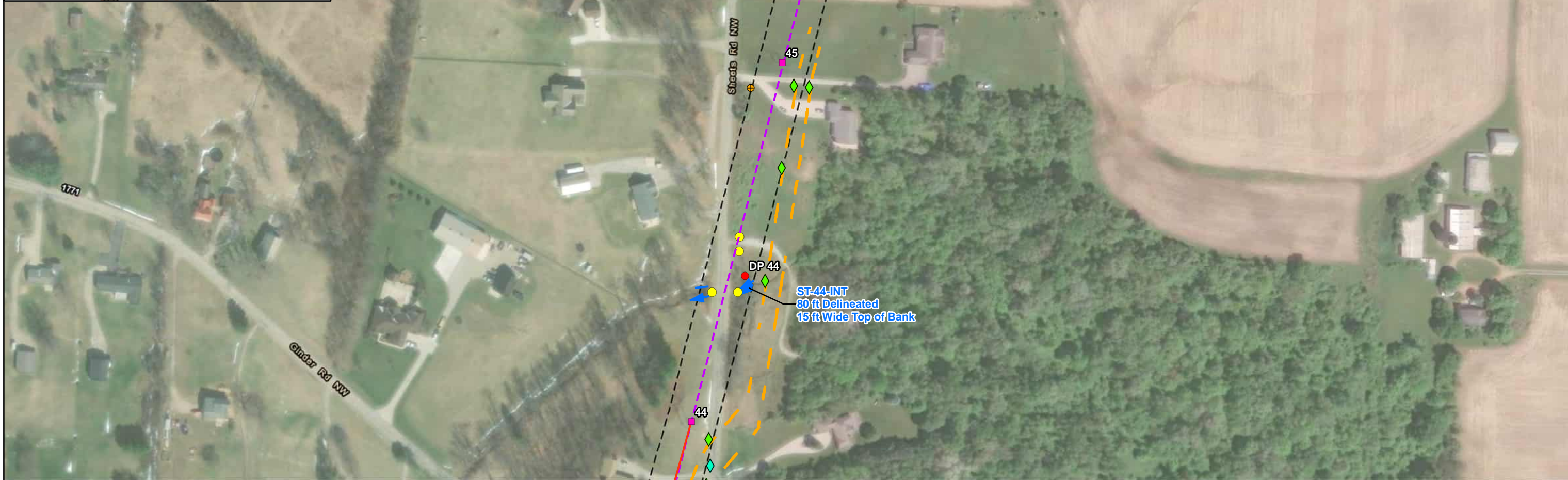


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	CREATED BY:	ODS
619 N. Pennsylvania Street Indianapolis, IN 46204 www.v3co.com	DATE:	04/28/2024
	BASE LAYER:	Aerial Imagery (2022)

LEGEND:		
Existing Structure	Stormwater Inlet	Swale
Existing Station	Existing Utility	Roadside Ditch
Existing Transmission Line	Potential Obstacle	Guardrail
Proposed Transmission Line	Existing Culvert	Existing Fence
Environmental Study Area	Data Point	Gas Line
Distribution Pole	Topography	Railroad
	Stream	Pond
		Wetland PEM


TITLE:	DELINEATION MAP
SITE:	West Lancaster – South Baltimore – West Millersport 138kV Rebuild Fairfield County, Ohio

0 100 200 Feet
 SCALE: 1:2,400
 FIGURE: **4**
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 8600 Smiths Mill Road
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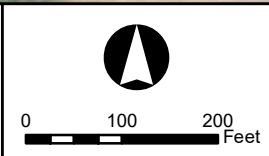

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DATE:
 04/28/2024
 BASE LAYER:
 Aerial Imagery (2022)

LEGEND:	
Existing Structure	Stormwater Inlet
Existing Station	Existing Utility
Existing Transmission Line	Potential Obstacle
Proposed Transmission Line	Existing Culvert
Environmental Study Area	Data Point
Distribution Pole	Topography
Swale	Roadside Ditch
Guardrail	Existing Fence
Stream	Gas Line
Pond	Railroad
Wetland PEM	

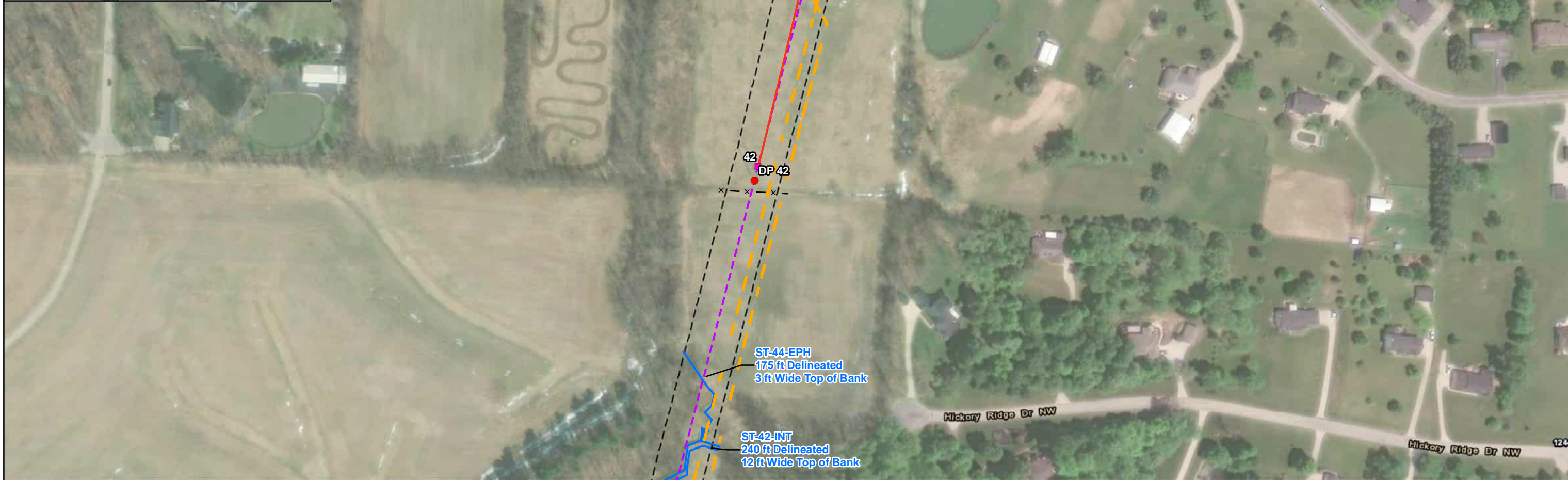
TITLE:

DELINEATION MAP




SITE:
 West Lancaster – South Baltimore
 – West Millersport 138kV Rebuild
 Fairfield County, Ohio

SCALE:
 1:2,400
 FIGURE:
4
Page 24 of 42




 8600 Smiths Mill Road
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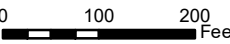

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DATE:
 04/28/2024
 BASE LAYER:
 Aerial Imagery (2022)

LEGEND:	
	Existing Structure
	Existing Station
	Existing Transmission Line
	Proposed Transmission Line
	Environmental Study Area
	Distribution Pole
	Stormwater Inlet
	Existing Utility
	Potential Obstacle
	Existing Culvert
	Data Point
	Topography
	Swale
	Roadside Ditch
	Guardrail
	Existing Fence
	Gas Line
	Railroad
	Stream
	Pond
	Wetland PEM

TITLE:
DELINEATION MAP


SITE:
 West Lancaster – South Baltimore
 – West Millersport 138kV Rebuild
 Fairfield County, Ohio



 SCALE:
 1:2,400
 FIGURE:
4
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












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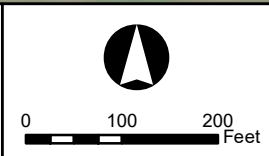

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DATE:
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 BASE LAYER:
 Aerial Imagery (2022)

LEGEND:							
	Existing Structure		Stormwater Inlet		Swale		Stream
	Existing Station		Existing Utility		Roadside Ditch		Pond
	Existing Transmission Line		Potential Obstacle		Guardrail		Wetland PEM
	Proposed Transmission Line		Existing Culvert		Existing Fence		
	Environmental Study Area		Data Point		Gas Line		
	Distribution Pole		Topography		Railroad		

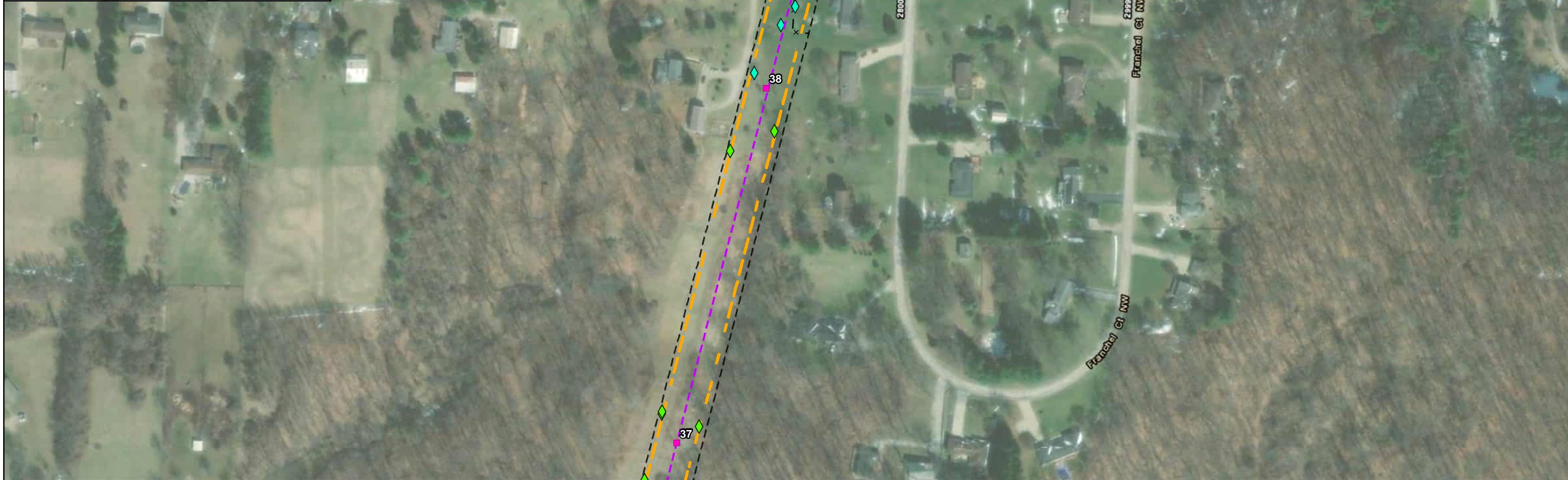
TITLE:

DELINEATION MAP




SITE:
 West Lancaster – South Baltimore
 – West Millersport 138kV Rebuild
 Fairfield County, Ohio

SCALE:
 1:2,400
 FIGURE:
4
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 8600 Smiths Mill Road
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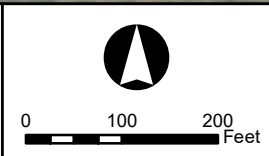

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 BASE LAYER:
 Aerial Imagery (2022)

LEGEND:	
Existing Structure	Stormwater Inlet
Existing Station	Existing Utility
Existing Transmission Line	Potential Obstacle
Proposed Transmission Line	Existing Culvert
Environmental Study Area	Data Point
Distribution Pole	Topography
Swale	Roadside Ditch
Stream	Guardrail
Pond	Existing Fence
Wetland PEM	Gas Line
	Railroad

TITLE:

DELINEATION MAP




SITE:
 West Lancaster – South Baltimore
 – West Millersport 138kV Rebuild
 Fairfield County, Ohio

SCALE:
 1:2,400
 FIGURE:
4
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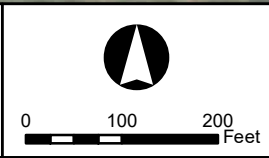
PROJECT NO.:
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 04/28/2024
 BASE LAYER:
 Aerial Imagery (2022)

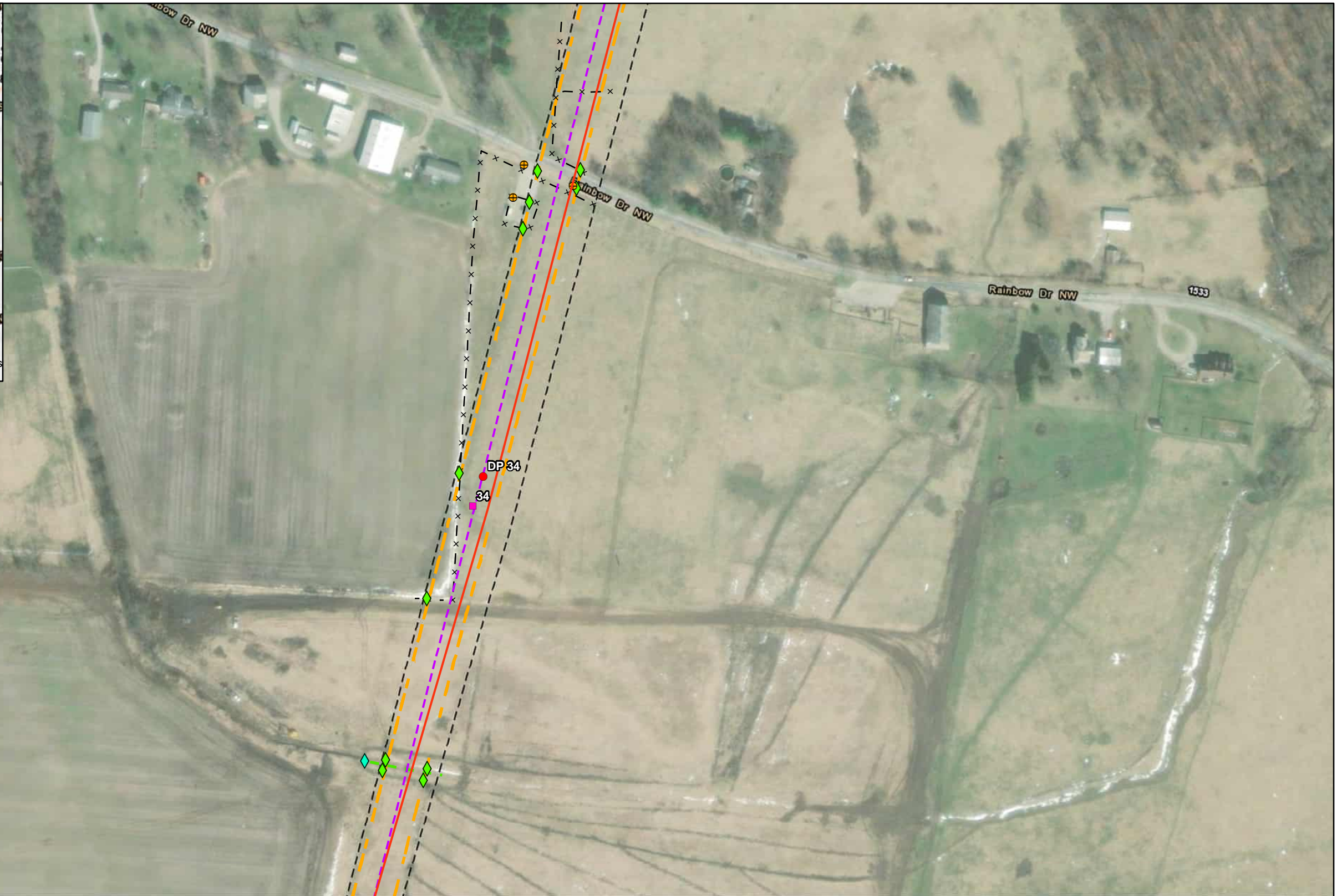
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Existing Station	Existing Utility
Existing Transmission Line	Potential Obstacle
Proposed Transmission Line	Existing Culvert
Environmental Study Area	Data Point
Distribution Pole	Topography
Swale	Roadside Ditch
Guardrail	Existing Fence
Existing Fence	Gas Line
Stream	Railroad
Pond	
Wetland PEM	

TITLE:
DELINEATION MAP




SITE:
 West Lancaster – South Baltimore
 – West Millersport 138kV Rebuild
 Fairfield County, Ohio

SCALE:
 1:2,400
 FIGURE:
4
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 8600 Smiths Mill Road
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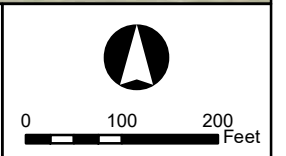
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DATE:
 04/28/2024
 BASE LAYER:
 Aerial Imagery (2022)

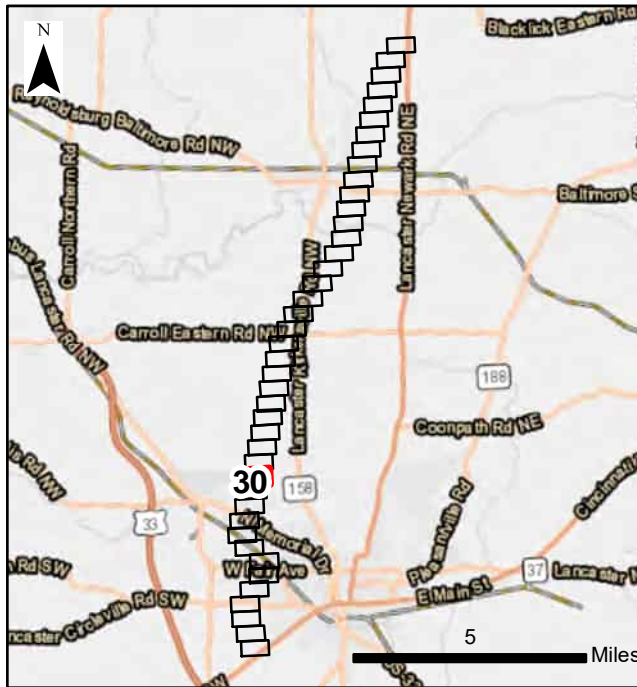
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Existing Station	Existing Utility
Existing Transmission Line	Potential Obstacle
Proposed Transmission Line	Existing Culvert
Environmental Study Area	Data Point
Distribution Pole	Topography
Swale	Roadside Ditch
Stream	Guardrail
Pond	Existing Fence
Wetland PEM	Gas Line
	Existing Fence
	Railroad

TITLE:
DELINEATION MAP




SITE:
 West Lancaster – South Baltimore
 – West Millersport 138kV Rebuild
 Fairfield County, Ohio

SCALE:
 1:2,400
 FIGURE:
4
Page 29 of 42




 8600 Smiths Mill Road
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PROJECT NO.:
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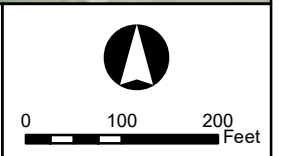

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DATE:
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 BASE LAYER:
 Aerial Imagery (2022)

LEGEND:	
Existing Structure	Stormwater Inlet
Existing Station	Existing Utility
Existing Transmission Line	Potential Obstacle
Proposed Transmission Line	Existing Culvert
Environmental Study Area	Data Point
Distribution Pole	Topography
Swale	Roadside Ditch
Guardrail	Existing Fence
Gas Line	Railroad
Stream	Pond
Wetland PEM	

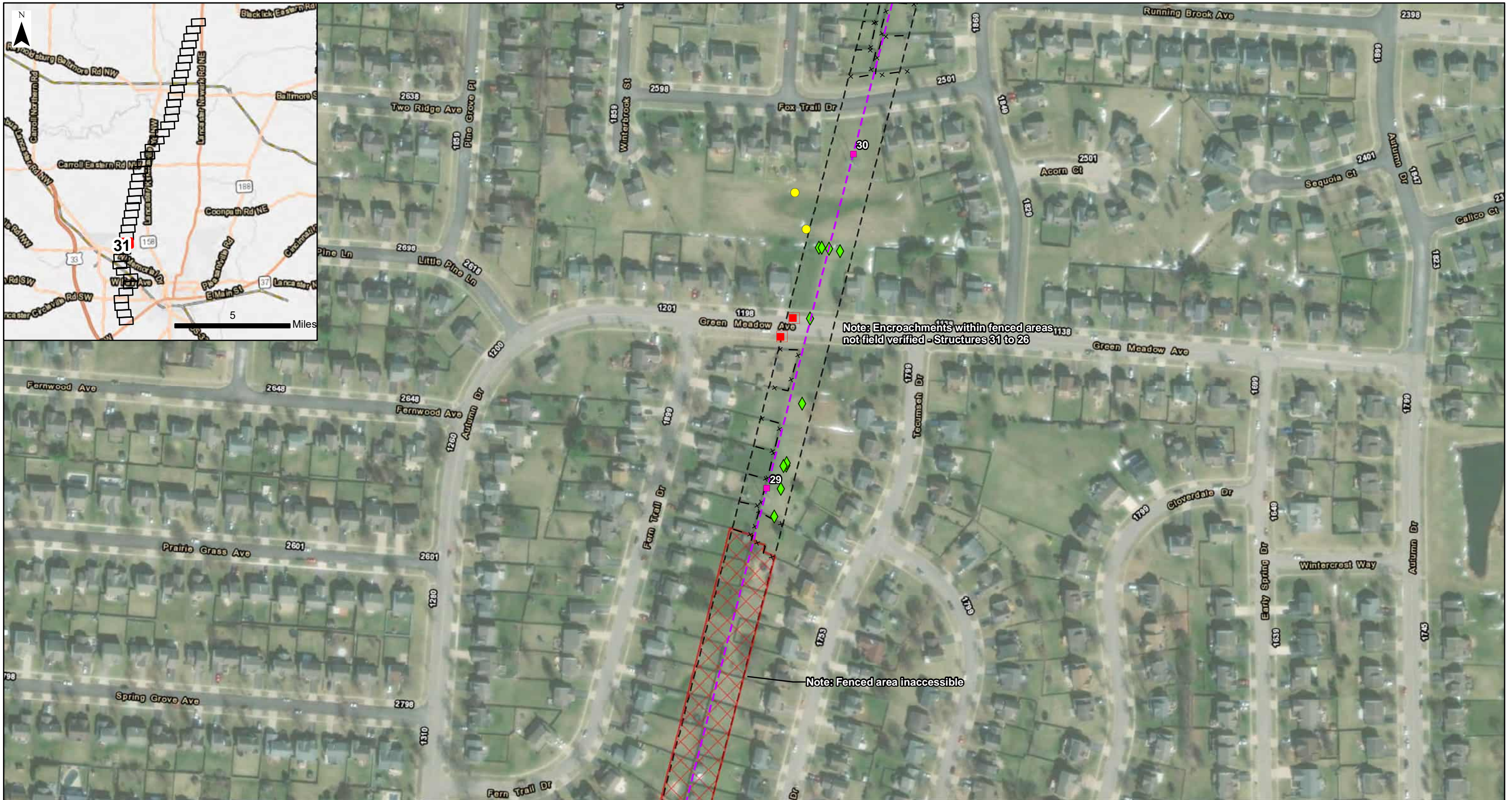
TITLE:

DELINEATION MAP



SITE:
 West Lancaster – South Baltimore
 – West Millersport 138kV Rebuild
 Fairfield County, Ohio

SCALE:
 1:2,400
 FIGURE:
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Note: Encroachments within fenced areas not field verified - Structures 31 to 26

Note: Fenced area inaccessible

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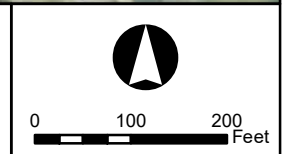
PROJECT NO.:
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DATE:
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BASE LAYER:
Aerial Imagery (2022)

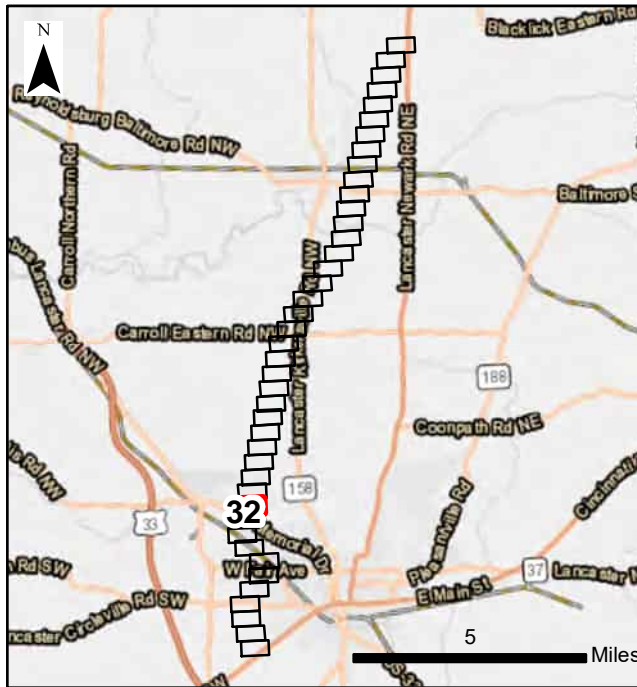
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■ Existing Structure	■ Stormwater Inlet
■ Existing Station	◆ Existing Utility
--- Existing Transmission Line	◆ Potential Obstacle
--- Proposed Transmission Line	● Existing Culvert
--- Environmental Study Area	● Data Point
● Distribution Pole	--- Topography
■ Swale	--- Roadside Ditch
--- Guardrail	--- Existing Fence
--- Gas Line	+++ Railroad
→ Stream	■ Pond
■ Wetland PEM	

TITLE:
DELINEATION MAP




SITE:
West Lancaster – South Baltimore
– West Millersport 138kV Rebuild
Fairfield County, Ohio

SCALE:
1:2,400
FIGURE:
4
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 8600 Smiths Mill Road
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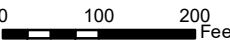
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 04/28/2024
 BASE LAYER:
 Aerial Imagery (2022)

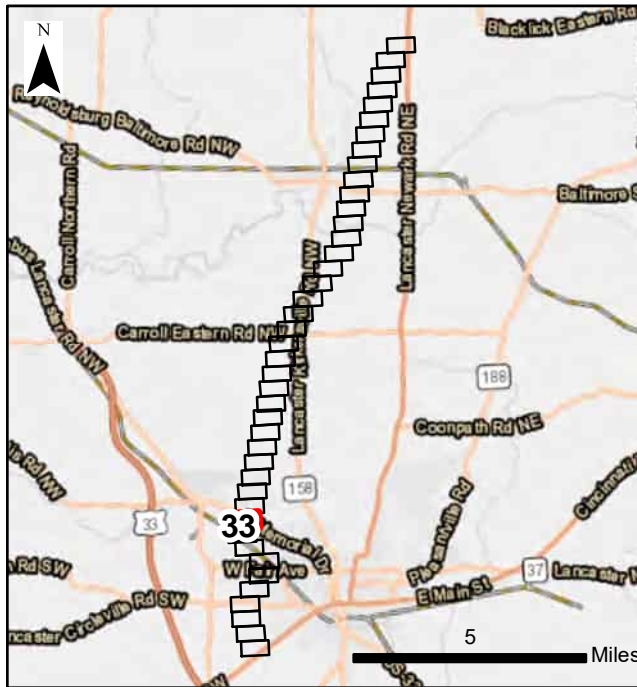
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Existing Structure	Stormwater Inlet
Existing Station	Existing Utility
Existing Transmission Line	Potential Obstacle
Proposed Transmission Line	Existing Culvert
Environmental Study Area	Data Point
Distribution Pole	Topography
Stormwater Inlet	Swale
Existing Utility	Roadside Ditch
Potential Obstacle	Guardrail
Existing Culvert	Existing Fence
Data Point	Gas Line
Topography	Railroad
Stream	Pond
Pond	Wetland PEM

TITLE:

DELINEATION MAP

SITE:
 West Lancaster – South Baltimore
 – West Millersport 138kV Rebuild
 Fairfield County, Ohio



 SCALE:
 1:2,400
 FIGURE:
4
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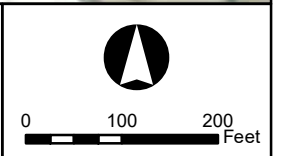
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DATE:
04/28/2024
BASE LAYER:
Aerial Imagery (2022)

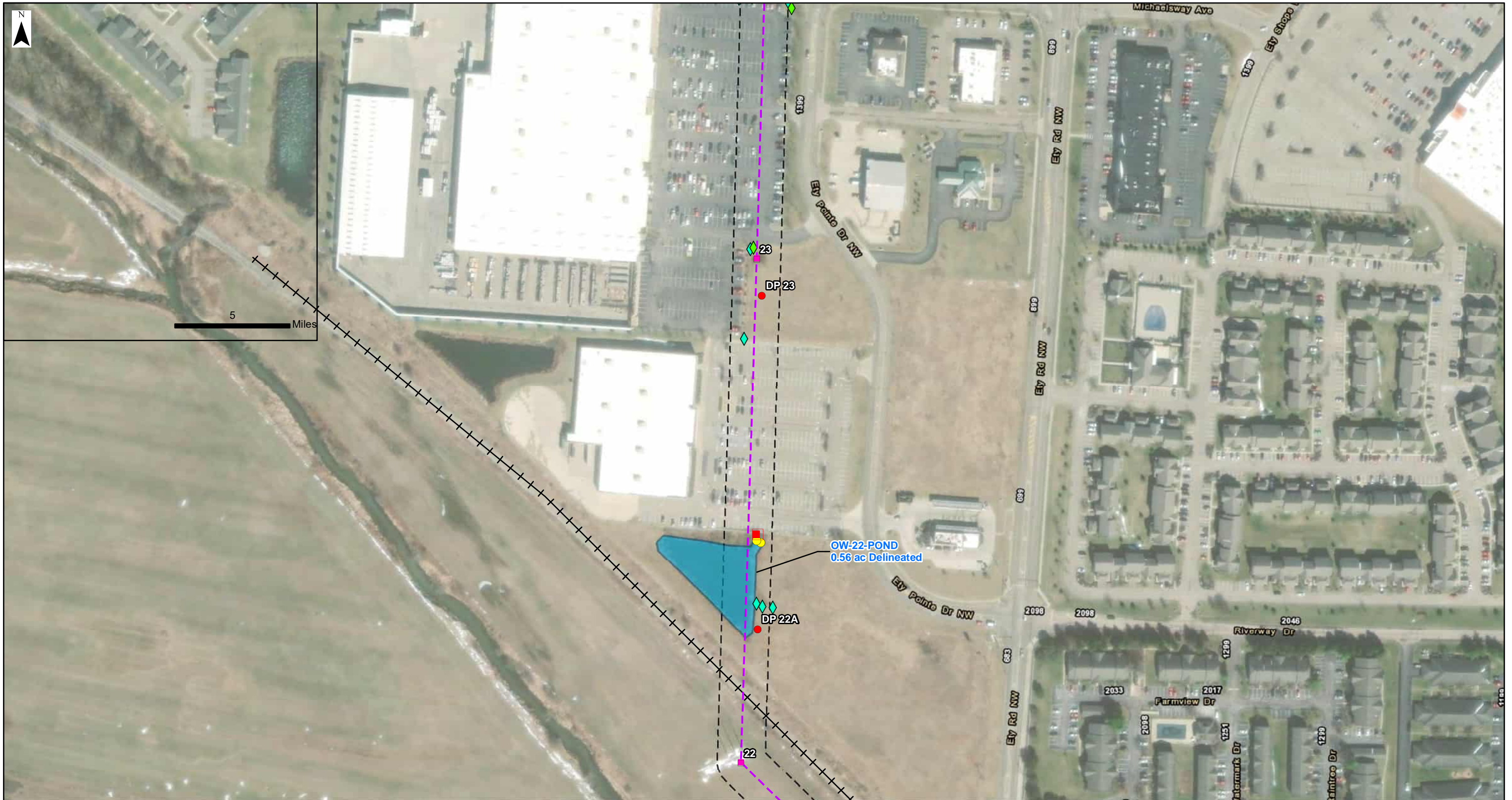
LEGEND:			
■ Existing Structure	■ Stormwater Inlet	— Swale	→ Stream
■ Existing Station	◆ Existing Utility	- - Roadside Ditch	■ Pond
- - Existing Transmission Line	◆ Potential Obstacle	— Guardrail	■ Wetland PEM
— Proposed Transmission Line	● Existing Culvert	x - x Existing Fence	
- - Environmental Study Area	● Data Point	— Gas Line	
● Distribution Pole	- - Topography	+++ Railroad	

TITLE:
DELINEATION MAP




SITE:
West Lancaster – South Baltimore
– West Millersport 138kV Rebuild
Fairfield County, Ohio

SCALE:
1:2,400
FIGURE:
4
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 8600 Smiths Mill Road
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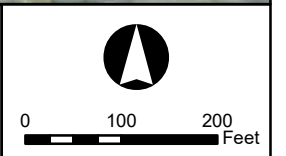
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DATE:
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 BASE LAYER:
 Aerial Imagery (2022)

LEGEND:	
Existing Structure	Stormwater Inlet
Existing Station	Existing Utility
Existing Transmission Line	Potential Obstacle
Proposed Transmission Line	Existing Culvert
Environmental Study Area	Data Point
Distribution Pole	Topography
Swale	Roadside Ditch
Guardrail	Existing Fence
Gas Line	Railroad
Stream	Pond
Wetland PEM	

TITLE:
DELINEATION MAP



SITE:
 West Lancaster – South Baltimore
 – West Millersport 138kV Rebuild
 Fairfield County, Ohio

SCALE:
 1:2,400
 FIGURE:
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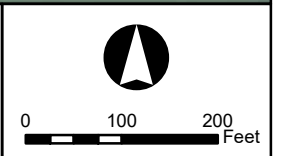
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210180.182
CREATED BY:
ODS

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04/28/2024
BASE LAYER:
Aerial Imagery (2022)

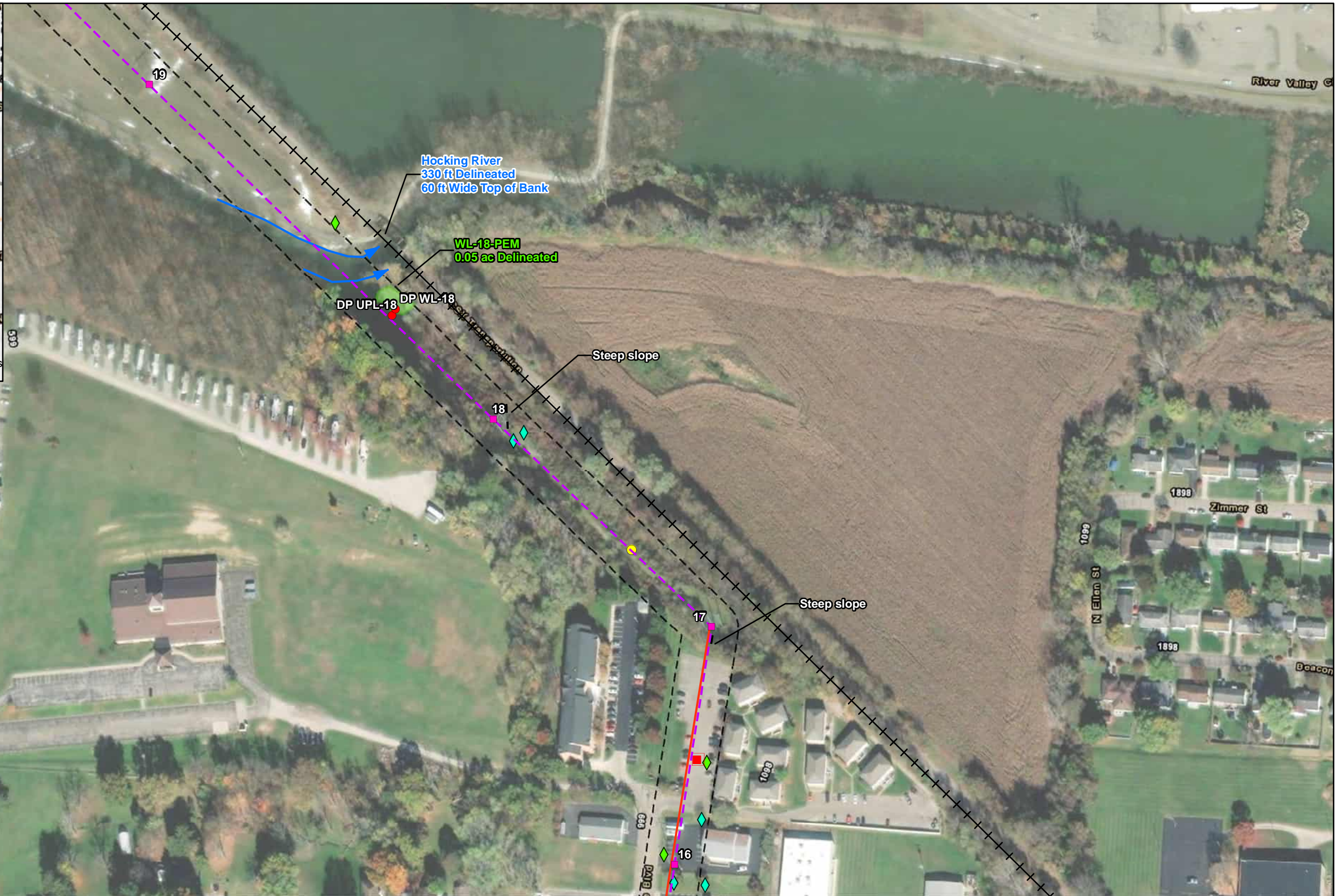
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■ Existing Station	◆ Existing Utility
--- Existing Transmission Line	◆ Potential Obstacle
--- Proposed Transmission Line	● Existing Culvert
--- Environmental Study Area	● Data Point
● Distribution Pole	--- Topography
--- Swale	--- Roadside Ditch
--- Guardrail	× - × Existing Fence
--- Gas Line	+++ Railroad
→ Stream	■ Pond
■ Wetland PEM	

TITLE:
DELINEATION MAP



SITE:
West Lancaster – South Baltimore
– West Millersport 138kV Rebuild
Fairfield County, Ohio

SCALE:
1:2,400
FIGURE:
4
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PROJECT NO.: 210180.182
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 BASE LAYER: Aerial Imagery (2022)

LEGEND:	
	Existing Structure
	Existing Station
	Existing Transmission Line
	Proposed Transmission Line
	Environmental Study Area
	Distribution Pole
	Stormwater Inlet
	Existing Utility
	Potential Obstacle
	Existing Culvert
	Data Point
	Topography
	Swale
	Roadside Ditch
	Guardrail
	Existing Fence
	Gas Line
	Railroad
	Stream
	Pond
	Wetland PEM

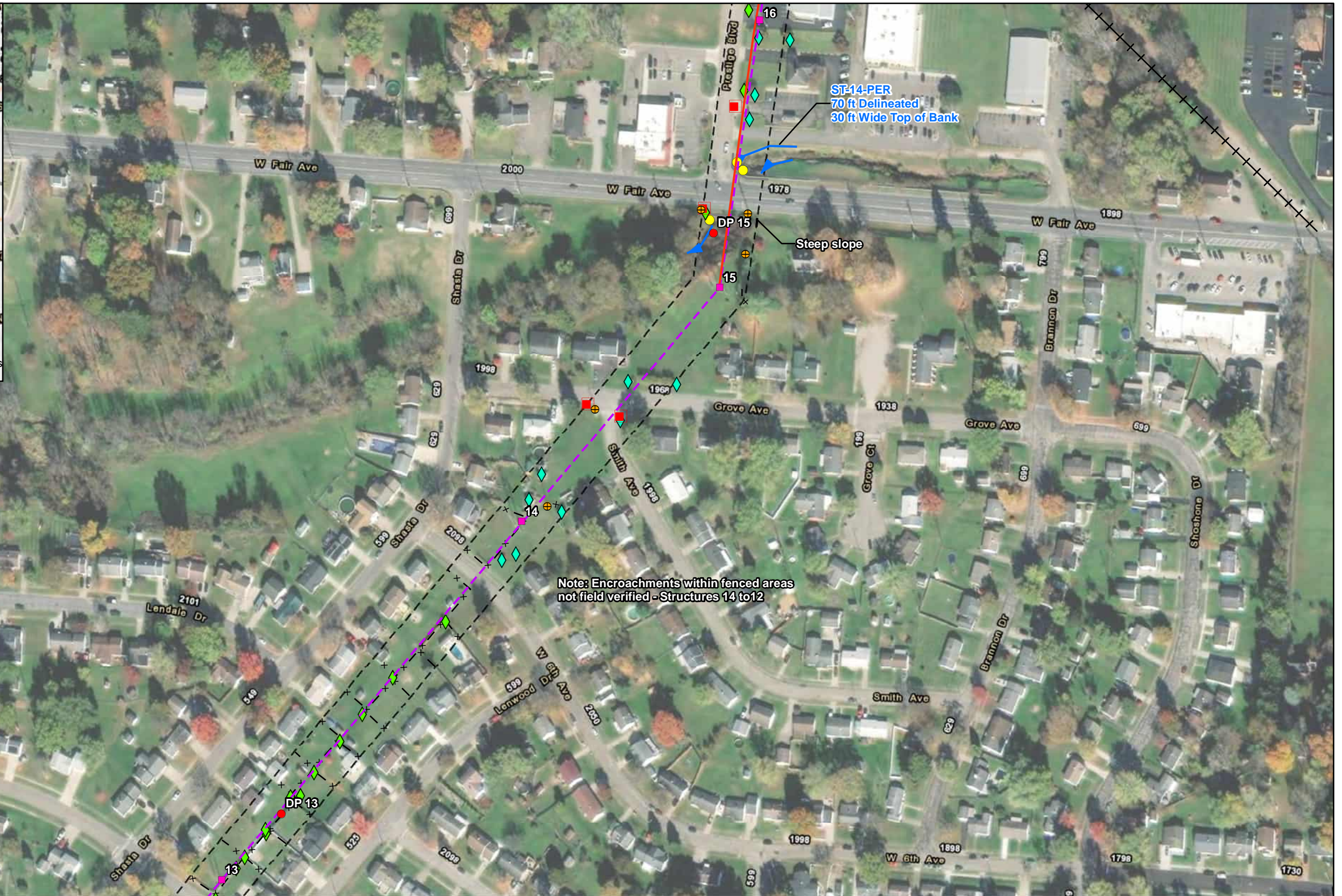
TITLE:
DELINEATION MAP

SITE:
 West Lancaster – South Baltimore
 – West Millersport 138kV Rebuild
 Fairfield County, Ohio


 0 100 200 Feet

SCALE:
 1:2,400

FIGURE:
4
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AMERICAN ELECTRIC POWER
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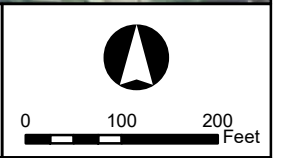
PROJECT NO.: 210180.182
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DATE: 04/28/2024
 BASE LAYER: Aerial Imagery (2022)

LEGEND:			
■ Existing Structure	■ Stormwater Inlet	— Swale	➔ Stream
■ Existing Station	◆ Existing Utility	- - Roadside Ditch	■ Pond
- - Existing Transmission Line	◆ Potential Obstacle	— Guardrail	■ Wetland PEM
- - Proposed Transmission Line	● Existing Culvert	× - × Existing Fence	
- - Environmental Study Area	● Data Point	- - Gas Line	
● Distribution Pole	- - Topography	+++ Railroad	

TITLE: **DELINEATION MAP**



SITE: West Lancaster – South Baltimore – West Millersport 138kV Rebuild
 Fairfield County, Ohio

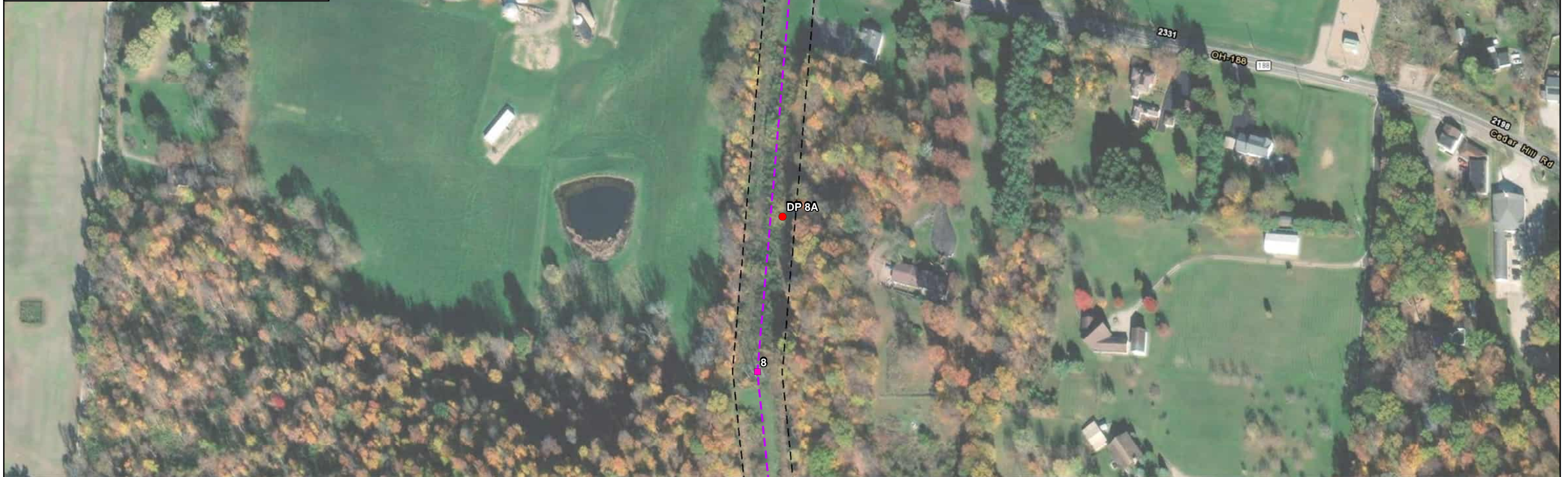
SCALE: 1:2,400
 FIGURE: 4
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Note: Encroachments within fenced areas not field verified - Structures 14 to 12


ST-11-INT
110 ft Delineated
20 ft Wide Top of Bank

8600 Smiths Mill Road New Albany, Ohio 43054 www.aep.com	PROJECT NO.:	210180.182	LEGEND:			TITLE:	 0 100 200 Feet
	CREATED BY:	ODS	Existing Structure Existing Station Existing Transmission Line Proposed Transmission Line Environmental Study Area Existing Culvert Data Point Distribution Pole	Stormwater Inlet Existing Utility Potential Obstacle Existing Culvert Data Point Topography	Swale Roadside Ditch Guardrail Existing Fence Gas Line Railroad	Stream Pond Wetland PEM	
619 N. Pennsylvania Street Indianapolis, IN 46204 www.v3co.com	DATE:	04/28/2024				SITE:	
	BASE LAYER:	Aerial Imagery (2022)				West Lancaster – South Baltimore – West Millersport 138kV Rebuild Fairfield County, Ohio	




 8600 Smiths Mill Road
 New Albany, Ohio 43054
 www.aep.com

PROJECT NO.:
 210180.182
 CREATED BY:
 ODS


 619 N. Pennsylvania Street
 Indianapolis, IN 46204
 www.v3co.com

DATE:
 04/28/2024
 BASE LAYER:
 Aerial Imagery (2022)

LEGEND:	
Existing Structure	Stormwater Inlet
Existing Station	Existing Utility
Existing Transmission Line	Potential Obstacle
Proposed Transmission Line	Existing Culvert
Environmental Study Area	Data Point
Distribution Pole	Topography
Swale	Roadside Ditch
Stream	Guardrail
Pond	Existing Fence
Wetland PEM	Gas Line
	Railroad

TITLE:

DELINEATION MAP




SITE:
 West Lancaster – South Baltimore
 – West Millersport 138kV Rebuild
 Fairfield County, Ohio

SCALE:
 1:2,400
 FIGURE:
4
Page 39 of 42




 8600 Smiths Mill Road
 New Albany, Ohio 43054
 www.aep.com

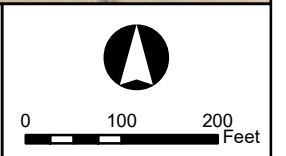
PROJECT NO.:
 210180.182
 CREATED BY:
 ODS


 619 N. Pennsylvania Street
 Indianapolis, IN 46204
 www.v3co.com

DATE:
 04/28/2024
 BASE LAYER:
 Aerial Imagery (2022)

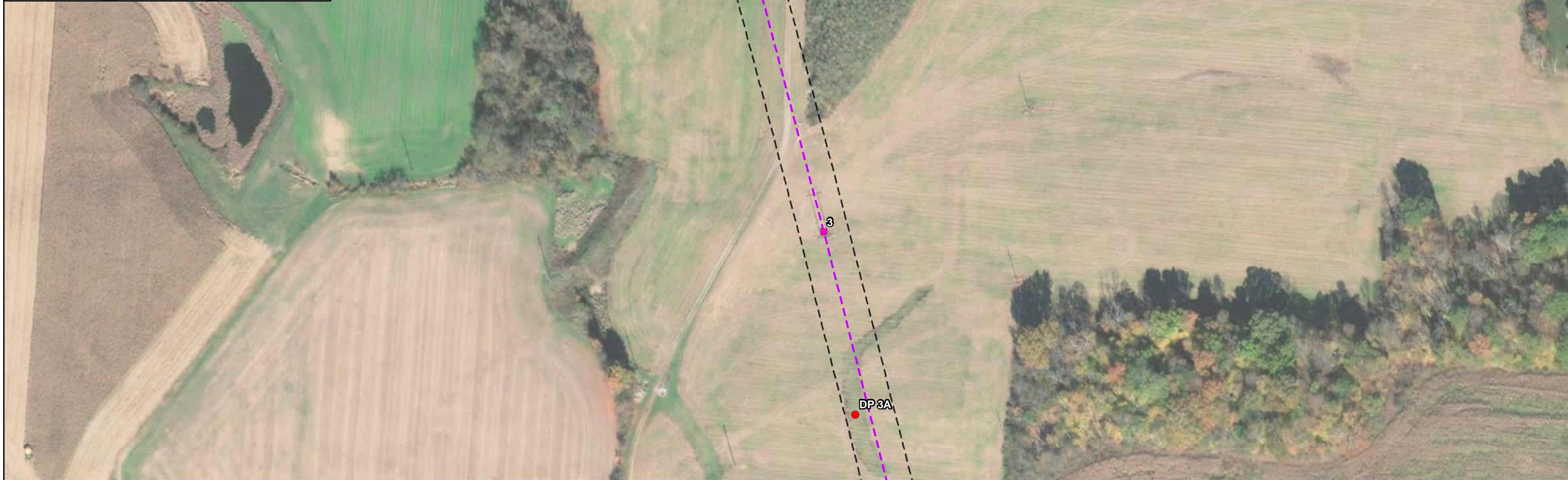
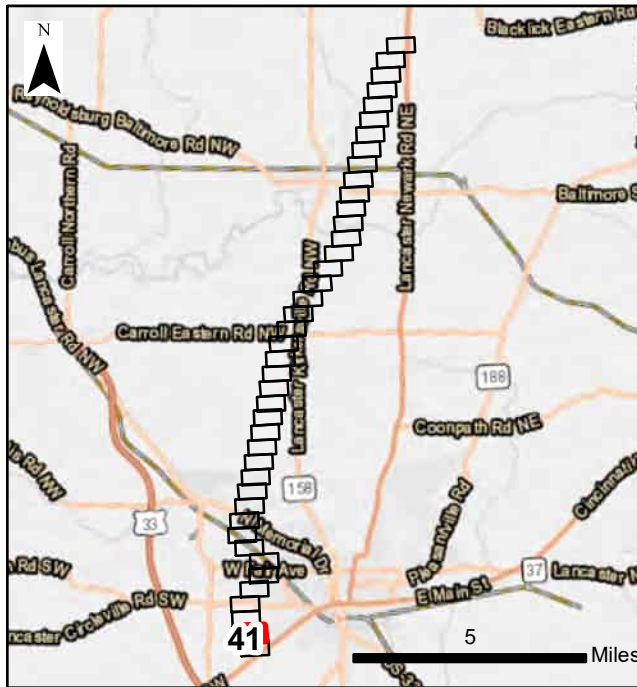
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Existing Structure	Stormwater Inlet
Existing Station	Existing Utility
Existing Transmission Line	Potential Obstacle
Proposed Transmission Line	Existing Culvert
Environmental Study Area	Data Point
Distribution Pole	Topography
Swale	Roadside Ditch
Guardrail	Existing Fence
Existing Fence	Gas Line
Stream	Railroad
Pond	
Wetland PEM	

TITLE:
DELINEATION MAP




SITE:
 West Lancaster – South Baltimore
 – West Millersport 138kV Rebuild
 Fairfield County, Ohio

SCALE:
 1:2,400
 FIGURE:
4
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
















 8600 Smiths Mill Road
 New Albany, Ohio 43054
 www.aep.com

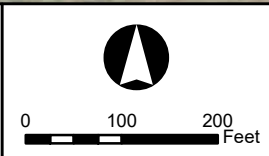
PROJECT NO.:
 210180.182
 CREATED BY:
 ODS


 619 N. Pennsylvania Street
 Indianapolis, IN 46204
 www.v3co.com

DATE:
 04/28/2024
 BASE LAYER:
 Aerial Imagery (2022)

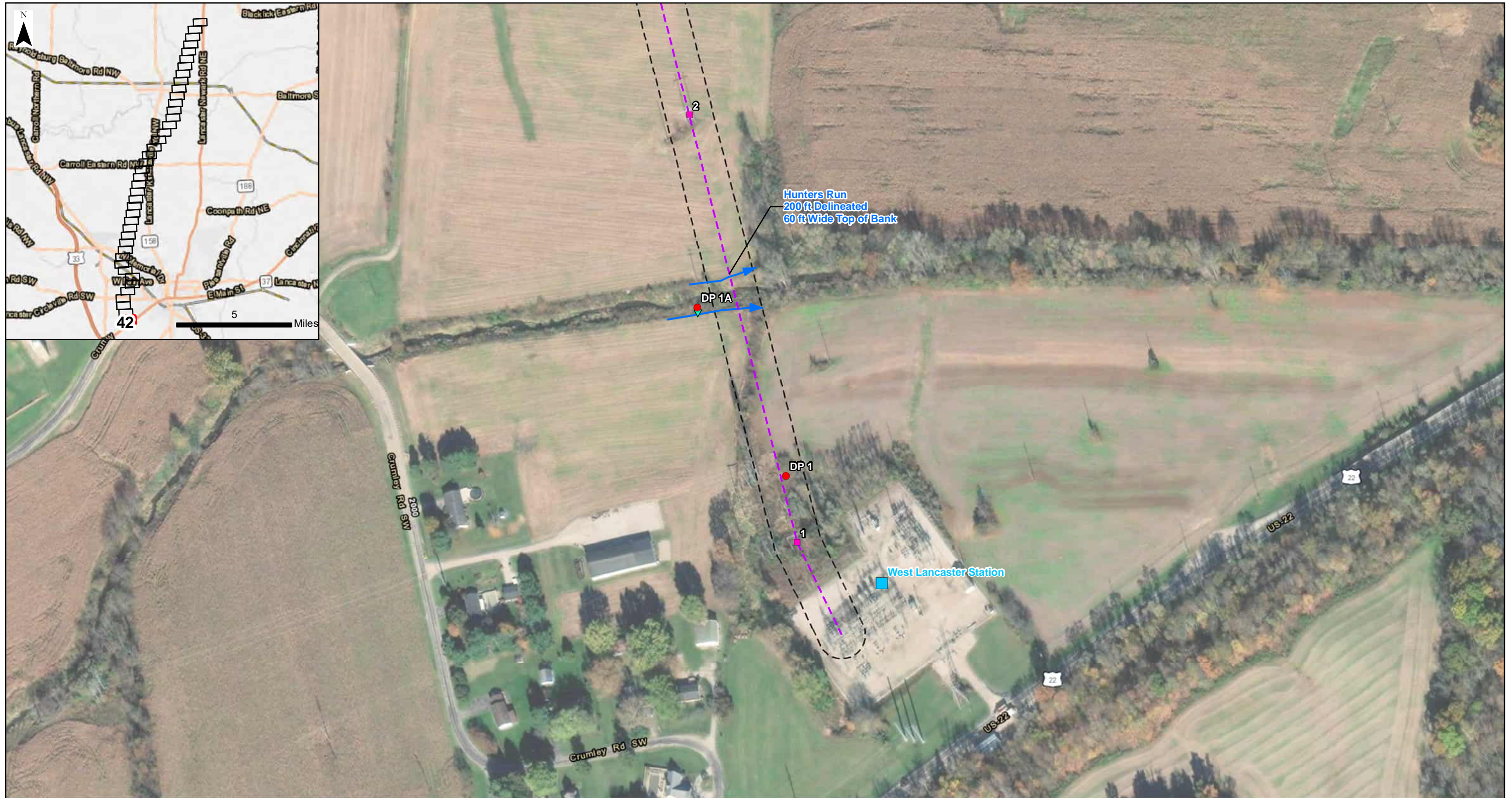
LEGEND:							
	Existing Structure		Stormwater Inlet		Swale		Stream
	Existing Station		Existing Utility		Roadside Ditch		Pond
	Existing Transmission Line		Potential Obstacle		Guardrail		Wetland PEM
	Proposed Transmission Line		Existing Culvert		Existing Fence		
	Environmental Study Area		Data Point		Gas Line		
	Distribution Pole		Topography		Railroad		

TITLE:
DELINEATION MAP



SITE:
 West Lancaster – South Baltimore
 – West Millersport 138kV Rebuild
 Fairfield County, Ohio

SCALE:
 1:2,400
 FIGURE:
4
Page 41 of 42



AMERICAN ELECTRIC POWER
8600 Smiths Mill Road
New Albany, Ohio 43054
www.aep.com

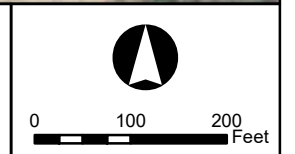
PROJECT NO.:
210180.182
CREATED BY:
ODS

V3
619 N. Pennsylvania Street
Indianapolis, IN 46204
www.v3co.com

DATE:
04/28/2024
BASE LAYER:
Aerial Imagery (2022)

LEGEND:	
■ Existing Structure	■ Stormwater Inlet
■ Existing Station	◆ Existing Utility
--- Existing Transmission Line	◆ Potential Obstacle
--- Proposed Transmission Line	● Existing Culvert
- - - Environmental Study Area	● Data Point
● Distribution Pole	- - Topography
■ Swale	- - Roadside Ditch
◆ Existing Utility	— Guardrail
◆ Potential Obstacle	× - × Existing Fence
● Existing Culvert	— Gas Line
● Data Point	+++ Railroad
- - Topography	→ Stream
--- Roadside Ditch	■ Pond
— Guardrail	■ Wetland PEM
× - × Existing Fence	
— Gas Line	
+++ Railroad	

TITLE:
DELINEATION MAP



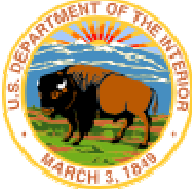
SITE:
West Lancaster – South Baltimore
– West Millersport 138kV Rebuild
Fairfield County, Ohio

SCALE:
1:2,400
FIGURE:
4
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Appendix A

ETR Species Correspondence Letters





United States Department of the Interior



FISH AND WILDLIFE SERVICE
Ohio Ecological Services Field Office
4625 Morse Road, Suite 104
Columbus, OH 43230-8355
Phone: (614) 416-8993 Fax: (614) 416-8994

In Reply Refer To:

03/18/2024 20:18:46 UTC

Project Code: 2024-0064491

Project Name: West Lancaster – South Baltimore – West Millersport 138kV Rebuild

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological

evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf>

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see <https://www.fws.gov/program/migratory-bird-permit/what-we-do>.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see <https://www.fws.gov/library/collections/threats-birds>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/partner/council-conservation-migratory-birds>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Ohio Ecological Services Field Office

4625 Morse Road, Suite 104

Columbus, OH 43230-8355

(614) 416-8993

PROJECT SUMMARY

Project Code: 2024-0064491
Project Name: West Lancaster – South Baltimore – West Millersport 138kV Rebuild
Project Type: Transmission Line - Maintenance/Modification - Above Ground
Project Description: AEP proposes to rebuild the West Lancaster – South Baltimore – West Millersport 138kV Transmission Line located in Liberty, Walnut, Greenfield, and Pleasant Township, Fairfield County Ohio. The project involves rebuilding approximately 14.4 miles of the West Lancaster – South Baltimore – West Millersport 138 kV Transmission Lines.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@39.7632933,-82.63181485815679,14z>



Counties: Fairfield County, Ohio

ENDANGERED SPECIES ACT SPECIES

There is a total of 7 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Indiana Bat <i>Myotis sodalis</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5949	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

REPTILES

NAME	STATUS
Eastern Massasauga (=rattlesnake) <i>Sistrurus catenatus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2202	Threatened

CLAMS

NAME	STATUS
Round Hickorynut <i>Obovaria subrotunda</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/9879	Threatened
Salamander Mussel <i>Simpsonaias ambigua</i> There is proposed critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6208	Proposed Endangered

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

CRITICAL HABITATS

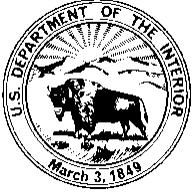
THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

IPAC USER CONTACT INFORMATION

Agency: V3 Companies
Name: Olivia Speckman
Address: 619 N Pennsylvania Street
City: Indianapolis
State: IN
Zip: 46204
Email: ospeckman@v3co.com
Phone: 3174230690

United States Department of the Interior



FISH AND WILDLIFE SERVICE

Ecological Services
4625 Morse Road, Suite 104
Columbus, Ohio 43230
(614) 416-8993 / FAX (614) 416-8994



April 17, 2024

Project Code: 2024-0064491

Dear Olivia Speckman:

The U.S. Fish and Wildlife Service (Service) has received your recent correspondence requesting information about the subject proposal. We offer the following comments and recommendations to assist you in minimizing and avoiding adverse impacts to threatened and endangered species pursuant to the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq), as amended (ESA).

Federally Threatened and Endangered Species: The endangered Indiana bat (*Myotis sodalis*) and northern long-eared bat (*Myotis septentrionalis*) occur throughout the State of Ohio. The Indiana bat and northern long-eared bat may be found wherever suitable habitat occurs unless a presence/absence survey has been performed to document absence. Suitable summer habitat for Indiana bats and northern long-eared bats consists of a wide variety of forested/wooded habitats where they roost, forage, and breed that may also include adjacent and interspersed non-forested habitats such as emergent wetlands and adjacent edges of agricultural fields, woodlots, fallow fields, and pastures. Roost trees for both species include live and standing dead trees ≥ 3 inches diameter at breast height (dbh) that have any exfoliating bark, cracks, crevices, hollows and/or cavities. These roost trees may be located in forested habitats as well as linear features such as fencerows, riparian forests, and other wooded corridors. Individual trees may be considered suitable habitat when they exhibit the characteristics of a potential roost tree and are located within 1,000 feet of other forested/wooded habitat. Northern long-eared bats have also been observed roosting in human-made structures, such as buildings, barns, bridges, and bat houses; therefore, these structures should also be considered potential summer habitat. In the winter, Indiana bats and northern long-eared bats hibernate in caves, rock crevices and abandoned mines.

Seasonal Tree Clearing for Federally Listed Bat Species: The proposed project is in the vicinity of one or more confirmed records of Indiana bats and/or northern long-eared bats. Should the proposed project site contain trees ≥ 3 inches dbh, we recommend avoiding tree removal wherever possible. If any caves or abandoned mines may be disturbed, further coordination with this office is requested to determine if fall or spring portal surveys are warranted. If no caves or abandoned mines are present and trees ≥ 3 inches dbh cannot be avoided, we recommend removal of any trees ≥ 3 inches dbh only occur between October 1 and March 31. Seasonal clearing is recommended to avoid adverse effects to Indiana bats and northern long-eared bats. Please note that, because Indiana bat and/or northern long-eared bat presence has already been confirmed in the project vicinity, any additional summer surveys would not constitute presence/absence surveys for these species.

Federally Proposed Species: On September 14, 2022, the Service proposed to list the tricolored bat (*Perimyotis subflavus*) as endangered under the ESA. The bat faces extinction due to the impacts of white-nose syndrome, a deadly disease affecting cave-dwelling bats across the continent. During spring, summer, and fall, this species roosts primarily among leaf clusters of live or recently dead trees, emerging at dusk to hunt for insects over waterways and forest edges. While white-nose syndrome is by far the most serious threat to the tricolored bat, other threats now have an increased significance due to the dramatic decline in the species' population. These threats include disturbance to bats in roosting, foraging, commuting, and over-wintering habitats. Mortality due to collision with wind turbines, especially during migration, has also been documented across their range. Conservation measures for the Indiana bat and northern long-eared bat will also help to conserve the tricolored bat.

Section 7 Coordination: If there is a federal nexus for the project (e.g., federal funding provided, federal permits required to construct), then no tree clearing should occur on any portion of the project area until consultation under section 7 of the ESA, between the Service and the federal action agency, is completed. We recommend the federal action agency submit a determination of effects to this office, relative to the Indiana bat and northern long-eared bat, for our review and concurrence. This letter provides technical assistance only and does not serve as a completed section 7 consultation document.

Stream and Wetland Avoidance: Over 90% of the wetlands in Ohio have been drained, filled, or modified by human activities, thus is it important to conserve the functions and values of the remaining wetlands in Ohio (https://epa.ohio.gov/portals/47/facts/ohio_wetlands.pdf). We recommend avoiding and minimizing project impacts to all wetland habitats (e.g., forests, streams, vernal pools) to the maximum extent possible in order to benefit water quality and fish and wildlife habitat. Additionally, natural buffers around streams and wetlands should be preserved to enhance beneficial functions. If streams or wetlands will be impacted, the U.S. Army Corps of Engineers should be contacted to determine whether a Clean Water Act section 404 permit is required. Best management practices should be used to minimize erosion, especially on slopes. Disturbed areas should be mulched and revegetated with native plant species. In addition, prevention of non-native, invasive plant establishment is critical in maintaining high quality habitats.

Due to the project type, size, and location, we do not anticipate adverse effects to any other federally endangered, threatened, or proposed species, or proposed or designated critical habitat. Should the project design change, or additional information on listed or proposed species or their critical habitat become available, or if new information reveals effects of the action that were not previously considered, coordination with the Service should be initiated to assess any potential impacts.

Thank you for your efforts to conserve listed species and sensitive habitats in Ohio. We recommend coordinating with the Ohio Department of Natural Resources due to the potential for the proposed project to affect state listed species and/or state lands. Contact Mike Pettegrew, Environmental Services Administrator, at (614) 265-6387 or at mike.pettegrew@dnr.ohio.gov.

If you have questions, or if we can be of further assistance in this matter, please contact our office at (614) 416-8993 or ohio@fws.gov.

Sincerely,

A handwritten signature in cursive script, appearing to read "Erin Knoll".

Erin Knoll
Field Office Supervisor

cc: Nathan Reardon, ODNR-DOW
Eileen Wyza, ODNR-DOW



Ohio Department of Natural Resources

MIKE DEWINE, GOVERNOR

MARY MERTZ, DIRECTOR

Office of Real Estate
Tara Paciorek, Chief
2045 Morse Road – Bldg. E-2
Columbus, Ohio 43229
Phone: (614) 265-6661
Fax: (614) 267-4764

April 26, 2024

Olivia Speckman
V3 Companies
619 North Pennsylvania Street
Indianapolis, Indiana 46204

Re: 24-0500_West Lancaster - South Baltimore - West Millersport 138kV Rebuild

Project: The proposed project involves rebuilding approximately 14.4 miles of the West Lancaster – South Baltimore – West Millersport 138 kV Transmission Lines.

Location: The proposed project is located in Liberty, Walnut, Greenfield, and Pleasant townships, Fairfield County, Ohio.

The Ohio Department of Natural Resources (ODNR) has completed a review of the above referenced project. These comments were generated by an inter-disciplinary review within the Department. These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.), the National Environmental Policy Act, the Coastal Zone Management Act, Ohio Revised Code and other applicable laws and regulations. These comments are also based on ODNR's experience as the state natural resource management agency and do not supersede or replace the regulatory authority of any local, state, or federal agency nor relieve the applicant of the obligation to comply with any local, state, or federal laws or regulations.

Natural Heritage Database: The Natural Heritage Database has the following data within one mile of the project area:

Cerulean Warbler (*Setophaga cerulea*), SC
Kidneyshell (*Ptychobranchus fasciolaris*), SC
Great Blue Heron Rookery
Appalachian oak forest plant community
Oak-maple forest plant community

Conservation status abbreviations are as follows: E = state endangered; T = state threatened; P = state potentially threatened; SC = state species of concern; SI = state special interest; U = state status under review; X = presumed extirpated in Ohio; FE = federally endangered, and FT = federally threatened. Records for high quality plant communities indicate the presence of sites that are in our inventory of the best remaining examples of Ohio's pre-settlement ecosystems.

The review was performed on the specified project area as well as an additional one-mile radius. Records searched date from 1980. Features searched include locations of rare and endangered plants and animals determined to be of value to the conservation of their species, high quality plant communities, animal breeding assemblages, and outstanding geological features.

The species and features listed above are not recorded within the boundaries of the specified project area. However, please note that Ohio has not been completely surveyed and we rely on receiving information from many sources. Therefore, a lack of records for an area is not a statement that rare species or unique features are absent from that area.

Fish and Wildlife: The Division of Wildlife (DOW) has the following comments.

The DOW recommends that impacts to streams, wetlands and other water resources be avoided and minimized to the fullest extent possible, and that Best Management Practices be utilized to minimize erosion and sedimentation.

The project is within the vicinity of records for the northern long-eared bat (*Myotis septentrionalis*), a state endangered and federally endangered species, the little brown bat (*Myotis lucifugus*), a state endangered species, and the tricolored bat (*Perimyotis subflavus*), a state endangered species. Because presence of state endangered bat species has been established in the area, summer tree cutting is not recommended, and additional summer surveys would not constitute presence/absence in the area. However, limited summer tree cutting inside this buffer may be acceptable after further consultation with DOW (contact Eileen Wyza at Eileen.Wyza@dnr.ohio.gov).

In addition, the entire state of Ohio is within the range of the Indiana bat (*Myotis sodalis*), a state endangered and federally endangered species, the northern long-eared bat (*Myotis septentrionalis*), a state endangered and federally endangered species, the little brown bat (*Myotis lucifugus*), a state endangered species, and the tricolored bat (*Perimyotis subflavus*), a state endangered species. During the spring and summer (April 1 through September 30), these bat species predominately roost in trees behind loose, exfoliating bark, in crevices and cavities, or in the leaves. However, these species are also dependent on the forest structure surrounding roost trees. The DOW recommends tree cutting only occur from October 1 through March 31, conserving trees with loose, shaggy bark and/or crevices, holes, or cavities, as well as trees with DBH \geq 20 if possible.

The DOW also recommends that a desktop habitat assessment is conducted, followed by a field assessment if needed, to determine if a potential hibernaculum is present within the project area. Direction on how to conduct habitat assessments can be found in the current USFWS "[RANGE-WIDE INDIANA BAT & NORTHERN LONG-EARED BAT SURVEY GUIDELINES](#)." If a habitat assessment finds that a potential hibernaculum is present within 0.25 miles of the project area, please send this information to Eileen Wyza for project recommendations. If a potential or known hibernaculum is found, the DOW recommends a 0.25-mile tree cutting and subsurface disturbance buffer around the hibernaculum entrance, however, limited summer or winter tree cutting may be acceptable after consultation with the DOW. If no tree cutting or subsurface impacts to a hibernaculum are proposed, this project is not likely to impact these species.

This project must not have an impact on native mussels. This applies to both listed and non-listed species, as all species of mussel are protected in Ohio. Per the Ohio Mussel Survey Protocol (2022), all Group 2, 3, and 4 streams (Appendix A) require a mussel survey. Per the Ohio Mussel Survey Protocol, Group 1 streams (Appendix A) and unlisted streams with a watershed of 5 square miles or larger above the point of impact should be assessed using the Reconnaissance Survey for Unionid Mussels (Appendix B) to determine if mussels are present. Mussel surveys may be recommended for these streams as well. Therefore, if in-water work is planned in any stream that meets any of the above criteria, the DOW recommends the applicant provide information to indicate no mussel impacts will occur. If this is not possible, the DOW recommends a professional malacologist conduct a mussel survey in the project area. If mussels that cannot be avoided are found in the project area, the DOW recommends a professional

malacologist collect and relocate the mussels to suitable and similar habitat upstream of the project site. Mussel surveys and any subsequent mussel relocation should be done in accordance with the [Ohio Mussel Survey Protocol](#). If there is no in-water work proposed, impacts to mussels are not likely.

The project is within the range of the northern brook lamprey (*Ichthyomyzon fossor*), a state endangered fish, and the popeye shiner (*Notropis ariommus*), a state endangered fish. The DOW recommends no in-water work in perennial streams from March 15 through June 30 to reduce impacts to indigenous aquatic species and their habitat. If no in-water work is proposed in a perennial stream, this project is not likely to impact these or other aquatic species.

The project is within the range of the northern harrier (*Circus hudsonius*), a state endangered bird. This is a common migrant and winter species. Nesters are much rarer, although they occasionally breed in large marshes and grasslands. Harriers often nest in loose colonies. The female builds a nest out of sticks on the ground, often on top of a mound. Harriers hunt over grasslands. If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of April 15 through July 31. If this habitat will not be impacted, this project is not likely to impact this species.

Due to the potential of impacts to federally listed species, as well as to state listed species, we recommend that this project be coordinated with the US Fish & Wildlife Service.

Water Resources: The Division of Water Resources has the following comment.

The [local floodplain administrator](#) should be contacted concerning the possible need for any floodplain permits or approvals for this project.

ODNR appreciates the opportunity to provide these comments. Please contact Mike Pettegrew at mike.pettegrew@dnr.ohio.gov if you have questions about these comments or need additional information.

Mike Pettegrew
Environmental Services Administrator

Appendix B

SITE Photographs



Photo: 1

WL-12-PEM

Direction of View:

North

Date:

27 March 2024



Photo: 2

WL-12-PEM

Direction of View:

East

Date:

27 March 2024



Photo: 3

WL-12-PEM

Direction of View:

South

Date:

27 March 2024



Photo: 4

WL-12-PEM

Direction of View:

West

Date:

27 March 2024



Photo: 5

DP UPL-12

Direction of View:

North

Date:

27 March 2024



Photo: 6

DP UPL-12

Direction of View:

West

Date:

27 March 2024



Photo: 7

WL-10-PEM

Direction of View:

North

Date:

27 March 2024



Photo: 8

WL-10-PEM

Direction of View:

East

Date:

27 March 2024



Photo: 9

WL-10-PEM

Direction of View:

South

Date:

27 March 2024



Photo: 10

WL-10-PEM

Direction of View:

West

Date:

27 March 2024



Photo: 11

DP UPL-10

Direction of View:

North

Date:

27 March 2024



Photo: 12

DP UPL-10

Direction of View:

South

Date:

27 March 2024



Photo: 13

WL-5-PEM

Direction of View:

Northeast

Date:

27 March 2024



Photo: 14

WL-5-PEM

Direction of View:

East

Date:

27 March 2024



Photo: 18

WL-5-PEM

Direction of View:

Southwest

Date:

27 March 2024



Photo: 16

WL-5-PEM

Direction of View:

West

Date:

28 March 2024



Photo: 17

DP UPL-5

Direction of View:

Southwest

Date:

27 March 2024



Photo: 18

WL-68-PEM

Direction of View:

North

Date:

27 March 2024



Photo: 19

WL-68-PEM

Direction of View:

East

Date:

27 March 2024



Photo: 20

WL-68-PEM

Direction of View:

South

Date:

27 March 2024



Photo: 21

WL-68-PEM

Direction of View:

West

Date:

27 March 2024



Photo: 22

DP UPL-68

Direction of View:

North

Date:

27 March 2024



Photo: 23

DP UPL-68

Direction of View:

South

Date:

27 March 2024



Photo: 24

WL-60-PEM

DP WL-60

Direction of View:

North

Date:

27 March 2024



Photo: 25

WL-60-PEM
DP WL-60

Direction of View:

East

Date:

27 March 2024



Photo: 26

WL-60-PEM
DP WL-60

Direction of View:

South

Date:

27 March 2024



Photo: 27

WL-60-PEM
DP WL-60

Direction of View:

West

Date:

27 March 2024



Photo: 28

DP UPL-60

Direction of View:

North

Date:

27 March 2024



Photo: 29

DP UPL-60

Direction of View:

Southwest

Date:

27 March 2024



Photo: 30

WL-60-PEM

DP WL-60-A

Direction of View:

North

Date:

27 March 2024



Photo: 31

WL-60-PEM
DP WL-60-A

Direction of View:

East

Date:

27 March 2024



Photo: 32

WL-60-PEM
DP WL-60-A

Direction of View:

South

Date:

27 March 2024



Photo: 33

WL-60-PEM
DP WL-60-A

Direction of View:

West

Date:

27 March 2024



Photo: 34

DP UPL-60-A

Direction of View:

Southwest

Date:

27 March 2024



Photo: 35

WL-50-PEM

Direction of View:

North

Date:

27 March 2024



Photo: 36

WL-50-PEM

Direction of View:

East

Date:

27 March 2024



Photo: 37

WL-50-PEM

Direction of View:

South

Date:

27 March 2024



Photo: 38

WL-50-PEM

Direction of View:

West

Date:

27 March 2024



Photo: 39

DP UPL-50

Direction of View:

East

Date:

27 March 2024



Photo: 40

DP UPL-50

Direction of View:

West

Date:

27 March 2024



Photo: 41

WL-41-PEM

Direction of View:

North

Date:

27 March 2024



Photo: 42

WL-41-PEM

Direction of View:

East

Date:

27 March 2024



Photo: 43

WL-41-PEM

Direction of View:

South

Date:

27 March 2024



Photo: 44

WL-41-PEM

Direction of View:

West

Date:

27 March 2024



Photo: 45

DP UPL-41

Direction of View:

North

Date:

27 March 2024



Photo: 46

DP UPL-41

Direction of View:

Southwest

Date:

27 March 2024



Photo: 47

WL-18-PEM

Direction of View:

North

Date:

28 March 2024



Photo: 48

WL-18-PEM

Direction of View:

East

Date:

28 March 2024



Photo: 49

WL-18-PEM

Direction of View:

South

Date:

28 March 2024



Photo: 50

WL-18-PEM

Direction of View:

West

Date:

28 March 2024



Photo: 51

DP UPL-18

Direction of View:

East

Date:

28 March 2024



Photo: 52
DP UPL-18

Direction of View:
West

Date:
28 March 2024



Photo: 53
DP 33A

Direction of View:
North

Date:
27 March 2024



Photo: 54
DP 33A

Direction of View:
South

Date:
27 March 2024



Photo: 55

DP 33

Direction of View:

North

Date:

27 March 2024



Photo: 56

DP 33

Direction of View:

South

Date:

27 March 2024



Photo: 57

DP 31

Direction of View:

North

Date:

27 March 2024



Photo: 58

DP 31

Direction of View:

South

Date:

27 March 2024



Photo: 59

DP 28

Direction of View:

North

Date:

27 March 2024



Photo: 60

DP 28

Direction of View:

South

Date:

27 March 2024



Photo: 61

DP 25

Direction of View:

North

Date:

27 March 2024



Photo: 62

DP 25

Direction of View:

South

Date:

27 March 2024



Photo: 63

DP 22

Direction of View:

North

Date:

27 March 2024



Photo: 64

DP 22

Direction of View:

South

Date:

27 March 2024



Photo: 65

DP 19

Direction of View:

North

Date:

27 March 2024



Photo: 66

DP 19

Direction of View:

South

Date:

27 March 2024



Photo: 67

DP 16

Direction of View:

North

Date:

27 March 2024



Photo: 68

DP 16

Direction of View:

South

Date:

27 March 2024



Photo: 69

DP 14

Direction of View:

North

Date:

27 March 2024



Photo: 70

DP 14

Direction of View:

South

Date:

27 March 2024



Photo: 71

DP 12

Direction of View:

North

Date:

27 March 2024



Photo: 72

DP 12

Direction of View:

South

Date:

27 March 2024



Photo: 73

DP 10

Direction of View:

North

Date:

27 March 2024



Photo: 74

DP 10

Direction of View:

South

Date:

27 March 2024



Photo: 75

DP 8

Direction of View:

North

Date:

27 March 2024



Photo: 76

DP 8

Direction of View:

South

Date:

27 March 2024



Photo: 77

DP 6

Direction of View:

Northeast

Date:

27 March 2024



Photo: 78

DP 6

Direction of View:

Southwest

Date:

27 March 2024



Photo: 79

DP 4

Direction of View:

Northeast

Date:

27 March 2024



Photo: 80

DP 4

Direction of View:

Southwest

Date:

27 March 2024



Photo: 81

DP 4A

Direction of View:

Northeast

Date:

27 March 2024



Photo: 82

DP 4A

Direction of View:

Southwest

Date:

27 March 2024



Photo: 83

DP 3

Direction of View:

Northeast

Date:

27 March 2024



Photo: 84

DP 3

Direction of View:

Southwest

Date:

27 March 2024



Photo: 85

DP 2

Direction of View:

Northeast

Date:

27 March 2024



Photo: 86

DP 2

Direction of View:

Southwest

Date:

27 March 2024



Photo: 87

DP 71

Direction of View:

North

Date:

27 March 2024



Photo: 88

DP 71

Direction of View:

South

Date:

27 March 2024



Photo: 89

DP 70

Direction of View:

North

Date:

27 March 2024



Photo: 90

DP 70

Direction of View:

South

Date:

27 March 2024



Photo: 91

DP 68

Direction of View:

North

Date:

27 March 2024



Photo: 92

DP 68

Direction of View:

South

Date:

27 March 2024



Photo: 93

DP 63

Direction of View:

North

Date:

27 March 2024



Photo: 94

DP 63

Direction of View:

South

Date:

27 March 2024



Photo: 95

DP 62A

Direction of View:

North

Date:

27 March 2024



Photo: 96

DP 62A

Direction of View:

South

Date:

27 March 2024



Photo: 97

DP 62

Direction of View:

North

Date:

27 March 2024



Photo: 98

DP 62

Direction of View:

South

Date:

27 March 2024



Photo: 99

DP 59

Direction of View:

Northeast

Date:

27 March 2024



Photo: 100

DP 59

Direction of View:

Southwest

Date:

27 March 2024



Photo: 101

DP 57

Direction of View:

North

Date:

27 March 2024



Photo: 102

DP 57

Direction of View:

Southwest

Date:

27 March 2024



Photo: 103

DP 52

Direction of View:

East

Date:

27 March 2024



Photo: 104

DP 52

Direction of View:

West

Date:

27 March 2024



Photo: 105

DP 51

Direction of View:

Northwest

Date:

27 March 2024



Photo: 106

DP 51

Direction of View:

Southeast

Date:

27 March 2024



Photo: 107

DP 48

Direction of View:

North

Date:

27 March 2024



Photo: 108

DP 48

Direction of View:

South

Date:

27 March 2024



Photo: 109

DP 46

Direction of View:

North

Date:

27 March 2024



Photo: 110

DP 46

Direction of View:

South

Date:

27 March 2024



Photo: 111

DP 44

Direction of View:

North

Date:

27 March 2024



Photo: 112

DP 44

Direction of View:

South

Date:

27 March 2024



Photo: 113

DP 42

Direction of View:

North

Date:

27 March 2024



Photo: 114

DP 42

Direction of View:

South

Date:

27 March 2024



Photo: 115

DP 41

Direction of View:

North

Date:

27 March 2024



Photo: 116

DP 41

Direction of View:

South

Date:

27 March 2024



Photo: 117

DP 40

Direction of View:

North

Date:

27 March 2024



Photo: 118

DP 40

Direction of View:

South

Date:

27 March 2024



Photo: 119

DP 39

Direction of View:

North

Date:

27 March 2024



Photo: 120

DP 39

Direction of View:

South

Date:

27 March 2024



Photo: 121

DP 36

Direction of View:

North

Date:

28 March 2024



Photo: 122

DP 36

Direction of View:

South

Date:

28 March 2024



Photo: 123

DP 34

Direction of View:

North

Date:

28 March 2024



Photo: 124

DP 34

Direction of View:

South

Date:

28 March 2024



Photo: 125

DP 32

Direction of View:

Northeast

Date:

28 March 2024



Photo: 126

DP 32

Direction of View:

West

Date:

28 March 2024



Photo: 127

DP 31A

Direction of View:

North

Date:

28 March 2024



Photo: 128

DP 31A

Direction of View:

South

Date:

28 March 2024



Photo: 129

DP 26

Direction of View:

North

Date:

28 March 2024



Photo: 130

DP 26

Direction of View:

South

Date:

28 March 2024



Photo: 131

DP 23

Direction of View:

North

Date:

28 March 2024



Photo: 132

DP 23

Direction of View:

South

Date:

28 March 2024



Photo: 133

DP 22

Direction of View:

North

Date:

28 March 2024



Photo: 134

DP 22

Direction of View:

South

Date:

28 March 2024



Photo: 135

DP 20

Direction of View:

Northwest

Date:

28 March 2024



Photo: 136

DP 20

Direction of View:

Southeast

Date:

28 March 2024



Photo: 137

DP 15

Direction of View:

Northeast

Date:

28 March 2024



Photo: 138

DP 15

Direction of View:

South

Date:

28 March 2024



Photo: 139

DP 13

Direction of View:

Northeast

Date:

28 March 2024



Photo: 140

DP 13

Direction of View:

Southwest

Date:

28 March 2024



Photo: 141

DP 11

Direction of View:

North

Date:

28 March 2024



Photo: 142

DP 11

Direction of View:

South

Date:

28 March 2024



Photo: 143

DP 8A

Direction of View:

North

Date:

28 March 2024



Photo: 144

DP 8A

Direction of View:

South

Date:

28 March 2024



Photo: 145

DP 7

Direction of View:

North

Date:

28 March 2024



Photo: 146

DP 7

Direction of View:

South

Date:

28 March 2024



Photo: 147

DP 5A

Direction of View:

North

Date:

28 March 2024



Photo: 148

DP 5A

Direction of View:

South

Date:

28 March 2024



Photo: 149

DP 3A

Direction of View:

North

Date:

28 March 2024



Photo: 150

DP 3A

Direction of View:

South

Date:

28 March 2024



Photo: 151

DP 1A

Direction of View:

East

Date:

28 March 2024



Photo: 152

DP 1A

Direction of View:

West

Date:

28 March 2024



Photo: 153

DP 1

Direction of View:

East

Date:

28 March 2024



Photo: 154

DP 1

Direction of View:

West

Date:

28 March 2024



Photo: 155

ST-31-PER

Direction of View:

North

Date:

27 March 2024



Photo: 156

ST-31-PER

Direction of View:

South

Date:

27 March 2024



Photo: 157

ST-25-PER

Direction of View:

East

Date:

27 March 2024



Photo: 158

ST-25-PER

Direction of View:

West

Date:

27 March 2024



Photo: 159

ST-15-PER

Direction of View:

East

Date:

27 March 2024



Photo: 160

ST-15-PER

Direction of View:

Southwest

Date:

27 March 2024



Photo: 161

Walnut Creek

Direction of View:

East

Date:

27 March 2024



Photo: 162

Walnut Creek

Direction of View:

West

Date:

27 March 2024



Photo: 163

ST-2-PER

Direction of View:

East

Date:

27 March 2024



Photo: 164

ST-2-PER

Direction of View:

West

Date:

27 March 2024



Photo: 165

ST-68-INT

Direction of View:

East

Date:

27 March 2024



Photo: 166

ST-68-INT

Direction of View:

West

Date:

27 March 2024



Photo: 167

ST-63-EPH

Direction of View:

Northeast

Date:

27 March 2024



Photo: 168

ST-63-EPH

Direction of View:

Southwest

Date:

27 March 2024



Photo: 169

ST-55-INT

Direction of View:

East

Date:

27 March 2024



Photo: 170

ST-55-INT

Direction of View:

West

Date:

27 March 2024



Photo: 171

ST-53-INT

Direction of View:

North

Date:

27 March 2024



Photo: 172

ST-53-INT

Direction of View:

South

Date:

27 March 2024



Photo: 173

ST-48-EPH

Direction of View:

Northwest

Date:

27 March 2024



Photo: 174

ST-48-EPH

Direction of View:

Southeast

Date:

27 March 2024



Photo: 175

ST-44-INT

Direction of View:

East

Date:

27 March 2024



Photo: 176

ST-44-INT

Direction of View:

West

Date:

27 March 2024



Photo: 177

ST-44-EPH

Direction of View:

North

Date:

27 March 2024



Photo: 178

ST-44-EPH

Direction of View:

South

Date:

27 March 2024



Photo: 179

ST-42-INT

Direction of View:

East

Date:

27 March 2024



Photo: 180

ST-42-INT

Direction of View:

West

Date:

27 March 2024



Photo: 181

ST-14-PER

Direction of View:

East

Date:

28 March 2024



Photo: 182

ST-14-PER

Direction of View:

Southwest

Date:

28 March 2024



Photo: 183

Hocking River

Direction of View:

Northwest

Date:

28 March 2024



Photo: 184

Hocking River

Direction of View:

Southeast

Date:

28 March 2024



Photo: 185

ST-11-INT

Direction of View:

Northwest

Date:

28 March 2024



Photo: 186

ST-11-INT

Direction of View:

Southeast

Date:

28 March 2024



Photo: 187

Hunters Run

Direction of View:

Northwest

Date:

28 March 2024



Photo: 188

Hunters Run

Direction of View:

East

Date:

28 March 2024



Photo: 189

OW-32-POND

Direction of View:

East

Date:

28 March 2024



Photo: 190
OW-32-POND

Direction of View:
South

Date:
28 March 2024



Photo: 191
OW-22-POND

Direction of View:
Northwest

Date:
28 March 2024



Photo: 192
OW-22-POND

Direction of View:
South

Date:
28 March 2024



Appendix C

Data Forms



WETLAND DETERMINATION FORM-MIDWEST REGION

Site: W. Lancaster-S.Baltimore-W.Millersport City/County: Fairfield County Date: 27 March 2024 Data Point: WL-12
 Client: AEP State: OH Section, Township, Range: Sec S19, T 16N, R 19W
 Investigator(s): N. Houk, N. Barnett Landform Terraces Local Relief Concave
 Slope (%): 1-3 Lat. 39.847477 Long. -82.586566 Datum NAD83 NWI Class: PEM
 Soil Map Unit Name: Canal silt loam, 0 to 2 percent slopes
 Climatic/hydrologic conditions typical for time of year? Y/N Y
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic
 Are Normal Circumstances Present? Yes x No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes <u>x</u> No <u> </u>	Is the DP within a Wetland? Yes <u>x</u> No <u> </u>
Hydric Soil Present? Yes <u>x</u> No <u> </u>	
Wetland Hydrology Present? Yes <u>x</u> No <u> </u>	

Remarks:

VEGETATION

Tree Stratum	Plot size: <u>30'</u>	Absolute % Cover	Dominant Species	Indicator Status	
1. <u> </u>					Dominance Test Worksheet Number of dominant species that are OBL, FACW, or FAC: <u>2</u> Total number of dominant species across all strata: <u>2</u> Percent of dominant species that are OBL, FACW, or FAC: <u>100.00</u>
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>		0	Total Cover		
Shrub Stratum	Plot size: <u>15'</u>	Absolute % Cover	Dominant Species	Indicator Status	
1. <u> </u>					Prevalence Index Worksheet Total % cover of: OBL species <u>80</u> x <u>1</u> = <u>80</u> FACW species <u>20</u> x <u>2</u> = <u>40</u> FAC species <u>0</u> x <u>3</u> = <u>0</u> FACU species <u>0</u> x <u>4</u> = <u>0</u> UPL species <u>0</u> x <u>5</u> = <u>0</u> Total <u>100</u> Prevalence Index: <u>1.20</u>
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>		0	Total Cover		
Herb Stratum	Plot size: <u>5'</u>	Absolute % Cover	Dominant Species	Indicator Status	
1. <u>Leersia oryzoides</u>		80	Y	OBL 1	Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Veg. x Dominance Test is >50% x Prevalence Index is ≤3.0* Morphological Adaptations* Problematic Hydrophytic Vegetation* *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic Hydrophytic Vegetation Present? Yes <u>x</u> No <u> </u>
2. <u>Elymus virginicus</u>		20	Y	FACW 2	
3. <u> </u>					
4. <u> </u>					
5. <u> </u>					
6. <u> </u>					
7. <u> </u>					
8. <u> </u>		100	Total Cover		
Woody Vine Stratum	Plot size: <u>30'</u>	Absolute % Cover	Dominant Species	Indicator Status	
1. <u> </u>					Hydrophytic Vegetation Present? Yes <u>x</u> No <u> </u>
2. <u> </u>		0	Total Cover		

Remarks:

SOIL

Profile Description: (Describe to depth needed to document the indicator or confirm absence of indicators.)

Depth (inches)	Color	Matrix	%	Color	%	Type*	Loc**	Redox Features	Texture	Remarks
0-18	10YR 4/1		95	10YR 5/6	5	C		M	Si C L	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:		
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> 5cm Mucky Peat or Peat	<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Sandy Redox (S5)	Indicators for Problematic Hydric Soils
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Coast Prairie Redox (A16)
<input type="checkbox"/> 2 cm Muck (A10)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Iron-Manganese Masses (F12)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Very Shallow Dark Surface (F12)
<input type="checkbox"/> Thick Dark Surface (A12)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other

Restrictive Layer (if observed): Type: <u> </u>	
Depth (Inches): <u> </u>	Hydric Soil Present? Yes <u>x</u> No <u> </u>

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (check all that apply)		Secondary Indicators	
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)	
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soil (C6)	<input checked="" type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Gauge or Well Data (D9)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface	<input type="checkbox"/> Other		
Field Observations: Surface Water Present? Yes <u>x</u> No <u> </u>	Depth (inches) <u>1</u>	Hydrology Indicators Present? Yes <u>x</u> No <u> </u>	
Water Table Present? Yes <u>x</u> No <u> </u>	Depth (inches) <u>0</u>		
Saturation Present? Yes <u>x</u> No <u> </u>	Depth (inches) <u>0</u>		

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

WETLAND DETERMINATION FORM-MIDWEST REGION

Site: W. Lancaster-S.Baltimore-W.Millersport City/County: Fairfield County Date: 27 March 2024 Data Point: UPL-12
 Client: AEP State: OH Section, Township, Range: Sec S19, T 16N, R 19W
 Investigator(s): N. Houk, N. Barnett Landform Terraces Local Relief Convex
 Slope (%): 1-3 Lat. 39.847526 Long. -82.586522 Datum NAD83 NWI Class: N/A
 Soil Map Unit Name: Canal silt loam, 0 to 2 percent slopes
 Climatic/hydrologic conditions typical for time of year? Y/N Y
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic
 Are Normal Circumstances Present? Yes x No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes <u> </u> No <u>x</u>	Is the DP within a Wetland?
Hydric Soil Present? Yes <u> </u> No <u>x</u>	
Wetland Hydrology Present? Yes <u> </u> No <u>x</u>	
Yes No x	

Remarks:

VEGETATION

Tree Stratum	Plot size: <u>30'</u>	Absolute % Cover	Dominant Species	Indicator Status	
1. <u> </u>					Dominance Test Worksheet Number of dominant species that are OBL, FACW, or FAC: <u>1</u> Total number of dominant species across all strata: <u>4</u> Percent of dominant species that are OBL, FACW, or FAC: <u>25.00</u>
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>		0	Total Cover		
Shrub Stratum	Plot size: <u>15'</u>				
1. <u>Rosa multiflora</u>		8	Y	FACU 4	Prevalence Index Worksheet Total % cover of: OBL species <u>0</u> x <u>1</u> = <u>0</u> FACW species <u>0</u> x <u>2</u> = <u>0</u> FAC species <u>25</u> x <u>3</u> = <u>75</u> FACU species <u>85</u> x <u>4</u> = <u>340</u> UPL species <u>0</u> x <u>5</u> = <u>0</u> Total <u>110</u> Prevalence Index: <u>3.77</u>
2. <u>Rubus allegheniensis</u>		2	Y	FACU 4	
3. <u> </u>					
4. <u> </u>					
5. <u> </u>		10	Total Cover		
Herb Stratum	Plot size: <u>5'</u>				
1. <u>Solidago canadensis</u>		75	Y	FACU 4	Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Veg. Dominance Test is >50% Prevalence Index is ≤3.0* Morphological Adaptations* Problematic Hydrophytic Vegetation* *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic Hydrophytic Vegetation Present? Yes <u> </u> No <u> </u> x <u> </u>
2. <u>Apocynum cannabinum</u>		20	Y	FAC 3	
3. <u>Vernonia gigantea</u>		5	N	FAC 3	
4. <u> </u>					
5. <u> </u>					
6. <u> </u>					
7. <u> </u>					
8. <u> </u>		100	Total Cover		
Woody Vine Stratum	Plot size: <u>30'</u>				
1. <u> </u>					Hydrophytic Vegetation Present? Yes <u> </u> No <u> </u> x <u> </u>
2. <u> </u>		0	Total Cover		

Remarks:

SOIL

Profile Description: (Describe to depth needed to document the indicator or confirm absence of indicators.)

Depth (inches)	Matrix	Color	%	Color	%	Type*	Loc**	Redox Features	Texture	Remarks
0-13	10YR 4/1		100						Si C L	
13-18	10YR 4/1	10YR 5/6	95		5	C		M	Si C L	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:		
<u> </u> Histosol (A1)	<u> </u> Sandy Mucky Mineral (S1)	<u> </u> Redox Dark Surface (F6)
<u> </u> Histic Epipedon (A2)	<u> </u> 5cm Mucky Peat or Peat	<u> </u> Depleted Dark Surface (F7)
<u> </u> Black Histic (A3)	<u> </u> Sandy Gleyed Matrix (S4)	<u> </u> Redox Depressions (F8)
<u> </u> Hydrogen Sulfide (A4)	<u> </u> Sandy Redox (S5)	Indicators for Problematic Hydric Soils
<u> </u> Stratified Layers (A5)	<u> </u> Stripped Matrix (S6)	<u> </u> Coast Prairie Redox (A16)
<u> </u> 2 cm Muck (A10)	<u> </u> Loamy Mucky Mineral (F1)	<u> </u> Iron-Manganese Masses (F12)
<u> </u> Depleted Below Dark Surface (A11)	<u> </u> Loamy Gleyed Matrix (F2)	<u> </u> Very Shallow Dark Surface (F12)
<u> </u> Thick Dark Surface (A12)	<u> </u> Depleted Matrix (F3)	<u> </u> Other

Restrictive Layer (if observed): Type: <u> </u>	
Depth (Inches): <u> </u>	Hydric Soil Present? Yes <u> </u> No <u> </u> x <u> </u>

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (check all that apply)		Secondary Indicators	
<u> </u> Surface Water (A1)	<u> </u> Water Stained Leaves (B9)	<u> </u> Surface Soil Cracks (B6)	
<u> </u> High Water Table (A2)	<u> </u> Aquatic Fauna (B13)	<u> </u> Drainage Patterns (B10)	
<u> </u> Saturation (A3)	<u> </u> True Aquatic Plants (B14)	<u> </u> Dry-Season Water Table (C2)	
<u> </u> Water Marks (B1)	<u> </u> Hydrogen Sulfide Odor (C1)	<u> </u> Crayfish Burrows (C8)	
<u> </u> Sediment Deposits (B2)	<u> </u> Oxidized Rhizospheres on Living Roots	<u> </u> Saturation Visible on Aerial Imagery (C9)	
<u> </u> Drift Deposits (B3)	<u> </u> Presence of Reduced Iron (C4)	<u> </u> Stunted or Stressed Plants (D1)	
<u> </u> Algal Mat or Crust (B4)	<u> </u> Recent Iron Reduction in Tilled Soil (C6)	<u> </u> Geomorphic Position (D2)	
<u> </u> Iron Deposits (B5)	<u> </u> Thin Muck Surface (C7)	<u> </u> FAC-Neutral Test (D5)	
<u> </u> Inundation Visible on Aerial Imagery (B7)	<u> </u> Guage or Well Data (D9)		
<u> </u> Sparsely Vegetated Concave Surface	<u> </u> Other		
Field Observations: Surface Water Present? Yes <u> </u> No <u>x</u>	Depth (inches) <u> </u>	Hydrology Indicators Present? Yes <u> </u> No <u> </u> x <u> </u>	
Water Table Present? Yes <u> </u> No <u>x</u>	Depth (inches) <u> </u>		
Saturation Present? Yes <u> </u> No <u>x</u>	Depth (inches) <u> </u>		

Describe Recorded Data (stream guage, monitoring well, aerial photos, previous inspections), if available:

WETLAND DETERMINATION FORM-MIDWEST REGION

Site: W. Lancaster-S.Baltimore-W.Millersport City/County: Fairfield County Date: 27 March 2024 Data Point: WL-10
 Client: AEP State: OH Section, Township, Range: Sec S25, R 16N, R 19W
 Investigator(s): N. Houk, N. Barnett Landform Terrances Local Relief Concave
 Slope (%): 1-3 Lat. 39.841685 Long. -82.589005 Datum NAD83 NWI Class: PEM
 Soil Map Unit Name: Canal silt loam, 0 to 2 percent slopes
 Climatic/hydrologic conditions typical for time of year? Y/N Y
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic
 Are Normal Circumstances Present? Yes x No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes <u>x</u> No <u> </u>	Is the DP within a Wetland? Yes <u>x</u> No <u> </u>
Hydric Soil Present? Yes <u>x</u> No <u> </u>	
Wetland Hydrology Present? Yes <u>x</u> No <u> </u>	

Remarks:

VEGETATION

Tree Stratum	Plot size: <u>30'</u>	Absolute % Cover	Dominant Species	Indicator Status	
1. <u> </u>					Dominance Test Worksheet Number of dominant species that are OBL, FACW, or FAC: <u>2</u> Total number of dominant species across all strata: <u>2</u> Percent of dominant species that are OBL, FACW, or FAC: <u>100.00</u>
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>		0	Total Cover		
Shrub Stratum	Plot size: <u>15'</u>	Absolute % Cover	Dominant Species	Indicator Status	
1. <u> </u>					Prevalence Index Worksheet Total % cover of: OBL species <u>0</u> x <u>1</u> = <u>0</u> FACW species <u>25</u> x <u>2</u> = <u>50</u> FAC species <u>15</u> x <u>3</u> = <u>45</u> FACU species <u>0</u> x <u>4</u> = <u>0</u> UPL species <u>0</u> x <u>5</u> = <u>0</u> Total <u>40</u> Prevalence Index: <u>2.38</u>
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>		0	Total Cover		
Herb Stratum	Plot size: <u>5'</u>	Absolute % Cover	Dominant Species	Indicator Status	
1. <u>Elymus virginicus</u>		25	Y	FACW	2
2. <u>Barbarea vulgaris</u>		15	Y	FAC	3
3. <u> </u>					
4. <u> </u>					
5. <u> </u>					
6. <u> </u>					
7. <u> </u>					
8. <u> </u>					
		40	Total Cover		
Woody Vine Stratum	Plot size: <u>30'</u>	Absolute % Cover	Dominant Species	Indicator Status	
1. <u> </u>					*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic Hydrophytic Vegetation Present? Yes <u>x</u> No <u> </u>
2. <u> </u>					
		0	Total Cover		

Remarks:

SOIL

Profile Description: (Describe to depth needed to document the indicator or confirm absence of indicators.)

Depth (inches)	Color	Matrix %	Color	%	Type*	Loc**	Redox Features	Texture	Remarks
0-18	10YR 3/1	95	10YR 5/6	5	C		M	Si C L	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:		
<input checked="" type="checkbox"/>	Histosol (A1)	Sandy Mucky Mineral (S1)
<input type="checkbox"/>	Histic Epipedon (A2)	5cm Mucky Peat or Peat
<input type="checkbox"/>	Black Histic (A3)	Sandy Gleyed Matrix (S4)
<input type="checkbox"/>	Hydrogen Sulfide (A4)	Sandy Redox (S5)
<input type="checkbox"/>	Stratified Layers (A5)	Stripped Matrix (S6)
<input type="checkbox"/>	2 cm Muck (A10)	Loamy Mucky Mineral (F1)
<input type="checkbox"/>	Depleted Below Dark Surface (A11)	Loamy Gleyed Matrix (F2)
<input type="checkbox"/>	Thick Dark Surface (A12)	Depleted Matrix (F3)

Restrictive Layer (if observed): Type: <u> </u> Depth (Inches): <u> </u>	Hydric Soil Present? Yes <u>x</u> No <u> </u>
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Remarks:

HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (check all that apply)		Secondary Indicators	
<input checked="" type="checkbox"/>	Surface Water (A1)	<input type="checkbox"/>	Water Stained Leaves (B9)
<input checked="" type="checkbox"/>	High Water Table (A2)	<input type="checkbox"/>	Aquatic Fauna (B13)
<input checked="" type="checkbox"/>	Saturation (A3)	<input type="checkbox"/>	True Aquatic Plants (B14)
<input type="checkbox"/>	Water Marks (B1)	<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)
<input type="checkbox"/>	Sediment Deposits (B2)	<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots
<input type="checkbox"/>	Drift Deposits (B3)	<input type="checkbox"/>	Presence of Reduced Iron (C4)
<input type="checkbox"/>	Algal Mat or Crust (B4)	<input type="checkbox"/>	Recent Iron Reduction in Tilled Soil (C6)
<input type="checkbox"/>	Iron Deposits (B5)	<input type="checkbox"/>	Thin Muck Surface (C7)
<input type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/>	Guage or Well Data (D9)
<input type="checkbox"/>	Sparsely Vegetated Concave Surface	<input type="checkbox"/>	Other

Field Observations: Surface Water Present? Yes <u>x</u> No <u> </u> Depth (inches) <u>1</u> Water Table Present? Yes <u>x</u> No <u> </u> Depth (inches) <u>0</u> Saturation Present? Yes <u>x</u> No <u> </u> Depth (inches) <u>0</u>	Hydrology Indicators Present? Yes <u>x</u> No <u> </u>
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Describe Recorded Data (stream guage, monitoring well, aerial photos, previous inspections), if available:

WETLAND DETERMINATION FORM-MIDWEST REGION

Site: W. Lancaster-S.Baltimore-W.Millersport City/County: Fairfield County Date: 27 March 2024 Data Point: UPL-10
 Client: AEP State: OH Section, Township, Range: Sec S25, R 16N, R 19W
 Investigator(s): N. Houk, N. Barnett Landform Terrances Local Relief Convex
 Slope (%): Lat. 39.841658 Long. -82.589099 Datum NAD83 NWI Class: N/A
 Soil Map Unit Name: Canal silt loam, 0 to 2 percent slopes
 Climatic/hydrologic conditions typical for time of year? Y/N Y
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic
 Are Normal Circumstances Present? Yes x No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes <u> </u> No <u>x</u>	Is the DP within a Wetland? Yes <u> </u> No <u> </u> x <u> </u>
Hydric Soil Present? Yes <u>x</u> No <u> </u>	
Wetland Hydrology Present? Yes <u> </u> No <u>x</u>	

Remarks:

VEGETATION

Tree Stratum	Plot size: <u>30'</u>	Absolute % Cover	Dominant Species	Indicator Status	
1. <u> </u>					Dominance Test Worksheet Number of dominant species that are OBL, FACW, or FAC: <u> 0</u> Total number of dominant species across all strata: <u> 1</u> Percent of dominant species that are OBL, FACW, or FAC: <u> 0.00</u>
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>		<u>0</u>	Total Cover		
Shrub Stratum	Plot size: <u>15'</u>	Absolute % Cover	Dominant Species	Indicator Status	
1. <u> </u>					Prevalence Index Worksheet Total % cover of: OBL species <u> 0</u> x <u> 1</u> = <u> 0</u> FACW species <u> 0</u> x <u> 2</u> = <u> 0</u> FAC species <u> 0</u> x <u> 3</u> = <u> 0</u> FACU species <u> 0</u> x <u> 4</u> = <u> 0</u> UPL species <u> 80</u> x <u> 5</u> = <u> 400</u> Total <u> 80</u> Prevalence Index: <u> 5.00</u>
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>		<u>0</u>	Total Cover		
Herb Stratum	Plot size: <u>5'</u>	Absolute % Cover	Dominant Species	Indicator Status	
1. <u>Triticum aestivum residue</u>		<u>80</u>	<u>Y</u>	<u>UPL</u> <u>5</u>	Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Veg. <u> </u> Dominance Test is >50% <u> </u> Prevalence Index is ≤3.0* <u> </u> Morphological Adaptations* <u> </u> Problematic Hydrophytic Vegetation* <u> </u> *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic Hydrophytic Vegetation Present? Yes <u> </u> No <u> </u> x <u> </u>
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>					
6. <u> </u>					
7. <u> </u>					
8. <u> </u>		<u>80</u>	Total Cover		
Woody Vine Stratum	Plot size: <u>30'</u>	Absolute % Cover	Dominant Species	Indicator Status	
1. <u> </u>					Hydrophytic Vegetation Present? Yes <u> </u> No <u> </u> x <u> </u>
2. <u> </u>		<u>0</u>	Total Cover		

Remarks:

SOIL

Profile Description: (Describe to depth needed to document the indicator or confirm absence of indicators.)

Depth (inches)	Color	Matrix	%	Color	%	Type*	Loc**	Redox Features	Texture	Remarks
0-4	10YR 3/1		100						Si C L	
4-18	10YR 3/1		95	10YR 5/6	5	C		M	Si C L	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

Histosol (A1)	Sandy Mucky Mineral (S1)	<u>x</u>	Redox Dark Surface (F6)
Histic Epipedon (A2)	5cm Mucky Peat or Peat		Depleted Dark Surface (F7)
Black Histic (A3)	Sandy Gleyed Matrix (S4)		Redox Depressions (F8)
Hydrogen Sulfide (A4)	Sandy Redox (S5)		Indicators for Problematic Hydric Soils
Stratified Layers (A5)	Stripped Matrix (S6)		Coast Prairie Redox (A16)
2 cm Muck (A10)	Loamy Mucky Mineral (F1)		Iron-Manganese Masses (F12)
Depleted Below Dark Surface (A11)	Loamy Gleyed Matrix (F2)		Very Shallow Dark Surface (F12)
Thick Dark Surface (A12)	Depleted Matrix (F3)		Other

Restrictive Layer (if observed): Type: Depth (Inches):

	Hydric Soil Present?	Yes <u> </u>	x <u> </u>	No <u> </u>
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Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (check all that apply)	Secondary Indicators
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Stained Leaves (B9)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soil (C6)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Guage or Well Data (D9)
<input type="checkbox"/> Sparsely Vegetated Concave Surface	<input type="checkbox"/> Other

Field Observations: Surface Water Present? Yes <u> </u> No <u>x</u> Depth (inches) Water Table Present? Yes <u> </u> No <u>x</u> Depth (inches) Saturation Present? Yes <u> </u> No <u>x</u> Depth (inches)	Hydrology Indicators Present? Yes <u> </u> No <u> </u> x <u> </u>
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Describe Recorded Data (stream guage, monitoring well, aerial photos, previous inspections), if available:

WETLAND DETERMINATION FORM-MIDWEST REGION

Site: W. Lancaster-S.Baltimore-W.Millersport City/County: Fairfield County Date: 27 March 2024 Data Point: WL-5
 Client: AEP State: OH Section, Township, Range: Sec S25, R 16N, R 19W
 Investigator(s): L. Vine, E.Holt Landform Lake Plains Local Relief Concave
 Slope (%): Lat. 39.834307° Long. -82.591561° Datum NAD83 NWI Class: PEM
 Soil Map Unit Name: Minster silty clay loam, 0 to 1 percent slopes
 Climatic/hydrologic conditions typical for time of year? Y/N Y
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic
 Are Normal Circumstances Present? Yes X No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>	Is the DP within a Wetland? Yes <u>X</u> No <u> </u>
Hydric Soil Present? Yes <u>X</u> No <u> </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u> </u>	

Remarks:

VEGETATION

Tree Stratum	Plot size: <u>30'</u>	Absolute % Cover	Dominant Species	Indicator Status	
1. <u> </u>					Dominance Test Worksheet Number of dominant species that are OBL, FACW, or FAC: <u>4</u> Total number of dominant species across all strata: <u>2</u> Percent of dominant species that are OBL, FACW, or FAC: <u>1.00</u>
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>					
		<u>0</u>	Total Cover		
Shrub Stratum	Plot size: <u>15'</u>	Absolute % Cover	Dominant Species	Indicator Status	
1. <u> </u>					Prevalence Index Worksheet Total % cover of: OBL species <u>80</u> x <u>1</u> = <u>80</u> FACW species <u>0</u> x <u>2</u> = <u>0</u> FAC species <u>20</u> x <u>3</u> = <u>60</u> FACU species <u>0</u> x <u>4</u> = <u>0</u> UPL species <u>0</u> x <u>5</u> = <u>0</u> Total <u>100</u> Prevalence Index: <u>1.40</u>
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>					
			Total Cover		
Herb Stratum	Plot size: <u>5'</u>	Absolute % Cover	Dominant Species	Indicator Status	
1. <u>Scirpus atrovirens</u>		<u>60</u>	<u>Y</u>	<u>OBL</u> <u>1</u>	Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Veg. X Dominance Test is >50% X Prevalence Index is ≤3.0* Morphological Adaptations* Problematic Hydrophytic Vegetation* *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>
2. <u>Apocynum cannabinum</u>		<u>20</u>	<u>Y</u>	<u>FAC</u> <u>3</u>	
3. <u>Alisma subcordatum</u>		<u>10</u>	<u>N</u>	<u>OBL</u> <u>1</u>	
4. <u>Juncus effusus</u>		<u>10</u>	<u>N</u>	<u>OBL</u> <u>1</u>	
5. <u> </u>					
6. <u> </u>					
7. <u> </u>					
8. <u> </u>					
		<u>100</u>	Total Cover		
Woody Vine Stratum	Plot size: <u>30'</u>	Absolute % Cover	Dominant Species	Indicator Status	
1. <u> </u>					Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>
2. <u> </u>					
		<u>0</u>	Total Cover		

SOIL

Profile Description: (Describe to depth needed to document the indicator or confirm absence of indicators.)

Depth (inches)	Matrix	Color	%	Color	%	Type*	Loc**	Redox Features	Texture	Remarks
0-6	10YR 4/2		100						SiL	
6-18	10YR 4/2		95	10YR 7/6	5	C		M	SiL	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:	
<u> </u> Histosol (A1)	<u> </u> Sandy Mucky Mineral (S1) <u>X</u> Redox Dark Surface (F6)
<u> </u> Histic Epipedon (A2)	<u> </u> 5cm Mucky Peat or Peat <u> </u> Depleted Dark Surface (F7)
<u> </u> Black Histic (A3)	<u> </u> Sandy Gleyed Matrix (S4) <u> </u> Redox Depressions (F8)
<u> </u> Hydrogen Sulfide (A4)	<u> </u> Sandy Redox (S5) Indicators for Problematic Hydric Soils
<u> </u> Stratified Layers (A5)	<u> </u> Stripped Matrix (S6) <u> </u> Coast Prairie Redox (A16)
<u> </u> 2 cm Muck (A10)	<u> </u> Loamy Mucky Mineral (F1) <u> </u> Iron-Manganese Masses (F12)
<u> </u> Depleted Below Dark Surface (A11)	<u> </u> Loamy Gleyed Matrix (F2) <u> </u> Very Shallow Dark Surface (F12)
<u> </u> Thick Dark Surface (A12)	<u> </u> Depleted Matrix (F3) <u> </u> Other

Restrictive Layer (if observed): Type: <u> </u>	Hydric Soil Present? Yes <u>X</u> No <u> </u>
Depth (Inches): <u> </u>	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:	
Primary Indicators (check all that apply)	Secondary Indicators
<u> </u> Surface Water (A1)	<u> </u> Water Stained Leaves (B9)
<u>X</u> High Water Table (A2)	<u> </u> Aquatic Fauna (B13)
<u>X</u> Saturation (A3)	<u> </u> True Aquatic Plants (B14)
<u> </u> Water Marks (B1)	<u> </u> Hydrogen Sulfide Odor (C1)
<u> </u> Sediment Deposits (B2)	<u> </u> Oxidized Rhizospheres on Living Roots
<u> </u> Drift Deposits (B3)	<u> </u> Presence of Reduced Iron (C4)
<u> </u> Algal Mat or Crust (B4)	<u> </u> Recent Iron Reduction in Tilled Soil (C6)
<u> </u> Iron Deposits (B5)	<u> </u> Thin Muck Surface (C7)
<u> </u> Inundation Visible on Aerial Imagery (B7)	<u> </u> Guage or Well Data (D9)
<u> </u> Sparsely Vegetated Concave Surface	<u> </u> Other
Field Observations: Surface Water Present? Yes <u> </u> No <u>X</u> Depth (inches) <u> </u>	Hydrology Indicators Present? Yes <u>X</u> No <u> </u>
Water Table Present? Yes <u>X</u> No <u> </u> Depth (inches) <u> </u>	
Saturation Present? Yes <u>X</u> No <u> </u> Depth (inches) <u> </u>	

Describe Recorded Data (stream guage, monitoring well, aerial photos, previous inspections), if available:

No hydric indicators

WETLAND DETERMINATION FORM-MIDWEST REGION

Site: W. Lancaster-S.Baltimore-W.Millersport City/County: Fairfield County Date: 27 March 2024 Data Point: UPL-5
 Client: AEP State: OH Section, Township, Range: Sec S25, R 16N, R 19W
 Investigator(s): L. Vine, E.Holt Landform Lake Plains Local Relief Convex
 Slope (%): Lat. 39.834361° Long. -82.591594° Datum NAD83 NWI Class: N/A
 Soil Map Unit Name: Minster silty clay loam, 0 to 1 percent slopes
 Climatic/hydrologic conditions typical for time of year? Y/N Y
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic
 Are Normal Circumstances Present? Yes x No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>	Is the DP within a Wetland? Yes <u> </u> No <u> </u> X <u> </u>
Hydric Soil Present? Yes <u> </u> No <u>X</u>	
Wetland Hydrology Present? Yes <u>X</u> No <u> </u>	

Remarks:

VEGETATION

Tree Stratum	Plot size: <u>30'</u>	Absolute % Cover	Dominant Species	Indicator Status	
1. <u> </u>					Dominance Test Worksheet Number of dominant species that are OBL, FACW, or FAC: <u>2</u> Total number of dominant species across all strata: <u>5</u> Percent of dominant species that are OBL, FACW, or FAC: <u>40.00</u>
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>		0	Total Cover		
Shrub Stratum	Plot size: <u>15'</u>	Absolute % Cover	Dominant Species	Indicator Status	
1. <u>Rubus allegheniensis</u>		5	Y	FACU 4	Prevalence Index Worksheet Total % cover of: OBL species <u>0</u> x <u>1</u> = <u>0</u> FACW species <u>20</u> x <u>2</u> = <u>40</u> FAC species <u>5</u> x <u>3</u> = <u>15</u> FACU species <u>85</u> x <u>4</u> = <u>340</u> UPL species <u>0</u> x <u>5</u> = <u>0</u> Total <u>110</u> Prevalence Index: <u>3.59</u>
2. <u>Acer rubrum</u>		5	Y	FAC 3	
3. <u> </u>					
4. <u> </u>					
5. <u> </u>		10	Total Cover		
Herb Stratum	Plot size: <u>5'</u>	Absolute % Cover	Dominant Species	Indicator Status	
1. <u>Solidago canadensis</u>		50	Y	FACU 4	Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Veg. Dominance Test is >50% X Prevalence Index is ≤3.0* Morphological Adaptations* Problematic Hydrophytic Vegetation* *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>
2. <u>Schedonorus arundinaceus</u>		30	Y	FACU 4	
3. <u>Dichanthelium clandestinum</u>		20	Y	FACW 2	
4. <u> </u>					
5. <u> </u>					
6. <u> </u>					
7. <u> </u>					
8. <u> </u>		100	Total Cover		
Woody Vine Stratum	Plot size: <u>30'</u>	Absolute % Cover	Dominant Species	Indicator Status	
1. <u> </u>					Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>
2. <u> </u>		0	Total Cover		

Remarks:

SOIL

Profile Description: (Describe to depth needed to document the indicator or confirm absence of indicators.)

Depth (inches)	Matrix	Color	%	Color	%	Type*	Loc**	Redox Features	Texture	Remarks
0-12	10YR 3/2		100						SiCL	
12-18	10YR 4/2		95	10YR 6/6	5	C		M	SiCL	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:		
<u> </u> Histosol (A1)	<u> </u> Sandy Mucky Mineral (S1)	<u> </u> Redox Dark Surface (F6)
<u> </u> Histic Epipedon (A2)	<u> </u> 5cm Mucky Peat or Peat	<u> </u> Depleted Dark Surface (F7)
<u> </u> Black Histic (A3)	<u> </u> Sandy Gleyed Matrix (S4)	<u> </u> Redox Depressions (F8)
<u> </u> Hydrogen Sulfide (A4)	<u> </u> Sandy Redox (S5)	Indicators for Problematic Hydric Soils Coast Prairie Redox (A16) Iron-Manganese Masses (F12) Very Shallow Dark Surface (F12) Other
<u> </u> Stratified Layers (A5)	<u> </u> Stripped Matrix (S6)	
<u> </u> 2 cm Muck (A10)	<u> </u> Loamy Mucky Mineral (F1)	
<u> </u> Depleted Below Dark Surface (A11)	<u> </u> Loamy Gleyed Matrix (F2)	
<u> </u> Thick Dark Surface (A12)	<u> </u> Depleted Matrix (F3)	

Restrictive Layer (if observed): Type: <u> </u>	
Depth (Inches): <u> </u>	Hydric Soil Present? Yes <u> </u> No <u> </u> X <u> </u>

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (check all that apply)			Secondary Indicators	
<u> </u> Surface Water (A1)	<u> </u> Water Stained Leaves (B9)	<u> </u> Surface Soil Cracks (B6)		
<u> </u> High Water Table (A2)	<u> </u> Aquatic Fauna (B13)	<u> </u> Drainage Patterns (B10)		
X <u> </u> Saturation (A3)	<u> </u> True Aquatic Plants (B14)	<u> </u> Dry-Season Water Table (C2)		
<u> </u> Water Marks (B1)	<u> </u> Hydrogen Sulfide Odor (C1)	<u> </u> Crayfish Burrows (C8)		
<u> </u> Sediment Deposits (B2)	<u> </u> Oxidized Rhizospheres on Living Roots	<u> </u> Saturation Visible on Aerial Imagery (C9)		
<u> </u> Drift Deposits (B3)	<u> </u> Presence of Reduced Iron (C4)	<u> </u> Stunted or Stressed Plants (D1)		
<u> </u> Algal Mat or Crust (B4)	<u> </u> Recent Iron Reduction in Tilled Soil (C6)	<u> </u> Geomorphic Position (D2)		
<u> </u> Iron Deposits (B5)	<u> </u> Thin Muck Surface (C7)	<u> </u> FAC-Neutral Test (D5)		
<u> </u> Inundation Visible on Aerial Imagery (B7)	<u> </u> Gauge or Well Data (D9)			
<u> </u> Sparsely Vegetated Concave Surface	<u> </u> Other			
Field Observations: Surface Water Present? Yes <u> </u> No <u>X</u>	Depth (inches) <u> </u>	Hydrology Indicators Present? Yes <u>X</u> No <u> </u>		
Water Table Present? Yes <u> </u> No <u>X</u>	Depth (inches) <u> </u>			
Saturation Present? Yes <u>X</u> No <u> </u>	10 Depth (inches) <u> </u>			

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

No hydric indicators

WETLAND DETERMINATION FORM-MIDWEST REGION

Site: W. Lancaster-S.Baltimore-W.Millersport City/County: Fairfield County Date: 27 March 2024 Data Point: WL-68
 Client: AEP State: OH Section, Township, Range: Sec S1, T 15N, R 19W
 Investigator(s): L. Vine, E.Holt Landform Till Plains Local Relief Concave
 Slope (%): 1-3 Lat. 39.822005° Long. -82.597640° Datum: NAD83 NWI Class: PEM
 Soil Map Unit Name: Bennington silt loam, 0 to 2 percent slopes
 Climatic/hydrologic conditions typical for time of year? Y/N Y
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic
 Are Normal Circumstances Present? Yes x No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>	Is the DP within a Wetland? Yes <u>X</u> No <u> </u>
Hydric Soil Present? Yes <u>X</u> No <u> </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u> </u>	

VEGETATION

Tree Stratum	Plot size: <u>30'</u>	Absolute % Cover	Dominant Species	Indicator Status	
1. <u> </u>					Dominance Test Worksheet Number of dominant species that are OBL, FACW, or FAC: <u>3</u> Total number of dominant species across all strata: <u>5</u> Percent of dominant species that are OBL, FACW, or FAC: <u>60.00</u>
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>		0	Total Cover		
Shrub Stratum	Plot size: <u>15'</u>				
1. <u> </u>					Prevalence Index Worksheet Total % cover of: OBL species <u>1</u> x <u>1</u> = <u>1</u> FACW species <u>30</u> x <u>2</u> = <u>60</u> FAC species <u>1</u> x <u>3</u> = <u>3</u> FACU species <u>14</u> x <u>4</u> = <u>56</u> UPL species <u>0</u> x <u>5</u> = <u>0</u> Total <u>46</u> = <u>120</u> Prevalence Index: <u>2.61</u>
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>		0	Total Cover		
Herb Stratum	Plot size: <u>5'</u>				
1. <u>Juncus effusus</u>		40	Y	OBL 1	Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Veg. x Dominance Test is >50% x Prevalence Index is ≤3.0* Morphological Adaptations* Problematic Hydrophytic Vegetation* *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>
2. <u>Dichanthelium clandestinum</u>		30	Y	FACW 2	
3. <u>Solidago canadensis</u>		10	N	FACU 4	
4. <u>Elymus canadensis</u>		4	N	FACU 4	
5. <u>Carex molesta</u>		1	N	FAC 3	
6. <u> </u>					
7. <u> </u>					
8. <u> </u>		85	Total Cover		
Woody Vine Stratum	Plot size: <u>30'</u>				
1. <u> </u>					Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>
2. <u> </u>					
Remarks: <u> </u>					

SOIL

Profile Description: (Describe to depth needed to document the indicator or confirm absence of indicators.)									
Depth (inches)	Matrix			Redox Features					
	Color	%	%	Color	%	Type*	Loc**	Texture	Remarks
0-18	10YR 4/2	90		10YR 5/4	10	C		M	SiCL

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:		
Histosol (A1)	Sandy Mucky Mineral (S1)	X Redox Dark Surface (F6)
Histic Epipedon (A2)	5cm Mucky Peat or Peat	Depleted Dark Surface (F7)
Black Histic (A3)	Sandy Gleyed Matrix (S4)	Redox Depressions (F8)
Hydrogen Sulfide (A4)	Sandy Redox (S5)	Indicators for Problematic Hydric Soils
Stratified Layers (A5)	Stripped Matrix (S6)	Coast Prairie Redox (A16)
2 cm Muck (A10)	Loamy Mucky Mineral (F1)	Iron-Manganese Masses (F12)
Depleted Below Dark Surface (A11)	Loamy Gleyed Matrix (F2)	Very Shallow Dark Surface (F12)
Thick Dark Surface (A12)	Depleted Matrix (F3)	Other

Restrictive Layer (if observed): Type: <u> </u> Depth (Inches): <u> </u>	Hydric Soil Present? Yes <u>X</u> No <u> </u>
Remarks: <u> </u>	

HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (check all that apply)			Secondary Indicators	
<u>X</u>	Surface Water (A1)	Water Stained Leaves (B9)		Surface Soil Cracks (B6)
	High Water Table (A2)	Aquatic Fauna (B13)		Drainage Patterns (B10)
	Saturation (A3)	True Aquatic Plants (B14)		Dry-Season Water Table (C2)
	Water Marks (B1)	Hydrogen Sulfide Odor (C1)		Crayfish Burrows (C8)
	Sediment Deposits (B2)	Oxidized Rhizospheres on Living Roots		Saturation Visible on Aerial Imagery (C9)
	Drift Deposits (B3)	Presence of Reduced Iron (C4)		Stunted or Stressed Plants (D1)
	Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Soil (C6)		<u>X</u> Geomorphic Position (D2)
	Iron Deposits (B5)	Thin Muck Surface (C7)		<u>X</u> FAC-Neutral Test (D5)
	Inundation Visible on Aerial Imagery (B7)	Guage or Well Data (D9)		
	Sparsely Vegetated Concave Surface	Other		
Field Observations: Surface Water Present? Yes <u> </u> No <u>X</u> Depth (inches) <u> </u>			Hydrology Indicators Present? Yes <u>X</u> No <u> </u>	
Water Table Present? Yes <u>X</u> No <u> </u> Depth (inches) <u>5</u>				
Saturation Present? Yes <u> </u> No <u>X</u> Depth (inches) <u> </u>				

Describe Recorded Data (stream guage, monitoring well, aerial photos, previous inspections), if available:

No hydric indicators

WETLAND DETERMINATION FORM-MIDWEST REGION

Site: W. Lancaster-S.Baltimore-W.Millersport City/County: Fairfield County Date: 27 March 2024 Data Point: UPL-68
 Client: AEP State: OH Section, Township, Range: Sec S1, T 15N, R 19W
 Investigator(s): L. Vine, E.Holt Landform Till Plains Local Relief Convex
 Slope (%): Lat. 39.822032° Long. -82.597449° Datum NAD83 NWI Class: N/A
 Soil Map Unit Name: Bennington silt loam, 0 to 2 percent slopes
 Climatic/hydrologic conditions typical for time of year? Y/N Y
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic
 Are Normal Circumstances Present? Yes x No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes <u> </u> No <u>X</u>	Is the DP within a Wetland? Yes <u> </u> No <u> </u> X <u> </u>
Hydric Soil Present? Yes <u>X</u> No <u> </u>	
Wetland Hydrology Present? Yes <u> </u> No <u>X</u>	

VEGETATION

Tree Stratum	Plot size: 30'	Absolute % Cover	Dominant Species	Indicator Status	
1. <u> </u>					Dominance Test Worksheet Number of dominant species that are OBL, FACW, or FAC: <u>2</u> Total number of dominant species across all strata: <u>4</u> Percent of dominant species that are OBL, FACW, or FAC: <u>50.00</u>
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>		0	Total Cover		
Shrub Stratum	Plot size: 15'				
1. <u>Rubus allegheniensis</u>		10	Y	FACU 4	Prevalence Index Worksheet Total % cover of: OBL species <u>1</u> x <u>1</u> = <u>1</u> FACW species <u>0</u> x <u>2</u> = <u>0</u> FAC species <u>50</u> x <u>3</u> = <u>150</u> FACU species <u>40</u> x <u>4</u> = <u>160</u> UPL species <u>0</u> x <u>5</u> = <u>0</u> Total <u>91</u> Prevalence Index: <u>3.42</u>
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>		10	Total Cover		
Herb Stratum	Plot size: 5'				
1. <u>Juncus tenuis</u>		50	Y	FAC 3	Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Veg. <u> </u> Dominance Test is >50% <u> </u> Prevalence Index is ≤3.0* <u> </u> Morphological Adaptations* <u> </u> Problematic Hydrophytic Vegetation* <u> </u> *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic Hydrophytic Vegetation Present? Yes <u> </u> No <u> </u> X <u> </u>
2. <u>Solidago canadensis</u>		20	Y	FACU 4	
3. <u>Symphotrichum ericoides</u>		10	Y	FACU 4	
4. <u> </u>					
5. <u> </u>					
6. <u> </u>					
7. <u> </u>					
8. <u> </u>		80	Total Cover		
Woody Vine Stratum	Plot size: 30'				
1. <u> </u>					Hydrophytic Vegetation Present? Yes <u> </u> No <u> </u> X <u> </u>
2. <u> </u>		0	Total Cover		
Remarks: <u> </u>					

SOIL

Profile Description: (Describe to depth needed to document the indicator or confirm absence of indicators.)

Depth (inches)	Color	Matrix %	Color	%	Type*	Loc**	Redox Features	Texture	Remarks
0-18	10YR 4/2	90	10YR 5/4	10	C		M	SiCL	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:		
<u> </u> Histosol (A1)	<u> </u> Sandy Mucky Mineral (S1)	<u>X</u> Redox Dark Surface (F6)
<u> </u> Histic Epipedon (A2)	<u> </u> 5cm Mucky Peat or Peat	<u> </u> Depleted Dark Surface (F7)
<u> </u> Black Histic (A3)	<u> </u> Sandy Gleyed Matrix (S4)	<u> </u> Redox Depressions (F8)
<u> </u> Hydrogen Sulfide (A4)	<u> </u> Sandy Redox (S5)	Indicators for Problematic Hydric Soils
<u> </u> Stratified Layers (A5)	<u> </u> Stripped Matrix (S6)	<u> </u> Coast Prairie Redox (A16)
<u> </u> 2 cm Muck (A10)	<u> </u> Loamy Mucky Mineral (F1)	<u> </u> Iron-Manganese Masses (F12)
<u> </u> Depleted Below Dark Surface (A11)	<u> </u> Loamy Gleyed Matrix (F2)	<u> </u> Very Shallow Dark Surface (F12)
<u> </u> Thick Dark Surface (A12)	<u> </u> Depleted Matrix (F3)	<u> </u> Other

Restrictive Layer (if observed): Type: <u> </u> Depth (Inches): <u> </u>	Hydric Soil Present? Yes <u> </u> X <u> </u> No <u> </u>
Remarks: <u> </u>	

HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (check all that apply)		Secondary Indicators	
<u> </u> Surface Water (A1)	<u> </u> Water Stained Leaves (B9)	<u> </u> Surface Soil Cracks (B6)	
<u> </u> High Water Table (A2)	<u> </u> Aquatic Fauna (B13)	<u> </u> Drainage Patterns (B10)	
<u> </u> Saturation (A3)	<u> </u> True Aquatic Plants (B14)	<u> </u> Dry-Season Water Table (C2)	
<u> </u> Water Marks (B1)	<u> </u> Hydrogen Sulfide Odor (C1)	<u> </u> Crayfish Burrows (C8)	
<u> </u> Sediment Deposits (B2)	<u> </u> Oxidized Rhizospheres on Living Roots	<u> </u> Saturation Visible on Aerial Imagery (C9)	
<u> </u> Drift Deposits (B3)	<u> </u> Presence of Reduced Iron (C4)	<u> </u> Stunted or Stressed Plants (D1)	
<u> </u> Algal Mat or Crust (B4)	<u> </u> Recent Iron Reduction in Tilled Soil (C6)	<u> </u> Geomorphic Position (D2)	
<u> </u> Iron Deposits (B5)	<u> </u> Thin Muck Surface (C7)	<u> </u> FAC-Neutral Test (D5)	
<u> </u> Inundation Visible on Aerial Imagery (B7)	<u> </u> Guage or Well Data (D9)		
<u> </u> Sparsely Vegetated Concave Surface	<u> </u> Other		
Field Observations: Surface Water Present? Yes <u> </u> No <u> </u> Depth (inches) <u> </u>		Hydrology Indicators Present? Yes <u> </u> No <u> </u> X <u> </u>	
Water Table Present? Yes <u> </u> No <u> </u> Depth (inches) <u> </u>			
Saturation Present? Yes <u> </u> No <u> </u> Depth (inches) <u> </u>			

Describe Recorded Data (stream guage, monitoring well, aerial photos, previous inspections), if available:

No hydric indicators

WETLAND DETERMINATION FORM-MIDWEST REGION

Site: W. Lancaster-S.Baltimore-W.Millersport City/County: Fairfield County Date: 27 March 2024 Data Point: WL-60
 Client: AEP State: OH Section, Township, Range: Sec S1, T 15N, R 19W
 Investigator(s): L. Vine, E.Holt Landform: Till Plains Local Relief: Concave
 Slope (%): Lat. 39.809106° Long. -82.610454° Datum: NAD83 NWI Class: PEM
 Soil Map Unit Name: Marengo clay loam

Climatic/hydrologic conditions typical for time of year? Y/N Y
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic
 Are Normal Circumstances Present? Yes x No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>	Is the DP within a Wetland? Yes <u>X</u> No <u> </u>
Hydric Soil Present? Yes <u>X</u> No <u> </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u> </u>	

VEGETATION

Tree Stratum	Plot size: <u>30'</u>	Absolute % Cover	Dominant Species	Indicator Status	
1. <u> </u>					Dominance Test Worksheet Number of dominant species that are OBL, FACW, or FAC: <u>5</u> Total number of dominant species across all strata: <u>6</u> Percent of dominant species that are OBL, FACW, or FAC: <u>83.33</u>
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>		0	Total Cover		
Shrub Stratum	Plot size: <u>15'</u>				
1. <u> </u>					Prevalence Index Worksheet Total % cover of: OBL species <u>1</u> x <u>1</u> = <u>1</u> FACW species <u>45</u> x <u>2</u> = <u>90</u> FAC species <u>0</u> x <u>3</u> = <u>0</u> FACU species <u>0</u> x <u>4</u> = <u>0</u> UPL species <u>10</u> x <u>5</u> = <u>50</u> Total <u>56</u> = <u>141</u> Prevalence Index: <u>2.52</u>
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>		0	Total Cover		
Herb Stratum	Plot size: <u>5'</u>				
1. <u>Juncus effusus</u>		45	Y	OBL 1	Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Veg. x Dominance Test is >50% x Prevalence Index is ≤3.0* Morphological Adaptations* Problematic Hydrophytic Vegetation* *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>
2. <u>Phalaris arundinacea</u>		25	Y	FACW 2	
3. <u>Thyrsanthella difformis</u>		15	N	FACW 2	
4. <u>Dipsacus laciniatus</u>		10	N	UPL 5	
5. <u>Lepidium latifolium</u>		3	N	FACW 2	
6. <u>Carex vulpinoidea</u>		2	N	FACW 2	
7. <u> </u>					
8. <u> </u>		100	Total Cover		
Woody Vine Stratum	Plot size: <u>30'</u>				
1. <u> </u>					Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>
2. <u> </u>		0	Total Cover		
Remarks: <u> </u>					

SOIL

Profile Description: (Describe to depth needed to document the indicator or confirm absence of indicators.)

Depth (inches)	Color	Matrix %	Color	%	Type*	Loc**	Redox Features	Texture	Remarks
0-6	10YR 4/2	100						SiCL	
6-18	10YR 4/2	95	10YR 4/6	10	C		M	SiCL	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

<input checked="" type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> 5cm Mucky Peat or Peat	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Sandy Redox (S5)	Indicators for Problematic Hydric Soils	
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Coast Prairie Redox (A16)	
<input type="checkbox"/> 2 cm Muck (A10)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Iron-Manganese Masses (F12)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Very Shallow Dark Surface (F12)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other	

Restrictive Layer (if observed): Type: Depth (Inches):

Hydric Soil Present?	Yes <u>X</u> No <u> </u>
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Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (check all that apply)	Secondary Indicators
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Stained Leaves (B9)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soil (C6)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Guage or Well Data (D9)
<input type="checkbox"/> Sparsely Vegetated Concave Surface	<input type="checkbox"/> Other
Field Observations: Surface Water Present? Yes <u> </u> No <u>X</u> Depth (inches) <u> </u>	Hydrology Indicators Present? Yes <u>X</u> No <u> </u>
Water Table Present? Yes <u>X</u> No <u> </u> Depth (inches) <u>9</u>	
Saturation Present? Yes <u>X</u> No <u> </u> Depth (inches) <u>6</u>	

Describe Recorded Data (stream guage, monitoring well, aerial photos, previous inspections), if available:

No hydric indicators

WETLAND DETERMINATION FORM-MIDWEST REGION

Site: W. Lancaster-S.Baltimore-W.Millersport City/County: Fairfield County Date: 27 March 2024 Data Point: UPL-60
 Client: AEP State: OH Section, Township, Range: Sec S1, T 15N, R 19W
 Investigator(s): L. Vine, E.Holt Landform Till Plains Local Relief Convex
 Slope (%): Lat. 39.809228° Long. -82.610301° Datum NAD83 NWI Class: N/A
 Soil Map Unit Name: Marengo clay loam

Climatic/hydrologic conditions typical for time of year? Y/N Y
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic
 Are Normal Circumstances Present? Yes x No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes <u> </u> No <u>X</u>	Is the DP within a Wetland? Yes <u>X</u> No <u> </u>
Hydric Soil Present? Yes <u>X</u> No <u> </u>	
Wetland Hydrology Present? Yes <u> </u> No <u>X</u>	

VEGETATION

Tree Stratum	Plot size: <u>30'</u>	Absolute % Cover	Dominant Species	Indicator Status	
1. <u> </u>					Dominance Test Worksheet Number of dominant species that are OBL, FACW, or FAC: <u>4</u> Total number of dominant species across all strata: <u>7</u> Percent of dominant species that are OBL, FACW, or FAC: <u>57.14</u>
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>					
		<u>0</u>	Total Cover		
Shrub Stratum	Plot size: <u>15'</u>	Absolute % Cover	Dominant Species	Indicator Status	
1. <u> </u>					Prevalence Index Worksheet Total % cover of: OBL species <u>1</u> x <u>1</u> = <u>1</u> FACW species <u>0</u> x <u>2</u> = <u>0</u> FAC species <u>10</u> x <u>3</u> = <u>30</u> FACU species <u>70</u> x <u>4</u> = <u>280</u> UPL species <u>0</u> x <u>5</u> = <u>0</u> Total <u>81</u> Prevalence Index: <u>3.84</u>
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>					
		<u>0</u>	Total Cover		
Herb Stratum	Plot size: <u>5'</u>	Absolute % Cover	Dominant Species	Indicator Status	
1. <u>Schedonorus arundinaceus</u>		<u>55</u>	<u>Y</u>	<u>FACU</u>	Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Veg. Dominance Test is >50% Prevalence Index is ≤3.0* Morphological Adaptations* Problematic Hydrophytic Vegetation* *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>
2. <u>Juncus effusus</u>		<u>10</u>	<u>N</u>	<u>OBL</u>	
3. <u>Juncus tenuis</u>		<u>10</u>	<u>N</u>	<u>FAC</u>	
4. <u>Carex frankii</u>		<u>5</u>	<u>N</u>	<u>OBL</u>	
5. <u>Trifolium pratense</u>		<u>5</u>	<u>N</u>	<u>FACU</u>	
6. <u>Dipsacus fullonum</u>		<u>5</u>	<u>N</u>	<u>FACU</u>	
7. <u>Solidago canadensis</u>		<u>5</u>	<u>N</u>	<u>FACU</u>	
8. <u> </u>					
		<u>95</u>	Total Cover		
Woody Vine Stratum	Plot size: <u>30'</u>	Absolute % Cover	Dominant Species	Indicator Status	
1. <u> </u>					Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>
2. <u> </u>					
		<u>0</u>	Total Cover		
Remarks: <u> </u>					

SOIL

Profile Description: (Describe to depth needed to document the indicator or confirm absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color	%	Color	%	Type*	Loc**		
0-6	10YR 4/2	100					SiCL	
6-18	10YR 4/2	95	10YR 4/6	10	C	M	SiCL	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:		
<u> </u> Histosol (A1)	<u> </u> Sandy Mucky Mineral (S1)	<u> </u> Redox Dark Surface (F6)
<u> </u> Histic Epipedon (A2)	<u> </u> 5cm Mucky Peat or Peat	<u> </u> Depleted Dark Surface (F7)
<u> </u> Black Histic (A3)	<u> </u> Sandy Gleyed Matrix (S4)	<u> </u> Redox Depressions (F8)
<u> </u> Hydrogen Sulfide (A4)	<u> </u> Sandy Redox (S5)	Indicators for Problematic Hydric Soils Coast Prairie Redox (A16) Iron-Manganese Masses (F12) Very Shallow Dark Surface (F12) Other
<u> </u> Stratified Layers (A5)	<u> </u> Stripped Matrix (S6)	
<u> </u> 2 cm Muck (A10)	<u> </u> Loamy Mucky Mineral (F1)	
<u> </u> Depleted Below Dark Surface (A11)	<u> </u> Loamy Gleyed Matrix (F2)	
<u> </u> Thick Dark Surface (A12)	<u> </u> Depleted Matrix (F3)	

Restrictive Layer (if observed): Type: <u> </u> Depth (Inches): <u> </u>	Hydric Soil Present? Yes <u>X</u> No <u> </u>
Remarks: <u> </u>	

HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (check all that apply)			Secondary Indicators	
<u> </u> Surface Water (A1)	<u> </u> Water Stained Leaves (B9)	<u> </u> Surface Soil Cracks (B6)		
<u> </u> High Water Table (A2)	<u> </u> Aquatic Fauna (B13)	<u> </u> Drainage Patterns (B10)		
<u>X</u> Saturation (A3)	<u> </u> True Aquatic Plants (B14)	<u> </u> Dry-Season Water Table (C2)		
<u> </u> Water Marks (B1)	<u> </u> Hydrogen Sulfide Odor (C1)	<u> </u> Crayfish Burrows (C8)		
<u> </u> Sediment Deposits (B2)	<u> </u> Oxidized Rhizospheres on Living Roots	<u> </u> Saturation Visible on Aerial Imagery (C9)		
<u> </u> Drift Deposits (B3)	<u> </u> Presence of Reduced Iron (C4)	<u> </u> Stunted or Stressed Plants (D1)		
<u> </u> Algal Mat or Crust (B4)	<u> </u> Recent Iron Reduction in Tilled Soil (C6)	<u> </u> Geomorphic Position (D2)		
<u> </u> Iron Deposits (B5)	<u> </u> Thin Muck Surface (C7)	<u>X</u> FAC-Neutral Test (D5)		
<u> </u> Inundation Visible on Aerial Imagery (B7)	<u> </u> Gauge or Well Data (D9)			
<u> </u> Sparsely Vegetated Concave Surface	<u> </u> Other			
Field Observations: Surface Water Present? Yes <u> </u> No <u>X</u> Depth (inches) <u> </u>			Hydrology Indicators Present? Yes <u> </u> No <u> </u> X <u> </u>	
Water Table Present? Yes <u> </u> No <u>X</u> Depth (inches) <u> </u>				
Saturation Present? Yes <u> </u> No <u>X</u> Depth (inches) <u> </u>				

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

No hydric indicators

WETLAND DETERMINATION FORM-MIDWEST REGION

Site: W. Lancaster-S.Baltimore-W.Millersport City/County: Fairfield County Date: 27 March 2024 Data Point: WL-60A
 Client: AEP State: OH Section, Township, Range: Sec S1, T 15N, R 19W
 Investigator(s): L. Vine, E.Holt Landform: Moraines Local Relief: Concave
 Slope (%): _____ Lat. 39.807529° Long. -82.611944° Datum: NAD83 NWI Class: PEM
 Soil Map Unit Name: Centerburg silt loam, 2 to 6 percent slopes
 Climatic/hydrologic conditions typical for time of year? Y/N Y
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic
 Are Normal Circumstances Present? Yes x No _____

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the DP within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

VEGETATION

Tree Stratum	Plot size: 30'	Absolute % Cover	Dominant Species	Indicator Status	
1. _____					Dominance Test Worksheet Number of dominant species that are OBL, FACW, or FAC: <u>8</u> Total number of dominant species across all strata: <u>8</u> Percent of dominant species that are OBL, FACW, or FAC: <u>100.00</u>
2. _____					
3. _____					
4. _____					
5. _____		0	Total Cover		
Shrub Stratum	Plot size: 15'				
1. _____					Prevalence Index Worksheet Total % cover of: OBL species <u>1</u> x <u>1</u> = <u>1</u> FACW species <u>25</u> x <u>2</u> = <u>50</u> FAC species <u>0</u> x <u>3</u> = <u>0</u> FACU species <u>0</u> x <u>4</u> = <u>0</u> UPL species <u>0</u> x <u>5</u> = <u>0</u> Total <u>26</u> Prevalence Index: <u>1.96</u>
2. _____					
3. _____					
4. _____					
5. _____		0	Total Cover		
Herb Stratum	Plot size: 5'				
1. <u>Juncus effusus</u>		20	Y	OBL 1	Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Veg. Dominance Test is >50% Prevalence Index is ≤3.0* Morphological Adaptations* Problematic Hydrophytic Vegetation* *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____
2. <u>Scirpus cyperinus</u>		20	Y	OBL 1	
3. <u>Phalaris arundinacea</u>		15	N	FACW 2	
4. <u>Carex frankii</u>		10	N	OBL 1	
5. <u>Carex vulpinoidea</u>		10	N	FACW 2	
6. <u>Alisma subcordatum</u>		5	N	OBL 1	
7. <u>Typha latifolia</u>		5	N	OBL 1	
8. <u>Carex muskingumensis</u>		5	N	OBL 1	
		90	Total Cover		
Woody Vine Stratum	Plot size: 30'				
1. _____					Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____
2. _____					
		0	Total Cover		
Remarks: _____					

SOIL

Profile Description: (Describe to depth needed to document the indicator or confirm absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color	%	Color	%	Type*	Loc**		
0-4	10YR 4/2	100					SiL	
4-18	10YR 4/2	90	10YR 4/6	10	C	M	SICL	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:		
Histosol (A1)	Sandy Mucky Mineral (S1)	X Redox Dark Surface (F6)
Histic Epipedon (A2)	5cm Mucky Peat or Peat	Depleted Dark Surface (F7)
Black Histic (A3)	Sandy Gleyed Matrix (S4)	Redox Depressions (F8)
Hydrogen Sulfide (A4)	Sandy Redox (S5)	Indicators for Problematic Hydric Soils
Stratified Layers (A5)	Stripped Matrix (S6)	Coast Prairie Redox (A16)
2 cm Muck (A10)	Loamy Mucky Mineral (F1)	Iron-Manganese Masses (F12)
Depleted Below Dark Surface (A11)	Loamy Gleyed Matrix (F2)	Very Shallow Dark Surface (F12)
Thick Dark Surface (A12)	Depleted Matrix (F3)	Other

Restrictive Layer (if observed): Type: _____ Depth (Inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____
Remarks: _____	

HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (check all that apply)		Secondary Indicators	
Surface Water (A1)	Water Stained Leaves (B9)	Surface Soil Cracks (B6)	
<input checked="" type="checkbox"/> High Water Table (A2)	Aquatic Fauna (B13)	Drainage Patterns (B10)	
<input checked="" type="checkbox"/> Saturation (A3)	True Aquatic Plants (B14)	Dry-Season Water Table (C2)	
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	<input checked="" type="checkbox"/> Crayfish Burrows (C8)	
Sediment Deposits (B2)	Oxidized Rhizospheres on Living Roots	Saturation Visible on Aerial Imagery (C9)	
Drift Deposits (B3)	Presence of Reduced Iron (C4)	Stunted or Stressed Plants (D1)	
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Soil (C6)	<input checked="" type="checkbox"/> Geomorphic Position (D2)	
Iron Deposits (B5)	Thin Muck Surface (C7)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)	
Inundation Visible on Aerial Imagery (B7)	Gauge or Well Data (D9)		
Sparsely Vegetated Concave Surface	Other		
Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/>		Hydrology Indicators Present? Yes <input checked="" type="checkbox"/> No _____	
Water Table Present? Yes <input checked="" type="checkbox"/> No _____			
Saturation Present? Yes <input checked="" type="checkbox"/> No _____			

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

No hydric indicators

WETLAND DETERMINATION FORM-MIDWEST REGION

Site: W. Lancaster-S.Baltimore-W.Millersport City/County: Fairfield County Date: 27 March 2024 Data Point: UPL-60A
 Client: AEP State: OH Section, Township, Range: Sec S1, T 15N, R 19W
 Investigator(s): L. Vine, E.Holt Landform: Moraines Local Relief: Convex
 Slope (%): _____ Lat. 39.807445° Long. -82.611981° Datum: NAD83 NWI Class: N/A
 Soil Map Unit Name: Centerburg silt loam, 2 to 6 percent slopes
 Climatic/hydrologic conditions typical for time of year? Y/N Y
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic
 Are Normal Circumstances Present? Yes x No _____

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	Is the DP within a Wetland? Yes _____ No _____ X _____
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

VEGETATION

Tree Stratum	Plot size: <u>30'</u>	Absolute % Cover	Dominant Species	Indicator Status	
1. _____					Dominance Test Worksheet Number of dominant species that are OBL, FACW, or FAC: <u>1</u> Total number of dominant species across all strata: <u>4</u> Percent of dominant species that are OBL, FACW, or FAC: <u>25.00</u>
2. _____					
3. _____					
4. _____					
5. _____		0	Total Cover		
Shrub Stratum	Plot size: <u>15'</u>	Absolute % Cover	Dominant Species	Indicator Status	
1. _____					Prevalence Index Worksheet Total % cover of: OBL species <u>1</u> x <u>1</u> = <u>1</u> FACW species <u>0</u> x <u>2</u> = <u>0</u> FAC species <u>5</u> x <u>3</u> = <u>15</u> FACU species <u>95</u> x <u>4</u> = <u>380</u> UPL species <u>0</u> x <u>5</u> = <u>0</u> Total <u>101</u> Prevalence Index: <u>3.92</u>
2. _____					
3. _____					
4. _____					
5. _____		0	Total Cover		
Herb Stratum	Plot size: <u>5'</u>	Absolute % Cover	Dominant Species	Indicator Status	
1. <u>Solidago canadensis</u>		70	Y	FACU	Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Veg. Dominance Test is >50% Prevalence Index is ≤3.0* Morphological Adaptations* Problematic Hydrophytic Vegetation* *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic Hydrophytic Vegetation Present? Yes _____ No _____ X _____
2. <u>Rubus allegheniensis</u>		15	N	FACU	
3. <u>Rosa multiflora</u>		10	N	FACU	
4. <u>Poa pratensis</u>		5	N	FAC	
5. _____					
6. _____					
7. _____					
8. _____		100	Total Cover		
Woody Vine Stratum	Plot size: <u>30'</u>	Absolute % Cover	Dominant Species	Indicator Status	
1. _____					Hydrophytic Vegetation Present? Yes _____ No _____ X _____
2. _____		0	Total Cover		
Remarks: _____					

SOIL

Profile Description: (Describe to depth needed to document the indicator or confirm absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color	%	Color	%	Type*	Loc**		
0-4	10YR 3/2	100					SICL	
4-18	10YR 3/2	95	10YR 6/6	5	C	M	SICL	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

Histosol (A1)	Sandy Mucky Mineral (S1)	X	Redox Dark Surface (F6)
Histic Epipedon (A2)	5cm Mucky Peat or Peat	_____	Depleted Dark Surface (F7)
Black Histic (A3)	Sandy Gleyed Matrix (S4)	_____	Redox Depressions (F8)
Hydrogen Sulfide (A4)	Sandy Redox (S5)	_____	Indicators for Problematic Hydric Soils
Stratified Layers (A5)	Stripped Matrix (S6)	_____	Coast Prairie Redox (A16)
2 cm Muck (A10)	Loamy Mucky Mineral (F1)	_____	Iron-Manganese Masses (F12)
Depleted Below Dark Surface (A11)	Loamy Gleyed Matrix (F2)	_____	Very Shallow Dark Surface (F12)
Thick Dark Surface (A12)	Depleted Matrix (F3)	_____	Other

Restrictive Layer (if observed): Type: _____ Depth (Inches): _____

	Hydric Soil Present? Yes _____ X _____ No _____
--	--

Remarks: _____

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (check all that apply)				Secondary Indicators	
<input type="checkbox"/>	Surface Water (A1)	<input type="checkbox"/>	Water Stained Leaves (B9)	<input type="checkbox"/>	Surface Soil Cracks (B6)
<input checked="" type="checkbox"/>	High Water Table (A2)	<input type="checkbox"/>	Aquatic Fauna (B13)	<input type="checkbox"/>	Drainage Patterns (B10)
<input checked="" type="checkbox"/>	Saturation (A3)	<input type="checkbox"/>	True Aquatic Plants (B14)	<input type="checkbox"/>	Dry-Season Water Table (C2)
<input type="checkbox"/>	Water Marks (B1)	<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)	<input type="checkbox"/>	Crayfish Burrows (C8)
<input type="checkbox"/>	Sediment Deposits (B2)	<input type="checkbox"/>	Oxidized Rhizospheres on Living Roots	<input type="checkbox"/>	Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/>	Drift Deposits (B3)	<input type="checkbox"/>	Presence of Reduced Iron (C4)	<input type="checkbox"/>	Stunted or Stressed Plants (D1)
<input type="checkbox"/>	Algal Mat or Crust (B4)	<input type="checkbox"/>	Recent Iron Reduction in Tilled Soil (C6)	<input type="checkbox"/>	Geomorphic Position (D2)
<input type="checkbox"/>	Iron Deposits (B5)	<input type="checkbox"/>	Thin Muck Surface (C7)	<input type="checkbox"/>	FAC-Neutral Test (D5)
<input type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/>	Guage or Well Data (D9)		
<input type="checkbox"/>	Sparsely Vegetated Concave Surface	<input type="checkbox"/>	Other		
Field Observations:					
	Surface Water Present? Yes _____ No <u>X</u>	Depth (inches)		Hydrology Indicators Present? Yes _____ X _____ No _____	
	Water Table Present? Yes <u>X</u> No _____	Depth (inches) <u>12</u>			
	Saturation Present? Yes <u>X</u> No _____	Depth (inches)			

Describe Recorded Data (stream guage, monitoring well, aerial photos, previous inspections), if available:

No hydric indicators

WETLAND DETERMINATION FORM-MIDWEST REGION

Site: W. Lancaster-S.Baltimore-W.Millersport City/County: Fairfield County Date: 27 March 2024 Data Point: WL-50
 Client: AEP State: OH Section, Township, Range: Sec S11, T 15N, R 19W
 Investigator(s): N. Houk, N. Barnett Landform: Moraines Local Relief: Concave
 Slope (%): 1-3 Lat. 39.793217 Long. -82.621980 Datum: NAD83 NWI Class: PEM
 Soil Map Unit Name: Centerburg silt loam, 2 to 6 percent slopes, eroded
 Climatic/hydrologic conditions typical for time of year? Y/N Y
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic
 Are Normal Circumstances Present? Yes x No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes <u>x</u> No <u> </u>	Is the DP within a Wetland? Yes <u>x</u> No <u> </u>
Hydric Soil Present? Yes <u>x</u> No <u> </u>	
Wetland Hydrology Present? Yes <u>x</u> No <u> </u>	

Remarks:

VEGETATION

Tree Stratum	Plot size: <u>30'</u>	Absolute % Cover	Dominant Species	Indicator Status	
1. <u> </u>					Dominance Test Worksheet Number of dominant species that are OBL, FACW, or FAC: <u>1</u> Total number of dominant species across all strata: <u>1</u> Percent of dominant species that are OBL, FACW, or FAC: <u>100.00</u>
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>		<u>0</u>	Total Cover		
Shrub Stratum	Plot size: <u>15'</u>	Absolute % Cover	Dominant Species	Indicator Status	
1. <u> </u>					Prevalence Index Worksheet Total % cover of: OBL species <u>0</u> x <u>1</u> = <u>0</u> FACW species <u>100</u> x <u>2</u> = <u>200</u> FAC species <u>0</u> x <u>3</u> = <u>0</u> FACU species <u>0</u> x <u>4</u> = <u>0</u> UPL species <u>0</u> x <u>5</u> = <u>0</u> Total <u>100</u> Prevalence Index: <u>2.00</u>
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>		<u>0</u>	Total Cover		
Herb Stratum	Plot size: <u>5'</u>	Absolute % Cover	Dominant Species	Indicator Status	
1. <u>Carex vulpinoidea</u>		<u>100</u>	<u>Y</u>	<u>FACW</u> <u>2</u>	Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Veg. x Dominance Test is >50% x Prevalence Index is ≤3.0* Morphological Adaptations* Problematic Hydrophytic Vegetation* *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic Hydrophytic Vegetation Present? Yes <u>x</u> No <u> </u>
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>					
6. <u> </u>					
7. <u> </u>					
8. <u> </u>		<u>100</u>	Total Cover		
Woody Vine Stratum	Plot size: <u>30'</u>	Absolute % Cover	Dominant Species	Indicator Status	
1. <u> </u>					Hydrophytic Vegetation Present? Yes <u>x</u> No <u> </u>
2. <u> </u>		<u>0</u>	Total Cover		

Remarks:

SOIL

Profile Description: (Describe to depth needed to document the indicator or confirm absence of indicators.)

Depth (inches)	Color	Matrix %	Color	%	Type*	Loc**	Redox Features	Texture	Remarks
0-18	10YR 4/1	85	7.5YR 4/6	15	C		M	Si C L	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:		
<u> </u> Histosol (A1)	<u> </u> Sandy Mucky Mineral (S1)	<u> </u> Redox Dark Surface (F6)
<u> </u> Histic Epipedon (A2)	<u> </u> 5cm Mucky Peat or Peat	<u> </u> Depleted Dark Surface (F7)
<u> </u> Black Histic (A3)	<u> </u> Sandy Gleyed Matrix (S4)	<u> </u> Redox Depressions (F8)
<u> </u> Hydrogen Sulfide (A4)	<u> </u> Sandy Redox (S5)	Indicators for Problematic Hydric Soils
<u> </u> Stratified Layers (A5)	<u> </u> Stripped Matrix (S6)	<u> </u> Coast Prairie Redox (A16)
<u> </u> 2 cm Muck (A10)	<u> </u> Loamy Mucky Mineral (F1)	<u> </u> Iron-Manganese Masses (F12)
<u> </u> Depleted Below Dark Surface (A11)	<u> </u> Loamy Gleyed Matrix (F2)	<u> </u> Very Shallow Dark Surface (F12)
<u> </u> Thick Dark Surface (A12)	<u>x</u> Depleted Matrix (F3)	<u> </u> Other

Restrictive Layer (if observed): Type: <u> </u> Depth (Inches): <u> </u>	Hydric Soil Present? Yes <u>x</u> No <u> </u>
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Remarks:

HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (check all that apply)		Secondary Indicators	
<u> </u> Surface Water (A1)	<u> </u> Water Stained Leaves (B9)	<u> </u> Surface Soil Cracks (B6)	
<u> </u> High Water Table (A2)	<u> </u> Aquatic Fauna (B13)	<u> </u> Drainage Patterns (B10)	
<u> </u> Saturation (A3)	<u> </u> True Aquatic Plants (B14)	<u> </u> Dry-Season Water Table (C2)	
<u> </u> Water Marks (B1)	<u> </u> Hydrogen Sulfide Odor (C1)	<u> </u> Crayfish Burrows (C8)	
<u> </u> Sediment Deposits (B2)	<u>x</u> Oxidized Rhizospheres on Living Roots	<u> </u> Saturation Visible on Aerial Imagery (C9)	
<u> </u> Drift Deposits (B3)	<u> </u> Presence of Reduced Iron (C4)	<u> </u> Stunted or Stressed Plants (D1)	
<u> </u> Algal Mat or Crust (B4)	<u> </u> Recent Iron Reduction in Tilled Soil (C6)	<u>x</u> Geomorphic Position (D2)	
<u> </u> Iron Deposits (B5)	<u> </u> Thin Muck Surface (C7)	<u>x</u> FAC-Neutral Test (D5)	
<u> </u> Inundation Visible on Aerial Imagery (B7)	<u> </u> Gauge or Well Data (D9)		
<u> </u> Sparsely Vegetated Concave Surface	<u> </u> Other		
Field Observations: Surface Water Present? Yes <u> </u> No <u>x</u> Depth (inches) <u> </u>	Water Table Present? Yes <u> </u> No <u>x</u> Depth (inches) <u> </u>	Hydrology Indicators Present? Yes <u>x</u> No <u> </u>	
Saturation Present? Yes <u> </u> No <u>x</u> Depth (inches) <u> </u>			

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

WETLAND DETERMINATION FORM-MIDWEST REGION

Site: W. Lancaster-S.Baltimore-W.Millersport City/County: Fairfield County Date: 27 March 2024 Data Point: UPL-50
 Client: AEP State: OH Section, Township, Range: Sec S11, T 15N, R 19W
 Investigator(s): N. Houk, N. Barnett Landform: Moraines Local Relief: Convex
 Slope (%): 2-5 Lat. 39.793193 Long. -82.622009 Datum: NAD83 NWI Class: N/A
 Soil Map Unit Name: Centerburg silt loam, 2 to 6 percent slopes, eroded
 Climatic/hydrologic conditions typical for time of year? Y/N Y
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic
 Are Normal Circumstances Present? Yes x No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes <u> </u> No <u>x</u>	Is the DP within a Wetland? Yes <u> </u> No <u> </u> x
Hydric Soil Present? Yes <u> </u> No <u>x</u>	
Wetland Hydrology Present? Yes <u> </u> No <u>x</u>	

Remarks:

VEGETATION

Tree Stratum	Plot size: <u>30'</u>	Absolute % Cover	Dominant Species	Indicator Status	
1. <u> </u>					Dominance Test Worksheet Number of dominant species that are OBL, FACW, or FAC: <u> 0</u> Total number of dominant species across all strata: <u> 2</u> Percent of dominant species that are OBL, FACW, or FAC: <u> 0.00</u>
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>		0	Total Cover		
Shrub Stratum	Plot size: <u>15'</u>	Absolute % Cover	Dominant Species	Indicator Status	
1. <u> </u>					Prevalence Index Worksheet Total % cover of: OBL species <u> 0</u> x <u> 1</u> = <u> 0</u> FACW species <u> 0</u> x <u> 2</u> = <u> 0</u> FAC species <u> 5</u> x <u> 3</u> = <u> 15</u> FACU species <u> 75</u> x <u> 4</u> = <u> 300</u> UPL species <u> 20</u> x <u> 5</u> = <u> 100</u> Total <u> 100</u> Prevalence Index: <u> 4.15</u>
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>		0	Total Cover		
Herb Stratum	Plot size: <u>5'</u>	Absolute % Cover	Dominant Species	Indicator Status	
1. <u>Setaria faberi</u>		70	Y	FACU	Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Veg. Dominance Test is >50% Prevalence Index is ≤3.0* Morphological Adaptations* Problematic Hydrophytic Vegetation* *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic Hydrophytic Vegetation Present? Yes <u> </u> No <u> </u> x
2. <u>Zea mays residue</u>		20	Y	UPL	
3. <u>Panicum virgatum</u>		5	N	FAC	
4. <u>Rubus allegheniensis</u>		5	N	FACU	
5. <u> </u>					
6. <u> </u>					
7. <u> </u>					
8. <u> </u>		100	Total Cover		
Woody Vine Stratum	Plot size: <u>30'</u>	Absolute % Cover	Dominant Species	Indicator Status	
1. <u> </u>					Hydrophytic Vegetation Present? Yes <u> </u> No <u> </u> x
2. <u> </u>		0	Total Cover		

Remarks:

SOIL

Profile Description: (Describe to depth needed to document the indicator or confirm absence of indicators.)									
Depth (inches)	Matrix			Redox Features					
	Color	%	%	Color	%	Type*	Loc**	Texture	Remarks
0-18	10YR 4/3	100						Si C L	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:		
<u> </u> Histosol (A1)	<u> </u> Sandy Mucky Mineral (S1)	<u> </u> Redox Dark Surface (F6)
<u> </u> Histic Epipedon (A2)	<u> </u> 5cm Mucky Peat or Peat	<u> </u> Depleted Dark Surface (F7)
<u> </u> Black Histic (A3)	<u> </u> Sandy Gleyed Matrix (S4)	<u> </u> Redox Depressions (F8)
<u> </u> Hydrogen Sulfide (A4)	<u> </u> Sandy Redox (S5)	Indicators for Problematic Hydric Soils
<u> </u> Stratified Layers (A5)	<u> </u> Stripped Matrix (S6)	<u> </u> Coast Prairie Redox (A16)
<u> </u> 2 cm Muck (A10)	<u> </u> Loamy Mucky Mineral (F1)	<u> </u> Iron-Manganese Masses (F12)
<u> </u> Depleted Below Dark Surface (A11)	<u> </u> Loamy Gleyed Matrix (F2)	<u> </u> Very Shallow Dark Surface (F12)
<u> </u> Thick Dark Surface (A12)	<u> </u> Depleted Matrix (F3)	<u> </u> Other

Restrictive Layer (if observed): Type: <u> </u>	
Depth (Inches): <u> </u>	Hydric Soil Present? Yes <u> </u> No <u> </u> x

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (check all that apply)			Secondary Indicators	
<u> </u> Surface Water (A1)	<u> </u> Water Stained Leaves (B9)	<u> </u> Surface Soil Cracks (B6)		
<u> </u> High Water Table (A2)	<u> </u> Aquatic Fauna (B13)	<u> </u> Drainage Patterns (B10)		
<u> </u> Saturation (A3)	<u> </u> True Aquatic Plants (B14)	<u> </u> Dry-Season Water Table (C2)		
<u> </u> Water Marks (B1)	<u> </u> Hydrogen Sulfide Odor (C1)	<u> </u> Crayfish Burrows (C8)		
<u> </u> Sediment Deposits (B2)	<u> </u> Oxidized Rhizospheres on Living Roots	<u> </u> Saturation Visible on Aerial Imagery (C9)		
<u> </u> Drift Deposits (B3)	<u> </u> Presence of Reduced Iron (C4)	<u> </u> Stunted or Stressed Plants (D1)		
<u> </u> Algal Mat or Crust (B4)	<u> </u> Recent Iron Reduction in Tilled Soil (C6)	<u> </u> Geomorphic Position (D2)		
<u> </u> Iron Deposits (B5)	<u> </u> Thin Muck Surface (C7)	<u> </u> FAC-Neutral Test (D5)		
<u> </u> Inundation Visible on Aerial Imagery (B7)	<u> </u> Gauge or Well Data (D9)			
<u> </u> Sparsely Vegetated Concave Surface	<u> </u> Other			
Field Observations: Surface Water Present? Yes <u> </u> No <u>x</u>	Depth (inches) <u> </u>	Hydrology Indicators Present? Yes <u> </u> No <u> </u> x		
Water Table Present? Yes <u> </u> No <u>x</u>	Depth (inches) <u> </u>			
Saturation Present? Yes <u> </u> No <u>x</u>	Depth (inches) <u> </u>			

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

WETLAND DETERMINATION FORM-MIDWEST REGION

Site: W. Lancaster-S.Baltimore-W.Millersport City/County: Fairfield County Date: 27 March 2024 Data Point: WL-41
 Client: AEP State: OH Section, Township, Range: Sec S14, T 15N, R 19W
 Investigator(s): L. Vine, E.Holt Landform Flood Plains Local Relief Concave
 Slope (%): Lat. 39.774841° Long. -82.628062° Datum: NAD83 NWI Class: PEM
 Soil Map Unit Name: Aetna silt loam, fan, occasionally flooded
 Climatic/hydrologic conditions typical for time of year? Y/N Y
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic
 Are Normal Circumstances Present? Yes x No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>	Is the DP within a Wetland? Yes <u>X</u> No <u> </u>
Hydric Soil Present? Yes <u>X</u> No <u> </u>	
Wetland Hydrology Present? Yes <u>X</u> No <u> </u>	

VEGETATION

Tree Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet Number of dominant species that are OBL, FACW, or FAC: <u>7</u> Total number of dominant species across all strata: <u>9</u> Percent of dominant species that are OBL, FACW, or FAC: <u>77.78</u>
1. <u> </u>	<u>30'</u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
3. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
0 Total Cover					Prevalence Index Worksheet Total % cover of: OBL species <u>1</u> x <u>1</u> = <u>1</u> FACW species <u>35</u> x <u>2</u> = <u>70</u> FAC species <u>30</u> x <u>3</u> = <u>90</u> FACU species <u>8</u> x <u>4</u> = <u>32</u> UPL species <u>0</u> x <u>5</u> = <u>0</u> Total <u>74</u> Prevalence Index: <u>2.61</u>
Shrub Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	
1. <u>Rubus allegheniensis</u>	<u>15'</u>	<u>5</u>	<u>Y</u>	<u>FACU 4</u>	
2. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
3. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
5. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
5 Total Cover					
Herb Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	
1. <u>Verbena urticifolia</u>	<u>5'</u>	<u>20</u>	<u>Y</u>	<u>FAC 3</u>	
2. <u>Phalaris arundinacea</u>		<u>20</u>	<u>Y</u>	<u>FACW 2</u>	
3. <u>Physostegia virginiana</u>		<u>15</u>	<u>N</u>	<u>FACW 2</u>	
4. <u>Juncus effusus</u>		<u>15</u>	<u>N</u>	<u>OBL 1</u>	
5. <u>Carex frankii</u>		<u>10</u>	<u>N</u>	<u>OBL 1</u>	
6. <u>Juncus tenuis</u>		<u>10</u>	<u>N</u>	<u>FAC 3</u>	
7. <u>Carex muskingumensis</u>		<u>5</u>	<u>N</u>	<u>OBL 1</u>	
8. <u>Setaria faberi</u>		<u>3</u>	<u>N</u>	<u>FACU 4</u>	
98 Total Cover					
Woody Vine Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	
1. <u> </u>	<u>30'</u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
0 Total Cover					
Remarks:					

SOIL

Profile Description: (Describe to depth needed to document the indicator or confirm absence of indicators.)

Depth (inches)	Color	Matrix %	Color	%	Type*	Loc**	Redox Features	Texture	Remarks
0-10	10YR 4/2	95	10YR 4/6	5	C		M	SiL	
10-13	10YR 4/2	85	10YR 4/6	15	C		M	SiL	
13-18	10YR 2/1	100						SiCL	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

<u> </u> Histosol (A1)	<u> </u> Sandy Mucky Mineral (S1)	<u>X</u> Redox Dark Surface (F6)
<u> </u> Histic Epipedon (A2)	<u> </u> 5cm Mucky Peat or Peat	<u> </u> Depleted Dark Surface (F7)
<u> </u> Black Histic (A3)	<u> </u> Sandy Gleyed Matrix (S4)	<u> </u> Redox Depressions (F8)
<u> </u> Hydrogen Sulfide (A4)	<u> </u> Sandy Redox (S5)	Indicators for Problematic Hydric Soils
<u> </u> Stratified Layers (A5)	<u> </u> Stripped Matrix (S6)	<u> </u> Coast Prairie Redox (A16)
<u> </u> 2 cm Muck (A10)	<u> </u> Loamy Mucky Mineral (F1)	<u> </u> Iron-Manganese Masses (F12)
<u> </u> Depleted Below Dark Surface (A11)	<u> </u> Loamy Gleyed Matrix (F2)	<u> </u> Very Shallow Dark Surface (F12)
<u> </u> Thick Dark Surface (A12)	<u> </u> Depleted Matrix (F3)	<u> </u> Other

Restrictive Layer (if observed): Type: Depth (Inches):

Hydric Soil Present? Yes X No

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (check all that apply)				Secondary Indicators	
<u> </u> Surface Water (A1)	<u> </u> Water Stained Leaves (B9)	<u> </u> Surface Soil Cracks (B6)	<u> </u> Drainage Patterns (B10)	<u> </u> Dry-Season Water Table (C2)	<u> </u> Crayfish Burrows (C8)
<u>X</u> High Water Table (A2)	<u> </u> Aquatic Fauna (B13)	<u> </u> Saturation Visible on Aerial Imagery (C9)	<u> </u> Stunted or Stressed Plants (D1)	<u>X</u> Geomorphic Position (D2)	<u> </u> FAC-Neutral Test (D5)
<u>X</u> Saturation (A3)	<u> </u> True Aquatic Plants (B14)	<u> </u> Stunted or Stressed Plants (D1)	<u> </u> Stunted or Stressed Plants (D1)	<u> </u> FAC-Neutral Test (D5)	<u> </u> FAC-Neutral Test (D5)
<u> </u> Water Marks (B1)	<u> </u> Hydrogen Sulfide Odor (C1)	<u> </u> Saturation Visible on Aerial Imagery (C9)	<u> </u> Saturation Visible on Aerial Imagery (C9)	<u> </u> Stunted or Stressed Plants (D1)	<u> </u> Stunted or Stressed Plants (D1)
<u> </u> Sediment Deposits (B2)	<u> </u> Oxidized Rhizospheres on Living Roots	<u> </u> Stunted or Stressed Plants (D1)	<u> </u> Stunted or Stressed Plants (D1)	<u> </u> Stunted or Stressed Plants (D1)	<u> </u> Stunted or Stressed Plants (D1)
<u> </u> Drift Deposits (B3)	<u> </u> Presence of Reduced Iron (C4)	<u> </u> Stunted or Stressed Plants (D1)	<u> </u> Stunted or Stressed Plants (D1)	<u> </u> Stunted or Stressed Plants (D1)	<u> </u> Stunted or Stressed Plants (D1)
<u> </u> Algal Mat or Crust (B4)	<u> </u> Recent Iron Reduction in Tilled Soil (C6)	<u> </u> Stunted or Stressed Plants (D1)	<u> </u> Stunted or Stressed Plants (D1)	<u> </u> Stunted or Stressed Plants (D1)	<u> </u> Stunted or Stressed Plants (D1)
<u> </u> Iron Deposits (B5)	<u> </u> Thin Muck Surface (C7)	<u> </u> Stunted or Stressed Plants (D1)	<u> </u> Stunted or Stressed Plants (D1)	<u> </u> Stunted or Stressed Plants (D1)	<u> </u> Stunted or Stressed Plants (D1)
<u> </u> Inundation Visible on Aerial Imagery (B7)	<u> </u> Gauge or Well Data (D9)	<u> </u> Stunted or Stressed Plants (D1)	<u> </u> Stunted or Stressed Plants (D1)	<u> </u> Stunted or Stressed Plants (D1)	<u> </u> Stunted or Stressed Plants (D1)
<u> </u> Sparsely Vegetated Concave Surface	<u> </u> Other	<u> </u> Stunted or Stressed Plants (D1)	<u> </u> Stunted or Stressed Plants (D1)	<u> </u> Stunted or Stressed Plants (D1)	<u> </u> Stunted or Stressed Plants (D1)

Field Observations: Surface Water Present? Yes No X Depth (inches)
 Water Table Present? Yes X No Depth (inches) 14
 Saturation Present? Yes X No Depth (inches) 14

Hydrology Indicators Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
No hydric indicators

WETLAND DETERMINATION FORM-MIDWEST REGION

Site: W. Lancaster-S.Baltimore-W.Millersport City/County: Fairfield County Date: 27 March 2024 Data Point: UPL-41
 Client: AEP State: OH Section, Township, Range: Sec S14, T 15N, R 19W
 Investigator(s): L. Vine, E.Holt Landform Flood Plains Local Relief Convex
 Slope (%): Lat. 39.774898° Long. '-82.628027° Datum NAD83 NWI Class: N/A
 Soil Map Unit Name: Aetna silt loam, fan, occasionally flooded
 Climatic/hydrologic conditions typical for time of year? Y/N Y
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic
 Are Normal Circumstances Present? Yes x No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes <u> </u> No <u> </u>	Is the DP within a Wetland? Yes No
Hydric Soil Present? Yes <u>X</u> No <u> </u>	
Wetland Hydrology Present? Yes <u> </u> No <u>X</u>	

VEGETATION

Tree Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet Number of dominant species that are OBL, FACW, or FAC: <u>3</u> Total number of dominant species across all strata: <u>8</u> Percent of dominant species that are OBL, FACW, or FAC: <u>37.50</u>
1. <u> </u>	<u>30'</u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
3. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
		<u>0</u>	Total Cover		
Shrub Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	Prevalence Index Worksheet Total % cover of: OBL species <u>1</u> x <u>1</u> = <u>1</u> FACW species <u>0</u> x <u>2</u> = <u>0</u> FAC species <u>10</u> x <u>3</u> = <u>30</u> FACU species <u>90</u> x <u>4</u> = <u>360</u> UPL species <u>15</u> x <u>5</u> = <u>75</u> Total <u>116</u> = <u>466</u> Prevalence Index: <u>4.02</u>
1. <u>Rubus allegheniensis</u>	<u>15'</u>	<u>15</u>	<u>Y</u>	<u>FACU 4</u>	
2. <u>Rubus occidentalis</u>		<u>5</u>	<u>N</u>	<u>UPL 5</u>	
3. <u>Elaeagnus angustifolia</u>		<u>5</u>	<u>N</u>	<u>FACU 4</u>	
4. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
		<u>25</u>	Total Cover		
Herb Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Veg. Dominance Test is >50% Prevalence Index is ≤3.0* Morphological Adaptations* Problematic Hydrophytic Vegetation* *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic Hydrophytic Vegetation Present? Yes No X
1. <u>Schedonorus arundinaceus</u>	<u>5'</u>	<u>70</u>	<u>Y</u>	<u>FACU 4</u>	
2. <u>Brassica rapa</u>		<u>10</u>	<u>N</u>	<u>UPL 5</u>	
3. <u>Plantago major</u>		<u>10</u>	<u>N</u>	<u>FAC 3</u>	
4. <u>Carex frankii</u>		<u>10</u>	<u>N</u>	<u>OBL 1</u>	
5. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
6. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
7. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
		<u>100</u>	Total Cover		
Woody Vine Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	
1. <u> </u>	<u>30'</u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
		<u>0</u>	Total Cover		

SOIL

Profile Description: (Describe to depth needed to document the indicator or confirm absence of indicators.)

Depth (inches)	Color	Matrix %	Color	%	Type*	Loc**	Redox Features	Texture	Remarks
0-6	10YR 3/3	100						SaSiL	
6-9	10YR 4/2	96	10YR 5/6	4	C		M	SaSiL	
9-18	10YR 3/3	100						SaSiL	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

<u> </u> Histosol (A1)	<u> </u> Sandy Mucky Mineral (S1)	<u>X</u> Redox Dark Surface (F6)
<u> </u> Histic Epipedon (A2)	<u> </u> 5cm Mucky Peat or Peat	<u> </u> Depleted Dark Surface (F7)
<u> </u> Black Histic (A3)	<u> </u> Sandy Gleyed Matrix (S4)	<u> </u> Redox Depressions (F8)
<u> </u> Hydrogen Sulfide (A4)	<u> </u> Sandy Redox (S5)	Indicators for Problematic Hydric Soils
<u> </u> Stratified Layers (A5)	<u> </u> Stripped Matrix (S6)	<u> </u> Coast Prairie Redox (A16)
<u> </u> 2 cm Muck (A10)	<u> </u> Loamy Mucky Mineral (F1)	<u> </u> Iron-Manganese Masses (F12)
<u> </u> Depleted Below Dark Surface (A11)	<u> </u> Loamy Gleyed Matrix (F2)	<u> </u> Very Shallow Dark Surface (F12)
<u> </u> Thick Dark Surface (A12)	<u> </u> Depleted Matrix (F3)	<u> </u> Other

Restrictive Layer (if observed): Type: Depth (Inches):

Hydric Soil Present?	Yes	X	No
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HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (check all that apply)		Secondary Indicators	
<u> </u> Surface Water (A1)	<u> </u> Water Stained Leaves (B9)	<u> </u> Surface Soil Cracks (B6)	
<u> </u> High Water Table (A2)	<u> </u> Aquatic Fauna (B13)	<u> </u> Drainage Patterns (B10)	
<u> </u> Saturation (A3)	<u> </u> True Aquatic Plants (B14)	<u> </u> Dry-Season Water Table (C2)	
<u> </u> Water Marks (B1)	<u> </u> Hydrogen Sulfide Odor (C1)	<u> </u> Crayfish Burrows (C8)	
<u> </u> Sediment Deposits (B2)	<u> </u> Oxidized Rhizospheres on Living Roots	<u> </u> Saturation Visible on Aerial Imagery (C9)	
<u> </u> Drift Deposits (B3)	<u> </u> Presence of Reduced Iron (C4)	<u> </u> Stunted or Stressed Plants (D1)	
<u> </u> Algal Mat or Crust (B4)	<u> </u> Recent Iron Reduction in Tilled Soil (C6)	<u> </u> Geomorphic Position (D2)	
<u> </u> Iron Deposits (B5)	<u> </u> Thin Muck Surface (C7)	<u> </u> FAC-Neutral Test (D5)	
<u> </u> Inundation Visible on Aerial Imagery (B7)	<u> </u> Guage or Well Data (D9)		
<u> </u> Sparsely Vegetated Concave Surface	<u> </u> Other		

Field Observations: Surface Water Present? Yes No X Depth (inches)
 Water Table Present? Yes No X Depth (inches)
 Saturation Present? Yes No X Depth (inches)

Hydrology Indicators Present?	Yes	No	X
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Describe Recorded Data (stream guage, monitoring well, aerial photos, previous inspections), if available:
No hydric indicators

WETLAND DETERMINATION FORM-MIDWEST REGION

Site: W. Lancaster-S.Baltimore-W.Millersport City/County: Fairfield County Date: 27 March 2024 Data Point: WL-41A
 Client: AEP State: OH Section, Township, Range: _____
 Investigator(s): L. Vine, E.Holt Landform _____ Flood Plains _____ Local Relief _____ Concave _____
 Slope (%): _____ Lat. 39.774189° Long. -82.628267° Datum NAD83 NWI Class: PEM
 Soil Map Unit Name: Aetna silt loam, fan, occasionally flooded
 Climatic/hydrologic conditions typical for time of year? Y/N Y
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic
 Are Normal Circumstances Present? Yes x No _____

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	Is the DP within a Wetland? Yes <u>X</u> No _____
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

VEGETATION

Tree Stratum	Plot size: <u>30'</u>	Absolute % Cover	Dominant Species	Indicator Status	
1. _____					Dominance Test Worksheet Number of dominant species that are OBL, FACW, or FAC: <u>8</u> Total number of dominant species across all strata: <u>8</u> Percent of dominant species that are OBL, FACW, or FAC: <u>100.00</u>
2. _____					
3. _____					
4. _____					
5. _____		0	Total Cover		
Shrub Stratum	Plot size: <u>15'</u>				
1. _____					Prevalence Index Worksheet Total % cover of: OBL species <u>1</u> x <u>1</u> = <u>1</u> FACW species <u>40</u> x <u>2</u> = <u>80</u> FAC species <u>25</u> x <u>3</u> = <u>75</u> FACU species <u>0</u> x <u>4</u> = <u>0</u> UPL species <u>0</u> x <u>5</u> = <u>0</u> Total <u>66</u> = <u>156</u> Prevalence Index: <u>2.36</u>
2. _____					
3. _____					
4. _____					
5. _____		0	Total Cover		
Herb Stratum	Plot size: <u>5'</u>				
1. <u>Carex vulpinoidea</u>		20	Y	FACW	Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Veg. x Dominance Test is >50% x Prevalence Index is ≤3.0* Morphological Adaptations* Problematic Hydrophytic Vegetation* *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic Hydrophytic Vegetation Present? Yes <u>X</u> No _____
2. <u>Apocynum cannabinum</u>		15	N	FAC	
3. <u>Carex muskingumensis</u>		10	N	OBL	
4. <u>Epilobium coloratum</u>		10	N	OBL	
5. <u>Cinna arundinacea</u>		10	N	FACW	
6. <u>Poa pratensis</u>		10	N	FAC	
7. <u>Symphotrichum lateriflorum</u>		10	N	FACW	
8. <u>Lycopus americanus</u>		5	N	OBL	
		90	Total Cover		
Woody Vine Stratum	Plot size: <u>30'</u>				
1. _____					Hydrophytic Vegetation Present? Yes <u>X</u> No _____
2. _____					
		0	Total Cover		
Remarks: _____					

SOIL

Profile Description: (Describe to depth needed to document the indicator or confirm absence of indicators.)

Depth (inches)	Color	Matrix %	Color	%	Type*	Loc**	Redox Features	Texture	Remarks
0-2	10YR 4/2	100						SiL	
2-18	10YR2/1	97	10YR 4/6	3	C		M	SiCL	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:	
_____ Histosol (A1)	_____ Sandy Mucky Mineral (S1) <u>X</u> Redox Dark Surface (F6)
_____ Histic Epipedon (A2)	_____ 5cm Mucky Peat or Peat _____ Depleted Dark Surface (F7)
_____ Black Histic (A3)	_____ Sandy Gleyed Matrix (S4) _____ Redox Depressions (F8)
_____ Hydrogen Sulfide (A4)	_____ Sandy Redox (S5) _____
_____ Stratified Layers (A5)	_____ Stripped Matrix (S6) _____ Indicators for Problematic Hydric Soils
_____ 2 cm Muck (A10)	_____ Loamy Mucky Mineral (F1) _____ Coast Prairie Redox (A16)
_____ Depleted Below Dark Surface (A11)	_____ Loamy Gleyed Matrix (F2) _____ Iron-Manganese Masses (F12)
_____ Thick Dark Surface (A12)	_____ Depleted Matrix (F3) _____ Very Shallow Dark Surface (F12)
	_____ Other _____

Restrictive Layer (if observed): Type: _____	
Depth (Inches): _____	Hydric Soil Present? Yes <u>X</u> No _____
Remarks: _____	

HYDROLOGY

Wetland Hydrology Indicators:	
Primary Indicators (check all that apply)	Secondary Indicators
_____ Surface Water (A1)	_____ Water Stained Leaves (B9)
_____ High Water Table (A2)	_____ Aquatic Fauna (B13)
_____ Saturation (A3)	_____ True Aquatic Plants (B14)
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)
_____ Sediment Deposits (B2)	_____ Oxidized Rhizospheres on Living Roots
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soil (C6)
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Gauge or Well Data (D9)
_____ Sparsely Vegetated Concave Surface	_____ Other _____
Field Observations: Surface Water Present? Yes _____ No <u>x</u> Depth (inches) _____	Hydrology Indicators Present? Yes <u>X</u> No _____
Water Table Present? Yes _____ No <u>x</u> Depth (inches) _____	
Saturation Present? Yes _____ No <u>x</u> Depth (inches) _____	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

No hydric indicators

WETLAND DETERMINATION FORM-MIDWEST REGION

Site: W. Lancaster-S.Baltimore-W.Millersport City/County: Fairfield County Date: 27 March 2024 Data Point: UPL-41A
 Client: AEP State: OH Section, Township, Range: _____
 Investigator(s): L. Vine, E.Holt Landform _____ Flood Plains _____ Local Relief _____ Convex _____
 Slope (%): _____ Lat. 39.774139° Long. -82.628196° Datum NAD83 NWI Class: N/A
 Soil Map Unit Name: Aetna silt loam, fan, occasionally flooded
 Climatic/hydrologic conditions typical for time of year? Y/N Y
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic
 Are Normal Circumstances Present? Yes x No _____

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	Is the DP within a Wetland? Yes <u> </u> No <u> </u> X <u> </u>
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

VEGETATION

Tree Stratum	Plot size: <u>30'</u>	Absolute % Cover	Dominant Species	Indicator Status	
1. _____					Dominance Test Worksheet Number of dominant species that are OBL, FACW, or FAC: <u>3</u> Total number of dominant species across all strata: <u>5</u> Percent of dominant species that are OBL, FACW, or FAC: <u>60.00</u>
2. _____					
3. _____					
4. _____					
5. _____		0	Total Cover		
Shrub Stratum	Plot size: <u>15'</u>				
1. _____					Prevalence Index Worksheet Total % cover of: OBL species <u>1</u> x <u>1</u> = <u>1</u> FACW species <u>10</u> x <u>2</u> = <u>20</u> FAC species <u>10</u> x <u>3</u> = <u>30</u> FACU species <u>65</u> x <u>4</u> = <u>260</u> UPL species <u>0</u> x <u>5</u> = <u>0</u> Total <u>86</u> Prevalence Index: <u>3.62</u>
2. _____					
3. _____					
4. _____					
5. _____		0	Total Cover		
Herb Stratum	Plot size: <u>5'</u>				
1. <u>Setaria faberi</u>		60	Y	FACU 4	Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Veg. x Dominance Test is >50% Prevalence Index is ≤3.0* Morphological Adaptations* Problematic Hydrophytic Vegetation* *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>
2. <u>Carex frankii</u>		15	N	OBL 1	
3. <u>Verbena urticifolia</u>		10	N	FAC 3	
4. <u>Euthamia graminifolia</u>		10	N	FACW 2	
5. <u>Solidago canadensis</u>		5	N	FACU 4	
6. _____					
7. _____					
8. _____		100	Total Cover		
Woody Vine Stratum	Plot size: <u>30'</u>				
1. _____					Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>
2. _____					
Remarks: _____					

SOIL

Profile Description: (Describe to depth needed to document the indicator or confirm absence of indicators.)

Depth (inches)	Matrix	Color	%	Type*	Loc**	Redox Features	Texture	Remarks
0-18		10YR 3/2	100				SiCL	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:		
Histosol (A1)	Sandy Mucky Mineral (S1)	Redox Dark Surface (F6)
Histic Epipedon (A2)	5cm Mucky Peat or Peat	Depleted Dark Surface (F7)
Black Histic (A3)	Sandy Gleyed Matrix (S4)	Redox Depressions (F8)
Hydrogen Sulfide (A4)	Sandy Redox (S5)	Indicators for Problematic Hydric Soils
Stratified Layers (A5)	Stripped Matrix (S6)	Coast Prairie Redox (A16)
2 cm Muck (A10)	Loamy Mucky Mineral (F1)	Iron-Manganese Masses (F12)
Depleted Below Dark Surface (A11)	Loamy Gleyed Matrix (F2)	Very Shallow Dark Surface (F12)
Thick Dark Surface (A12)	Depleted Matrix (F3)	Other

Restrictive Layer (if observed): Type: _____	
Depth (Inches): _____	Hydric Soil Present? Yes <u> </u> No <u> </u> X <u> </u>
Remarks: _____	

HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (check all that apply)			Secondary Indicators	
Surface Water (A1)	Water Stained Leaves (B9)	Surface Soil Cracks (B6)		
High Water Table (A2)	Aquatic Fauna (B13)	Drainage Patterns (B10)		
Saturation (A3)	True Aquatic Plants (B14)	Dry-Season Water Table (C2)		
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)		
Sediment Deposits (B2)	Oxidized Rhizospheres on Living Roots	Saturation Visible on Aerial Imagery (C9)		
Drift Deposits (B3)	Presence of Reduced Iron (C4)	Stunted or Stressed Plants (D1)		
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Soil (C6)	Geomorphic Position (D2)		
Iron Deposits (B5)	Thin Muck Surface (C7)	FAC-Neutral Test (D5)		
Inundation Visible on Aerial Imagery (B7)	Guage or Well Data (D9)			
Sparsely Vegetated Concave Surface	Other			
Field Observations: Surface Water Present? Yes _____ No <u>X</u>	Depth (inches) _____	Hydrology Indicators Present? Yes <u> </u> No <u> </u> X <u> </u>		
Water Table Present? Yes <u>X</u> No _____	Depth (inches) <u>16</u>			
Saturation Present? Yes _____ No <u>X</u>	Depth (inches) _____			

Describe Recorded Data (stream guage, monitoring well, aerial photos, previous inspections), if available:

No hydric indicators

WETLAND DETERMINATION FORM-MIDWEST REGION

Site: W. Lancaster-S.Baltimore-W.Millersport City/County: Fairfield County Date: 28 March 2024 Data Point: WL-18
 Client: AEP State: OH Section, Township, Range: Sec S35, T 15N, R 19W
 Investigator(s): N. Houk, N. Barnett Landform Flood Plains Local Relief Concave
 Slope (%): Lat. 39.729007 Long. -82.633563 Datum NAD83 NWI Class: PEM
 Soil Map Unit Name: Aetna silt loam, occasionally flooded
 Climatic/hydrologic conditions typical for time of year? Y/N Y
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic
 Are Normal Circumstances Present? Yes x No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes <u>x</u> No <u> </u>	Is the DP within a Wetland? Yes <u>x</u> No <u> </u>
Hydric Soil Present? Yes <u>x</u> No <u> </u>	
Wetland Hydrology Present? Yes <u>x</u> No <u> </u>	

Remarks:

VEGETATION

Tree Stratum	Plot size: <u>30'</u>	Absolute % Cover	Dominant Species	Indicator Status	
1. <u> </u>					Dominance Test Worksheet Number of dominant species that are OBL, FACW, or FAC: <u>1</u> Total number of dominant species across all strata: <u>1</u> Percent of dominant species that are OBL, FACW, or FAC: <u>100.00</u>
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>		0	Total Cover		
Shrub Stratum	Plot size: <u>15'</u>	Absolute % Cover	Dominant Species	Indicator Status	
1. <u> </u>					Prevalence Index Worksheet Total % cover of: OBL species <u>0</u> x <u>1</u> = <u>0</u> FACW species <u>98</u> x <u>2</u> = <u>196</u> FAC species <u>2</u> x <u>3</u> = <u>6</u> FACU species <u>0</u> x <u>4</u> = <u>0</u> UPL species <u>0</u> x <u>5</u> = <u>0</u> Total <u>100</u> <u>202</u> Prevalence Index: <u>2.02</u>
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>		0	Total Cover		
Herb Stratum	Plot size: <u>5'</u>	Absolute % Cover	Dominant Species	Indicator Status	
1. <u>Phalaris arundinacea</u>		98	Y	FACW 2	Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Veg. x Dominance Test is >50% x Prevalence Index is ≤3.0* Morphological Adaptations* Problematic Hydrophytic Vegetation* *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic Hydrophytic Vegetation Present? Yes <u>x</u> No <u> </u>
2. <u>Apocynum cannabinum</u>		2	N	FAC 3	
3. <u> </u>					
4. <u> </u>					
5. <u> </u>					
6. <u> </u>					
7. <u> </u>					
8. <u> </u>		100	Total Cover		
Woody Vine Stratum	Plot size: <u>30'</u>	Absolute % Cover	Dominant Species	Indicator Status	
1. <u> </u>					Hydrophytic Vegetation Present? Yes <u>x</u> No <u> </u>
2. <u> </u>		0	Total Cover		

Remarks:

SOIL

Profile Description: (Describe to depth needed to document the indicator or confirm absence of indicators.)

Depth (inches)	Matrix		Redox Features						
	Color	%	Color	%	Type*	Loc**	Texture	Remarks	
0-5	10YR 3/2	95	10YR 5/6	5	C		M	Si C L	
5-18	10YR 4/2	95	10YR 5/6	5	C		M	Si C L	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

Histosol (A1)	Sandy Mucky Mineral (S1)	x	Redox Dark Surface (F6)
Histic Epipedon (A2)	5cm Mucky Peat or Peat		Depleted Dark Surface (F7)
Black Histic (A3)	Sandy Gleyed Matrix (S4)		Redox Depressions (F8)
Hydrogen Sulfide (A4)	Sandy Redox (S5)		Indicators for Problematic Hydric Soils
Stratified Layers (A5)	Stripped Matrix (S6)		Coast Prairie Redox (A16)
2 cm Muck (A10)	Loamy Mucky Mineral (F1)		Iron-Manganese Masses (F12)
Depleted Below Dark Surface (A11)	Loamy Gleyed Matrix (F2)		Very Shallow Dark Surface (F12)
Thick Dark Surface (A12)	Depleted Matrix (F3)		Other

Restrictive Layer (if observed): Type: Depth (Inches):

	Hydric Soil Present? Yes <u>x</u> No <u> </u>
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Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (check all that apply)	Secondary Indicators
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Stained Leaves (B9)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soil (C6)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Guage or Well Data (D9)
<input type="checkbox"/> Sparsely Vegetated Concave Surface	<input type="checkbox"/> Other

Field Observations: Surface Water Present? Yes <u> </u> No <u>x</u> Depth (inches) <u> </u> Water Table Present? Yes <u> </u> No <u>x</u> Depth (inches) <u> </u> Saturation Present? Yes <u> </u> No <u>x</u> Depth (inches) <u> </u>	Hydrology Indicators Present? Yes <u>x</u> No <u> </u>
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Describe Recorded Data (stream guage, monitoring well, aerial photos, previous inspections), if available:

WETLAND DETERMINATION FORM-MIDWEST REGION

Site: W. Lancaster-S.Baltimore-W.Millersport City/County: Fairfield County Date: 28 March 2024 Data Point: UPL-18
 Client: AEP State: OH Section, Township, Range: Sec S35, T 15N, R 19W
 Investigator(s): N. Houk, N. Barnett Landform Flood Plains Local Relief Convex
 Slope (%): Lat. 39.728973 Long. -82.633588 Datum NAD83 NWI Class: N/A
 Soil Map Unit Name: Aetna silt loam, occasionally flooded
 Climatic/hydrologic conditions typical for time of year? Y/N Y
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic
 Are Normal Circumstances Present? Yes x No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes <u> </u> No <u>x</u>	Is the DP within a Wetland? Yes <u> </u> No <u> </u> x
Hydric Soil Present? Yes <u> </u> No <u>x</u>	
Wetland Hydrology Present? Yes <u> </u> No <u>x</u>	

Remarks:

VEGETATION

Tree Stratum	Plot size: 30'	Absolute % Cover	Dominant Species	Indicator Status	
1.					Dominance Test Worksheet Number of dominant species that are OBL, FACW, or FAC: <u>1</u> Total number of dominant species across all strata: <u>3</u> Percent of dominant species that are OBL, FACW, or FAC: <u>33.33</u>
2.					
3.					
4.					
5.					
		0	Total Cover		
Shrub Stratum	Plot size: 15'	Absolute % Cover	Dominant Species	Indicator Status	
1.	<i>Catalpa speciosa</i>	50	Y	FACU 4	Prevalence Index Worksheet Total % cover of: OBL species <u>0</u> x <u>1</u> = <u>0</u> FACW species <u>55</u> x <u>2</u> = <u>110</u> FAC species <u>2</u> x <u>3</u> = <u>6</u> FACU species <u>75</u> x <u>4</u> = <u>300</u> UPL species <u>0</u> x <u>5</u> = <u>0</u> Total <u>132</u> Prevalence Index: <u>3.15</u>
2.	<i>Rosa multiflora</i>	15	Y	FACU 4	
3.	<i>Crataegus crus-galli</i>	2	N	FAC 3	
4.					
5.					
		67	Total Cover		
Herb Stratum	Plot size: 5'	Absolute % Cover	Dominant Species	Indicator Status	
1.	<i>Elymus virginicus</i>	50	Y	FACW 2	Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Veg. <u> </u> Dominance Test is >50% <u> </u> Prevalence Index is ≤3.0* <u> </u> Morphological Adaptations* <u> </u> Problematic Hydrophytic Vegetation* <u> </u> *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic Hydrophytic Vegetation Present? Yes <u> </u> No <u> </u> x
2.	<i>Taraxacum officinale</i>	10	N	FACU 4	
3.	<i>Phalaris arundinacea</i>	5	N	FACW 2	
4.					
5.					
6.					
7.					
8.					
		65	Total Cover		
Woody Vine Stratum	Plot size: 30'	Absolute % Cover	Dominant Species	Indicator Status	
1.					Hydrophytic Vegetation Present? Yes <u> </u> No <u> </u> x
2.					
		0	Total Cover		

Remarks:

SOIL

Profile Description: (Describe to depth needed to document the indicator or confirm absence of indicators.)									
Depth (inches)	Matrix			Redox Features					
	Color	%	%	Color	%	Type*	Loc**	Texture	Remarks
0-18	10YR 3/2	100						Si C L	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:		
<u> </u> Histosol (A1)	<u> </u> Sandy Mucky Mineral (S1)	<u> </u> Redox Dark Surface (F6)
<u> </u> Histic Epipedon (A2)	<u> </u> 5cm Mucky Peat or Peat	<u> </u> Depleted Dark Surface (F7)
<u> </u> Black Histic (A3)	<u> </u> Sandy Gleyed Matrix (S4)	<u> </u> Redox Depressions (F8)
<u> </u> Hydrogen Sulfide (A4)	<u> </u> Sandy Redox (S5)	Indicators for Problematic Hydric Soils
<u> </u> Stratified Layers (A5)	<u> </u> Stripped Matrix (S6)	<u> </u> Coast Prairie Redox (A16)
<u> </u> 2 cm Muck (A10)	<u> </u> Loamy Mucky Mineral (F1)	<u> </u> Iron-Manganese Masses (F12)
<u> </u> Depleted Below Dark Surface (A11)	<u> </u> Loamy Gleyed Matrix (F2)	<u> </u> Very Shallow Dark Surface (F12)
<u> </u> Thick Dark Surface (A12)	<u> </u> Depleted Matrix (F3)	<u> </u> Other

Restrictive Layer (if observed): Type: <u> </u> Depth (Inches): <u> </u>	Hydric Soil Present? Yes <u> </u> No <u> </u> x
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Remarks:

HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (check all that apply)			Secondary Indicators	
<u> </u> Surface Water (A1)	<u> </u> Water Stained Leaves (B9)	<u> </u> Surface Soil Cracks (B6)		
<u> </u> High Water Table (A2)	<u> </u> Aquatic Fauna (B13)	<u> </u> Drainage Patterns (B10)		
<u> </u> Saturation (A3)	<u> </u> True Aquatic Plants (B14)	<u> </u> Dry-Season Water Table (C2)		
<u> </u> Water Marks (B1)	<u> </u> Hydrogen Sulfide Odor (C1)	<u> </u> Crayfish Burrows (C8)		
<u> </u> Sediment Deposits (B2)	<u> </u> Oxidized Rhizospheres on Living Roots	<u> </u> Saturation Visible on Aerial Imagery (C9)		
<u> </u> Drift Deposits (B3)	<u> </u> Presence of Reduced Iron (C4)	<u> </u> Stunted or Stressed Plants (D1)		
<u> </u> Algal Mat or Crust (B4)	<u> </u> Recent Iron Reduction in Tilled Soil (C6)	<u> </u> Geomorphic Position (D2)		
<u> </u> Iron Deposits (B5)	<u> </u> Thin Muck Surface (C7)	<u> </u> FAC-Neutral Test (D5)		
<u> </u> Inundation Visible on Aerial Imagery (B7)	<u> </u> Gauge or Well Data (D9)			
<u> </u> Sparsely Vegetated Concave Surface	<u> </u> Other			
Field Observations: Surface Water Present? Yes <u> </u> No <u>x</u> Depth (inches) <u> </u>			Hydrology Indicators Present? Yes <u> </u> No <u> </u> x	
Water Table Present? Yes <u> </u> No <u>x</u> Depth (inches) <u> </u>				
Saturation Present? Yes <u> </u> No <u>x</u> Depth (inches) <u> </u>				

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

WETLAND DETERMINATION FORM-MIDWEST REGION

Site: W. Lancaster-S. Baltimore-W. Millersport City/County: Fairfield County Date: 27 March 2024 Data Point: 33A
 Client: AEP State: OH Section, Township, Range: Sec S6, T 16N, R 18W
 Investigator(s): N. Houk, N. Barnett Landform Drainageways Local Relief Convex
 Slope (%): 1-3 Lat. 39.887537 Long. -82.567358 Datum NAD83 NWI Class: N/A
 Soil Map Unit Name: Pewamo silty clay loam, low carbonate till, 0 to 2 percent slopes
 Climatic/hydrologic conditions typical for time of year? Y/N Y Y
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic
 Are Normal Circumstances Present? Yes x No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes <u> </u> No <u>x</u>	Is the DP within a Wetland? Yes <u> </u> No <u> </u> x
Hydric Soil Present? Yes <u> </u> No <u>x</u>	
Wetland Hydrology Present? Yes <u> </u> No <u>x</u>	

Remarks:

VEGETATION

Tree Stratum	Plot size: <u>30'</u>	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet Number of dominant species that are OBL, FACW, or FAC: <u>0</u> Total number of dominant species across all strata: <u>2</u> Percent of dominant species that are OBL, FACW, or FAC: <u>0.00</u>
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
		0	Total Cover		Prevalence Index Worksheet Total % cover of: OBL species <u>0</u> x <u>1</u> = <u>0</u> FACW species <u>0</u> x <u>2</u> = <u>0</u> FAC species <u>10</u> x <u>3</u> = <u>30</u> FACU species <u>97</u> x <u>4</u> = <u>388</u> UPL species <u>2</u> x <u>5</u> = <u>10</u> Total <u>109</u> Prevalence Index: <u>3.93</u>
Shrub Stratum	Plot size: <u>15'</u>				
1. <u>Rubus allegheniensis</u>	<u> </u>	<u>50</u>	<u>Y</u>	<u>FACU</u> <u>4</u>	
2. <u>Ligustrum vulgare</u>	<u> </u>	<u>5</u>	<u>N</u>	<u>FACU</u> <u>4</u>	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
		55	Total Cover		
Herb Stratum	Plot size: <u>5'</u>				
1. <u>Solidago canadensis</u>	<u> </u>	<u>40</u>	<u>Y</u>	<u>FACU</u> <u>4</u>	
2. <u>Poa pratensis</u>	<u> </u>	<u>10</u>	<u>N</u>	<u>FAC</u> <u>3</u>	
3. <u>Cirsium arvense</u>	<u> </u>	<u>2</u>	<u>N</u>	<u>FACU</u> <u>4</u>	
4. <u>Daucus carota</u>	<u> </u>	<u>2</u>	<u>N</u>	<u>UPL</u> <u>5</u>	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
		54	Total Cover		
Woody Vine Stratum	Plot size: <u>30'</u>				
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
		0	Total Cover		

Remarks:

SOIL

Profile Description: (Describe to depth needed to document the indicator or confirm absence of indicators.)

Depth (inches)	Matrix		Redox Features					
	Color	%	Color	%	Type*	Loc**	Texture	Remarks
0-18	10YR 4/2	100					Si C L	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

<u> </u> Histosol (A1)	<u> </u> Sandy Mucky Mineral (S1)	<u> </u> Redox Dark Surface (F6)
<u> </u> Histic Epipedon (A2)	<u> </u> 5cm Mucky Peat or Peat	<u> </u> Depleted Dark Surface (F7)
<u> </u> Black Histic (A3)	<u> </u> Sandy Gleyed Matrix (S4)	<u> </u> Redox Depressions (F8)
<u> </u> Hydrogen Sulfide (A4)	<u> </u> Sandy Redox (S5)	Indicators for Problematic Hydric Soils
<u> </u> Stratified Layers (A5)	<u> </u> Stripped Matrix (S6)	<u> </u> Coast Prairie Redox (A16)
<u> </u> 2 cm Muck (A10)	<u> </u> Loamy Mucky Mineral (F1)	<u> </u> Iron-Manganese Masses (F12)
<u> </u> Depleted Below Dark Surface (A11)	<u> </u> Loamy Gleyed Matrix (F2)	<u> </u> Very Shallow Dark Surface (F12)
<u> </u> Thick Dark Surface (A12)	<u> </u> Depleted Matrix (F3)	<u> </u> Other

Restrictive Layer (if observed): Type: Depth (Inches):

Hydric Soil Present?	Yes <u> </u>	No <u> </u>	x <u> </u>
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Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (check all that apply)	Secondary Indicators
<u> </u> Surface Water (A1)	<u> </u> Surface Soil Cracks (B6)
<u> </u> High Water Table (A2)	<u> </u> Drainage Patterns (B10)
<u> </u> Saturation (A3)	<u> </u> Dry-Season Water Table (C2)
<u> </u> Water Marks (B1)	<u> </u> Crayfish Burrows (C8)
<u> </u> Sediment Deposits (B2)	<u> </u> Saturation Visible on Aerial Imagery (C9)
<u> </u> Drift Deposits (B3)	<u> </u> Stunted or Stressed Plants (D1)
<u> </u> Algal Mat or Crust (B4)	<u> </u> Geomorphic Position (D2)
<u> </u> Iron Deposits (B5)	<u> </u> FAC-Neutral Test (D5)
<u> </u> Inundation Visible on Aerial Imagery (B7)	<u> </u> <u> </u>
<u> </u> Sparsely Vegetated Concave Surface	<u> </u> <u> </u>

Field Observations: Surface Water Present? Yes No x Depth (inches)
 Water Table Present? Yes No x Depth (inches)
 Saturation Present? Yes No x Depth (inches)

Hydrology Indicators Present?	Yes <u> </u>	No <u> </u>	x <u> </u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

WETLAND DETERMINATION FORM-MIDWEST REGION

Site: W. Lancaster-S. Baltimore-W. Millersport City/County: Fairfield County Date: 27 March 2024 Data Point: 33
 Client: AEP State: OH Section, Township, Range: Sec S6, T 16N, R 18W
 Investigator(s): N. Houk, N. Barnett Landform Drainageways Local Relief Convex
 Slope (%): 1-3 Lat. 39.886661 Long. -82.567648 Datum NAD83 NWI Class: N/A
 Soil Map Unit Name: Pewamo silty clay loam, low carbonate till, 0 to 2 percent slopes
 Climatic/hydrologic conditions typical for time of year? Y/N Y
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic
 Are Normal Circumstances Present? Yes x No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes <u>x</u> No <u> </u>	Is the DP within a Wetland? Yes <u> </u> No <u> </u> x <u> </u>
Hydric Soil Present? Yes <u> </u> No <u>x</u>	
Wetland Hydrology Present? Yes <u> </u> No <u>x</u>	
Remarks:	

VEGETATION

Tree Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet Number of dominant species that are OBL, FACW, or FAC: <u>1</u> Total number of dominant species across all strata: <u>1</u> Percent of dominant species that are OBL, FACW, or FAC: <u>100.00</u> Prevalence Index Worksheet Total % cover of: OBL species <u>0</u> x <u>1</u> = <u>0</u> FACW species <u>0</u> x <u>2</u> = <u>0</u> FAC species <u>40</u> x <u>3</u> = <u>120</u> FACU species <u>0</u> x <u>4</u> = <u>0</u> UPL species <u>0</u> x <u>5</u> = <u>0</u> Total <u>40</u> = <u>120</u> Prevalence Index: <u>3.00</u>
1. <u> </u>	<u>30'</u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>		<u>0</u>	Total Cover		
Shrub Stratum	Plot size: <u>15'</u>				
1. <u> </u>					
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>		<u>0</u>	Total Cover		
Herb Stratum	Plot size: <u>5'</u>				
1. <u>Barbarea vulgaris</u>		<u>40</u>	<u>Y</u>	<u>FAC</u> <u>3</u>	
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>					
6. <u> </u>					
7. <u> </u>					
8. <u> </u>		<u>40</u>	Total Cover		
Woody Vine Stratum	Plot size: <u>30'</u>				
1. <u> </u>					
2. <u> </u>					
		<u>0</u>	Total Cover		
Remarks:					Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Veg. <u> </u> x Dominance Test is >50% <u> </u> x Prevalence Index is ≤3.0* <u> </u> Morphological Adaptations* <u> </u> Problematic Hydrophytic Vegetation* <u> </u> *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic Hydrophytic Vegetation Present? Yes <u>x</u> No <u> </u>

SOIL

Profile Description: (Describe to depth needed to document the indicator or confirm absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color	%	Color	%	Type*	Loc**		
0-14	10YR 3/1	100					Si C L	
14-18	10YR 3/1	95	10YR 5/6	5			Si C L	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

<u> </u> Histosol (A1)	<u> </u> Sandy Mucky Mineral (S1)	<u> </u> Redox Dark Surface (F6)
<u> </u> Histic Epipedon (A2)	<u> </u> 5cm Mucky Peat or Peat	<u> </u> Depleted Dark Surface (F7)
<u> </u> Black Histic (A3)	<u> </u> Sandy Gleyed Matrix (S4)	<u> </u> Redox Depressions (F8)
<u> </u> Hydrogen Sulfide (A4)	<u> </u> Sandy Redox (S5)	Indicators for Problematic Hydric Soils
<u> </u> Stratified Layers (A5)	<u> </u> Stripped Matrix (S6)	<u> </u> Coast Prairie Redox (A16)
<u> </u> 2 cm Muck (A10)	<u> </u> Loamy Mucky Mineral (F1)	<u> </u> Iron-Manganese Masses (F12)
<u> </u> Depleted Below Dark Surface (A11)	<u> </u> Loamy Gleyed Matrix (F2)	<u> </u> Very Shallow Dark Surface (F12)
<u> </u> Thick Dark Surface (A12)	<u> </u> Depleted Matrix (F3)	<u> </u> Other

Restrictive Layer (if observed): Type: <u> </u>	Hydric Soil Present? Yes <u> </u> No <u> </u> x <u> </u>
Depth (Inches): <u> </u>	
Remarks:	

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (check all that apply)	Secondary Indicators
<u> </u> Surface Water (A1)	<u> </u> Surface Soil Cracks (B6)
<u> </u> High Water Table (A2)	<u> </u> Drainage Patterns (B10)
<u> </u> Saturation (A3)	<u> </u> Dry-Season Water Table (C2)
<u> </u> Water Marks (B1)	<u> </u> Crayfish Burrows (C8)
<u> </u> Sediment Deposits (B2)	<u> </u> Saturation Visible on Aerial Imagery (C9)
<u> </u> Drift Deposits (B3)	<u> </u> Stunted or Stressed Plants (D1)
<u> </u> Algal Mat or Crust (B4)	<u> </u> Geomorphic Position (D2)
<u> </u> Iron Deposits (B5)	<u> </u> FAC-Neutral Test (D5)
<u> </u> Inundation Visible on Aerial Imagery (B7)	
<u> </u> Sparsely Vegetated Concave Surface	
Field Observations: Surface Water Present? Yes <u> </u> No <u>x</u> Depth (inches) <u> </u>	Hydrology Indicators Present? Yes <u> </u> No <u> </u> x <u> </u>
Water Table Present? Yes <u> </u> No <u>x</u> Depth (inches) <u> </u>	
Saturation Present? Yes <u> </u> No <u>x</u> Depth (inches) <u> </u>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	

WETLAND DETERMINATION FORM-MIDWEST REGION

Site: W. Lancaster-S. Baltimore-W. Millersport City/County: Fairfield County Date: 27 March 2024 Data Point: 31
 Client: AEP State: OH Section, Township, Range: Sec S6, T 16N, R 18W
 Investigator(s): N. Houk, N. Barnett Landform Drainageways Local Relief Convex
 Slope (%): 1-3 Lat. 39.884459 Long. -82.569989 Datum NAD83 NWI Class: N/A
 Soil Map Unit Name: Pewamo silty clay loam, low carbonate till, 0 to 2 percent slopes
 Climatic/hydrologic conditions typical for time of year? Y/N Y Y
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic
 Are Normal Circumstances Present? Yes x No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes <u> </u> No <u>x</u>	Is the DP within a Wetland? Yes <u> </u> No <u> </u> x
Hydric Soil Present? Yes <u> </u> No <u>x</u>	
Wetland Hydrology Present? Yes <u> </u> No <u>x</u>	
Remarks: <u> </u>	

VEGETATION

Tree Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet Number of dominant species that are OBL, FACW, or FAC: <u>0</u> Total number of dominant species across all strata: <u>2</u> Percent of dominant species that are OBL, FACW, or FAC: <u>0.00</u> Prevalence Index Worksheet Total % cover of: OBL species <u>0</u> x <u>1</u> = <u>0</u> FACW species <u>5</u> x <u>2</u> = <u>10</u> FAC species <u>0</u> x <u>3</u> = <u>0</u> FACU species <u>7</u> x <u>4</u> = <u>28</u> UPL species <u>88</u> x <u>5</u> = <u>440</u> Total <u>100</u> Prevalence Index: <u>4.78</u>
1. <u> </u>	<u>30'</u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>		<u>0</u>	Total Cover		
Shrub Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Veg. Dominance Test is >50% Prevalence Index is ≤3.0* Morphological Adaptations* Problematic Hydrophytic Vegetation* *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic Hydrophytic Vegetation Present? Yes <u> </u> No <u> </u> x
1. <u> </u>	<u>15'</u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>		<u>0</u>	Total Cover		
Herb Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic Hydrophytic Vegetation Present? Yes <u> </u> No <u> </u> x
1. <u>Lamium purpureum</u>	<u>5'</u>	<u>48</u>	<u>Y</u>	<u>UPL 5</u>	
2. <u>Zea mays residue</u>		<u>40</u>	<u>Y</u>	<u>UPL 5</u>	
3. <u>Conium maculatum</u>		<u>5</u>	<u>N</u>	<u>FACW 2</u>	
4. <u>Stellaria media</u>		<u>5</u>	<u>N</u>	<u>FACU 4</u>	
5. <u>Allium vineale</u>		<u>2</u>	<u>N</u>	<u>FACU 4</u>	
6. <u> </u>					
7. <u> </u>					
8. <u> </u>		<u>100</u>	Total Cover		
Woody Vine Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic Hydrophytic Vegetation Present? Yes <u> </u> No <u> </u> x
1. <u> </u>	<u>30'</u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>					
6. <u> </u>					
7. <u> </u>					
8. <u> </u>		<u>0</u>	Total Cover		
Remarks: <u> </u>					

SOIL

Profile Description: (Describe to depth needed to document the indicator or confirm absence of indicators.)

Depth (inches)	Matrix		Redox Features					
	Color	%	Color	%	Type*	Loc**	Texture	Remarks
0-18	10YR 3/1	100					C L	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

<u> </u> Histosol (A1)	<u> </u> Sandy Mucky Mineral (S1)	<u> </u> Redox Dark Surface (F6)
<u> </u> Histic Epipedon (A2)	<u> </u> 5cm Mucky Peat or Peat	<u> </u> Depleted Dark Surface (F7)
<u> </u> Black Histic (A3)	<u> </u> Sandy Gleyed Matrix (S4)	<u> </u> Redox Depressions (F8)
<u> </u> Hydrogen Sulfide (A4)	<u> </u> Sandy Redox (S5)	Indicators for Problematic Hydric Soils
<u> </u> Stratified Layers (A5)	<u> </u> Stripped Matrix (S6)	<u> </u> Coast Prairie Redox (A16)
<u> </u> 2 cm Muck (A10)	<u> </u> Loamy Mucky Mineral (F1)	<u> </u> Iron-Manganese Masses (F12)
<u> </u> Depleted Below Dark Surface (A11)	<u> </u> Loamy Gleyed Matrix (F2)	<u> </u> Very Shallow Dark Surface (F12)
<u> </u> Thick Dark Surface (A12)	<u> </u> Depleted Matrix (F3)	<u> </u> Other

Restrictive Layer (if observed): Type: Depth (Inches):

Remarks:

Hydric Soil Present? Yes No x

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (check all that apply)	Secondary Indicators
<u> </u> Surface Water (A1)	<u> </u> Surface Soil Cracks (B6)
<u> </u> High Water Table (A2)	<u> </u> Drainage Patterns (B10)
<u> </u> Saturation (A3)	<u> </u> Dry-Season Water Table (C2)
<u> </u> Water Marks (B1)	<u> </u> Crayfish Burrows (C8)
<u> </u> Sediment Deposits (B2)	<u> </u> Saturation Visible on Aerial Imagery (C9)
<u> </u> Drift Deposits (B3)	<u> </u> Stunted or Stressed Plants (D1)
<u> </u> Algal Mat or Crust (B4)	<u> </u> Geomorphic Position (D2)
<u> </u> Iron Deposits (B5)	<u> </u> FAC-Neutral Test (D5)
<u> </u> Inundation Visible on Aerial Imagery (B7)	<u> </u> <u> </u>
<u> </u> Sparsely Vegetated Concave Surface	<u> </u> <u> </u>
Field Observations: Surface Water Present? Yes <u> </u> No <u>x</u> Depth (inches) <u> </u>	Hydrology Indicators Present? Yes <u> </u> No <u> </u> x
Water Table Present? Yes <u> </u> No <u>x</u> Depth (inches) <u> </u>	
Saturation Present? Yes <u> </u> No <u>x</u> Depth (inches) <u> </u>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: <u> </u>	

WETLAND DETERMINATION FORM-MIDWEST REGION

Site: W. Lancaster-S. Baltimore-W. Millersport City/County: Fairfield County Date: 27 March 2024 Data Point: 28
 Client: AEP State: OH Section, Township, Range: Sec S7, T 16N, R 18W
 Investigator(s): N. Houk, N. Barnett Landform Drainageways Local Relief Convex
 Slope (%): 1-3 Lat. 39.877952 Long. -82.574087 Datum NAD83 NWI Class: N/A
 Soil Map Unit Name: Pewamo silty clay loam, low carbonate till, 0 to 2 percent slopes

Climatic/hydrologic conditions typical for time of year? Y/N Y
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic

Are Normal Circumstances Present? Yes x No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes <u> </u> No <u>x</u>	Is the DP within a Wetland? Yes <u> </u> No <u> </u> x
Hydric Soil Present? Yes <u> </u> No <u>x</u>	
Wetland Hydrology Present? Yes <u> </u> No <u>x</u>	

Remarks:

VEGETATION

Tree Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet Number of dominant species that are OBL, FACW, or FAC: <u>0</u> Total number of dominant species across all strata: <u>1</u> Percent of dominant species that are OBL, FACW, or FAC: <u>0.00</u> Prevalence Index Worksheet Total % cover of: OBL species <u>0</u> x <u>1</u> = <u>0</u> FACW species <u>0</u> x <u>2</u> = <u>0</u> FAC species <u>0</u> x <u>3</u> = <u>0</u> FACU species <u>0</u> x <u>4</u> = <u>0</u> UPL species <u>60</u> x <u>5</u> = <u>300</u> Total <u>60</u> Prevalence Index: <u>5.00</u>
1. <u> </u>	<u>30'</u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>		<u>0</u>	Total Cover		
Shrub Stratum	Plot size:				
1. <u> </u>	<u>15'</u>				
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>		<u>0</u>	Total Cover		
Herb Stratum	Plot size:				
1. <u>Glycine max residue</u>	<u>5'</u>	<u>60</u>	<u>Y</u>	<u>UPL</u> <u>5</u>	
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>					
6. <u> </u>					
7. <u> </u>					
8. <u> </u>		<u>60</u>	Total Cover		
Woody Vine Stratum	Plot size:				
1. <u> </u>	<u>30'</u>				
2. <u> </u>					
3. <u> </u>		<u>0</u>	Total Cover		

Remarks:

SOIL

Profile Description: (Describe to depth needed to document the indicator or confirm absence of indicators.)

Depth (inches)	Matrix		Redox Features					Texture Si C L	Remarks
	Color	%	Color	%	Type*	Loc**			
0-18	10YR 3/2	100							

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:		
<u> </u> Histosol (A1)	<u> </u> Sandy Mucky Mineral (S1)	<u> </u> Redox Dark Surface (F6)
<u> </u> Histic Epipedon (A2)	<u> </u> 5cm Mucky Peat or Peat	<u> </u> Depleted Dark Surface (F7)
<u> </u> Black Histic (A3)	<u> </u> Sandy Gleyed Matrix (S4)	<u> </u> Redox Depressions (F8)
<u> </u> Hydrogen Sulfide (A4)	<u> </u> Sandy Redox (S5)	Indicators for Problematic Hydric Soils
<u> </u> Stratified Layers (A5)	<u> </u> Stripped Matrix (S6)	<u> </u> Coast Prairie Redox (A16)
<u> </u> 2 cm Muck (A10)	<u> </u> Loamy Mucky Mineral (F1)	<u> </u> Iron-Manganese Masses (F12)
<u> </u> Depleted Below Dark Surface (A11)	<u> </u> Loamy Gleyed Matrix (F2)	<u> </u> Very Shallow Dark Surface (F12)
<u> </u> Thick Dark Surface (A12)	<u> </u> Depleted Matrix (F3)	<u> </u> Other

Restrictive Layer (if observed): Type: <u> </u>	Hydric Soil Present? Yes <u> </u> No <u> </u> x
Depth (Inches): <u> </u>	

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (check all that apply)	Secondary Indicators
<u> </u> Surface Water (A1)	<u> </u> Surface Soil Cracks (B6)
<u> </u> High Water Table (A2)	<u> </u> Drainage Patterns (B10)
<u> </u> Saturation (A3)	<u> </u> Dry-Season Water Table (C2)
<u> </u> Water Marks (B1)	<u> </u> Crayfish Burrows (C8)
<u> </u> Sediment Deposits (B2)	<u> </u> Saturation Visible on Aerial Imagery (C9)
<u> </u> Drift Deposits (B3)	<u> </u> Stunted or Stressed Plants (D1)
<u> </u> Algal Mat or Crust (B4)	<u> </u> Geomorphic Position (D2)
<u> </u> Iron Deposits (B5)	<u> </u> FAC-Neutral Test (D5)
<u> </u> Inundation Visible on Aerial Imagery (B7)	<u> </u> <u> </u>
<u> </u> Sparsely Vegetated Concave Surface	<u> </u> <u> </u>

Field Observations: Surface Water Present? Yes <u> </u> No <u>x</u> Depth (inches) <u> </u>	Hydrology Indicators Present? Yes <u> </u> No <u> </u> x
Water Table Present? Yes <u> </u> No <u>x</u> Depth (inches) <u> </u>	
Saturation Present? Yes <u> </u> No <u>x</u> Depth (inches) <u> </u>	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

WETLAND DETERMINATION FORM-MIDWEST REGION

Site: W. Lancaster-S. Baltimore-W. Millersport City/County: Fairfield County Date: 27 March 2024 Data Point: 25
 Client: AEP State: OH Section, Township, Range: Sec S7, T 16N, R 18W
 Investigator(s): N. Houk, N. Barnett Landform Drainageways Local Relief Convex
 Slope (%): 1-3 Lat. 39.871979 Long. -82.576534 Datum NAD83 NWI Class: N/A
 Soil Map Unit Name: Pewamo silty clay loam, low carbonate till, 0 to 2 percent slopes
 Climatic/hydrologic conditions typical for time of year? Y/N Y
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic
 Are Normal Circumstances Present? Yes x No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes <u> </u> No <u>x</u>	Is the DP within a Wetland? Yes <u> </u> No <u> </u> x
Hydric Soil Present? Yes <u> </u> No <u>x</u>	
Wetland Hydrology Present? Yes <u> </u> No <u>x</u>	
Remarks:	

VEGETATION

Tree Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet Number of dominant species that are OBL, FACW, or FAC: <u>2</u> Total number of dominant species across all strata: <u>4</u> Percent of dominant species that are OBL, FACW, or FAC: <u>50.00</u>
1. <u> </u>	<u>30'</u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
3. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
0 Total Cover					Prevalence Index Worksheet Total % cover of: OBL species <u>0</u> x <u>1</u> = <u>0</u> FACW species <u>50</u> x <u>2</u> = <u>100</u> FAC species <u>0</u> x <u>3</u> = <u>0</u> FACU species <u>18</u> x <u>4</u> = <u>72</u> UPL species <u>30</u> x <u>5</u> = <u>150</u> Total <u>98</u> Prevalence Index: <u>3.29</u>
Shrub Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	
1. <u>Rubus allegheniensis</u>	<u>15'</u>	<u>5</u>	<u>Y</u>	<u>FACU 4</u>	
2. <u>Rosa multiflora</u>		<u>3</u>	<u>N</u>	<u>FACU 4</u>	
3. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
5. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
8 Total Cover					
Herb Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	
1. <u>Conium maculatum</u>	<u>5'</u>	<u>30</u>	<u>Y</u>	<u>FACW 2</u>	
2. <u>Lamium purpureum</u>		<u>30</u>	<u>Y</u>	<u>UPL 5</u>	
3. <u>Cyperus esculentus</u>		<u>20</u>	<u>Y</u>	<u>FACW 2</u>	
4. <u>Stellaria media</u>		<u>10</u>	<u>N</u>	<u>FACU 4</u>	
5. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
6. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
7. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
8. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
90 Total Cover					
Woody Vine Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	
1. <u> </u>	<u>30'</u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
0 Total Cover					
Remarks:					

SOIL

Profile Description: (Describe to depth needed to document the indicator or confirm absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color	%	Color	%	Type*	Loc**		
0-18	10YR 3/2	100					Si C L	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

<u> </u> Histosol (A1)	<u> </u> Sandy Mucky Mineral (S1)	<u> </u> Redox Dark Surface (F6)
<u> </u> Histic Epipedon (A2)	<u> </u> 5cm Mucky Peat or Peat	<u> </u> Depleted Dark Surface (F7)
<u> </u> Black Histic (A3)	<u> </u> Sandy Gleyed Matrix (S4)	<u> </u> Redox Depressions (F8)
<u> </u> Hydrogen Sulfide (A4)	<u> </u> Sandy Redox (S5)	Indicators for Problematic Hydric Soils
<u> </u> Stratified Layers (A5)	<u> </u> Stripped Matrix (S6)	<u> </u> Coast Prairie Redox (A16)
<u> </u> 2 cm Muck (A10)	<u> </u> Loamy Mucky Mineral (F1)	<u> </u> Iron-Manganese Masses (F12)
<u> </u> Depleted Below Dark Surface (A11)	<u> </u> Loamy Gleyed Matrix (F2)	<u> </u> Very Shallow Dark Surface (F12)
<u> </u> Thick Dark Surface (A12)	<u> </u> Depleted Matrix (F3)	<u> </u> Other

Restrictive Layer (if observed): Type: Depth (Inches):

Remarks:

Hydric Soil Present? Yes No x

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (check all that apply)	Secondary Indicators
<u> </u> Surface Water (A1)	<u> </u> Surface Soil Cracks (B6)
<u> </u> High Water Table (A2)	<u> </u> Drainage Patterns (B10)
<u> </u> Saturation (A3)	<u> </u> Dry-Season Water Table (C2)
<u> </u> Water Marks (B1)	<u> </u> Crayfish Burrows (C8)
<u> </u> Sediment Deposits (B2)	<u> </u> Saturation Visible on Aerial Imagery (C9)
<u> </u> Drift Deposits (B3)	<u> </u> Stunted or Stressed Plants (D1)
<u> </u> Algal Mat or Crust (B4)	<u> </u> Geomorphic Position (D2)
<u> </u> Iron Deposits (B5)	<u> </u> FAC-Neutral Test (D5)
<u> </u> Inundation Visible on Aerial Imagery (B7)	<u> </u> Guage or Well Data (D9)
<u> </u> Sparsely Vegetated Concave Surface	<u> </u> Other

Field Observations: Surface Water Present? Yes No x Depth (inches)
 Water Table Present? Yes No x Depth (inches)
 Saturation Present? Yes No x Depth (inches)

Hydrology Indicators Present? Yes No x

Describe Recorded Data (stream guage, monitoring well, aerial photos, previous inspections), if available:

WETLAND DETERMINATION FORM-MIDWEST REGION

Site: W. Lancaster-S. Baltimore-W. Millersport City/County: Fairfield County Date: 27 March 2024 Data Point: 22
 Client: AEP State: OH Section, Township, Range: Sec S18, T 16N, R 18W
 Investigator(s): N. Houk, N. Barnett Landform: Moraines Local Relief: Convex
 Slope (%): 1-3 Lat. 39.866541 Long. -82.578898 Datum: NAD83 NWI Class: N/A
 Soil Map Unit Name: Bennington silt loam, 0 to 2 percent slopes
 Climatic/hydrologic conditions typical for time of year? Y/N Y
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic
 Are Normal Circumstances Present? Yes x No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes <u> </u> No <u>x</u>	Is the DP within a Wetland? Yes <u> </u> No <u> </u> x
Hydric Soil Present? Yes <u> </u> No <u>x</u>	
Wetland Hydrology Present? Yes <u> </u> No <u>x</u>	

Remarks:

VEGETATION

Tree Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet Number of dominant species that are OBL, FACW, or FAC: <u>1</u> Total number of dominant species across all strata: <u>3</u> Percent of dominant species that are OBL, FACW, or FAC: <u>33.33</u> Prevalence Index Worksheet Total % cover of: OBL species <u>0</u> x <u>1</u> = <u>0</u> FACW species <u>0</u> x <u>2</u> = <u>0</u> FAC species <u>20</u> x <u>3</u> = <u>60</u> FACU species <u>25</u> x <u>4</u> = <u>100</u> UPL species <u>40</u> x <u>5</u> = <u>200</u> Total <u>85</u> Prevalence Index: <u>4.24</u>
1. <u> </u>	<u>30'</u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>		<u>0</u>	Total Cover		
Shrub Stratum Plot size: <u>15'</u>					
1. <u> </u>					
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>		<u>0</u>	Total Cover		
Herb Stratum Plot size: <u>5'</u>					
1. <u>Glycine max residue</u>		<u>40</u>	<u>Y</u>	<u>UPL 5</u>	
2. <u>Barbarea vulgaris</u>		<u>20</u>	<u>Y</u>	<u>FAC 3</u>	
3. <u>Stellaria media</u>		<u>20</u>	<u>Y</u>	<u>FACU 4</u>	
4. <u>Allium vineale</u>		<u>5</u>	<u>N</u>	<u>FACU 4</u>	
5. <u> </u>					
6. <u> </u>					
7. <u> </u>					
8. <u> </u>					
		<u>85</u>	Total Cover		
Woody Vine Stratum Plot size: <u>30'</u>					
1. <u> </u>					
2. <u> </u>					
		<u>0</u>	Total Cover		

Remarks:

SOIL

Profile Description: (Describe to depth needed to document the indicator or confirm absence of indicators.)

Depth (inches)	Matrix		Redox Features					
	Color	%	Color	%	Type*	Loc**	Texture	Remarks
0-18	10YR 3/2	100					Si L	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

<u> </u> Histosol (A1)	<u> </u> Sandy Mucky Mineral (S1)	<u> </u> Redox Dark Surface (F6)
<u> </u> Histic Epipedon (A2)	<u> </u> 5cm Mucky Peat or Peat	<u> </u> Depleted Dark Surface (F7)
<u> </u> Black Histic (A3)	<u> </u> Sandy Gleyed Matrix (S4)	<u> </u> Redox Depressions (F8)
<u> </u> Hydrogen Sulfide (A4)	<u> </u> Sandy Redox (S5)	Indicators for Problematic Hydric Soils
<u> </u> Stratified Layers (A5)	<u> </u> Stripped Matrix (S6)	<u> </u> Coast Prairie Redox (A16)
<u> </u> 2 cm Muck (A10)	<u> </u> Loamy Mucky Mineral (F1)	<u> </u> Iron-Manganese Masses (F12)
<u> </u> Depleted Below Dark Surface (A11)	<u> </u> Loamy Gleyed Matrix (F2)	<u> </u> Very Shallow Dark Surface (F12)
<u> </u> Thick Dark Surface (A12)	<u> </u> Depleted Matrix (F3)	<u> </u> Other

Restrictive Layer (if observed): Type:
 Depth (Inches):

Hydric Soil Present? Yes No x

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (check all that apply)	Secondary Indicators
<u> </u> Surface Water (A1)	<u> </u> Surface Soil Cracks (B6)
<u> </u> High Water Table (A2)	<u> </u> Drainage Patterns (B10)
<u> </u> Saturation (A3)	<u> </u> Dry-Season Water Table (C2)
<u> </u> Water Marks (B1)	<u> </u> Crayfish Burrows (C8)
<u> </u> Sediment Deposits (B2)	<u> </u> Saturation Visible on Aerial Imagery (C9)
<u> </u> Drift Deposits (B3)	<u> </u> Stunted or Stressed Plants (D1)
<u> </u> Algal Mat or Crust (B4)	<u> </u> Geomorphic Position (D2)
<u> </u> Iron Deposits (B5)	<u> </u> FAC-Neutral Test (D5)
<u> </u> Inundation Visible on Aerial Imagery (B7)	
<u> </u> Sparsely Vegetated Concave Surface	
<u> </u> Water Stained Leaves (B9)	
<u> </u> Aquatic Fauna (B13)	
<u> </u> True Aquatic Plants (B14)	
<u> </u> Hydrogen Sulfide Odor (C1)	
<u> </u> Oxidized Rhizospheres on Living Roots	
<u> </u> Presence of Reduced Iron (C4)	
<u> </u> Recent Iron Reduction in Tilled Soil (C6)	
<u> </u> Thin Muck Surface (C7)	
<u> </u> Gauge or Well Data (D9)	
<u> </u> Other	

Field Observations: Surface Water Present? Yes No x Depth (inches)
 Water Table Present? Yes No x Depth (inches)
 Saturation Present? Yes No x Depth (inches)

Hydrology Indicators Present? Yes No x

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

WETLAND DETERMINATION FORM-MIDWEST REGION

Site: W. Lancaster-S. Baltimore-W. Millersport City/County: Fairfield County Date: 27 March 2024 Data Point: 19
 Client: AEP State: OH Section, Township, Range: Sec S18, T 16N, R 18W
 Investigator(s): N. Houk, N. Barnett Landform: Moraines Local Relief: Convex
 Slope (%): 1-3 Lat. 39.860215 Long. -82.581483 Datum: NAD83 NWI Class: N/A
 Soil Map Unit Name: Bennington silt loam, 0 to 2 percent slopes
 Climatic/hydrologic conditions typical for time of year? Y/N Y
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic
 Are Normal Circumstances Present? Yes x No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes <u> </u> No <u>x</u>	Is the DP within a Wetland? Yes <u> </u> No <u> </u> x
Hydric Soil Present? Yes <u> </u> No <u>x</u>	
Wetland Hydrology Present? Yes <u> </u> No <u>x</u>	

VEGETATION

Tree Stratum Plot size: <u>30'</u>	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet Number of dominant species that are OBL, FACW, or FAC: <u>0</u> Total number of dominant species across all strata: <u>2</u> Percent of dominant species that are OBL, FACW, or FAC: <u>0.00</u> Prevalence Index Worksheet Total % cover of: OBL species <u>0</u> x <u>1</u> = <u>0</u> FACW species <u>0</u> x <u>2</u> = <u>0</u> FAC species <u>5</u> x <u>3</u> = <u>15</u> FACU species <u>20</u> x <u>4</u> = <u>80</u> UPL species <u>70</u> x <u>5</u> = <u>350</u> Total <u>95</u> Prevalence Index: <u>4.68</u>
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
Shrub Stratum Plot size: <u>15'</u>	Absolute % Cover	Dominant Species	Indicator Status	UPL species <u>70</u> x <u>5</u> = <u>350</u> Total <u>95</u> Prevalence Index: <u>4.68</u> Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Veg. <u> </u> Dominance Test is >50% <u> </u> Prevalence Index is ≤3.0* <u> </u> Morphological Adaptations* <u> </u> Problematic Hydrophytic Vegetation* <u> </u> *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic Hydrophytic Vegetation Present? Yes <u> </u> No <u> </u> x
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
Herb Stratum Plot size: <u>5'</u>	Absolute % Cover	Dominant Species	Indicator Status	UPL species <u>70</u> x <u>5</u> = <u>350</u> Total <u>95</u> Prevalence Index: <u>4.68</u> Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Veg. <u> </u> Dominance Test is >50% <u> </u> Prevalence Index is ≤3.0* <u> </u> Morphological Adaptations* <u> </u> Problematic Hydrophytic Vegetation* <u> </u> *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic Hydrophytic Vegetation Present? Yes <u> </u> No <u> </u> x
1. <u>Zea mays residue</u>	<u>70</u>	<u>Y</u>	<u>UPL 5</u>	
2. <u>Stellaria media</u>	<u>20</u>	<u>Y</u>	<u>FACU 4</u>	
3. <u>Barbarea vulgaris</u>	<u>5</u>	<u>N</u>	<u>FAC 3</u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
Woody Vine Stratum Plot size: <u>5'</u>	Absolute % Cover	Dominant Species	Indicator Status	UPL species <u>70</u> x <u>5</u> = <u>350</u> Total <u>95</u> Prevalence Index: <u>4.68</u> Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Veg. <u> </u> Dominance Test is >50% <u> </u> Prevalence Index is ≤3.0* <u> </u> Morphological Adaptations* <u> </u> Problematic Hydrophytic Vegetation* <u> </u> *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic Hydrophytic Vegetation Present? Yes <u> </u> No <u> </u> x
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	

SOIL

Profile Description: (Describe to depth needed to document the indicator or confirm absence of indicators.)

Depth (inches)	Matrix		Redox Features					
	Color	%	Color	%	Type*	Loc**	Texture	Remarks
0-18	10YR 4/3	100					L	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

<u> </u> Histosol (A1)	<u> </u> Sandy Mucky Mineral (S1)	<u> </u> Redox Dark Surface (F6)
<u> </u> Histic Epipedon (A2)	<u> </u> 5cm Mucky Peat or Peat	<u> </u> Depleted Dark Surface (F7)
<u> </u> Black Histic (A3)	<u> </u> Sandy Gleyed Matrix (S4)	<u> </u> Redox Depressions (F8)
<u> </u> Hydrogen Sulfide (A4)	<u> </u> Sandy Redox (S5)	Indicators for Problematic Hydric Soils
<u> </u> Stratified Layers (A5)	<u> </u> Stripped Matrix (S6)	<u> </u> Coast Prairie Redox (A16)
<u> </u> 2 cm Muck (A10)	<u> </u> Loamy Mucky Mineral (F1)	<u> </u> Iron-Manganese Masses (F12)
<u> </u> Depleted Below Dark Surface (A11)	<u> </u> Loamy Gleyed Matrix (F2)	<u> </u> Very Shallow Dark Surface (F12)
<u> </u> Thick Dark Surface (A12)	<u> </u> Depleted Matrix (F3)	<u> </u> Other

Restrictive Layer (if observed): Type: Depth (Inches): Hydric Soil Present? Yes No x

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (check all that apply)	Secondary Indicators
<u> </u> Surface Water (A1)	<u> </u> Surface Soil Cracks (B6)
<u> </u> High Water Table (A2)	<u> </u> Drainage Patterns (B10)
<u> </u> Saturation (A3)	<u> </u> Dry-Season Water Table (C2)
<u> </u> Water Marks (B1)	<u> </u> Crayfish Burrows (C8)
<u> </u> Sediment Deposits (B2)	<u> </u> Saturation Visible on Aerial Imagery (C9)
<u> </u> Drift Deposits (B3)	<u> </u> Stunted or Stressed Plants (D1)
<u> </u> Algal Mat or Crust (B4)	<u> </u> Geomorphic Position (D2)
<u> </u> Iron Deposits (B5)	<u> </u> FAC-Neutral Test (D5)
<u> </u> Inundation Visible on Aerial Imagery (B7)	
<u> </u> Sparsely Vegetated Concave Surface	
Field Observations: Surface Water Present? Yes <u> </u> No <u>x</u> Depth (inches) <u> </u>	Hydrology Indicators Present? Yes <u> </u> No <u> </u> x
Water Table Present? Yes <u> </u> No <u>x</u> Depth (inches) <u> </u>	
Saturation Present? Yes <u> </u> No <u>x</u> Depth (inches) <u> </u>	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

WETLAND DETERMINATION FORM-MIDWEST REGION

Site: W. Lancaster-S. Baltimore-W. Millersport City/County: Fairfield County Date: 27 March 2024 Data Point: 16
 Client: AEP State: OH Section, Township, Range: Sec S19, T 16N, R 18W
 Investigator(s): N. Houk, N. Barnett Landform Flood Plains Local Relief Convex
 Slope (%): 1-3 Lat. 39.854232 Long. -82.583901 Datum NAD83 NWI Class: N/A
 Soil Map Unit Name: Aetna silt loam, occasionally flooded
 Climatic/hydrologic conditions typical for time of year? Y/N Y
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic
 Are Normal Circumstances Present? Yes x No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes <u>x</u> No <u> </u>	Is the DP within a Wetland? Yes <u> </u> No <u> </u> x <u> </u>
Hydric Soil Present? Yes <u> </u> No <u>x</u>	
Wetland Hydrology Present? Yes <u> </u> No <u>x</u>	

VEGETATION

Tree Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet Number of dominant species that are OBL, FACW, or FAC: <u>2</u> Total number of dominant species across all strata: <u>2</u> Percent of dominant species that are OBL, FACW, or FAC: <u>100.00</u>
1. <u> </u>	<u>30'</u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
3. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
0 Total Cover					Prevalence Index Worksheet Total % cover of: OBL species <u>0</u> x <u>1</u> = <u>0</u> FACW species <u>45</u> x <u>2</u> = <u>90</u> FAC species <u>20</u> x <u>3</u> = <u>60</u> FACU species <u>5</u> x <u>4</u> = <u>20</u> UPL species <u>10</u> x <u>5</u> = <u>50</u> Total <u>80</u> Prevalence Index: <u>2.75</u>
Shrub Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	
1. <u> </u>	<u>15'</u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
3. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
5. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
0 Total Cover					
Herb Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Veg. <u>x</u> Dominance Test is >50% <u>x</u> Prevalence Index is <=3.0* <u> </u> Morphological Adaptations* <u> </u> Problematic Hydrophytic Vegetation* <u> </u> *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic Hydrophytic Vegetation Present? Yes <u>x</u> No <u> </u>
1. <u>Phalaris arundinacea</u>	<u>5'</u>	<u>45</u>	<u>Y</u>	<u>FACW</u> <u>2</u>	
2. <u>Apocynum cannabinum</u>		<u>20</u>	<u>Y</u>	<u>FAC</u> <u>3</u>	
3. <u>Echinacea pallida</u>		<u>10</u>	<u>N</u>	<u>UPL</u> <u>5</u>	
4. <u>Allium vineale</u>		<u>5</u>	<u>N</u>	<u>FACU</u> <u>4</u>	
5. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
6. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
7. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
8. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
80 Total Cover					
Woody Vine Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	
1. <u> </u>	<u>30'</u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
0 Total Cover					

SOIL

Profile Description: (Describe to depth needed to document the indicator or confirm absence of indicators.)

Depth (inches)	Matrix		Redox Features					
	Color	%	Color	%	Type*	Loc**	Texture	Remarks
0-18	10YR 3/2	100					Si C L	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

<u> </u> Histosol (A1)	<u> </u> Sandy Mucky Mineral (S1)	<u> </u> Redox Dark Surface (F6)
<u> </u> Histic Epipedon (A2)	<u> </u> 5cm Mucky Peat or Peat	<u> </u> Depleted Dark Surface (F7)
<u> </u> Black Histic (A3)	<u> </u> Sandy Gleyed Matrix (S4)	<u> </u> Redox Depressions (F8)
<u> </u> Hydrogen Sulfide (A4)	<u> </u> Sandy Redox (S5)	Indicators for Problematic Hydric Soils
<u> </u> Stratified Layers (A5)	<u> </u> Stripped Matrix (S6)	<u> </u> Coast Prairie Redox (A16)
<u> </u> 2 cm Muck (A10)	<u> </u> Loamy Mucky Mineral (F1)	<u> </u> Iron-Manganese Masses (F12)
<u> </u> Depleted Below Dark Surface (A11)	<u> </u> Loamy Gleyed Matrix (F2)	<u> </u> Very Shallow Dark Surface (F12)
<u> </u> Thick Dark Surface (A12)	<u> </u> Depleted Matrix (F3)	<u> </u> Other

Restrictive Layer (if observed): Type: Depth (Inches): Hydric Soil Present? Yes No x

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (check all that apply)	Secondary Indicators
<u> </u> Surface Water (A1)	<u> </u> Surface Soil Cracks (B6)
<u> </u> High Water Table (A2)	<u> </u> Drainage Patterns (B10)
<u> </u> Saturation (A3)	<u> </u> Dry-Season Water Table (C2)
<u> </u> Water Marks (B1)	<u> </u> Crayfish Burrows (C8)
<u> </u> Sediment Deposits (B2)	<u> </u> Saturation Visible on Aerial Imagery (C9)
<u> </u> Drift Deposits (B3)	<u> </u> Stunted or Stressed Plants (D1)
<u> </u> Algal Mat or Crust (B4)	<u> </u> Geomorphic Position (D2)
<u> </u> Iron Deposits (B5)	<u> </u> FAC-Neutral Test (D5)
<u> </u> Inundation Visible on Aerial Imagery (B7)	
<u> </u> Sparsely Vegetated Concave Surface	
Field Observations: Surface Water Present? Yes <u> </u> No <u>x</u> Depth (inches) <u> </u>	Hydrology Indicators Present? Yes <u> </u> No <u> </u> x <u> </u>
Water Table Present? Yes <u> </u> No <u>x</u> Depth (inches) <u> </u>	
Saturation Present? Yes <u> </u> No <u>x</u> Depth (inches) <u> </u>	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

WETLAND DETERMINATION FORM-MIDWEST REGION

Site: W. Lancaster-S. Baltimore-W. Millersport City/County: Fairfield County Date: 27 March 2024 Data Point: 14
 Client: AEP State: OH Section, Township, Range: Sec S19, T 16N, R 18W
 Investigator(s): N. Houk, N. Barnett Landform Lake Plains Local Relief Convex
 Slope (%): 1-3 Lat. 39.851571 Long. -82.584979 Datum NAD83 NWI Class: N/A
 Soil Map Unit Name: Minster silty clay loam, 0 to 1 percent slopes
 Climatic/hydrologic conditions typical for time of year? Y/N Y
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic
 Are Normal Circumstances Present? Yes x No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes <u> </u> No <u>x</u>	Is the DP within a Wetland? Yes <u> </u> No <u> </u> x
Hydric Soil Present? Yes <u>x</u> No <u> </u>	
Wetland Hydrology Present? Yes <u> </u> No <u>x</u>	
Remarks:	

VEGETATION

Tree Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet Number of dominant species that are OBL, FACW, or FAC: <u>0</u> Total number of dominant species across all strata: <u>2</u> Percent of dominant species that are OBL, FACW, or FAC: <u>0.00</u> Prevalence Index Worksheet Total % cover of: OBL species <u>0</u> x <u>1</u> = <u>0</u> FACW species <u>0</u> x <u>2</u> = <u>0</u> FAC species <u>0</u> x <u>3</u> = <u>0</u> FACU species <u>0</u> x <u>4</u> = <u>0</u> UPL species <u>90</u> x <u>5</u> = <u>450</u> Total <u>90</u> Prevalence Index: <u>5.00</u>
1. <u> </u>	<u>30'</u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>		<u>0</u>	Total Cover		
Shrub Stratum Plot size: <u>15'</u>					
1. <u> </u>					
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>		<u>0</u>	Total Cover		
Herb Stratum Plot size: <u>5'</u>					
1. <u>Glycine max residue</u>		<u>60</u>	<u>Y</u>	<u>UPL 5</u>	
2. <u>Lolium multiflorum</u>		<u>30</u>	<u>Y</u>	<u>UPL 5</u>	
3. <u> </u>					
4. <u> </u>					
5. <u> </u>					
6. <u> </u>					
7. <u> </u>					
8. <u> </u>					
		<u>90</u>	Total Cover		
Woody Vine Stratum Plot size: <u>30'</u>					
1. <u> </u>					
2. <u> </u>					
		<u>0</u>	Total Cover		
Remarks:					

SOIL

Profile Description: (Describe to depth needed to document the indicator or confirm absence of indicators.)

Depth (inches)	Color	Matrix %	Color	%	Type*	Loc**	Texture	Remarks
0-4	10YR 2/2	100					C L	
4-18	10YR 2/2	95	10YR 4/6	5	C	M	C L	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

<u> </u> Histosol (A1)	<u> </u> Sandy Mucky Mineral (S1)	<u>x</u> Redox Dark Surface (F6)
<u> </u> Histic Epipedon (A2)	<u> </u> 5cm Mucky Peat or Peat	<u> </u> Depleted Dark Surface (F7)
<u> </u> Black Histic (A3)	<u> </u> Sandy Gleyed Matrix (S4)	<u> </u> Redox Depressions (F8)
<u> </u> Hydrogen Sulfide (A4)	<u> </u> Sandy Redox (S5)	Indicators for Problematic Hydric Soils
<u> </u> Stratified Layers (A5)	<u> </u> Stripped Matrix (S6)	<u> </u> Coast Prairie Redox (A16)
<u> </u> 2 cm Muck (A10)	<u> </u> Loamy Mucky Mineral (F1)	<u> </u> Iron-Manganese Masses (F12)
<u> </u> Depleted Below Dark Surface (A11)	<u> </u> Loamy Gleyed Matrix (F2)	<u> </u> Very Shallow Dark Surface (F12)
<u> </u> Thick Dark Surface (A12)	<u> </u> Depleted Matrix (F3)	<u> </u> Other

Restrictive Layer (if observed): Type: Depth (Inches): Hydric Soil Present? Yes x No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (check all that apply)	Secondary Indicators
<u> </u> Surface Water (A1)	<u> </u> Surface Soil Cracks (B6)
<u> </u> High Water Table (A2)	<u> </u> Drainage Patterns (B10)
<u> </u> Saturation (A3)	<u> </u> Dry-Season Water Table (C2)
<u> </u> Water Marks (B1)	<u> </u> Crayfish Burrows (C8)
<u> </u> Sediment Deposits (B2)	<u> </u> Saturation Visible on Aerial Imagery (C9)
<u> </u> Drift Deposits (B3)	<u> </u> Stunted or Stressed Plants (D1)
<u> </u> Algal Mat or Crust (B4)	<u> </u> Geomorphic Position (D2)
<u> </u> Iron Deposits (B5)	<u> </u> FAC-Neutral Test (D5)
<u> </u> Inundation Visible on Aerial Imagery (B7)	
<u> </u> Sparsely Vegetated Concave Surface	
<u> </u> Water Stained Leaves (B9)	
<u> </u> Aquatic Fauna (B13)	
<u> </u> True Aquatic Plants (B14)	
<u> </u> Hydrogen Sulfide Odor (C1)	
<u> </u> Oxidized Rhizospheres on Living Roots	
<u> </u> Presence of Reduced Iron (C4)	
<u> </u> Recent Iron Reduction in Tilled Soil (C6)	
<u> </u> Thin Muck Surface (C7)	
<u> </u> Gauge or Well Data (D9)	
<u> </u> Other	

Field Observations: Surface Water Present? Yes No x Depth (inches)
 Water Table Present? Yes No x Depth (inches)
 Saturation Present? Yes No x Depth (inches)

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

WETLAND DETERMINATION FORM-MIDWEST REGION

Site: W. Lancaster-S. Baltimore-W. Millersport City/County: Fairfield County Date: 27 March 2024 Data Point: 12
 Client: AEP State: OH Section, Township, Range: Sec S19, T 16N, R 18W
 Investigator(s): N. Houk, N. Barnett Landform Terraces Local Relief Convex
 Slope (%): 1-3 Lat. 39.845994 Long. -82.587370 Datum NAD83 NWI Class: N/A
 Soil Map Unit Name: Canal silt loam, 0 to 2 percent slopes
 Climatic/hydrologic conditions typical for time of year? Y/N Y
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic
 Are Normal Circumstances Present? Yes x No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes <u> </u> No <u>x</u>	Is the DP within a Wetland? Yes <u> </u> No <u> </u> x
Hydric Soil Present? Yes <u> </u> No <u>x</u>	
Wetland Hydrology Present? Yes <u> </u> No <u>x</u>	

Remarks:

VEGETATION

Tree Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet Number of dominant species that are OBL, FACW, or FAC: <u>0</u> Total number of dominant species across all strata: <u>4</u> Percent of dominant species that are OBL, FACW, or FAC: <u>0.00</u> Prevalence Index Worksheet Total % cover of: OBL species <u>0</u> x <u>1</u> = <u>0</u> FACW species <u>0</u> x <u>2</u> = <u>0</u> FAC species <u>10</u> x <u>3</u> = <u>30</u> FACU species <u>65</u> x <u>4</u> = <u>260</u> UPL species <u>50</u> x <u>5</u> = <u>250</u> Total <u>125</u> Prevalence Index: <u>4.32</u>
1. <u> </u>	<u>30'</u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>		<u>0</u>	Total Cover		
Shrub Stratum	Plot size:				
1. <u><i>Pyrus calleryana</i></u>	<u>15'</u>	<u>40</u>	<u>Y</u>	<u>UPL 5</u>	
2. <u><i>Sambucus canadensis</i></u>		<u>15</u>	<u>Y</u>	<u>FACU 4</u>	
3. <u><i>Lonicera maackii</i></u>		<u>10</u>	<u>N</u>	<u>UPL 5</u>	
4. <u> </u>					
5. <u> </u>		<u>65</u>	Total Cover		
Herb Stratum	Plot size:				
1. <u><i>Allium vineale</i></u>	<u>5'</u>	<u>30</u>	<u>Y</u>	<u>FACU 4</u>	
2. <u><i>Solidago canadensis</i></u>		<u>20</u>	<u>Y</u>	<u>FACU 4</u>	
3. <u><i>Poa pratensis</i></u>		<u>10</u>	<u>N</u>	<u>FAC 3</u>	
4. <u> </u>					
5. <u> </u>					
6. <u> </u>					
7. <u> </u>					
8. <u> </u>		<u>60</u>	Total Cover		
Woody Vine Stratum	Plot size:				
1. <u> </u>	<u>30'</u>				
2. <u> </u>					
		<u>0</u>	Total Cover		

Remarks:

SOIL

Profile Description: (Describe to depth needed to document the indicator or confirm absence of indicators.)

Depth (inches)	Matrix		Redox Features					
	Color	%	Color	%	Type*	Loc**	Texture	Remarks
0-18	10YR 4/2	100					Si C L	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

<u> </u> Histosol (A1)	<u> </u> Sandy Mucky Mineral (S1)	<u> </u> Redox Dark Surface (F6)
<u> </u> Histic Epipedon (A2)	<u> </u> 5cm Mucky Peat or Peat	<u> </u> Depleted Dark Surface (F7)
<u> </u> Black Histic (A3)	<u> </u> Sandy Gleyed Matrix (S4)	<u> </u> Redox Depressions (F8)
<u> </u> Hydrogen Sulfide (A4)	<u> </u> Sandy Redox (S5)	Indicators for Problematic Hydric Soils
<u> </u> Stratified Layers (A5)	<u> </u> Stripped Matrix (S6)	<u> </u> Coast Prairie Redox (A16)
<u> </u> 2 cm Muck (A10)	<u> </u> Loamy Mucky Mineral (F1)	<u> </u> Iron-Manganese Masses (F12)
<u> </u> Depleted Below Dark Surface (A11)	<u> </u> Loamy Gleyed Matrix (F2)	<u> </u> Very Shallow Dark Surface (F12)
<u> </u> Thick Dark Surface (A12)	<u> </u> Depleted Matrix (F3)	<u> </u> Other

Restrictive Layer (if observed): Type: Depth (Inches):

Hydric Soil Present?	Yes <u> </u>	No <u> </u>	x <u> </u>
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HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (check all that apply)	Secondary Indicators
<u> </u> Surface Water (A1)	<u> </u> Surface Soil Cracks (B6)
<u> </u> High Water Table (A2)	<u> </u> Drainage Patterns (B10)
<u> </u> Saturation (A3)	<u> </u> Dry-Season Water Table (C2)
<u> </u> Water Marks (B1)	<u> </u> Crayfish Burrows (C8)
<u> </u> Sediment Deposits (B2)	<u> </u> Saturation Visible on Aerial Imagery (C9)
<u> </u> Drift Deposits (B3)	<u> </u> Stunted or Stressed Plants (D1)
<u> </u> Algal Mat or Crust (B4)	<u> </u> Geomorphic Position (D2)
<u> </u> Iron Deposits (B5)	<u> </u> FAC-Neutral Test (D5)
<u> </u> Inundation Visible on Aerial Imagery (B7)	<u> </u> Guage or Well Data (D9)
<u> </u> Sparsely Vegetated Concave Surface	<u> </u> Other

Field Observations:	Surface Water Present? Yes <u> </u> No <u>x</u>	Depth (inches)	<u> </u>
	Water Table Present? Yes <u> </u> No <u>x</u>	Depth (inches)	<u> </u>
	Saturation Present? Yes <u> </u> No <u>x</u>	Depth (inches)	<u> </u>

Hydrology Indicators Present? Yes No x

Describe Recorded Data (stream guage, monitoring well, aerial photos, previous inspections), if available:

WETLAND DETERMINATION FORM-MIDWEST REGION

Site: W. Lancaster-S. Baltimore-W. Millersport City/County: Fairfield County Date: 27 March 2024 Data Point: 10
 Client: AEP State: OH Section, Township, Range: Sec S24, T 16N, R 19W
 Investigator(s): N. Houk, N. Barnett Landform Lake Plains Local Relief Convex
 Slope (%): 1-3 Lat. 39.843258 Long. -82.588475 Datum NAD83 NWI Class: N/A
 Soil Map Unit Name: Minster silty clay loam, 0 to 1 percent slopes
 Climatic/hydrologic conditions typical for time of year? Y/N Y
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic
 Are Normal Circumstances Present? Yes x No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes <u> </u> No <u>x</u>	Is the DP within a Wetland? Yes <u> </u> No <u> </u> x
Hydric Soil Present? Yes <u>x</u> No <u> </u>	
Wetland Hydrology Present? Yes <u> </u> No <u>x</u>	

VEGETATION

Tree Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet Number of dominant species that are OBL, FACW, or FAC: <u>1</u> Total number of dominant species across all strata: <u>3</u> Percent of dominant species that are OBL, FACW, or FAC: <u>33.33</u>
1. <u> </u>	<u>30'</u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
Total Cover: <u>0</u>					Prevalence Index Worksheet Total % cover of: OBL species <u>10</u> x <u>1</u> = <u>10</u> FACW species <u>30</u> x <u>2</u> = <u>60</u> FAC species <u>30</u> x <u>3</u> = <u>90</u> FACU species <u>75</u> x <u>4</u> = <u>300</u> UPL species <u>5</u> x <u>5</u> = <u>25</u> Total <u>150</u> Prevalence Index: <u>3.23</u>
Shrub Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	
1. <u>Cornus alba</u>	<u>15'</u>	<u>30</u>	<u>Y</u>	<u>FACW 2</u>	
2. <u>Rubus allegheniensis</u>		<u>20</u>	<u>Y</u>	<u>FACU 4</u>	
3. <u>Rosa multiflora</u>		<u>10</u>	<u>N</u>	<u>FACU 4</u>	
4. <u>Lonicera maackii</u>		<u>5</u>	<u>N</u>	<u>UPL 5</u>	
Total Cover: <u>65</u>					
Herb Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Veg. <u> </u> Dominance Test is >50% <u> </u> Prevalence Index is ≤3.0* <u> </u> Morphological Adaptations* <u> </u> Problematic Hydrophytic Vegetation* <u> </u> *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic Hydrophytic Vegetation Present? Yes <u> </u> No <u> </u> x <u> </u>
1. <u>Solidago canadensis</u>	<u>5'</u>	<u>40</u>	<u>Y</u>	<u>FACU 4</u>	
2. <u>Juncus tenuis</u>		<u>15</u>	<u>N</u>	<u>FAC 3</u>	
3. <u>Poa pratensis</u>		<u>15</u>	<u>N</u>	<u>FAC 3</u>	
4. <u>Juncus effusus</u>		<u>10</u>	<u>N</u>	<u>OBL 1</u>	
5. <u>Symphyotrichum ericoides</u>		<u>5</u>	<u>N</u>	<u>FACU 4</u>	
6. <u> </u>					
7. <u> </u>					
8. <u> </u>					
Total Cover: <u>85</u>					
Woody Vine Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	
1. <u> </u>	<u>30'</u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>					
Total Cover: <u>0</u>					

SOIL

Profile Description: (Describe to depth needed to document the indicator or confirm absence of indicators.)

Depth (inches)	Color	Matrix %	Color	%	Type*	Loc**	Texture	Remarks
0-6	10YR 4/1	100					Si L	
6-18	10YR 4/1	95	10YR 5/6	5	C	M	Si C L	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

<u> </u> Histosol (A1)	<u> </u> Sandy Mucky Mineral (S1)	<u> </u> Redox Dark Surface (F6)
<u> </u> Histic Epipedon (A2)	<u> </u> 5cm Mucky Peat or Peat	<u> </u> Depleted Dark Surface (F7)
<u> </u> Black Histic (A3)	<u> </u> Sandy Gleyed Matrix (S4)	<u> </u> Redox Depressions (F8)
<u> </u> Hydrogen Sulfide (A4)	<u> </u> Sandy Redox (S5)	Indicators for Problematic Hydric Soils
<u> </u> Stratified Layers (A5)	<u> </u> Stripped Matrix (S6)	<u> </u> Coast Prairie Redox (A16)
<u> </u> 2 cm Muck (A10)	<u> </u> Loamy Mucky Mineral (F1)	<u> </u> Iron-Manganese Masses (F12)
<u> </u> Depleted Below Dark Surface (A11)	<u> </u> Loamy Gleyed Matrix (F2)	<u> </u> Very Shallow Dark Surface (F12)
<u> </u> Thick Dark Surface (A12)	<u>x</u> Depleted Matrix (F3)	<u> </u> Other

Restrictive Layer (if observed): Type: Depth (Inches):

Hydric Soil Present? Yes x No

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (check all that apply)	Secondary Indicators
<u> </u> Surface Water (A1)	<u> </u> Water Stained Leaves (B9)
<u> </u> High Water Table (A2)	<u> </u> Aquatic Fauna (B13)
<u> </u> Saturation (A3)	<u> </u> True Aquatic Plants (B14)
<u> </u> Water Marks (B1)	<u> </u> Hydrogen Sulfide Odor (C1)
<u> </u> Sediment Deposits (B2)	<u> </u> Oxidized Rhizospheres on Living Roots
<u> </u> Drift Deposits (B3)	<u> </u> Presence of Reduced Iron (C4)
<u> </u> Algal Mat or Crust (B4)	<u> </u> Recent Iron Reduction in Tilled Soil (C6)
<u> </u> Iron Deposits (B5)	<u> </u> Thin Muck Surface (C7)
<u> </u> Inundation Visible on Aerial Imagery (B7)	<u> </u> Gauge or Well Data (D9)
<u> </u> Sparsely Vegetated Concave Surface	<u> </u> Other

Field Observations: Surface Water Present? Yes No x Depth (inches)
 Water Table Present? Yes No x Depth (inches)
 Saturation Present? Yes No x Depth (inches)

Hydrology Indicators Present? Yes No x

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
No hydric indicators

WETLAND DETERMINATION FORM-MIDWEST REGION

Site: W. Lancaster-S. Baltimore-W. Millersport City/County: Fairfield County Date: 27 March 2024 Data Point: 8
 Client: AEP State: OH Section, Township, Range: Sec S25, T 16N, R 19W
 Investigator(s): N. Houk, N. Barnett Landform Terrances Local Relief Convex
 Slope (%): 1-3 Lat. 39.838578 Long. -82.590298 Datum NAD83 NWI Class: N/A
 Soil Map Unit Name: Canal silt loam, 0 to 2 percent slopes
 Climatic/hydrologic conditions typical for time of year? Y/N Y
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic
 Are Normal Circumstances Present? Yes x No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes <u> </u> No <u>x</u>	Is the DP within a Wetland? Yes <u> </u> No <u> </u> x
Hydric Soil Present? Yes <u> </u> No <u>x</u>	
Wetland Hydrology Present? Yes <u> </u> No <u>x</u>	
Remarks:	

VEGETATION

Tree Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet Number of dominant species that are OBL, FACW, or FAC: <u>0</u> Total number of dominant species across all strata: <u>1</u> Percent of dominant species that are OBL, FACW, or FAC: <u>0.00</u> Prevalence Index Worksheet Total % cover of: OBL species <u>0</u> x <u>1</u> = <u>0</u> FACW species <u>0</u> x <u>2</u> = <u>0</u> FAC species <u>0</u> x <u>3</u> = <u>0</u> FACU species <u>0</u> x <u>4</u> = <u>0</u> UPL species <u>80</u> x <u>5</u> = <u>400</u> Total <u>80</u> Prevalence Index: <u>5.00</u>
1. <u> </u>	<u>30'</u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>		<u>0</u>	Total Cover		
Shrub Stratum	Plot size: <u>15'</u>				
1. <u> </u>					
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>		<u>0</u>	Total Cover		
Herb Stratum	Plot size: <u>5'</u>				
1. <u>Triticum aestivum residue</u>		<u>80</u>	<u>Y</u>	<u>UPL 5</u>	
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>					
6. <u> </u>					
7. <u> </u>					
8. <u> </u>		<u>80</u>	Total Cover		
Woody Vine Stratum	Plot size: <u>30'</u>				
1. <u> </u>					
2. <u> </u>					
		<u>0</u>	Total Cover		
Remarks:					Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Veg. <u> </u> Dominance Test is >50% <u> </u> Prevalence Index is ≤3.0* <u> </u> Morphological Adaptations* <u> </u> Problematic Hydrophytic Vegetation* <u> </u> *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic Hydrophytic Vegetation Present? Yes <u> </u> No <u> </u> x

SOIL

Profile Description: (Describe to depth needed to document the indicator or confirm absence of indicators.)

Depth (inches)	Matrix		Redox Features					
	Color	%	Color	%	Type*	Loc**	Texture	Remarks
0-18	10YR 4/2	100					Si C L	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

<u> </u> Histosol (A1)	<u> </u> Sandy Mucky Mineral (S1)	<u> </u> Redox Dark Surface (F6)
<u> </u> Histic Epipedon (A2)	<u> </u> 5cm Mucky Peat or Peat	<u> </u> Depleted Dark Surface (F7)
<u> </u> Black Histic (A3)	<u> </u> Sandy Gleyed Matrix (S4)	<u> </u> Redox Depressions (F8)
<u> </u> Hydrogen Sulfide (A4)	<u> </u> Sandy Redox (S5)	Indicators for Problematic Hydric Soils
<u> </u> Stratified Layers (A5)	<u> </u> Stripped Matrix (S6)	<u> </u> Coast Prairie Redox (A16)
<u> </u> 2 cm Muck (A10)	<u> </u> Loamy Mucky Mineral (F1)	<u> </u> Iron-Manganese Masses (F12)
<u> </u> Depleted Below Dark Surface (A11)	<u> </u> Loamy Gleyed Matrix (F2)	<u> </u> Very Shallow Dark Surface (F12)
<u> </u> Thick Dark Surface (A12)	<u> </u> Depleted Matrix (F3)	<u> </u> Other

Restrictive Layer (if observed): Type: Depth (Inches):

Remarks:

Hydric Soil Present? Yes No x

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (check all that apply)	Secondary Indicators
<u> </u> Surface Water (A1)	<u> </u> Surface Soil Cracks (B6)
<u> </u> High Water Table (A2)	<u> </u> Drainage Patterns (B10)
<u> </u> Saturation (A3)	<u> </u> Dry-Season Water Table (C2)
<u> </u> Water Marks (B1)	<u> </u> Crayfish Burrows (C8)
<u> </u> Sediment Deposits (B2)	<u> </u> Saturation Visible on Aerial Imagery (C9)
<u> </u> Drift Deposits (B3)	<u> </u> Stunted or Stressed Plants (D1)
<u> </u> Algal Mat or Crust (B4)	<u> </u> Geomorphic Position (D2)
<u> </u> Iron Deposits (B5)	<u> </u> FAC-Neutral Test (D5)
<u> </u> Inundation Visible on Aerial Imagery (B7)	
<u> </u> Sparsely Vegetated Concave Surface	
<u> </u> Water Stained Leaves (B9)	
<u> </u> Aquatic Fauna (B13)	
<u> </u> True Aquatic Plants (B14)	
<u> </u> Hydrogen Sulfide Odor (C1)	
<u> </u> Oxidized Rhizospheres on Living Roots	
<u> </u> Presence of Reduced Iron (C4)	
<u> </u> Recent Iron Reduction in Tilled Soil (C6)	
<u> </u> Thin Muck Surface (C7)	
<u> </u> Gauge or Well Data (D9)	
<u> </u> Other	
Field Observations: Surface Water Present? Yes <u> </u> No <u>x</u> Depth (inches) <u> </u>	Hydrology Indicators Present? Yes <u> </u> No <u> </u> x
Water Table Present? Yes <u> </u> No <u>x</u> Depth (inches) <u> </u>	
Saturation Present? Yes <u> </u> No <u>x</u> Depth (inches) <u> </u>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	

WETLAND DETERMINATION FORM-MIDWEST REGION

Site: W. Lancaster-S. Baltimore-W. Millersport City/County: Fairfield County Date: 27 March 2024 Data Point: 6
 Client: AEP State: OH Section, Township, Range: Sec S25, T 16N, R 19W
 Investigator(s): L. Vine, E.Holt Landform Terrances Local Relief Convex
 Slope (%): 1-3 Lat. 39.836914° Long. -82.590981° Datum NAD83 NWI Class: N/A
 Soil Map Unit Name: Canal silt loam, 0 to 2 percent slopes
 Climatic/hydrologic conditions typical for time of year? Y/N Y
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic
 Are Normal Circumstances Present? Yes x No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes <u> </u> No <u>X</u>	Is the DP within a Wetland? Yes <u> </u> No <u> </u> X <u> </u>
Hydric Soil Present? Yes <u> </u> No <u> </u>	
Wetland Hydrology Present? Yes <u> </u> No <u>X</u>	

VEGETATION

Tree Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet Number of dominant species that are OBL, FACW, or FAC: <u>0</u> Total number of dominant species across all strata: <u>1</u> Percent of dominant species that are OBL, FACW, or FAC: <u>0.00</u> Prevalence Index Worksheet Total % cover of: OBL species <u>1</u> x <u>1</u> = <u>1</u> FACW species <u>0</u> x <u>2</u> = <u>0</u> FAC species <u>0</u> x <u>3</u> = <u>0</u> FACU species <u>0</u> x <u>4</u> = <u>0</u> UPL species <u>0</u> x <u>5</u> = <u>0</u> Total <u>1</u> Prevalence Index: <u>1.00</u>
1. <u> </u>	<u>30'</u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>		<u>0</u>	Total Cover		
Shrub Stratum	Plot size:				
1. <u> </u>	<u>15'</u>				
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>		<u>0</u>	Total Cover		
Herb Stratum	Plot size:				
1. <u>Carex atherodes</u>	<u>5'</u>	<u>Y</u>	<u>100</u>	<u>OBL 1</u>	
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>					
6. <u> </u>					
7. <u> </u>					
8. <u> </u>					
		<u>0</u>	Total Cover		
Woody Vine Stratum	Plot size:				
1. <u> </u>	<u>30'</u>				
2. <u> </u>					
		<u>0</u>	Total Cover		
Remarks:					Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Veg. Dominance Test is >50% X Prevalence Index is ≤3.0* Morphological Adaptations* Problematic Hydrophytic Vegetation* *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic Hydrophytic Vegetation Present? Yes <u> </u> No <u> </u> X <u> </u>

SOIL

Profile Description: (Describe to depth needed to document the indicator or confirm absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color	%	Color	%	Type*	Loc**		
								Residential, no soil pit taker

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

<u> </u> Histosol (A1)	<u> </u> Sandy Mucky Mineral (S1)	<u> </u> Redox Dark Surface (F6)
<u> </u> Histic Epipedon (A2)	<u> </u> 5cm Mucky Peat or Peat	<u> </u> Depleted Dark Surface (F7)
<u> </u> Black Histic (A3)	<u> </u> Sandy Gleyed Matrix (S4)	<u> </u> Redox Depressions (F8)
<u> </u> Hydrogen Sulfide (A4)	<u> </u> Sandy Redox (S5)	Indicators for Problematic Hydric Soils
<u> </u> Stratified Layers (A5)	<u> </u> Stripped Matrix (S6)	<u> </u> Coast Prairie Redox (A16)
<u> </u> 2 cm Muck (A10)	<u> </u> Loamy Mucky Mineral (F1)	<u> </u> Iron-Manganese Masses (F12)
<u> </u> Depleted Below Dark Surface (A11)	<u> </u> Loamy Gleyed Matrix (F2)	<u> </u> Very Shallow Dark Surface (F12)
<u> </u> Thick Dark Surface (A12)	<u> </u> Depleted Matrix (F3)	<u> </u> Other

Restrictive Layer (if observed): Type: Depth (Inches):

Remarks: No soil pit taken, residential area

Hydric Soil Present? Yes No X

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (check all that apply)	Secondary Indicators
<u> </u> Surface Water (A1)	<u> </u> Surface Soil Cracks (B6)
<u> </u> High Water Table (A2)	<u> </u> Drainage Patterns (B10)
<u> </u> Saturation (A3)	<u> </u> Dry-Season Water Table (C2)
<u> </u> Water Marks (B1)	<u> </u> Crayfish Burrows (C8)
<u> </u> Sediment Deposits (B2)	<u> </u> Saturation Visible on Aerial Imagery (C9)
<u> </u> Drift Deposits (B3)	<u> </u> Stunted or Stressed Plants (D1)
<u> </u> Algal Mat or Crust (B4)	<u> </u> Geomorphic Position (D2)
<u> </u> Iron Deposits (B5)	<u> </u> FAC-Neutral Test (D5)
<u> </u> Inundation Visible on Aerial Imagery (B7)	
<u> </u> Sparsely Vegetated Concave Surface	
<u> </u> Water Stained Leaves (B9)	
<u> </u> Aquatic Fauna (B13)	
<u> </u> True Aquatic Plants (B14)	
<u> </u> Hydrogen Sulfide Odor (C1)	
<u> </u> Oxidized Rhizospheres on Living Roots	
<u> </u> Presence of Reduced Iron (C4)	
<u> </u> Recent Iron Reduction in Tilled Soil (C6)	
<u> </u> Thin Muck Surface (C7)	
<u> </u> Gauge or Well Data (D9)	
<u> </u> Other	

Field Observations: Surface Water Present? Yes No Depth (inches)
 Water Table Present? Yes No Depth (inches)
 Saturation Present? Yes No Depth (inches)

Hydrology Indicators Present? Yes No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

No hydric indicators

WETLAND DETERMINATION FORM-MIDWEST REGION

Site: W. Lancaster-S. Baltimore-W. Millersport City/County: Fairfield County Date: 27 March 2024 Data Point: 4
 Client: AEP State: OH Section, Township, Range: Sec S25, T 16N, R 19W
 Investigator(s): L. Vine, E.Holt Landform Terraces Local Relief Convex
 Slope (%): 1-3 Lat. 39.833067° Long. -82.591983° Datum NAD83 NWI Class: N/A
 Soil Map Unit Name: Canal silt loam, 0 to 2 percent slopes
 Climatic/hydrologic conditions typical for time of year? Y/N Y
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic
 Are Normal Circumstances Present? Yes x No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>	Is the DP within a Wetland? Yes <u> </u> No <u> </u> X <u> </u>
Hydric Soil Present? Yes <u> </u> No <u>X</u>	
Wetland Hydrology Present? Yes <u>X</u> No <u> </u>	

Remarks:

VEGETATION

Tree Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet Number of dominant species that are OBL, FACW, or FAC: <u>1</u> Total number of dominant species across all strata: <u>3</u> Percent of dominant species that are OBL, FACW, or FAC: <u>33.33</u> Prevalence Index Worksheet Total % cover of: OBL species <u>30</u> x <u>1</u> = <u>30</u> FACW species <u>15</u> x <u>2</u> = <u>30</u> FAC species <u>10</u> x <u>3</u> = <u>30</u> FACU species <u>45</u> x <u>4</u> = <u>180</u> UPL species <u>0</u> x <u>5</u> = <u>0</u> Total <u>100</u> Prevalence Index: <u>2.70</u>
1. <u> </u>	<u>30'</u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>		<u>0</u>	Total Cover		
Shrub Stratum	Plot size: <u>15'</u>				
1. <u> </u>					
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>		<u>0</u>	Total Cover		
Herb Stratum	Plot size: <u>5'</u>				
1. <u>Juncus effusus</u>		<u>30</u>	<u>Y</u>	<u>OBL</u> <u>1</u>	
2. <u>Solidago canadensis</u>		<u>25</u>	<u>Y</u>	<u>FACU</u> <u>4</u>	
3. <u>Schedonorus arundinaceus</u>		<u>20</u>	<u>Y</u>	<u>FACU</u> <u>4</u>	
4. <u>Dichanthelium clandestinum</u>		<u>10</u>	<u>N</u>	<u>FACW</u> <u>2</u>	
5. <u>Apocynum cannabinum</u>		<u>10</u>	<u>N</u>	<u>FAC</u> <u>3</u>	
6. <u>Cyperus strigosus</u>		<u>5</u>	<u>N</u>	<u>FACW</u> <u>2</u>	
7. <u> </u>					
8. <u> </u>					
		<u>100</u>	Total Cover		
Woody Vine Stratum	Plot size: <u>30'</u>				
1. <u> </u>					
2. <u> </u>					
		<u>0</u>	Total Cover		

Remarks:

SOIL

Profile Description: (Describe to depth needed to document the indicator or confirm absence of indicators.)

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type*	Loc**	Texture		
0-15	7.5YR 4/2	100					M	SiL	
15-18	10YR 4/2	95	10YR 4/6	5	C		M	SiCL	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

<u> </u> Histosol (A1)	<u> </u> Sandy Mucky Mineral (S1)	<u> </u> Redox Dark Surface (F6)
<u> </u> Histic Epipedon (A2)	<u> </u> 5cm Mucky Peat or Peat	<u> </u> Depleted Dark Surface (F7)
<u> </u> Black Histic (A3)	<u> </u> Sandy Gleyed Matrix (S4)	<u> </u> Redox Depressions (F8)
<u> </u> Hydrogen Sulfide (A4)	<u> </u> Sandy Redox (S5)	Indicators for Problematic Hydric Soils
<u> </u> Stratified Layers (A5)	<u> </u> Stripped Matrix (S6)	<u> </u> Coast Prairie Redox (A16)
<u> </u> 2 cm Muck (A10)	<u> </u> Loamy Mucky Mineral (F1)	<u> </u> Iron-Manganese Masses (F12)
<u> </u> Depleted Below Dark Surface (A11)	<u> </u> Loamy Gleyed Matrix (F2)	<u> </u> Very Shallow Dark Surface (F12)
<u> </u> Thick Dark Surface (A12)	<u> </u> Depleted Matrix (F3)	<u> </u> Other

Restrictive Layer (if observed): Type: <u> </u>	Hydric Soil Present? Yes <u> </u> No <u> </u> X <u> </u>
Depth (Inches): <u> </u>	

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (check all that apply)	Secondary Indicators
<u> </u> Surface Water (A1)	<u> </u> Surface Soil Cracks (B6)
<u>X</u> High Water Table (A2)	<u> </u> Drainage Patterns (B10)
<u>X</u> Saturation (A3)	<u> </u> Dry-Season Water Table (C2)
<u> </u> Water Marks (B1)	<u> </u> Crayfish Burrows (C8)
<u> </u> Sediment Deposits (B2)	<u> </u> Saturation Visible on Aerial Imagery (C9)
<u> </u> Drift Deposits (B3)	<u> </u> Stunted or Stressed Plants (D1)
<u> </u> Algal Mat or Crust (B4)	<u> </u> Geomorphic Position (D2)
<u> </u> Iron Deposits (B5)	<u> </u> FAC-Neutral Test (D5)
<u> </u> Inundation Visible on Aerial Imagery (B7)	
<u> </u> Sparsely Vegetated Concave Surface	
Field Observations: Surface Water Present? Yes <u> </u> No <u>X</u> Depth (inches) <u> </u>	Hydrology Indicators Present? Yes <u>X</u> No <u> </u>
Water Table Present? Yes <u>X</u> No <u> </u> Depth (inches) <u>4</u>	
Saturation Present? Yes <u>X</u> No <u> </u> Depth (inches) <u>4</u>	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

No hydric indicators

WETLAND DETERMINATION FORM-MIDWEST REGION

Site: W. Lancaster-S. Baltimore-W. Millersport City/County: Fairfield County Date: 27 March 2024 Data Point: 4A
 Client: AEP State: OH Section, Township, Range: Sec S25, T 16N, R 19W
 Investigator(s): L. Vine, E.Holt Landform Terraces Local Relief Convex
 Slope (%): 1-3 Lat. 39.832183° Long. -82.592208° Datum NAD83 NWI Class: N/A
 Soil Map Unit Name: Canal silt loam, 0 to 2 percent slopes
 Climatic/hydrologic conditions typical for time of year? Y/N Y
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic
 Are Normal Circumstances Present? Yes x No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes <u> </u> No <u>X</u>	Is the DP within a Wetland? Yes <u> </u> No <u> </u> X <u> </u>
Hydric Soil Present? Yes <u> </u> No <u>X</u>	
Wetland Hydrology Present? Yes <u> </u> No <u>X</u>	

VEGETATION

Tree Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet Number of dominant species that are OBL, FACW, or FAC: <u>0</u> Total number of dominant species across all strata: <u>1</u> Percent of dominant species that are OBL, FACW, or FAC: <u>0.00</u> Prevalence Index Worksheet Total % cover of: OBL species <u>1</u> x <u>1</u> = <u>1</u> FACW species <u>0</u> x <u>2</u> = <u>0</u> FAC species <u>0</u> x <u>3</u> = <u>0</u> FACU species <u>0</u> x <u>4</u> = <u>0</u> UPL species <u>100</u> x <u>5</u> = <u>500</u> Total <u>101</u> Prevalence Index: <u>4.96</u>
1. <u> </u>	<u>30'</u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>		<u>0</u>	Total Cover		
Shrub Stratum	Plot size: <u>15'</u>				
1. <u> </u>					
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>		<u>0</u>	Total Cover		
Herb Stratum	Plot size: <u>5'</u>				
1. <u>Zea mays residue</u>		<u>100</u>	<u>Y</u>	<u>UPL 5</u>	
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>					
6. <u> </u>					
7. <u> </u>					
8. <u> </u>		<u>100</u>	Total Cover		
Woody Vine Stratum	Plot size: <u>30'</u>				
1. <u> </u>					
2. <u> </u>					
		<u>0</u>	Total Cover		
Remarks:					Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Veg. <u> </u> Dominance Test is >50% <u> </u> Prevalence Index is ≤3.0* <u> </u> Morphological Adaptations* <u> </u> Problematic Hydrophytic Vegetation* <u> </u> *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic Hydrophytic Vegetation Present? Yes <u> </u> No <u> </u> X <u> </u>

SOIL

Profile Description: (Describe to depth needed to document the indicator or confirm absence of indicators.)

Depth (inches)	Matrix		Redox Features					
	Color	%	Color	%	Type*	Loc**	Texture	Remarks
0-18	10YR 4/2	100					SIL	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

<u> </u> Histosol (A1)	<u> </u> Sandy Mucky Mineral (S1)	<u> </u> Redox Dark Surface (F6)
<u> </u> Histic Epipedon (A2)	<u> </u> 5cm Mucky Peat or Peat	<u> </u> Depleted Dark Surface (F7)
<u> </u> Black Histic (A3)	<u> </u> Sandy Gleyed Matrix (S4)	<u> </u> Redox Depressions (F8)
<u> </u> Hydrogen Sulfide (A4)	<u> </u> Sandy Redox (S5)	Indicators for Problematic Hydric Soils
<u> </u> Stratified Layers (A5)	<u> </u> Stripped Matrix (S6)	<u> </u> Coast Prairie Redox (A16)
<u> </u> 2 cm Muck (A10)	<u> </u> Loamy Mucky Mineral (F1)	<u> </u> Iron-Manganese Masses (F12)
<u> </u> Depleted Below Dark Surface (A11)	<u> </u> Loamy Gleyed Matrix (F2)	<u> </u> Very Shallow Dark Surface (F12)
<u> </u> Thick Dark Surface (A12)	<u> </u> Depleted Matrix (F3)	<u> </u> Other

Restrictive Layer (if observed): Type: <u> </u>	Hydric Soil Present? Yes <u> </u> No <u> </u> X <u> </u>
Depth (Inches): <u> </u>	
Remarks:	

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (check all that apply)	Secondary Indicators
<u> </u> Surface Water (A1)	<u> </u> Surface Soil Cracks (B6)
<u> </u> High Water Table (A2)	<u> </u> Drainage Patterns (B10)
<u> </u> Saturation (A3)	<u> </u> Dry-Season Water Table (C2)
<u> </u> Water Marks (B1)	<u> </u> Crayfish Burrows (C8)
<u> </u> Sediment Deposits (B2)	<u> </u> Saturation Visible on Aerial Imagery (C9)
<u> </u> Drift Deposits (B3)	<u> </u> Stunted or Stressed Plants (D1)
<u> </u> Algal Mat or Crust (B4)	<u> </u> Geomorphic Position (D2)
<u> </u> Iron Deposits (B5)	<u> </u> FAC-Neutral Test (D5)
<u> </u> Inundation Visible on Aerial Imagery (B7)	
<u> </u> Sparsely Vegetated Concave Surface	
<u> </u> Water Stained Leaves (B9)	
<u> </u> Aquatic Fauna (B13)	
<u> </u> True Aquatic Plants (B14)	
<u> </u> Hydrogen Sulfide Odor (C1)	
<u> </u> Oxidized Rhizospheres on Living Roots	
<u> </u> Presence of Reduced Iron (C4)	
<u> </u> Recent Iron Reduction in Tilled Soil (C6)	
<u> </u> Thin Muck Surface (C7)	
<u> </u> Gauge or Well Data (D9)	
<u> </u> Other	

Field Observations: Surface Water Present? Yes <u> </u> No <u> </u> Depth (inches) <u> </u>	Hydrology Indicators Present? Yes <u> </u> No <u> </u> X <u> </u>
Water Table Present? Yes <u> </u> No <u> </u> Depth (inches) <u> </u>	
Saturation Present? Yes <u> </u> No <u> </u> Depth (inches) <u> </u>	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

No hydric indicators

WETLAND DETERMINATION FORM-MIDWEST REGION

Site: W. Lancaster-S. Baltimore-W. Millersport City/County: Fairfield County Date: 27 March 2024 Data Point: 3
 Client: AEP State: OH Section, Township, Range: Sec S25, T 16N, R 19W
 Investigator(s): L. Vine, E.Holt Landform Flood Plains Local Relief Convex
 Slope (%): 1-3 Lat. 39.830922° Long. -82.592558° Datum NAD83 NWI Class: N/A
 Soil Map Unit Name: Aetna silt loam, occasionally flooded
 Climatic/hydrologic conditions typical for time of year? Y/N Y
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic
 Are Normal Circumstances Present? Yes x No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes <u>x</u> No <u> </u>	Is the DP within a Wetland? Yes <u> </u> No <u> </u> X <u> </u>
Hydric Soil Present? Yes <u> </u> No <u>x</u>	
Wetland Hydrology Present? Yes <u>x</u> No <u> </u>	

VEGETATION

Tree Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet Number of dominant species that are OBL, FACW, or FAC: <u>5</u> Total number of dominant species across all strata: <u>7</u> Percent of dominant species that are OBL, FACW, or FAC: <u>71.43</u> Prevalence Index Worksheet Total % cover of: OBL species <u>1</u> x <u>1</u> = <u>1</u> FACW species <u>85</u> x <u>2</u> = <u>170</u> FAC species <u>0</u> x <u>3</u> = <u>0</u> FACU species <u>15</u> x <u>4</u> = <u>60</u> UPL species <u>0</u> x <u>5</u> = <u>0</u> Total <u>101</u> Prevalence Index: <u>2.29</u>
1. <u> </u>	<u>30'</u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>		<u>0</u>	Total Cover		
Shrub Stratum	Plot size: 15'				
1. <u> </u>					
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>		<u>0</u>	Total Cover		
Herb Stratum	Plot size: 5'				
1. <u>Verbesina alternifolia</u>		<u>25</u>	<u>Y</u>	<u>FACW</u>	
2. <u>Solidago canadensis</u>		<u>20</u>	<u>Y</u>	<u>FACW</u>	<u>2</u>
3. <u>Urtica dioica</u>		<u>20</u>	<u>Y</u>	<u>FACW</u>	<u>2</u>
4. <u>Thalictrum dasycarpum</u>		<u>10</u>	<u>N</u>	<u>FACW</u>	<u>2</u>
5. <u>Conium maculatum</u>		<u>10</u>	<u>N</u>	<u>FACW</u>	<u>2</u>
6. <u>Schedonorus arundinaceus</u>		<u>10</u>	<u>N</u>	<u>FACU</u>	<u>4</u>
7. <u>Allium canadense</u>		<u>5</u>	<u>N</u>	<u>FACU</u>	<u>4</u>
8. <u> </u>		<u>100</u>	Total Cover		
Woody Vine Stratum	Plot size: 30'				
1. <u> </u>					
2. <u> </u>					
		<u>0</u>	Total Cover		
Remarks:					Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Veg. <u> </u> Dominance Test is >50% <u> </u> Prevalence Index is ≤3.0* <u> </u> Morphological Adaptations* <u> </u> Problematic Hydrophytic Vegetation* <u> </u> *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>

SOIL

Profile Description: (Describe to depth needed to document the indicator or confirm absence of indicators.)

Depth (inches)	Matrix		Redox Features					
	Color	%	Color	%	Type*	Loc**	Texture	Remarks
0-18	10YR 3/2	100					SIL	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

<u> </u> Histosol (A1)	<u> </u> Sandy Mucky Mineral (S1)	<u> </u> Redox Dark Surface (F6)
<u> </u> Histic Epipedon (A2)	<u> </u> 5cm Mucky Peat or Peat	<u> </u> Depleted Dark Surface (F7)
<u> </u> Black Histic (A3)	<u> </u> Sandy Gleyed Matrix (S4)	<u> </u> Redox Depressions (F8)
<u> </u> Hydrogen Sulfide (A4)	<u> </u> Sandy Redox (S5)	Indicators for Problematic Hydric Soils
<u> </u> Stratified Layers (A5)	<u> </u> Stripped Matrix (S6)	<u> </u> Coast Prairie Redox (A16)
<u> </u> 2 cm Muck (A10)	<u> </u> Loamy Mucky Mineral (F1)	<u> </u> Iron-Manganese Masses (F12)
<u> </u> Depleted Below Dark Surface (A11)	<u> </u> Loamy Gleyed Matrix (F2)	<u> </u> Very Shallow Dark Surface (F12)
<u> </u> Thick Dark Surface (A12)	<u> </u> Depleted Matrix (F3)	<u> </u> Other

Restrictive Layer (if observed): Type: Depth (Inches): Hydric Soil Present? Yes No X

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (check all that apply)	Secondary Indicators
<u> </u> Surface Water (A1)	<u> </u> Surface Soil Cracks (B6)
<u> </u> High Water Table (A2)	<u> </u> Drainage Patterns (B10)
<u> </u> Saturation (A3)	<u> </u> Dry-Season Water Table (C2)
<u> </u> Water Marks (B1)	<u> </u> Crayfish Burrows (C8)
<u> </u> Sediment Deposits (B2)	<u> </u> Saturation Visible on Aerial Imagery (C9)
<u> </u> Drift Deposits (B3)	<u> </u> Stunted or Stressed Plants (D1)
<u> </u> Algal Mat or Crust (B4)	<u> </u> x Geomorphic Position (D2)
<u> </u> Iron Deposits (B5)	<u> </u> x FAC-Neutral Test (D5)
<u> </u> Inundation Visible on Aerial Imagery (B7)	
<u> </u> Sparsely Vegetated Concave Surface	

Field Observations: Surface Water Present? Yes No x Depth (inches)
 Water Table Present? Yes No x Depth (inches)
 Saturation Present? Yes No x Depth (inches)
Hydrology Indicators Present? Yes x No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
No hydric indicators

WETLAND DETERMINATION FORM-MIDWEST REGION

Site: W. Lancaster-S. Baltimore-W. Millersport City/County: Fairfield County Date: 27 March 2024 Data Point: 2
 Client: AEP State: OH Section, Township, Range: Sec S25, T 16N, R 19W
 Investigator(s): L. Vine, E.Holt Landform Terrances Local Relief Convex
 Slope (%): 1-3 Lat. 39.829667° Long. -82.592922° Datum NAD83 NWI Class: N/A
 Soil Map Unit Name: Canal silt loam, 0 to 2 percent slopes
 Climatic/hydrologic conditions typical for time of year? Y/N Y
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic
 Are Normal Circumstances Present? Yes x No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes <u> </u> No <u>X</u>	Is the DP within a Wetland? Yes <u> </u> No <u> </u> X <u> </u>
Hydric Soil Present? Yes <u> </u> No <u>X</u>	
Wetland Hydrology Present? Yes <u> </u> No <u>X</u>	

VEGETATION

Tree Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet Number of dominant species that are OBL, FACW, or FAC: <u>1</u> Total number of dominant species across all strata: <u>6</u> Percent of dominant species that are OBL, FACW, or FAC: <u>16.67</u> Prevalence Index Worksheet Total % cover of: OBL species <u>1</u> x <u>1</u> = <u>1</u> FACW species <u>10</u> x <u>2</u> = <u>20</u> FACU species <u>0</u> x <u>3</u> = <u>0</u> FACU species <u>10</u> x <u>4</u> = <u>40</u> UPL species <u>55</u> x <u>5</u> = <u>275</u> Total <u>76</u> Prevalence Index: <u>4.42</u>
1. <u> </u>	<u>30'</u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>		<u>0</u>	Total Cover		
Shrub Stratum	Plot size:				
1. <u> </u>	<u>15'</u>				
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>		<u>0</u>	Total Cover		
Herb Stratum	Plot size:				
1. <u>Zea mays</u>	<u>5'</u>	<u>30</u>	<u>Y</u>	<u>UPL 5</u>	
2. <u>Brassica rapa</u>		<u>15</u>	<u>Y</u>	<u>UPL 5</u>	
3. <u>Lamium purpureum</u>		<u>10</u>	<u>Y</u>	<u>UPL 5</u>	
4. <u>Packera glabella</u>		<u>10</u>	<u>Y</u>	<u>FACW 2</u>	
5. <u>Allium canadense</u>		<u>5</u>	<u>N</u>	<u>FACU 4</u>	
6. <u>Stellaria media</u>		<u>5</u>	<u>N</u>	<u>FACU 4</u>	
7. <u> </u>					
8. <u> </u>					
		<u>75</u>	Total Cover		
Woody Vine Stratum	Plot size:				
1. <u> </u>	<u>30'</u>				
2. <u> </u>					
		<u>0</u>	Total Cover		
Remarks:					Hydrophytic Vegetation Present? Yes <u> </u> No <u> </u> X <u> </u>

SOIL

Profile Description: (Describe to depth needed to document the indicator or confirm absence of indicators.)

Depth (inches)	Matrix		Redox Features					
	Color	%	Color	%	Type*	Loc**	Texture	Remarks
0-18	10YR 4/3	100					SIL	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:		
<u> </u> Histosol (A1)	<u> </u> Sandy Mucky Mineral (S1)	<u> </u> Redox Dark Surface (F6)
<u> </u> Histic Epipedon (A2)	<u> </u> 5cm Mucky Peat or Peat	<u> </u> Depleted Dark Surface (F7)
<u> </u> Black Histic (A3)	<u> </u> Sandy Gleyed Matrix (S4)	<u> </u> Redox Depressions (F8)
<u> </u> Hydrogen Sulfide (A4)	<u> </u> Sandy Redox (S5)	Indicators for Problematic Hydric Soils
<u> </u> Stratified Layers (A5)	<u> </u> Stripped Matrix (S6)	<u> </u> Coast Prairie Redox (A16)
<u> </u> 2 cm Muck (A10)	<u> </u> Loamy Mucky Mineral (F1)	<u> </u> Iron-Manganese Masses (F12)
<u> </u> Depleted Below Dark Surface (A11)	<u> </u> Loamy Gleyed Matrix (F2)	<u> </u> Very Shallow Dark Surface (F12)
<u> </u> Thick Dark Surface (A12)	<u> </u> Depleted Matrix (F3)	<u> </u> Other

Restrictive Layer (if observed): Type: Depth (Inches):

Remarks: No soil pit taken, residential area

Hydric Soil Present? Yes No X

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators
Primary Indicators (check all that apply)		
<u> </u> Surface Water (A1)	<u> </u> Water Stained Leaves (B9)	<u> </u> Surface Soil Cracks (B6)
<u> </u> High Water Table (A2)	<u> </u> Aquatic Fauna (B13)	<u> </u> Drainage Patterns (B10)
<u> </u> Saturation (A3)	<u> </u> True Aquatic Plants (B14)	<u> </u> Dry-Season Water Table (C2)
<u> </u> Water Marks (B1)	<u> </u> Hydrogen Sulfide Odor (C1)	<u> </u> Crayfish Burrows (C8)
<u> </u> Sediment Deposits (B2)	<u> </u> Oxidized Rhizospheres on Living Roots	<u> </u> Saturation Visible on Aerial Imagery (C9)
<u> </u> Drift Deposits (B3)	<u> </u> Presence of Reduced Iron (C4)	<u> </u> Stunted or Stressed Plants (D1)
<u> </u> Algal Mat or Crust (B4)	<u> </u> Recent Iron Reduction in Tilled Soil (C6)	<u> </u> Geomorphic Position (D2)
<u> </u> Iron Deposits (B5)	<u> </u> Thin Muck Surface (C7)	<u> </u> FAC-Neutral Test (D5)
<u> </u> Inundation Visible on Aerial Imagery (B7)	<u> </u> Gauge or Well Data (D9)	
<u> </u> Sparsely Vegetated Concave Surface	<u> </u> Other	

Field Observations: Surface Water Present? Yes <u> </u> No <u> </u> Depth (inches) <u> </u>	Hydrology Indicators Present? Yes <u> </u> No <u> </u> X <u> </u>
Water Table Present? Yes <u> </u> No <u> </u> Depth (inches) <u> </u>	
Saturation Present? Yes <u> </u> No <u> </u> Depth (inches) <u> </u>	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

No hydric indicators

WETLAND DETERMINATION FORM-MIDWEST REGION

Site: W. Lancaster-S. Baltimore-W. Millersport City/County: Fairfield County Date: 27 March 2024 Data Point: 71
 Client: AEP State: OH Section, Township, Range: Sec S36, T 16N, R 19W
 Investigator(s): L. Vine, E.Holt Landform Moraines Local Relief Convex
 Slope (%): 1-3 Lat. 39.826230° Long. -82.593620° Datum NAD83 NWI Class: N/A
 Soil Map Unit Name: Bennington silt loam, 0 to 2 percent slopes

Climatic/hydrologic conditions typical for time of year? Y/N Y
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic

Are Normal Circumstances Present? Yes x No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes <u> </u> No <u>X</u>	Is the DP within a Wetland? Yes <u> </u> No <u> </u> X <u> </u>
Hydric Soil Present? Yes <u> </u> No <u>X</u>	
Wetland Hydrology Present? Yes <u>X</u> No <u> </u>	

VEGETATION

Tree Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet Number of dominant species that are OBL, FACW, or FAC: <u>4</u> Total number of dominant species across all strata: <u>9</u> Percent of dominant species that are OBL, FACW, or FAC: <u>44.44</u>
1. <u> </u>	<u>30'</u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
Total Cover: <u>0</u>					Prevalence Index Worksheet Total % cover of: OBL species <u>1</u> x <u>1</u> = <u>1</u> FACW species <u>40</u> x <u>2</u> = <u>80</u> FAC species <u>5</u> x <u>3</u> = <u>15</u> FACU species <u>55</u> x <u>4</u> = <u>220</u> UPL species <u>10</u> x <u>5</u> = <u>50</u> Total <u>111</u> Prevalence Index: <u>3.30</u>
Shrub Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	
1. <u>Cornus alba</u>	<u>15'</u>	<u>30</u>	<u>Y</u>	<u>FACW 2</u>	
2. <u>Rubus allegheniensis</u>		<u>15</u>	<u>Y</u>	<u>FACU 4</u>	
3. <u>Lonicera morrowii</u>		<u>10</u>	<u>N</u>	<u>FACU 4</u>	
4. <u>Prunus serotina</u>		<u>5</u>	<u>N</u>	<u>FACU 4</u>	
Total Cover: <u>60</u>					
Herb Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	
1. <u>Solidago altissima</u>	<u>5'</u>	<u>25</u>	<u>Y</u>	<u>FACU 4</u>	
2. <u>Epilobium coloratum</u>		<u>20</u>	<u>Y</u>	<u>OBL 1</u>	
3. <u>Brassica rapa</u>		<u>10</u>	<u>N</u>	<u>UPL 5</u>	
4. <u>Symphytichum lateriflorum</u>		<u>10</u>	<u>N</u>	<u>FACW 2</u>	
5. <u>Xanthium strumarium</u>		<u>5</u>	<u>N</u>	<u>FAC 3</u>	
Total Cover: <u>70</u>					
Woody Vine Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	
1. <u> </u>	<u>30'</u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
Total Cover: <u>0</u>					
Remarks:					Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Veg. <u> </u> Dominance Test is >50% <u> </u> Prevalence Index is ≤3.0* <u> </u> Morphological Adaptations* <u> </u> Problematic Hydrophytic Vegetation* <u> </u> *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic Hydrophytic Vegetation Present? Yes <u> </u> No <u> </u> X <u> </u>

SOIL

Profile Description: (Describe to depth needed to document the indicator or confirm absence of indicators.)

Depth (inches)	Matrix		Redox Features					
	Color	%	Color	%	Type*	Loc**	Texture	Remarks
0-12	10YR 4/2	100					SiCL	
12-18	10YR 4/1	100					SiCL	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

<u> </u> Histosol (A1)	<u> </u> Sandy Mucky Mineral (S1)	<u> </u> Redox Dark Surface (F6)
<u> </u> Histic Epipedon (A2)	<u> </u> 5cm Mucky Peat or Peat	<u> </u> Depleted Dark Surface (F7)
<u> </u> Black Histic (A3)	<u> </u> Sandy Gleyed Matrix (S4)	<u> </u> Redox Depressions (F8)
<u> </u> Hydrogen Sulfide (A4)	<u> </u> Sandy Redox (S5)	Indicators for Problematic Hydric Soils
<u> </u> Stratified Layers (A5)	<u> </u> Stripped Matrix (S6)	<u> </u> Coast Prairie Redox (A16)
<u> </u> 2 cm Muck (A10)	<u> </u> Loamy Mucky Mineral (F1)	<u> </u> Iron-Manganese Masses (F12)
<u> </u> Depleted Below Dark Surface (A11)	<u> </u> Loamy Gleyed Matrix (F2)	<u> </u> Very Shallow Dark Surface (F12)
<u> </u> Thick Dark Surface (A12)	<u> </u> Depleted Matrix (F3)	<u> </u> Other

Restrictive Layer (if observed): Type:
 Depth (Inches):

Hydric Soil Present? Yes No X

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (check all that apply)		Secondary Indicators	
<u> </u> Surface Water (A1)	<u> </u> Water Stained Leaves (B9)	<u> </u> Surface Soil Cracks (B6)	<u> </u>
<u>X</u> High Water Table (A2)	<u> </u> Aquatic Fauna (B13)	<u> </u> Drainage Patterns (B10)	<u> </u>
<u>X</u> Saturation (A3)	<u> </u> True Aquatic Plants (B14)	<u> </u> Dry-Season Water Table (C2)	<u> </u>
<u> </u> Water Marks (B1)	<u> </u> Hydrogen Sulfide Odor (C1)	<u> </u> Crayfish Burrows (C8)	<u> </u>
<u> </u> Sediment Deposits (B2)	<u> </u> Oxidized Rhizospheres on Living Roots	<u> </u> Saturation Visible on Aerial Imagery (C9)	<u> </u>
<u> </u> Drift Deposits (B3)	<u> </u> Presence of Reduced Iron (C4)	<u> </u> Stunted or Stressed Plants (D1)	<u> </u>
<u> </u> Algal Mat or Crust (B4)	<u> </u> Recent Iron Reduction in Tilled Soil (C6)	<u>X</u> Geomorphic Position (D2)	<u> </u>
<u> </u> Iron Deposits (B5)	<u> </u> Thin Muck Surface (C7)	<u> </u> FAC-Neutral Test (D5)	<u> </u>
<u> </u> Inundation Visible on Aerial Imagery (B7)	<u> </u> Gauge or Well Data (D9)	<u> </u>	<u> </u>
<u> </u> Sparsely Vegetated Concave Surface	<u> </u> Other	<u> </u>	<u> </u>

Field Observations: Surface Water Present? Yes No X Depth (inches)
 Water Table Present? Yes X No Depth (inches) 2
 Saturation Present? Yes X No Depth (inches) 2

Hydrology Indicators Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

No hydric indicators

WETLAND DETERMINATION FORM-MIDWEST REGION

Site: W. Lancaster-S. Baltimore-W. Millersport City/County: Fairfield County Date: 27 March 2024 Data Point: 70
 Client: AEP State: OH Section, Township, Range: Sec S36, T 16N, R 19W
 Investigator(s): L. Vine, E.Holt Landform Moraines Local Relief Convex
 Slope (%): 1-3 Lat. 39.824939° Long. -82.594821° Datum NAD83 NWI Class: N/A
 Soil Map Unit Name: Centerburg silt loam, 2 to 6 percent slopes
 Climatic/hydrologic conditions typical for time of year? Y/N Y
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic
 Are Normal Circumstances Present? Yes x No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes <u> </u> No <u>X</u>	Is the DP within a Wetland? Yes <u> </u> No <u> </u> X <u> </u>
Hydric Soil Present? Yes <u>X</u> No <u> </u>	
Wetland Hydrology Present? Yes <u> </u> No <u>X</u>	

VEGETATION

Tree Stratum	Plot size: <u>30'</u>	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet Number of dominant species <u>2</u> that are OBL, FACW, or FAC: Total number of dominant species across all strata: <u>4</u> Percent of dominant species that are OBL, FACW, or FAC: <u>50.00</u>
1. <u> </u>					
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
0 Total Cover					Prevalence Index Worksheet Total % cover of: OBL species <u>1</u> x <u>1</u> = <u>1</u> FACW species <u>0</u> x <u>2</u> = <u>0</u> FAC species <u>55</u> x <u>3</u> = <u>165</u> FACU species <u>35</u> x <u>4</u> = <u>140</u> UPL species <u>10</u> x <u>5</u> = <u>50</u> Total <u>101</u> = <u>356</u> Prevalence Index: <u>3.52</u>
Shrub Stratum	Plot size: <u>15'</u>				
1. <u> </u>					
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>					
0 Total Cover					
Herb Stratum	Plot size: <u>5'</u>				Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Veg. <u> </u> Dominance Test is >50% <u> </u> Prevalence Index is ≤3.0* <u> </u> Morphological Adaptations* <u> </u> Problematic Hydrophytic Vegetation* <u> </u> *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic Hydrophytic Vegetation Present? Yes <u> </u> No <u> </u> X <u> </u>
1. <u>Setaria faberi</u>		<u>35</u>	<u>Y</u>	<u>FACU</u> <u>4</u>	
2. <u>Setaria pumila</u>		<u>35</u>	<u>Y</u>	<u>FAC</u> <u>3</u>	
3. <u>Poa pratensis</u>		<u>20</u>	<u>Y</u>	<u>FAC</u> <u>3</u>	
4. <u>Zea mays</u>		<u>10</u>	<u>N</u>	<u>UPL</u> <u>5</u>	
5. <u> </u>					
6. <u> </u>					
7. <u> </u>					
8. <u> </u>					
100 Total Cover					
Woody Vine Stratum	Plot size: <u>30'</u>				
1. <u> </u>					
2. <u> </u>					
0 Total Cover					
Remarks: <u> </u>					

SOIL

Profile Description: (Describe to depth needed to document the indicator or confirm absence of indicators.)

Depth (inches)	Matrix		Redox Features					Texture	Remarks
	Color	%	Color	%	Type*	Loc**			
0-10	10YR 4/2	100						SiCL	
10-18	10YR 5/1	90	10YR 5/6	10	C		M	SiCL	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

<u> </u> Histosol (A1)	<u> </u> Sandy Mucky Mineral (S1)	<u>X</u>	<u> </u> Redox Dark Surface (F6)
<u> </u> Histic Epipedon (A2)	<u> </u> 5cm Mucky Peat or Peat	<u> </u>	<u> </u> Depleted Dark Surface (F7)
<u> </u> Black Histic (A3)	<u> </u> Sandy Gleyed Matrix (S4)	<u> </u>	<u> </u> Redox Depressions (F8)
<u> </u> Hydrogen Sulfide (A4)	<u> </u> Sandy Redox (S5)	<u> </u>	Indicators for Problematic Hydric Soils
<u> </u> Stratified Layers (A5)	<u> </u> Stripped Matrix (S6)	<u> </u>	<u> </u> Coast Prairie Redox (A16)
<u> </u> 2 cm Muck (A10)	<u> </u> Loamy Mucky Mineral (F1)	<u> </u>	<u> </u> Iron-Manganese Masses (F12)
<u> </u> Depleted Below Dark Surface (A11)	<u> </u> Loamy Gleyed Matrix (F2)	<u> </u>	<u> </u> Very Shallow Dark Surface (F12)
<u> </u> Thick Dark Surface (A12)	<u> </u> Depleted Matrix (F3)	<u> </u>	<u> </u> Other

Restrictive Layer (if observed): Type: <u> </u>	Hydric Soil Present? Yes <u>X</u> No <u> </u>
Depth (Inches): <u> </u>	
Remarks: <u> </u>	

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (check all that apply)	Secondary Indicators
<u> </u> Surface Water (A1)	<u> </u> Surface Soil Cracks (B6)
<u> </u> High Water Table (A2)	<u> </u> Drainage Patterns (B10)
<u> </u> Saturation (A3)	<u> </u> Dry-Season Water Table (C2)
<u> </u> Water Marks (B1)	<u> </u> Crayfish Burrows (C8)
<u> </u> Sediment Deposits (B2)	<u> </u> Saturation Visible on Aerial Imagery (C9)
<u> </u> Drift Deposits (B3)	<u> </u> Stunted or Stressed Plants (D1)
<u> </u> Algal Mat or Crust (B4)	<u> </u> Geomorphic Position (D2)
<u> </u> Iron Deposits (B5)	<u> </u> FAC-Neutral Test (D5)
<u> </u> Inundation Visible on Aerial Imagery (B7)	
<u> </u> Sparsely Vegetated Concave Surface	
<u> </u> Water Stained Leaves (B9)	
<u> </u> Aquatic Fauna (B13)	
<u> </u> True Aquatic Plants (B14)	
<u> </u> Hydrogen Sulfide Odor (C1)	
<u> </u> Oxidized Rhizospheres on Living Roots	
<u> </u> Presence of Reduced Iron (C4)	
<u> </u> Recent Iron Reduction in Tilled Soil (C6)	
<u> </u> Thin Muck Surface (C7)	
<u> </u> Gauge or Well Data (D9)	
<u> </u> Other	

Field Observations: Surface Water Present? Yes <u> </u> No <u>x</u> Depth (inches) <u> </u>	Hydrology Indicators Present? Yes <u> </u> No <u> </u> X <u> </u>
Water Table Present? Yes <u> </u> No <u>x</u> Depth (inches) <u> </u>	
Saturation Present? Yes <u> </u> No <u>x</u> Depth (inches) <u> </u>	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

No hydric indicators

WETLAND DETERMINATION FORM-MIDWEST REGION

Site: W. Lancaster-S. Baltimore-W. Millersport City/County: Fairfield County Date: 27 March 2024 Data Point: 68
 Client: AEP State: OH Section, Township, Range: S36, T 16N, R 19W
 Investigator(s): L. Vine, E.Holt Landform Moraines Local Relief Convex
 Slope (%): 1-3 Lat. 39.821591° Long. -82.598206° Datum NAD83 NWI Class: N/A
 Soil Map Unit Name: Bennington silt loam, 0 to 2 percent slopes
 Climatic/hydrologic conditions typical for time of year? Y/N Y
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic
 Are Normal Circumstances Present? Yes x No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes <u> </u> No <u>X</u>	Is the DP within a Wetland? Yes <u> </u> No <u> </u> X <u> </u>
Hydric Soil Present? Yes <u> </u> No <u>X</u>	
Wetland Hydrology Present? Yes <u> </u> No <u>X</u>	

VEGETATION

Tree Stratum	Plot size: <u>30'</u>	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet Number of dominant species that are OBL, FACW, or FAC: <u>3</u> Total number of dominant species across all strata: <u>7</u> Percent of dominant species that are OBL, FACW, or FAC: <u>42.86</u> Prevalence Index Worksheet Total % cover of: OBL species <u>1</u> x <u>1</u> = <u>1</u> FACW species <u>13</u> x <u>2</u> = <u>26</u> FAC species <u>60</u> x <u>3</u> = <u>180</u> FACU species <u>55</u> x <u>4</u> = <u>220</u> UPL species <u>10</u> x <u>5</u> = <u>50</u> Total <u>139</u> Prevalence Index: <u>3.43</u>
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
0 Total Cover					
Shrub Stratum	Plot size: <u>15'</u>	Absolute % Cover	Dominant Species	Indicator Status	Prevalence Index Worksheet Total % cover of: OBL species <u>1</u> x <u>1</u> = <u>1</u> FACW species <u>13</u> x <u>2</u> = <u>26</u> FAC species <u>60</u> x <u>3</u> = <u>180</u> FACU species <u>55</u> x <u>4</u> = <u>220</u> UPL species <u>10</u> x <u>5</u> = <u>50</u> Total <u>139</u> Prevalence Index: <u>3.43</u>
1. <u>Rubus allegheniensis</u>	<u> </u>	<u>30</u>	<u>Y</u>	<u>FACU 4</u>	
2. <u>Elaeagnus umbellata</u>	<u> </u>	<u>10</u>	<u>Y</u>	<u>UPL 5</u>	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
40 Total Cover					
Herb Stratum	Plot size: <u>5'</u>	Absolute % Cover	Dominant Species	Indicator Status	Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Veg. <u> </u> Dominance Test is >50% <u> </u> Prevalence Index is ≤3.0* <u> </u> Morphological Adaptations* <u> </u> Problematic Hydrophytic Vegetation* <u> </u> *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic Hydrophytic Vegetation Present? Yes <u> </u> No <u> </u> X <u> </u>
1. <u>Poa pratensis</u>	<u> </u>	<u>60</u>	<u>Y</u>	<u>FAC 3</u>	
2. <u>Taraxacum officinale</u>	<u> </u>	<u>20</u>	<u>Y</u>	<u>FACU 4</u>	
3. <u>Wisteria frutescens</u>	<u> </u>	<u>10</u>	<u>N</u>	<u>FACW 2</u>	
4. <u>Solidago canadensis</u>	<u> </u>	<u>5</u>	<u>N</u>	<u>FACU 4</u>	
5. <u>Viola renifolia</u>	<u> </u>	<u>3</u>	<u>N</u>	<u>FACW 2</u>	
6. <u> </u>	<u> </u>	<u>2</u>	<u>N</u>	<u> </u>	
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
100 Total Cover					
Woody Vine Stratum	Plot size: <u>30'</u>	Absolute % Cover	Dominant Species	Indicator Status	Hydrophytic Vegetation Present? Yes <u> </u> No <u> </u> X <u> </u>
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
0 Total Cover					
Remarks: <u> </u>					

SOIL

Profile Description: (Describe to depth needed to document the indicator or confirm absence of indicators.)

Depth (inches)	Matrix		Redox Features						Texture	Remarks
	Color	%	Color	%	Type*	Loc**				
0-15	10YR 4/2	100							SIL	
15-18	10YR 4/4	100							SiL	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

<u> </u> Histosol (A1)	<u> </u> Sandy Mucky Mineral (S1)	<u> </u> Redox Dark Surface (F6)
<u> </u> Histic Epipedon (A2)	<u> </u> 5cm Mucky Peat or Peat	<u> </u> Depleted Dark Surface (F7)
<u> </u> Black Histic (A3)	<u> </u> Sandy Gleyed Matrix (S4)	<u> </u> Redox Depressions (F8)
<u> </u> Hydrogen Sulfide (A4)	<u> </u> Sandy Redox (S5)	Indicators for Problematic Hydric Soils
<u> </u> Stratified Layers (A5)	<u> </u> Stripped Matrix (S6)	<u> </u> Coast Prairie Redox (A16)
<u> </u> 2 cm Muck (A10)	<u> </u> Loamy Mucky Mineral (F1)	<u> </u> Iron-Manganese Masses (F12)
<u> </u> Depleted Below Dark Surface (A11)	<u> </u> Loamy Gleyed Matrix (F2)	<u> </u> Very Shallow Dark Surface (F12)
<u> </u> Thick Dark Surface (A12)	<u> </u> Depleted Matrix (F3)	<u> </u> Other

Restrictive Layer (if observed): Type: Depth (Inches): Hydric Soil Present? Yes No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (check all that apply)			Secondary Indicators		
<u> </u> Surface Water (A1)	<u> </u> Water Stained Leaves (B9)	<u> </u> Surface Soil Cracks (B6)			
<u> </u> High Water Table (A2)	<u> </u> Aquatic Fauna (B13)	<u> </u> Drainage Patterns (B10)			
<u> </u> Saturation (A3)	<u> </u> True Aquatic Plants (B14)	<u> </u> Dry-Season Water Table (C2)			
<u> </u> Water Marks (B1)	<u> </u> Hydrogen Sulfide Odor (C1)	<u> </u> Crayfish Burrows (C8)			
<u> </u> Sediment Deposits (B2)	<u> </u> Oxidized Rhizospheres on Living Roots	<u> </u> Saturation Visible on Aerial Imagery (C9)			
<u> </u> Drift Deposits (B3)	<u> </u> Presence of Reduced Iron (C4)	<u> </u> Stunted or Stressed Plants (D1)			
<u> </u> Algal Mat or Crust (B4)	<u> </u> Recent Iron Reduction in Tilled Soil (C6)	<u> </u> Geomorphic Position (D2)			
<u> </u> Iron Deposits (B5)	<u> </u> Thin Muck Surface (C7)	<u> </u> FAC-Neutral Test (D5)			
<u> </u> Inundation Visible on Aerial Imagery (B7)	<u> </u> Gauge or Well Data (D9)				
<u> </u> Sparsely Vegetated Concave Surface	<u> </u> Other				

Field Observations: Surface Water Present? Yes No x Depth (inches)
 Water Table Present? Yes No x Depth (inches)
 Saturation Present? Yes No x Depth (inches)

Hydrology Indicators Present? Yes No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
No hydric indicators

WETLAND DETERMINATION FORM-MIDWEST REGION

Site: W. Lancaster-S. Baltimore-W. Millersport City/County: Fairfield County Date: 27 March 2024 Data Point: 63
 Client: AEP State: OH Section, Township, Range: Sec S36, T 16N, R 19W
 Investigator(s): L. Vine, E.Holt Landform: Moraines Local Relief: Convex
 Slope (%): 1-3 Lat. 39.813840° Long. -82.606066° Datum: NAD83 NWI Class: N/A
 Soil Map Unit Name: Centersburg silt loam, 2 to 6 percent slopes
 Climatic/hydrologic conditions typical for time of year? Y/N Y
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic
 Are Normal Circumstances Present? Yes x No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>	Is the DP within a Wetland? Yes <u> </u> No <u> </u> X <u> </u>
Hydric Soil Present? Yes <u> </u> No <u> </u>	
Wetland Hydrology Present? Yes <u> </u> No <u> </u> X <u> </u>	

VEGETATION

Tree Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet Number of dominant species that are OBL, FACW, or FAC: <u>1</u> Total number of dominant species across all strata: <u>1</u> Percent of dominant species that are OBL, FACW, or FAC: <u>100.00</u> Prevalence Index Worksheet Total % cover of: OBL species <u>1</u> x <u>1</u> = <u>1</u> FACW species <u>0</u> x <u>2</u> = <u>0</u> FAC species <u>0</u> x <u>3</u> = <u>0</u> FACU species <u>100</u> x <u>4</u> = <u>400</u> UPL species <u>0</u> x <u>5</u> = <u>0</u> Total <u>101</u> Prevalence Index: <u>3.97</u>
1. <u> </u>	<u>30'</u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>		<u>0</u>	Total Cover		
Shrub Stratum	Plot size: 15'				
1. <u> </u>					
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>		<u>0</u>	Total Cover		
Herb Stratum	Plot size: 5'				
1. <u>Schedonorus arundinaceus</u>		<u>100</u>	<u>Y</u>	<u>FACU</u> <u>4</u>	
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>					
6. <u> </u>					
7. <u> </u>					
8. <u> </u>		<u>100</u>	Total Cover		
Woody Vine Stratum	Plot size: 30'				
1. <u> </u>					
2. <u> </u>					
		<u>0</u>	Total Cover		
Remarks:					Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Veg. <u> </u> x Dominance Test is >50% <u> </u> x Prevalence Index is ≤3.0* <u> </u> Morphological Adaptations* <u> </u> Problematic Hydrophytic Vegetation* <u> </u> *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>

SOIL

Profile Description: (Describe to depth needed to document the indicator or confirm absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color	%	Color	%	Type*	Loc**		
								No soil pit, residential

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

<u> </u> Histosol (A1)	<u> </u> Sandy Mucky Mineral (S1)	<u> </u> Redox Dark Surface (F6)
<u> </u> Histic Epipedon (A2)	<u> </u> 5cm Mucky Peat or Peat	<u> </u> Depleted Dark Surface (F7)
<u> </u> Black Histic (A3)	<u> </u> Sandy Gleyed Matrix (S4)	<u> </u> Redox Depressions (F8)
<u> </u> Hydrogen Sulfide (A4)	<u> </u> Sandy Redox (S5)	Indicators for Problematic Hydric Soils
<u> </u> Stratified Layers (A5)	<u> </u> Stripped Matrix (S6)	<u> </u> Coast Prairie Redox (A16)
<u> </u> 2 cm Muck (A10)	<u> </u> Loamy Mucky Mineral (F1)	<u> </u> Iron-Manganese Masses (F12)
<u> </u> Depleted Below Dark Surface (A11)	<u> </u> Loamy Gleyed Matrix (F2)	<u> </u> Very Shallow Dark Surface (F12)
<u> </u> Thick Dark Surface (A12)	<u> </u> Depleted Matrix (F3)	<u> </u> Other

Restrictive Layer (if observed): Type: Depth (Inches): Hydric Soil Present? Yes No

Remarks: No soil pit was taken; this is a residential area

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (check all that apply)	Secondary Indicators
<u> </u> Surface Water (A1)	<u> </u> Surface Soil Cracks (B6)
<u> </u> High Water Table (A2)	<u> </u> Drainage Patterns (B10)
<u> </u> Saturation (A3)	<u> </u> Dry-Season Water Table (C2)
<u> </u> Water Marks (B1)	<u> </u> Crayfish Burrows (C8)
<u> </u> Sediment Deposits (B2)	<u> </u> Saturation Visible on Aerial Imagery (C9)
<u> </u> Drift Deposits (B3)	<u> </u> Stunted or Stressed Plants (D1)
<u> </u> Algal Mat or Crust (B4)	<u> </u> Geomorphic Position (D2)
<u> </u> Iron Deposits (B5)	<u> </u> FAC-Neutral Test (D5)
<u> </u> Inundation Visible on Aerial Imagery (B7)	<u> </u> <u>X</u>
<u> </u> Sparsely Vegetated Concave Surface	<u> </u> Other

Field Observations: Surface Water Present? Yes No X Depth (inches)
 Water Table Present? Yes No X Depth (inches)
 Saturation Present? Yes No X Depth (inches)

Hydrology Indicators Present? Yes No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

No hydric indicators

WETLAND DETERMINATION FORM-MIDWEST REGION

Site: W. Lancaster-S. Baltimore-W. Millersport City/County: Fairfield County Date: 27 March 2024 Data Point: 62 A
 Client: AEP State: OH Section, Township, Range: Sec S1, T 15N, 19W
 Investigator(s): L. Vine, E.Holt Landform Moraines Local Relief Convex
 Slope (%): 1-3 Lat. 39.812051 Long. -82.608505 Datum NAD83 NWI Class: N/A
 Soil Map Unit Name: Centersburg silt loam, 2 to 6 percent slopes, eroded
 Climatic/hydrologic conditions typical for time of year? Y/N Y
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic
 Are Normal Circumstances Present? Yes x No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>	Is the DP within a Wetland? Yes <u> </u> No <u> </u> X <u> </u>
Hydric Soil Present? Yes <u> </u> No <u>X</u>	
Wetland Hydrology Present? Yes <u>X</u> No <u> </u>	

VEGETATION

Tree Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status		Dominance Test Worksheet Number of dominant species that are OBL, FACW, or FAC: <u>4</u> Total number of dominant species across all strata: <u>6</u> Percent of dominant species that are OBL, FACW, or FAC: <u>66.67</u>
1. <u>Acer rubrum</u>	<u>30'</u>	<u>30</u>	<u>Y</u>	<u>FAC</u>	<u>3</u>	
2. <u> </u>						
3. <u> </u>						
4. <u> </u>						
					<u>30</u>	Total Cover
Shrub Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status		Prevalence Index Worksheet Total % cover of: OBL species <u>1</u> x <u>1</u> = <u>1</u> FACW species <u>0</u> x <u>2</u> = <u>0</u> FAC species <u>70</u> x <u>3</u> = <u>210</u> FACU species <u>10</u> x <u>4</u> = <u>40</u> UPL species <u>15</u> x <u>5</u> = <u>75</u> Total <u>96</u> Prevalence Index: <u>3.40</u>
1. <u>Lonicera maackii</u>	<u>15'</u>	<u>15</u>	<u>Y</u>	<u>UPL</u>	<u>5</u>	
2. <u> </u>						
3. <u> </u>						
4. <u> </u>						
					<u>15</u>	Total Cover
Herb Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status		Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Veg. <u>x</u> Dominance Test is >50% Prevalence Index is ≤3.0* Morphological Adaptations* Problematic Hydrophytic Vegetation* *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>
1. <u>Typha angustifolia</u>	<u>5'</u>	<u>50</u>	<u>Y</u>	<u>OBL</u>	<u>1</u>	
2. <u>Barbarea vulgaris</u>		<u>20</u>	<u>Y</u>	<u>FAC</u>	<u>3</u>	
3. <u>Poa pratensis</u>		<u>20</u>	<u>Y</u>	<u>FAC</u>	<u>3</u>	
4. <u>Prunus serotina</u>		<u>10</u>	<u>N</u>	<u>FACU</u>	<u>4</u>	
5. <u> </u>						
6. <u> </u>						
7. <u> </u>						
8. <u> </u>						
					<u>100</u>	Total Cover
Woody Vine Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status		
1. <u> </u>	<u>30'</u>					
2. <u> </u>						
					<u>0</u>	Total Cover

Remarks:

SOIL

Profile Description: (Describe to depth needed to document the indicator or confirm absence of indicators.)

Depth (inches)	Color	Matrix %	Color	%	Type*	Loc**	Texture	Remarks
0-15	10YR 4/2	100					SIL	
15-18	10YR 4/4	85	10YR 4/6	15	C	M	SiCL	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

<u> </u> Histosol (A1)	<u> </u> Sandy Mucky Mineral (S1)	<u> </u> Redox Dark Surface (F6)
<u> </u> Histic Epipedon (A2)	<u> </u> 5cm Mucky Peat or Peat	<u> </u> Depleted Dark Surface (F7)
<u> </u> Black Histic (A3)	<u> </u> Sandy Gleyed Matrix (S4)	<u> </u> Redox Depressions (F8)
<u> </u> Hydrogen Sulfide (A4)	<u> </u> Sandy Redox (S5)	Indicators for Problematic Hydric Soils
<u> </u> Stratified Layers (A5)	<u> </u> Stripped Matrix (S6)	<u> </u> Coast Prairie Redox (A16)
<u> </u> 2 cm Muck (A10)	<u> </u> Loamy Mucky Mineral (F1)	<u> </u> Iron-Manganese Masses (F12)
<u> </u> Depleted Below Dark Surface (A11)	<u> </u> Loamy Gleyed Matrix (F2)	<u> </u> Very Shallow Dark Surface (F12)
<u> </u> Thick Dark Surface (A12)	<u> </u> Depleted Matrix (F3)	<u> </u> Other

Restrictive Layer (if observed): Type: Depth (Inches): Hydric Soil Present? Yes No X

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (check all that apply)	Secondary Indicators
<u> </u> Surface Water (A1)	<u> </u> Surface Soil Cracks (B6)
<u> </u> High Water Table (A2)	<u> </u> Drainage Patterns (B10)
<u>X</u> <u> </u> Saturation (A3)	<u> </u> Dry-Season Water Table (C2)
<u> </u> Water Marks (B1)	<u> </u> Crayfish Burrows (C8)
<u> </u> Sediment Deposits (B2)	<u> </u> Saturation Visible on Aerial Imagery (C9)
<u> </u> Drift Deposits (B3)	<u> </u> Stunted or Stressed Plants (D1)
<u> </u> Algal Mat or Crust (B4)	<u> </u> Geomorphic Position (D2)
<u> </u> Iron Deposits (B5)	<u>X</u> <u> </u> FAC-Neutral Test (D5)
<u> </u> Inundation Visible on Aerial Imagery (B7)	
<u> </u> Sparsely Vegetated Concave Surface	

Field Observations: Surface Water Present? Yes No X Depth (inches)
 Water Table Present? Yes No X Depth (inches)
 Saturation Present? Yes X No 15 Depth (inches)

Hydrology Indicators Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
No hydric indicators

WETLAND DETERMINATION FORM-MIDWEST REGION

Site: W. Lancaster-S. Baltimore-W. Millersport City/County: Fairfield County Date: 27 March 2024 Data Point: 62
 Client: AEP State: OH Section, Township, Range: Sec S1, T 15N, 19W
 Investigator(s): L. Vine, E.Holt Landform Moraines Local Relief Convex
 Slope (%): 1-3 Lat. 39.811394° Long. -82.608382° Datum NAD83 NWI Class: N/A
 Soil Map Unit Name: Centersburg silt loam, 2 to 6 percent slopes, eroded
 Climatic/hydrologic conditions typical for time of year? Y/N Y
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic
 Are Normal Circumstances Present? Yes x No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>	Is the DP within a Wetland? Yes <u> </u> No <u> </u> X <u> </u>
Hydric Soil Present? Yes <u> </u> No <u>X</u>	
Wetland Hydrology Present? Yes <u>X</u> No <u> </u>	

VEGETATION

Tree Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet Number of dominant species that are OBL, FACW, or FAC: <u>2</u> Total number of dominant species across all strata: <u>4</u> Percent of dominant species that are OBL, FACW, or FAC: <u>50.00</u>
1. <u> </u>	<u>30'</u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
0 Total Cover					Prevalence Index Worksheet Total % cover of: OBL species <u>1</u> x <u>1</u> = <u>1</u> FACW species <u>10</u> x <u>2</u> = <u>20</u> FAC species <u>50</u> x <u>3</u> = <u>150</u> FACU species <u>20</u> x <u>4</u> = <u>80</u> UPL species <u>5</u> x <u>5</u> = <u>25</u> Total <u>86</u> Prevalence Index: <u>3.21</u>
Shrub Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	
1. <u>Cornus racemosa</u>	<u>15'</u>	<u>50</u>	<u>Y</u>	<u>FAC</u>	
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>					
50 Total Cover					
Herb Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	
1. <u>Schedonorus arundinaceus</u>	<u>5'</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>	
2. <u>Symphotrichum lateriflorum</u>		<u>10</u>	<u>Y</u>	<u>FACW</u>	
3. <u>Brassica rapa</u>		<u>5</u>	<u>N</u>	<u>UPL</u>	
4. <u> </u>					
5. <u> </u>					
6. <u> </u>					
7. <u> </u>					
8. <u> </u>					
35 Total Cover					
Woody Vine Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	
1. <u> </u>	<u>30'</u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>					
0 Total Cover					
Remarks:					

SOIL

Profile Description: (Describe to depth needed to document the indicator or confirm absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color	%	Color	%	Type*	Loc**		
0-14	10YR 4/3	100					SIL	
14-18	10YR 4/4	100					SiCL	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

<u> </u> Histosol (A1)	<u> </u> Sandy Mucky Mineral (S1)	<u> </u> Redox Dark Surface (F6)
<u> </u> Histic Epipedon (A2)	<u> </u> 5cm Mucky Peat or Peat	<u> </u> Depleted Dark Surface (F7)
<u> </u> Black Histic (A3)	<u> </u> Sandy Gleyed Matrix (S4)	<u> </u> Redox Depressions (F8)
<u> </u> Hydrogen Sulfide (A4)	<u> </u> Sandy Redox (S5)	Indicators for Problematic Hydric Soils
<u> </u> Stratified Layers (A5)	<u> </u> Stripped Matrix (S6)	<u> </u> Coast Prairie Redox (A16)
<u> </u> 2 cm Muck (A10)	<u> </u> Loamy Mucky Mineral (F1)	<u> </u> Iron-Manganese Masses (F12)
<u> </u> Depleted Below Dark Surface (A11)	<u> </u> Loamy Gleyed Matrix (F2)	<u> </u> Very Shallow Dark Surface (F12)
<u> </u> Thick Dark Surface (A12)	<u> </u> Depleted Matrix (F3)	<u> </u> Other

Restrictive Layer (if observed): Type: Depth (Inches):

Remarks:

Hydric Soil Present? Yes No X

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (check all that apply)		Secondary Indicators	
<u> </u> Surface Water (A1)	<u> </u> Water Stained Leaves (B9)	<u> </u> Surface Soil Cracks (B6)	<u> </u>
<u> </u> High Water Table (A2)	<u> </u> Aquatic Fauna (B13)	<u> </u> Drainage Patterns (B10)	<u> </u>
<u>X</u> Saturation (A3)	<u> </u> True Aquatic Plants (B14)	<u> </u> Dry-Season Water Table (C2)	<u> </u>
<u> </u> Water Marks (B1)	<u> </u> Hydrogen Sulfide Odor (C1)	<u> </u> Crayfish Burrows (C8)	<u> </u>
<u> </u> Sediment Deposits (B2)	<u> </u> Oxidized Rhizospheres on Living Roots	<u> </u> Saturation Visible on Aerial Imagery (C9)	<u> </u>
<u> </u> Drift Deposits (B3)	<u> </u> Presence of Reduced Iron (C4)	<u> </u> Stunted or Stressed Plants (D1)	<u> </u>
<u> </u> Algal Mat or Crust (B4)	<u> </u> Recent Iron Reduction in Tilled Soil (C6)	<u> </u> Geomorphic Position (D2)	<u> </u>
<u> </u> Iron Deposits (B5)	<u> </u> Thin Muck Surface (C7)	<u> </u> FAC-Neutral Test (D5)	<u> </u>
<u> </u> Inundation Visible on Aerial Imagery (B7)	<u> </u> Gauge or Well Data (D9)	<u> </u>	<u> </u>
<u> </u> Sparsely Vegetated Concave Surface	<u> </u> Other	<u> </u>	<u> </u>

Field Observations: Surface Water Present? Yes No X Depth (inches)
 Water Table Present? Yes X No 7 Depth (inches)
 Saturation Present? Yes X No 7 Depth (inches)

Hydrology Indicators Present? Yes X No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

No hydric indicators

WETLAND DETERMINATION FORM-MIDWEST REGION

Site: W. Lancaster-S. Baltimore-W. Millersport City/County: Fairfield County Date: 27 March 2024 Data Point: 59
 Client: AEP State: OH Section, Township, Range: Sec S1, T 15N, 19W
 Investigator(s): L. Vine, E. Holt Landform Moraines Local Relief Convex
 Slope (%): 1-3 Lat. 39.806567° Long. -82.612869° Datum NAD83 NWI Class: N/A
 Soil Map Unit Name: Centersburg silt loam, 2 to 6 percent slopes
 Climatic/hydrologic conditions typical for time of year? Y/N Y
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic
 Are Normal Circumstances Present? Yes x No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes <u> </u> No <u>X</u>	Is the DP within a Wetland? Yes <u> </u> No <u> </u> X <u> </u>
Hydric Soil Present? Yes <u> </u> No <u>X</u>	
Wetland Hydrology Present? Yes <u> </u> No <u>X</u>	

VEGETATION

Tree Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet Number of dominant species that are OBL, FACW, or FAC: <u>2</u> Total number of dominant species across all strata: <u>5</u> Percent of dominant species that are OBL, FACW, or FAC: <u>40.00</u>
1. <u> </u>	<u>30'</u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
3. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
0 Total Cover					Prevalence Index Worksheet Total % cover of: OBL species <u>1</u> x <u>1</u> = <u>1</u> FACW species <u>0</u> x <u>2</u> = <u>0</u> FAC species <u>30</u> x <u>3</u> = <u>90</u> FACU species <u>60</u> x <u>4</u> = <u>240</u> UPL species <u>0</u> x <u>5</u> = <u>0</u> Total <u>91</u> Prevalence Index: <u>3.64</u>
Shrub Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	
1. <u>Rubus allegheniensis</u>	<u>15'</u>	<u>10</u>	<u>Y</u>	<u>FACU 4</u>	
2. <u>Mentha X rotundifolia</u>		<u>10</u>	<u>Y</u>	<u>FAC 3</u>	
3. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
20 Total Cover					
Herb Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	
1. <u>Setaria faberi</u>	<u>5'</u>	<u>30</u>	<u>Y</u>	<u>FACU 4</u>	
2. <u>Allium canadense</u>		<u>20</u>	<u>Y</u>	<u>FACU 4</u>	
3. <u>Apocynum cannabinum</u>		<u>20</u>	<u>Y</u>	<u>FAC 3</u>	
4. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
5. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
6. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
7. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
8. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
70 Total Cover					
Woody Vine Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	
1. <u> </u>	<u>30'</u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
0 Total Cover					
Remarks:					Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Veg. <u> </u> Dominance Test is >50% <u> </u> Prevalence Index is ≤3.0* <u> </u> Morphological Adaptations* <u> </u> Problematic Hydrophytic Vegetation* <u> </u> *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic Hydrophytic Vegetation Present? Yes <u> </u> No <u> </u> X <u> </u>

SOIL

Profile Description: (Describe to depth needed to document the indicator or confirm absence of indicators.)

Depth (inches)	Matrix		Redox Features					Texture	Remarks
	Color	%	Color	%	Type*	Loc**			
0-18	10YR 4/3						SIL		

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

<u> </u> Histosol (A1)	<u> </u> Sandy Mucky Mineral (S1)	<u> </u> Redox Dark Surface (F6)
<u> </u> Histic Epipedon (A2)	<u> </u> 5cm Mucky Peat or Peat	<u> </u> Depleted Dark Surface (F7)
<u> </u> Black Histic (A3)	<u> </u> Sandy Gleyed Matrix (S4)	<u> </u> Redox Depressions (F8)
<u> </u> Hydrogen Sulfide (A4)	<u> </u> Sandy Redox (S5)	Indicators for Problematic Hydric Soils
<u> </u> Stratified Layers (A5)	<u> </u> Stripped Matrix (S6)	<u> </u> Coast Prairie Redox (A16)
<u> </u> 2 cm Muck (A10)	<u> </u> Loamy Mucky Mineral (F1)	<u> </u> Iron-Manganese Masses (F12)
<u> </u> Depleted Below Dark Surface (A11)	<u> </u> Loamy Gleyed Matrix (F2)	<u> </u> Very Shallow Dark Surface (F12)
<u> </u> Thick Dark Surface (A12)	<u> </u> Depleted Matrix (F3)	<u> </u> Other

Restrictive Layer (if observed): Type: Depth (Inches): Hydric Soil Present? Yes No X

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (check all that apply)	Secondary Indicators
<u> </u> Surface Water (A1)	<u> </u> Surface Soil Cracks (B6)
<u> </u> High Water Table (A2)	<u> </u> Drainage Patterns (B10)
<u> </u> Saturation (A3)	<u> </u> Dry-Season Water Table (C2)
<u> </u> Water Marks (B1)	<u> </u> Crayfish Burrows (C8)
<u> </u> Sediment Deposits (B2)	<u> </u> Saturation Visible on Aerial Imagery (C9)
<u> </u> Drift Deposits (B3)	<u> </u> Stunted or Stressed Plants (D1)
<u> </u> Algal Mat or Crust (B4)	<u> </u> Geomorphic Position (D2)
<u> </u> Iron Deposits (B5)	<u> </u> FAC-Neutral Test (D5)
<u> </u> Inundation Visible on Aerial Imagery (B7)	
<u> </u> Sparsely Vegetated Concave Surface	

Field Observations: Surface Water Present? Yes No Depth (inches)
 Water Table Present? Yes No Depth (inches)
 Saturation Present? Yes No Depth (inches)
Hydrology Indicators Present? Yes No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

No hydric indicators

WETLAND DETERMINATION FORM-MIDWEST REGION

Site: W. Lancaster-S. Baltimore-W. Millersport City/County: Fairfield County Date: 27 March 2024 Data Point: 57
 Client: AEP State: OH Section, Township, Range: Sec S2, T 15N, R 19W
 Investigator(s): N. Houk, N. Barnett Landform: Moraines Local Relief: Convex
 Slope (%): 1-3 Lat. 39.803787 Long. -82.615001 Datum: NAD83 NWI Class: N/A
 Soil Map Unit Name: Bennington silt loam, 0 to 2 percent slopes
 Climatic/hydrologic conditions typical for time of year? Y/N Y
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic
 Are Normal Circumstances Present? Yes x No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes <u> </u> No <u>x</u>	Is the DP within a Wetland? Yes <u> </u> No <u> </u> x
Hydric Soil Present? Yes <u> </u> No <u>x</u>	
Wetland Hydrology Present? Yes <u> </u> No <u>x</u>	
Remarks: <u> </u>	

VEGETATION

Tree Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet Number of dominant species that are OBL, FACW, or FAC: <u>1</u> Total number of dominant species across all strata: <u>2</u> Percent of dominant species that are OBL, FACW, or FAC: <u>50.00</u> Prevalence Index Worksheet Total % cover of: OBL species <u>0</u> x <u>1</u> = <u>0</u> FACW species <u>50</u> x <u>2</u> = <u>100</u> FAC species <u>0</u> x <u>3</u> = <u>0</u> FACU species <u>20</u> x <u>4</u> = <u>80</u> UPL species <u>30</u> x <u>5</u> = <u>150</u> Total <u>100</u> Prevalence Index: <u>3.30</u>
1. <u> </u>	<u>30'</u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>		<u>0</u>	Total Cover		
Shrub Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Veg. Dominance Test is >50% Prevalence Index is ≤3.0* Morphological Adaptations* Problematic Hydrophytic Vegetation* *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic Hydrophytic Vegetation Present? Yes <u> </u> No <u> </u> x
1. <u> </u>	<u>15'</u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>		<u>0</u>	Total Cover		
Herb Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	
1. <u>Elymus virginicus</u>	<u>5'</u>	<u>50</u>	<u>Y</u>	<u>FACW</u> <u>2</u>	
2. <u>Brassica napus</u>		<u>20</u>	<u>Y</u>	<u>UPL</u> <u>5</u>	
3. <u>Setaria faberi</u>		<u>15</u>	<u>N</u>	<u>FACU</u> <u>4</u>	
4. <u>Lamium purpureum</u>		<u>10</u>	<u>N</u>	<u>UPL</u> <u>5</u>	
5. <u>Taraxacum officinale</u>		<u>5</u>	<u>N</u>	<u>FACU</u> <u>4</u>	
6. <u> </u>					
7. <u> </u>					
8. <u> </u>		<u>100</u>	Total Cover		
Woody Vine Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	Hydrophytic Vegetation Present? Yes <u> </u> No <u> </u> x
1. <u> </u>	<u>30'</u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>		<u>0</u>	Total Cover		
Remarks: <u> </u>					

SOIL

Profile Description: (Describe to depth needed to document the indicator or confirm absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color	%	Color	%	Type*	Loc**		
0-4	10YR 3/4	100					Si C L	
4-18	10YR 4/3	100					Si C L	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

<u> </u> Histosol (A1)	<u> </u> Sandy Mucky Mineral (S1)	<u> </u> Redox Dark Surface (F6)
<u> </u> Histic Epipedon (A2)	<u> </u> 5cm Mucky Peat or Peat	<u> </u> Depleted Dark Surface (F7)
<u> </u> Black Histic (A3)	<u> </u> Sandy Gleyed Matrix (S4)	<u> </u> Redox Depressions (F8)
<u> </u> Hydrogen Sulfide (A4)	<u> </u> Sandy Redox (S5)	Indicators for Problematic Hydric Soils
<u> </u> Stratified Layers (A5)	<u> </u> Stripped Matrix (S6)	<u> </u> Coast Prairie Redox (A16)
<u> </u> 2 cm Muck (A10)	<u> </u> Loamy Mucky Mineral (F1)	<u> </u> Iron-Manganese Masses (F12)
<u> </u> Depleted Below Dark Surface (A11)	<u> </u> Loamy Gleyed Matrix (F2)	<u> </u> Very Shallow Dark Surface (F12)
<u> </u> Thick Dark Surface (A12)	<u> </u> Depleted Matrix (F3)	<u> </u> Other

Restrictive Layer (if observed): Type: Depth (Inches):

Hydric Soil Present? Yes No x

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (check all that apply)	Secondary Indicators
<u> </u> Surface Water (A1)	<u> </u> Surface Soil Cracks (B6)
<u> </u> High Water Table (A2)	<u> </u> Drainage Patterns (B10)
<u> </u> Saturation (A3)	<u> </u> Dry-Season Water Table (C2)
<u> </u> Water Marks (B1)	<u> </u> Crayfish Burrows (C8)
<u> </u> Sediment Deposits (B2)	<u> </u> Saturation Visible on Aerial Imagery (C9)
<u> </u> Drift Deposits (B3)	<u> </u> Stunted or Stressed Plants (D1)
<u> </u> Algal Mat or Crust (B4)	<u> </u> Geomorphic Position (D2)
<u> </u> Iron Deposits (B5)	<u> </u> FAC-Neutral Test (D5)
<u> </u> Inundation Visible on Aerial Imagery (B7)	<u> </u> Guage or Well Data (D9)
<u> </u> Sparsely Vegetated Concave Surface	<u> </u> Other

Field Observations: Surface Water Present? Yes No x Depth (inches)
 Water Table Present? Yes No x Depth (inches)
 Saturation Present? Yes No x Depth (inches)

Hydrology Indicators Present? Yes No x

Describe Recorded Data (stream guage, monitoring well, aerial photos, previous inspections), if available:

WETLAND DETERMINATION FORM-MIDWEST REGION

Site: W. Lancaster-S. Baltimore-W. Millersport City/County: Fairfield County Date: 27 March 2024 Data Point: 52
 Client: AEP State: OH Section, Township, Range: Sec S11, T 15N, R 19W
 Investigator(s): N. Houk, N. Barnett Landform: Moraines Local Relief: Convex
 Slope (%): 1-3 Lat. 39.796059 Long. -82.620611 Datum: NAD83 NWI Class: N/A
 Soil Map Unit Name: Centersburg silt loam, 2 to 6 percent slopes, eroded
 Climatic/hydrologic conditions typical for time of year? Y/N Y
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic
 Are Normal Circumstances Present? Yes x No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes <u> </u> No <u>x</u>	Is the DP within a Wetland? Yes <u> </u> No <u> </u> x <u> </u>
Hydric Soil Present? Yes <u> </u> No <u>x</u>	
Wetland Hydrology Present? Yes <u> </u> No <u>x</u>	
Remarks: <u> </u>	

VEGETATION

Tree Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet Number of dominant species that are OBL, FACW, or FAC: <u>1</u> Total number of dominant species across all strata: <u>3</u> Percent of dominant species that are OBL, FACW, or FAC: <u>33.33</u> Prevalence Index Worksheet Total % cover of: OBL species <u>0</u> x <u>1</u> = <u>0</u> FACW species <u>50</u> x <u>2</u> = <u>100</u> FAC species <u>0</u> x <u>3</u> = <u>0</u> FACU species <u>65</u> x <u>4</u> = <u>260</u> UPL species <u>5</u> x <u>5</u> = <u>25</u> Total <u>120</u> Prevalence Index: <u>3.21</u>
1. <u> </u>	<u>30'</u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>		<u>0</u>	Total Cover		
Shrub Stratum	Plot size: <u>15'</u>				
1. <u>Rubus allegheniensis</u>		<u>20</u>	<u>Y</u>	<u>FACU</u> <u>4</u>	
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>		<u>20</u>	Total Cover		
Herb Stratum	Plot size: <u>5'</u>				
1. <u>Carex vulpinoidea</u>		<u>40</u>	<u>Y</u>	<u>FACW</u> <u>2</u>	
2. <u>Schedonorus arundinaceus</u>		<u>35</u>	<u>Y</u>	<u>FACU</u> <u>4</u>	
3. <u>Cyperus esculentus</u>		<u>10</u>	<u>N</u>	<u>FACW</u> <u>2</u>	
4. <u>Symphotrichum ericoides</u>		<u>10</u>	<u>N</u>	<u>FACU</u> <u>4</u>	
5. <u>Daucus carota</u>		<u>5</u>	<u>N</u>	<u>UPL</u> <u>5</u>	
6. <u> </u>					
7. <u> </u>					
8. <u> </u>					
		<u>100</u>	Total Cover		
Woody Vine Stratum	Plot size: <u>30'</u>				
1. <u> </u>					
2. <u> </u>					
		<u>0</u>	Total Cover		
Remarks: <u> </u>					

SOIL

Profile Description: (Describe to depth needed to document the indicator or confirm absence of indicators.)

Depth (inches)	Matrix		Redox Features					Texture	Remarks
	Color	%	Color	%	Type*	Loc**			
0-14	10YR 4/1	100						Si C L	
14-18	10YR 4/1	95	10YR 5/6	5	C		M	Si C L	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

<u> </u> Histosol (A1)	<u> </u> Sandy Mucky Mineral (S1)	<u> </u> Redox Dark Surface (F6)
<u> </u> Histic Epipedon (A2)	<u> </u> 5cm Mucky Peat or Peat	<u> </u> Depleted Dark Surface (F7)
<u> </u> Black Histic (A3)	<u> </u> Sandy Gleyed Matrix (S4)	<u> </u> Redox Depressions (F8)
<u> </u> Hydrogen Sulfide (A4)	<u> </u> Sandy Redox (S5)	Indicators for Problematic Hydric Soils
<u> </u> Stratified Layers (A5)	<u> </u> Stripped Matrix (S6)	<u> </u> Coast Prairie Redox (A16)
<u> </u> 2 cm Muck (A10)	<u> </u> Loamy Mucky Mineral (F1)	<u> </u> Iron-Manganese Masses (F12)
<u> </u> Depleted Below Dark Surface (A11)	<u> </u> Loamy Gleyed Matrix (F2)	<u> </u> Very Shallow Dark Surface (F12)
<u> </u> Thick Dark Surface (A12)	<u> </u> Depleted Matrix (F3)	<u> </u> Other

Restrictive Layer (if observed): Type: Depth (Inches):

Remarks:

Hydric Soil Present? Yes No x

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (check all that apply)	Secondary Indicators
<u> </u> Surface Water (A1)	<u> </u> Surface Soil Cracks (B6)
<u> </u> High Water Table (A2)	<u> </u> Drainage Patterns (B10)
<u> </u> Saturation (A3)	<u> </u> Dry-Season Water Table (C2)
<u> </u> Water Marks (B1)	<u> </u> Crayfish Burrows (C8)
<u> </u> Sediment Deposits (B2)	<u> </u> Saturation Visible on Aerial Imagery (C9)
<u> </u> Drift Deposits (B3)	<u> </u> Stunted or Stressed Plants (D1)
<u> </u> Algal Mat or Crust (B4)	<u> </u> Geomorphic Position (D2)
<u> </u> Iron Deposits (B5)	<u> </u> FAC-Neutral Test (D5)
<u> </u> Inundation Visible on Aerial Imagery (B7)	<u> </u> Guage or Well Data (D9)
<u> </u> Sparsely Vegetated Concave Surface	<u> </u> Other
Field Observations: Surface Water Present? Yes <u> </u> No <u>x</u> Depth (inches) <u> </u>	Hydrology Indicators Present? Yes <u> </u> No <u> </u> x <u> </u>
Water Table Present? Yes <u> </u> No <u>x</u> Depth (inches) <u> </u>	
Saturation Present? Yes <u> </u> No <u>x</u> Depth (inches) <u> </u>	
Describe Recorded Data (stream guage, monitoring well, aerial photos, previous inspections), if available: <u> </u>	

WETLAND DETERMINATION FORM-MIDWEST REGION

Site: W. Lancaster-S. Baltimore-W. Millersport City/County: _____ Date: 27 March 2024 Data Point: 51
 Client: AEP State: OH Section, Township, Range: Sec S11, T 15N, R 19W
 Investigator(s): N. Houk, N. Barnett Landform Till Plains Local Relief Convex
 Slope (%): 1-3 Lat. 39.794865 Long. -82.621345 Datum NAD83 NWI Class: N/A
 Soil Map Unit Name: Amanda silt loam, 2 to 6 percent slopes, eroded
 Climatic/hydrologic conditions typical for time of year? Y/N Y
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic
 Are Normal Circumstances Present? Yes x No _____

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes _____ No <u>x</u>	Is the DP within a Wetland? Yes _____ No _____ x
Hydric Soil Present? Yes <u>x</u> No _____	
Wetland Hydrology Present? Yes _____ No <u>x</u>	

Remarks: _____

VEGETATION

Tree Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet Number of dominant species that are OBL, FACW, or FAC: <u>0</u> Total number of dominant species across all strata: <u>4</u> Percent of dominant species that are OBL, FACW, or FAC: <u>0.00</u>
1. _____	<u>30'</u>	_____	_____	_____	
2. _____	_____	_____	_____	_____	
3. _____	_____	_____	_____	_____	
4. _____	_____	_____	_____	_____	
5. _____	_____	<u>0</u>	Total Cover	_____	
Shrub Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	Prevalence Index Worksheet Total % cover of: OBL species <u>0</u> x <u>1</u> = <u>0</u> FACW species <u>0</u> x <u>2</u> = <u>0</u> FAC species <u>0</u> x <u>3</u> = <u>0</u> FACU species <u>95</u> x <u>4</u> = <u>380</u> UPL species <u>10</u> x <u>5</u> = <u>50</u> Total <u>105</u> Prevalence Index: <u>4.10</u>
1. <u>Rubus occidentalis</u>	<u>15'</u>	<u>10</u>	<u>Y</u>	<u>UPL 5</u>	
2. _____	_____	_____	_____	_____	
3. _____	_____	_____	_____	_____	
4. _____	_____	_____	_____	_____	
5. _____	_____	<u>10</u>	Total Cover	_____	
Herb Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Veg. _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0* _____ Morphological Adaptations* _____ Problematic Hydrophytic Vegetation* _____ *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic Hydrophytic Vegetation Present? Yes _____ No _____ x
1. <u>Bromus inermis</u>	<u>5'</u>	<u>30</u>	<u>Y</u>	<u>FACU 4</u>	
2. <u>Setaria faberi</u>	_____	<u>30</u>	<u>Y</u>	<u>FACU 4</u>	
3. <u>Solidago canadensis</u>	_____	<u>30</u>	<u>Y</u>	<u>FACU 4</u>	
4. <u>Allium vineale</u>	_____	<u>5</u>	<u>N</u>	<u>FACU 4</u>	
5. _____	_____	_____	_____	_____	
6. _____	_____	_____	_____	_____	
7. _____	_____	_____	_____	_____	
8. _____	_____	<u>95</u>	Total Cover	_____	
Woody Vine Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	
1. _____	<u>30'</u>	_____	_____	_____	
2. _____	_____	_____	_____	_____	
3. _____	_____	_____	_____	_____	
4. _____	_____	<u>0</u>	Total Cover	_____	

Remarks: _____

SOIL

Profile Description: (Describe to depth needed to document the indicator or confirm absence of indicators.)

Depth (inches)	Color	Matrix %	Color	%	Type*	Loc**	Redox Features	Texture	Remarks
0-18	10YR 4/1	95	10YR 5/6	5	C		M	Si L	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

_____ Histosol (A1)	_____ Sandy Mucky Mineral (S1)	_____ Redox Dark Surface (F6)
_____ Histic Epipedon (A2)	_____ 5cm Mucky Peat or Peat	_____ Depleted Dark Surface (F7)
_____ Black Histic (A3)	_____ Sandy Gleyed Matrix (S4)	_____ Redox Depressions (F8)
_____ Hydrogen Sulfide (A4)	_____ Sandy Redox (S5)	Indicators for Problematic Hydric Soils
_____ Stratified Layers (A5)	_____ Stripped Matrix (S6)	_____ Coast Prairie Redox (A16)
_____ 2 cm Muck (A10)	_____ Loamy Mucky Mineral (F1)	_____ Iron-Manganese Masses (F12)
_____ Depleted Below Dark Surface (A11)	_____ Loamy Gleyed Matrix (F2)	_____ Very Shallow Dark Surface (F12)
_____ Thick Dark Surface (A12)	<u>x</u> Depleted Matrix (F3)	_____ Other

Restrictive Layer (if observed): Type: _____ Depth (Inches): _____ **Hydric Soil Present?** Yes x No

Remarks: _____

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (check all that apply)	Secondary Indicators
_____ Surface Water (A1)	_____ Surface Soil Cracks (B6)
_____ High Water Table (A2)	_____ Drainage Patterns (B10)
_____ Saturation (A3)	_____ Dry-Season Water Table (C2)
_____ Water Marks (B1)	_____ Crayfish Burrows (C8)
_____ Sediment Deposits (B2)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Drift Deposits (B3)	_____ Stunted or Stressed Plants (D1)
_____ Algal Mat or Crust (B4)	_____ Geomorphic Position (D2)
_____ Iron Deposits (B5)	_____ FAC-Neutral Test (D5)
_____ Inundation Visible on Aerial Imagery (B7)	_____
_____ Sparsely Vegetated Concave Surface	_____
_____ Water Stained Leaves (B9)	_____
_____ Aquatic Fauna (B13)	_____
_____ True Aquatic Plants (B14)	_____
_____ Hydrogen Sulfide Odor (C1)	_____
_____ Oxidized Rhizospheres on Living Roots	_____
_____ Presence of Reduced Iron (C4)	_____
_____ Recent Iron Reduction in Tilled Soil (C6)	_____
_____ Thin Muck Surface (C7)	_____
_____ Gauge or Well Data (D9)	_____
_____ Other	_____

Field Observations: Surface Water Present? Yes _____ No x Depth (inches) _____
 Water Table Present? Yes _____ No x Depth (inches) _____
 Saturation Present? Yes _____ No x Depth (inches) _____

Hydrology Indicators Present? Yes _____ No _____ x

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: _____

WETLAND DETERMINATION FORM-MIDWEST REGION

Site: W. Lancaster-S. Baltimore-W. Millersport City/County: _____ Date: 27 March 2024 Data Point: 48
 Client: AEP State: OH Section, Township, Range: Sec S11, T 15N, R 19W
 Investigator(s): N. Houk, N. Barnett Landform Till Plains Local Relief Convex
 Slope (%): 1-3 Lat. 39.789262 Long. -82.623285 Datum NAD83 NWI Class: N/A
 Soil Map Unit Name: Amanda silty clay loam, 6 to 12 percent slopes, severely eroded
 Climatic/hydrologic conditions typical for time of year? Y/N Y
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic
 Are Normal Circumstances Present? Yes x No _____

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes _____ No <u>x</u>	Is the DP within a Wetland? Yes _____ No _____ x
Hydric Soil Present? Yes _____ No <u>x</u>	
Wetland Hydrology Present? Yes _____ No <u>x</u>	

Remarks: _____

VEGETATION

Tree Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet Number of dominant species that are OBL, FACW, or FAC: <u>0</u> Total number of dominant species across all strata: <u>3</u> Percent of dominant species that are OBL, FACW, or FAC: <u>0.00</u>
1. _____	<u>30'</u>	_____	_____	_____	
2. _____	_____	_____	_____	_____	
3. _____	_____	_____	_____	_____	
4. _____	_____	_____	_____	_____	
5. _____	_____	<u>0</u>	Total Cover	_____	
Shrub Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	Prevalence Index Worksheet Total % cover of: OBL species <u>0</u> x <u>1</u> = <u>0</u> FACW species <u>0</u> x <u>2</u> = <u>0</u> FAC species <u>0</u> x <u>3</u> = <u>0</u> FACU species <u>95</u> x <u>4</u> = <u>380</u> UPL species <u>7</u> x <u>5</u> = <u>35</u> Total <u>102</u> Prevalence Index: <u>4.07</u>
1. <u>Rhus typhina</u>	<u>15'</u>	<u>2</u>	<u>N</u>	<u>UPL</u> <u>5</u>	
2. _____	_____	_____	_____	_____	
3. _____	_____	_____	_____	_____	
4. _____	_____	_____	_____	_____	
5. _____	_____	<u>2</u>	Total Cover	_____	
Herb Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Veg. _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0* _____ Morphological Adaptations* _____ Problematic Hydrophytic Vegetation* _____ *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic Hydrophytic Vegetation Present? Yes _____ No _____ x
1. <u>Solidago canadensis</u>	<u>5'</u>	<u>40</u>	<u>Y</u>	<u>FACU</u> <u>4</u>	
2. <u>Schedonorus arundinaceus</u>	_____	<u>30</u>	<u>Y</u>	<u>FACU</u> <u>4</u>	
3. <u>Setaria faberi</u>	_____	<u>25</u>	<u>Y</u>	<u>FACU</u> <u>4</u>	
4. <u>Daucus carota</u>	_____	<u>5</u>	<u>N</u>	<u>UPL</u> <u>5</u>	
5. _____	_____	_____	_____	_____	
6. _____	_____	_____	_____	_____	
7. _____	_____	_____	_____	_____	
8. _____	_____	_____	_____	_____	
_____	_____	<u>100</u>	Total Cover	_____	
Woody Vine Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	Hydrophytic Vegetation Present? Yes _____ No _____ x
1. _____	<u>30'</u>	_____	_____	_____	
2. _____	_____	_____	_____	_____	
_____	_____	<u>0</u>	Total Cover	_____	

Remarks: _____

SOIL

Profile Description: (Describe to depth needed to document the indicator or confirm absence of indicators.)

Depth (inches)	Matrix		Redox Features					
	Color	%	Color	%	Type*	Loc**	Texture	Remarks
0-18	10YR 4/3	100					Si L	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

_____ Histosol (A1)	_____ Sandy Mucky Mineral (S1)	_____ Redox Dark Surface (F6)
_____ Histic Epipedon (A2)	_____ 5cm Mucky Peat or Peat	_____ Depleted Dark Surface (F7)
_____ Black Histic (A3)	_____ Sandy Gleyed Matrix (S4)	_____ Redox Depressions (F8)
_____ Hydrogen Sulfide (A4)	_____ Sandy Redox (S5)	Indicators for Problematic Hydric Soils
_____ Stratified Layers (A5)	_____ Stripped Matrix (S6)	_____ Coast Prairie Redox (A16)
_____ 2 cm Muck (A10)	_____ Loamy Mucky Mineral (F1)	_____ Iron-Manganese Masses (F12)
_____ Depleted Below Dark Surface (A11)	_____ Loamy Gleyed Matrix (F2)	_____ Very Shallow Dark Surface (F12)
_____ Thick Dark Surface (A12)	_____ Depleted Matrix (F3)	_____ Other

Restrictive Layer (if observed): Type: _____ Depth (Inches): _____ **Hydric Soil Present?** Yes _____ No _____ x

Remarks: _____

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (check all that apply)	Secondary Indicators
_____ Surface Water (A1)	_____ Water Stained Leaves (B9)
_____ High Water Table (A2)	_____ Aquatic Fauna (B13)
_____ Saturation (A3)	_____ True Aquatic Plants (B14)
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)
_____ Sediment Deposits (B2)	_____ Oxidized Rhizospheres on Living Roots
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soil (C6)
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Gauge or Well Data (D9)
_____ Sparsely Vegetated Concave Surface	_____ Other

Field Observations: Surface Water Present? Yes _____ No x Depth (inches) _____
 Water Table Present? Yes _____ No x Depth (inches) _____
 Saturation Present? Yes _____ No x Depth (inches) _____

Hydrology Indicators Present? Yes _____ No _____ x

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: _____

WETLAND DETERMINATION FORM-MIDWEST REGION

Site: W. Lancaster-S. Baltimore-W. Millersport City/County: _____ Date: 27 March 2024 Data Point: 46
 Client: AEP State: OH Section, Township, Range: Sec S11, T 15N, R 19W
 Investigator(s): N. Houk, N. Barnett Landform Moraines Local Relief Convex
 Slope (%): 1-3 Lat. 39.783994 Long. -82.624965 Datum NAD83 NWI Class: N/A
 Soil Map Unit Name: Centersburg silt loam, 2 to 6 percent slopes, eroded
 Climatic/hydrologic conditions typical for time of year? Y/N Y
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic
 Are Normal Circumstances Present? Yes x No _____

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes _____ No <u>x</u>	Is the DP within a Wetland? Yes _____ No _____ x
Hydric Soil Present? Yes _____ No <u>x</u>	
Wetland Hydrology Present? Yes _____ No <u>x</u>	

Remarks: _____

VEGETATION

Tree Stratum	Plot size: <u>30'</u>	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet Number of dominant species _____ that are OBL, FACW, or FAC: _____ Total number of dominant species across all strata: _____ Percent of dominant species that are OBL, FACW, or FAC: _____ Prevalence Index Worksheet Total % cover of: OBL species _____ x 1 _____ FACW species _____ x 2 _____ FAC species _____ x 3 _____ FACU species _____ x 4 _____ UPL species _____ x 5 _____ Total _____ Prevalence Index: _____
1. _____	_____	_____	_____	_____	
2. _____	_____	_____	_____	_____	
3. _____	_____	_____	_____	_____	
4. _____	_____	_____	_____	_____	
5. _____	_____	_____	_____	_____	
0 Total Cover					
Shrub Stratum	Plot size: <u>15'</u>				
1. _____	_____	_____	_____	_____	
2. _____	_____	_____	_____	_____	
3. _____	_____	_____	_____	_____	
4. _____	_____	_____	_____	_____	
5. _____	_____	_____	_____	_____	
0 Total Cover					
Herb Stratum	Plot size: <u>5'</u>				
1. <u>Schedonorus arundinaceus</u>	_____	40	Y	FACU 4	
2. <u>Lamium purpureum</u>	_____	30	Y	UPL 5	
3. <u>Stellaria media</u>	_____	20	N	FACU 4	
4. <u>Taraxacum officinale</u>	_____	10	N	FACU 4	
5. <u>Trifolium repens</u>	_____	10	N	FACU 4	
6. _____	_____	_____	_____	_____	
7. _____	_____	_____	_____	_____	
8. _____	_____	_____	_____	_____	
110 Total Cover					
Woody Vine Stratum	Plot size: <u>30'</u>				
1. _____	_____	_____	_____	_____	
2. _____	_____	_____	_____	_____	
0 Total Cover					

Remarks: _____

SOIL

Profile Description: (Describe to depth needed to document the indicator or confirm absence of indicators.)

Depth (inches)	Matrix		Redox Features					
	Color	%	Color	%	Type*	Loc**	Texture	Remarks
0-18	10YR 4/3	100					Si L	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

_____ Histosol (A1)	_____ Sandy Mucky Mineral (S1)	_____ Redox Dark Surface (F6)
_____ Histic Epipedon (A2)	_____ 5cm Mucky Peat or Peat	_____ Depleted Dark Surface (F7)
_____ Black Histic (A3)	_____ Sandy Gleyed Matrix (S4)	_____ Redox Depressions (F8)
_____ Hydrogen Sulfide (A4)	_____ Sandy Redox (S5)	Indicators for Problematic Hydric Soils
_____ Stratified Layers (A5)	_____ Stripped Matrix (S6)	_____ Coast Prairie Redox (A16)
_____ 2 cm Muck (A10)	_____ Loamy Mucky Mineral (F1)	_____ Iron-Manganese Masses (F12)
_____ Depleted Below Dark Surface (A11)	_____ Loamy Gleyed Matrix (F2)	_____ Very Shallow Dark Surface (F12)
_____ Thick Dark Surface (A12)	_____ Depleted Matrix (F3)	_____ Other

Restrictive Layer (if observed): Type: _____	Hydric Soil Present? Yes _____ No _____ x
Depth (Inches): _____	

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (check all that apply)	Secondary Indicators
_____ Surface Water (A1)	_____ Surface Soil Cracks (B6)
_____ High Water Table (A2)	_____ Drainage Patterns (B10)
_____ Saturation (A3)	_____ Dry-Season Water Table (C2)
_____ Water Marks (B1)	_____ Crayfish Burrows (C8)
_____ Sediment Deposits (B2)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Drift Deposits (B3)	_____ Stunted or Stressed Plants (D1)
_____ Algal Mat or Crust (B4)	_____ Geomorphic Position (D2)
_____ Iron Deposits (B5)	_____ FAC-Neutral Test (D5)
_____ Inundation Visible on Aerial Imagery (B7)	
_____ Sparsely Vegetated Concave Surface	

Field Observations: Surface Water Present? Yes _____ No <u>x</u> Depth (inches) _____	Hydrology Indicators Present? Yes _____ No _____ x
Water Table Present? Yes _____ No <u>x</u> Depth (inches) _____	
Saturation Present? Yes _____ No <u>x</u> Depth (inches) _____	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: _____

WETLAND DETERMINATION FORM-MIDWEST REGION

Site: W. Lancaster-S. Baltimore-W. Millersport City/County: _____ Date: 27 March 2024 Data Point: 44
 Client: AEP State: OH Section, Township, Range: Sec S14, T 15N, R 19W
 Investigator(s): N. Houk, N. Barnett Landform Morines Local Relief Convex
 Slope (%): 1-3 Lat. 39.780789 Long. -82.625887 Datum NAD83 NWI Class: N/A
 Soil Map Unit Name: Amanda silty clay loam, 6 to 12 percent slopes, severely eroded
 Climatic/hydrologic conditions typical for time of year? Y/N Y
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic
 Are Normal Circumstances Present? Yes x No _____

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes _____ No <u>x</u>	Is the DP within a Wetland? Yes _____ No _____ x
Hydric Soil Present? Yes _____ No <u>x</u>	
Wetland Hydrology Present? Yes _____ No <u>x</u>	

Remarks: _____

VEGETATION

Tree Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet Number of dominant species that are OBL, FACW, or FAC: <u>1</u> Total number of dominant species across all strata: <u>7</u> Percent of dominant species that are OBL, FACW, or FAC: <u>14.29</u>
1. <u>Juglans nigra</u>	<u>30'</u>	<u>10</u>	<u>Y</u>	<u>FACU 4</u>	
2. _____					
3. _____					
4. _____					
Total Cover: <u>10</u>					Prevalence Index Worksheet Total % cover of: OBL species <u>0</u> x <u>1</u> = <u>0</u> FACW species <u>20</u> x <u>2</u> = <u>40</u> FAC species <u>0</u> x <u>3</u> = <u>0</u> FACU species <u>145</u> x <u>4</u> = <u>580</u> UPL species <u>20</u> x <u>5</u> = <u>100</u> Total <u>185</u> Prevalence Index: <u>3.89</u>
Shrub Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	
1. <u>Juglans nigra</u>	<u>15'</u>	<u>30</u>	<u>Y</u>	<u>FACU 4</u>	
2. <u>Rosa multiflora</u>		<u>25</u>	<u>Y</u>	<u>FACU 4</u>	
3. <u>Rubus caesius</u>		<u>20</u>	<u>Y</u>	<u>FACU 4</u>	
Total Cover: <u>75</u>					
Herb Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	
1. <u>Bromus inermis</u>	<u>5'</u>	<u>50</u>	<u>Y</u>	<u>FACU 4</u>	
2. <u>Conium maculatum</u>		<u>20</u>	<u>Y</u>	<u>FACW 2</u>	
3. <u>Lilium lancifolium</u>		<u>20</u>	<u>Y</u>	<u>UPL 5</u>	
4. <u>Allium vineale</u>		<u>10</u>	<u>N</u>	<u>FACU 4</u>	
Total Cover: <u>100</u>					
Woody Vine Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	
1. _____	<u>30'</u>				
2. _____					
Total Cover: <u>0</u>					

Remarks: _____

SOIL

Profile Description: (Describe to depth needed to document the indicator or confirm absence of indicators.)

Depth (inches)	Matrix		Redox Features					
	Color	%	Color	%	Type*	Loc**	Texture	Remarks
0-18	10YR 3/3	100					Si L	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

_____ Histosol (A1)	_____ Sandy Mucky Mineral (S1)	_____ Redox Dark Surface (F6)
_____ Histic Epipedon (A2)	_____ 5cm Mucky Peat or Peat	_____ Depleted Dark Surface (F7)
_____ Black Histic (A3)	_____ Sandy Gleyed Matrix (S4)	_____ Redox Depressions (F8)
_____ Hydrogen Sulfide (A4)	_____ Sandy Redox (S5)	Indicators for Problematic Hydric Soils
_____ Stratified Layers (A5)	_____ Stripped Matrix (S6)	_____ Coast Prairie Redox (A16)
_____ 2 cm Muck (A10)	_____ Loamy Mucky Mineral (F1)	_____ Iron-Manganese Masses (F12)
_____ Depleted Below Dark Surface (A11)	_____ Loamy Gleyed Matrix (F2)	_____ Very Shallow Dark Surface (F12)
_____ Thick Dark Surface (A12)	_____ Depleted Matrix (F3)	_____ Other

Restrictive Layer (if observed): Type: _____ Depth (Inches): _____ **Hydric Soil Present?** Yes _____ No _____ x

Remarks: _____

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (check all that apply)	Secondary Indicators
_____ Surface Water (A1)	_____ Water Stained Leaves (B9)
_____ High Water Table (A2)	_____ Aquatic Fauna (B13)
_____ Saturation (A3)	_____ True Aquatic Plants (B14)
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)
_____ Sediment Deposits (B2)	_____ Oxidized Rhizospheres on Living Roots
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soil (C6)
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Gauge or Well Data (D9)
_____ Sparsely Vegetated Concave Surface	_____ Other

Field Observations: Surface Water Present? Yes _____ No x Depth (inches) _____
 Water Table Present? Yes _____ No x Depth (inches) _____
 Saturation Present? Yes _____ No x Depth (inches) _____

Hydrology Indicators Present? Yes _____ No _____ x

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: _____

WETLAND DETERMINATION FORM-MIDWEST REGION

Site: W. Lancaster-S. Baltimore-W. Millersport City/County: Fairfield County Date: 27 March 2024 Data Point: 42
 Client: AEP State: OH Section, Township, Range: Sec S14, T 15N, R 19W
 Investigator(s): L. Vine, E.Holt Landform Till Plains Local Relief Convex
 Slope (%): Lat. 39.776710° Long. -82.627371° Datum NAD83 NWI Class: N/A
 Soil Map Unit Name: Amanda silt loam, 2 to 6 percent slopes
 Climatic/hydrologic conditions typical for time of year? Y/N Y
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic
 Are Normal Circumstances Present? Yes x No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes <u> </u> No <u>X</u>	Is the DP within a Wetland? Yes <u> </u> No <u> </u> X <u> </u>
Hydric Soil Present? Yes <u> </u> No <u> </u>	
Wetland Hydrology Present? Yes <u> </u> No <u>X</u>	

VEGETATION

Tree Stratum	Plot size: <u>30'</u>	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet Number of dominant species that are OBL, FACW, or FAC: <u>1</u> Total number of dominant species across all strata: <u>4</u> Percent of dominant species that are OBL, FACW, or FAC: <u>25.00</u> Prevalence Index Worksheet Total % cover of: OBL species <u>1</u> x <u>1</u> = <u>1</u> FACW species <u>0</u> x <u>2</u> = <u>0</u> FAC species <u>0</u> x <u>3</u> = <u>0</u> FACU species <u>100</u> x <u>4</u> = <u>400</u> UPL species <u>0</u> x <u>5</u> = <u>0</u> Total <u>101</u> Prevalence Index: <u>3.97</u>
1. <u> </u>					
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>		<u>0</u>	Total Cover		
Shrub Stratum	Plot size: <u>15'</u>				Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Veg. <u> </u> Dominance Test is >50% <u> </u> Prevalence Index is ≤3.0* <u> </u> Morphological Adaptations* <u> </u> Problematic Hydrophytic Vegetation* <u> </u> *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic Hydrophytic Vegetation Present? Yes <u> </u> No <u> </u> X <u> </u>
1. <u> </u>					
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>		<u>0</u>	Total Cover		
Herb Stratum	Plot size: <u>5'</u>				
1. <u>Schedonorus arundinaceus</u>		<u>50</u>	<u>Y</u>	<u>FACU</u> <u>4</u>	
2. <u>Trifolium repens</u>		<u>30</u>	<u>Y</u>	<u>FACU</u> <u>4</u>	
3. <u>Plantago lanceolata</u>		<u>15</u>	<u>N</u>	<u>FACU</u> <u>4</u>	
4. <u>Taraxacum officinale</u>		<u>5</u>	<u>N</u>	<u>FACU</u> <u>4</u>	
5. <u> </u>					
6. <u> </u>					
7. <u> </u>					
8. <u> </u>					
		<u>100</u>	Total Cover		
Woody Vine Stratum	Plot size: <u>30'</u>				
1. <u> </u>					
2. <u> </u>					
		<u>0</u>	Total Cover		
Remarks:					

SOIL

Profile Description: (Describe to depth needed to document the indicator or confirm absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color	%	Color	%	Type*	Loc**		
								No soil pit taken, pasture

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

<u> </u> Histosol (A1)	<u> </u> Sandy Mucky Mineral (S1)	<u> </u> Redox Dark Surface (F6)
<u> </u> Histic Epipedon (A2)	<u> </u> 5cm Mucky Peat or Peat	<u> </u> Depleted Dark Surface (F7)
<u> </u> Black Histic (A3)	<u> </u> Sandy Gleyed Matrix (S4)	<u> </u> Redox Depressions (F8)
<u> </u> Hydrogen Sulfide (A4)	<u> </u> Sandy Redox (S5)	Indicators for Problematic Hydric Soils
<u> </u> Stratified Layers (A5)	<u> </u> Stripped Matrix (S6)	<u> </u> Coast Prairie Redox (A16)
<u> </u> 2 cm Muck (A10)	<u> </u> Loamy Mucky Mineral (F1)	<u> </u> Iron-Manganese Masses (F12)
<u> </u> Depleted Below Dark Surface (A11)	<u> </u> Loamy Gleyed Matrix (F2)	<u> </u> Very Shallow Dark Surface (F12)
<u> </u> Thick Dark Surface (A12)	<u> </u> Depleted Matrix (F3)	<u> </u> Other

Restrictive Layer (if observed): Type: Depth (Inches): Hydric Soil Present? Yes No

Remarks: No soil pit taken, pasture land with farm animals present

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (check all that apply)			Secondary Indicators		
<u> </u> Surface Water (A1)	<u> </u> Water Stained Leaves (B9)	<u> </u> Surface Soil Cracks (B6)			
<u> </u> High Water Table (A2)	<u> </u> Aquatic Fauna (B13)	<u> </u> Drainage Patterns (B10)			
<u> </u> Saturation (A3)	<u> </u> True Aquatic Plants (B14)	<u> </u> Dry-Season Water Table (C2)			
<u> </u> Water Marks (B1)	<u> </u> Hydrogen Sulfide Odor (C1)	<u> </u> Crayfish Burrows (C8)			
<u> </u> Sediment Deposits (B2)	<u> </u> Oxidized Rhizospheres on Living Roots	<u> </u> Saturation Visible on Aerial Imagery (C9)			
<u> </u> Drift Deposits (B3)	<u> </u> Presence of Reduced Iron (C4)	<u> </u> Stunted or Stressed Plants (D1)			
<u> </u> Algal Mat or Crust (B4)	<u> </u> Recent Iron Reduction in Tilled Soil (C6)	<u> </u> Geomorphic Position (D2)			
<u> </u> Iron Deposits (B5)	<u> </u> Thin Muck Surface (C7)	<u> </u> FAC-Neutral Test (D5)			
<u> </u> Inundation Visible on Aerial Imagery (B7)	<u> </u> Gauge or Well Data (D9)				
<u> </u> Sparsely Vegetated Concave Surface	<u> </u> Other				
Field Observations: Surface Water Present? Yes <u> </u> No <u> </u> Depth (inches) <u> </u>	Water Table Present? Yes <u> </u> No <u> </u> Depth (inches) <u> </u>	Saturation Present? Yes <u> </u> No <u> </u> Depth (inches) <u> </u>	Hydrology Indicators Present? Yes <u> </u> No <u> </u> X <u> </u>		

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
No hydric indicators

WETLAND DETERMINATION FORM-MIDWEST REGION

Site: W. Lancaster-S. Baltimore-W. Millersport City/County: Fairfield County Date: 27 March 2024 Data Point: 41
 Client: AEP State: OH Section, Township, Range: Sec S14, T 15N, R 19W
 Investigator(s): L. Vine, E.Holt Landform Local Relief
 Slope (%): 5-8 Lat. 39.772667° Long. -82.628789° Datum NAD83 NWI Class:
 Soil Map Unit Name: Amanda silty clay loam, 6 to 12 percent slopes, severely eroded
 Climatic/hydrologic conditions typical for time of year? Y/N Y
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic
 Are Normal Circumstances Present? Yes x No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes <u> </u> No <u>X</u>	Is the DP within a Wetland? Yes <u> </u> No <u> </u> X <u> </u>
Hydric Soil Present? Yes <u>X</u> No <u> </u>	
Wetland Hydrology Present? Yes <u> </u> No <u>X</u>	

VEGETATION

Tree Stratum	Plot size: <u>30'</u>	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet Number of dominant species that are OBL, FACW, or FAC: <u>5</u> Total number of dominant species across all strata: <u>11</u> Percent of dominant species that are OBL, FACW, or FAC: <u>45.45</u>
1. <u> </u>					
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
		0	Total Cover		
Shrub Stratum	Plot size: <u>15'</u>	Absolute % Cover	Dominant Species	Indicator Status	Prevalence Index Worksheet Total % cover of: OBL species <u>1</u> x <u>1</u> = <u>1</u> FACW species <u>15</u> x <u>2</u> = <u>30</u> FAC species <u>40</u> x <u>3</u> = <u>120</u> FACU species <u>70</u> x <u>4</u> = <u>280</u> UPL species <u>30</u> x <u>5</u> = <u>150</u> Total <u>156</u> Prevalence Index: <u>3.72</u>
1. <u>Rhamnus cathartica</u>		<u>30</u>	<u>Y</u>	<u>FAC</u> <u>3</u>	
2. <u>Ailanthus altissima</u>		<u>15</u>	<u>Y</u>	<u>FACU</u> <u>4</u>	
3. <u>Sambucus nigra</u>		<u>10</u>	<u>N</u>	<u>FAC</u> <u>3</u>	
4. <u>Elaeagnus angustifolia</u>		<u>10</u>	<u>N</u>	<u>FACU</u> <u>4</u>	
		65	Total Cover		
Herb Stratum	Plot size: <u>5'</u>	Absolute % Cover	Dominant Species	Indicator Status	Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Veg. Dominance Test is >50% Prevalence Index is ≤3.0* Morphological Adaptations* Problematic Hydrophytic Vegetation* *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic Hydrophytic Vegetation Present? Yes <u> </u> No <u> </u> X <u> </u>
1. <u>Schedonorus arundinaceus</u>		<u>30</u>	<u>Y</u>	<u>FACU</u> <u>4</u>	
2. <u>Fragaria vesca</u>		<u>20</u>	<u>Y</u>	<u>UPL</u> <u>5</u>	
3. <u>Verbesina alternifolia</u>		<u>15</u>	<u>N</u>	<u>FACW</u> <u>2</u>	
4. <u>Carex frankii</u>		<u>10</u>	<u>N</u>	<u>OBL</u> <u>1</u>	
5. <u>Elymus canadensis</u>		<u>10</u>	<u>N</u>	<u>FACU</u> <u>4</u>	
6. <u>Verbascum thapsus</u>		<u>10</u>	<u>N</u>	<u>UPL</u> <u>5</u>	
7. <u>Arctium minus</u>		<u>5</u>	<u>N</u>	<u>FACU</u> <u>4</u>	
		100	Total Cover		
Woody Vine Stratum	Plot size: <u>30'</u>	Absolute % Cover	Dominant Species	Indicator Status	
1. <u> </u>					
2. <u> </u>					
		0	Total Cover		
Remarks: <u> </u>					

SOIL

Profile Description: (Describe to depth needed to document the indicator or confirm absence of indicators.)

Depth (inches)	Matrix		Redox Features						Texture	Remarks
	Color	%	Color	%	Type*	Loc**	M			
0-8	10YR 4/2	95	10YR 5/4	5	C			M	SIL	
8-18	10YR 4/2	100							SIL	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

<u> </u> Histosol (A1)	<u> </u> Sandy Mucky Mineral (S1)	<u>X</u> Redox Dark Surface (F6)
<u> </u> Histic Epipedon (A2)	<u> </u> 5cm Mucky Peat or Peat	<u> </u> Depleted Dark Surface (F7)
<u> </u> Black Histic (A3)	<u> </u> Sandy Gleyed Matrix (S4)	<u> </u> Redox Depressions (F8)
<u> </u> Hydrogen Sulfide (A4)	<u> </u> Sandy Redox (S5)	Indicators for Problematic Hydric Soils
<u> </u> Stratified Layers (A5)	<u> </u> Stripped Matrix (S6)	<u> </u> Coast Prairie Redox (A16)
<u> </u> 2 cm Muck (A10)	<u> </u> Loamy Mucky Mineral (F1)	<u> </u> Iron-Manganese Masses (F12)
<u> </u> Depleted Below Dark Surface (A11)	<u> </u> Loamy Gleyed Matrix (F2)	<u> </u> Very Shallow Dark Surface (F12)
<u> </u> Thick Dark Surface (A12)	<u> </u> Depleted Matrix (F3)	<u> </u> Other

Restrictive Layer (if observed): Type: Depth (Inches): Hydric Soil Present? Yes X No

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (check all that apply)	Secondary Indicators
<u> </u> Surface Water (A1)	<u> </u> Water Stained Leaves (B9)
<u> </u> High Water Table (A2)	<u> </u> Aquatic Fauna (B13)
<u> </u> Saturation (A3)	<u> </u> True Aquatic Plants (B14)
<u> </u> Water Marks (B1)	<u> </u> Hydrogen Sulfide Odor (C1)
<u> </u> Sediment Deposits (B2)	<u> </u> Oxidized Rhizospheres on Living Roots
<u> </u> Drift Deposits (B3)	<u> </u> Presence of Reduced Iron (C4)
<u> </u> Algal Mat or Crust (B4)	<u> </u> Recent Iron Reduction in Tilled Soil (C6)
<u> </u> Iron Deposits (B5)	<u> </u> Thin Muck Surface (C7)
<u> </u> Inundation Visible on Aerial Imagery (B7)	<u> </u> Gauge or Well Data (D9)
<u> </u> Sparsely Vegetated Concave Surface	<u> </u> Other
Field Observations: Surface Water Present? Yes <u> </u> No <u> </u> Depth (inches) <u> </u>	Hydrology Indicators Present? Yes <u> </u> No <u> </u> X <u> </u>
Water Table Present? Yes <u> </u> No <u> </u> Depth (inches) <u> </u>	
Saturation Present? Yes <u> </u> No <u> </u> Depth (inches) <u> </u>	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
No hydric indicators

WETLAND DETERMINATION FORM-MIDWEST REGION

Site: W. Lancaster-S. Baltimore-W. Millersport City/County: Fairfield County Date: 27 March 2024 Data Point: 40
 Client: AEP State: OH Section, Township, Range: Sec S14, T 15N, R 19W
 Investigator(s): L. Vine, E.Holt Landform Moraines Local Relief Convex
 Slope (%): Lat. 39.771423° Long. -82.629211° Datum NAD83 NWI Class: N/A
 Soil Map Unit Name: Amanda silty clay loam, 6 to 12 percent slopes, severely eroded
 Climatic/hydrologic conditions typical for time of year? Y/N Y
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic
 Are Normal Circumstances Present? Yes x No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes <u> </u> No <u>X</u>	Is the DP within a Wetland? Yes <u> </u> No <u> </u> X <u> </u>
Hydric Soil Present? Yes <u> </u> No <u>X</u>	
Wetland Hydrology Present? Yes <u> </u> No <u>X</u>	

VEGETATION

Tree Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet Number of dominant species that are OBL, FACW, or FAC: <u>3</u> Total number of dominant species across all strata: <u>3</u> Percent of dominant species that are OBL, FACW, or FAC: <u>100.00</u>
1. <u> </u>	<u>30'</u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
3. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
0 Total Cover					Prevalence Index Worksheet Total % cover of: OBL species <u>1</u> x <u>1</u> = <u>1</u> FACW species <u>10</u> x <u>2</u> = <u>20</u> FAC species <u>40</u> x <u>3</u> = <u>120</u> FACU species <u>80</u> x <u>4</u> = <u>320</u> UPL species <u>0</u> x <u>5</u> = <u>0</u> Total <u>131</u> Prevalence Index: <u>3.52</u>
Shrub Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	
1. <u>Rhamnus cathartica</u>	<u>15'</u>	<u>40</u>	<u>Y</u>	<u>FAC</u>	
2. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
3. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
5. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
40 Total Cover					
Herb Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	
1. <u>Schedonorus arundinaceus</u>	<u>5'</u>	<u>80</u>	<u>Y</u>	<u>FACU</u>	
2. <u>Conium maculatum</u>		<u>10</u>	<u>N</u>	<u>FACW</u>	
3. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
5. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
6. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
7. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
8. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
90 Total Cover					
Woody Vine Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	
1. <u> </u>	<u>30'</u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
0 Total Cover					
Remarks:					

SOIL

Profile Description: (Describe to depth needed to document the indicator or confirm absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color	%	Color	%	Type*	Loc**		
0-3	10YR 3/3	100						Impenetrable rock layer

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

<u> </u> Histosol (A1)	<u> </u> Sandy Mucky Mineral (S1)	<u> </u> Redox Dark Surface (F6)
<u> </u> Histic Epipedon (A2)	<u> </u> 5cm Mucky Peat or Peat	<u> </u> Depleted Dark Surface (F7)
<u> </u> Black Histic (A3)	<u> </u> Sandy Gleyed Matrix (S4)	<u> </u> Redox Depressions (F8)
<u> </u> Hydrogen Sulfide (A4)	<u> </u> Sandy Redox (S5)	Indicators for Problematic Hydric Soils
<u> </u> Stratified Layers (A5)	<u> </u> Stripped Matrix (S6)	<u> </u> Coast Prairie Redox (A16)
<u> </u> 2 cm Muck (A10)	<u> </u> Loamy Mucky Mineral (F1)	<u> </u> Iron-Manganese Masses (F12)
<u> </u> Depleted Below Dark Surface (A11)	<u> </u> Loamy Gleyed Matrix (F2)	<u> </u> Very Shallow Dark Surface (F12)
<u> </u> Thick Dark Surface (A12)	<u> </u> Depleted Matrix (F3)	<u> </u> Other

Restrictive Layer (if observed): Type: Depth (Inches):

Remarks: Impenetrable rock layer under 3"

Hydric Soil Present? Yes No X

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (check all that apply)	Secondary Indicators
<u> </u> Surface Water (A1)	<u> </u> Surface Soil Cracks (B6)
<u> </u> High Water Table (A2)	<u> </u> Drainage Patterns (B10)
<u> </u> Saturation (A3)	<u> </u> Dry-Season Water Table (C2)
<u> </u> Water Marks (B1)	<u> </u> Crayfish Burrows (C8)
<u> </u> Sediment Deposits (B2)	<u> </u> Saturation Visible on Aerial Imagery (C9)
<u> </u> Drift Deposits (B3)	<u> </u> Stunted or Stressed Plants (D1)
<u> </u> Algal Mat or Crust (B4)	<u> </u> Geomorphic Position (D2)
<u> </u> Iron Deposits (B5)	<u> </u> FAC-Neutral Test (D5)
<u> </u> Inundation Visible on Aerial Imagery (B7)	<u> </u> Guage or Well Data (D9)
<u> </u> Sparsely Vegetated Concave Surface	<u> </u> Other

Field Observations: Surface Water Present? Yes No Depth (inches)
 Water Table Present? Yes No Depth (inches)
 Saturation Present? Yes No Depth (inches)

Hydrology Indicators Present? Yes No X

Describe Recorded Data (stream guage, monitoring well, aerial photos, previous inspections), if available:

No hydric indicators

WETLAND DETERMINATION FORM-MIDWEST REGION

Site: W. Lancaster-S. Baltimore-W. Millersport City/County: Fairfield County Date: 27 March 2024 Data Point: 39
 Client: AEP State: OH Section, Township, Range: Sec S14, T 15N, R 19W
 Investigator(s): L. Vine, E.Holt Landform Till Plains Local Relief Convex
 Slope (%): Lat. 39.770633° Long. -82.629435° Datum NAD83 NWI Class: N/A
 Soil Map Unit Name: Amanda-Loudonville complex, 6 to 12 percent slopes, eroded
 Climatic/hydrologic conditions typical for time of year? Y/N Y
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic
 Are Normal Circumstances Present? Yes x No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes <u> </u> No <u>X</u>	Is the DP within a Wetland? Yes <u> </u> No <u> </u> X <u> </u>
Hydric Soil Present? Yes <u> </u> No <u> </u>	
Wetland Hydrology Present? Yes <u> </u> No <u>X</u>	

VEGETATION

Tree Stratum	Plot size: <u>30'</u>	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet Number of dominant species that are OBL, FACW, or FAC: <u>1</u> Total number of dominant species across all strata: <u>3</u> Percent of dominant species that are OBL, FACW, or FAC: <u>33.33</u> Prevalence Index Worksheet Total % cover of: OBL species <u>1</u> x <u>1</u> = <u>1</u> FACW species <u>0</u> x <u>2</u> = <u>0</u> FAC species <u>0</u> x <u>3</u> = <u>0</u> FACU species <u>100</u> x <u>4</u> = <u>400</u> UPL species <u>0</u> x <u>5</u> = <u>0</u> Total <u>101</u> Prevalence Index: <u>3.97</u>
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
		<u>0</u>	Total Cover		
Shrub Stratum	Plot size: <u>15'</u>				
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
		<u>0</u>	Total Cover		
Herb Stratum	Plot size: <u>5'</u>				
1. <u>Schedonorus arundinaceus</u>	<u> </u>	<u>80</u>	<u>Y</u>	<u>FACU</u> <u>4</u>	
2. <u>Allium canadense</u>	<u> </u>	<u>10</u>	<u>N</u>	<u>FACU</u> <u>4</u>	
3. <u>Trifolium repens</u>	<u> </u>	<u>10</u>	<u>N</u>	<u>FACU</u> <u>4</u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
		<u>100</u>	Total Cover		
Woody Vine Stratum	Plot size: <u>30'</u>				
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
		<u>0</u>	Total Cover		
Remarks: <u> </u>					Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Veg. <u> </u> Dominance Test is >50% <u> </u> Prevalence Index is ≤3.0* <u> </u> Morphological Adaptations* <u> </u> Problematic Hydrophytic Vegetation* <u> </u> *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic Hydrophytic Vegetation Present? Yes <u> </u> No <u> </u> X <u> </u>

SOIL

Profile Description: (Describe to depth needed to document the indicator or confirm absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color	%	Color	%	Type*	Loc**		
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u>No soil pit, residential</u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

<u> </u> Histosol (A1)	<u> </u> Sandy Mucky Mineral (S1)	<u> </u> Redox Dark Surface (F6)
<u> </u> Histic Epipedon (A2)	<u> </u> 5cm Mucky Peat or Peat	<u> </u> Depleted Dark Surface (F7)
<u> </u> Black Histic (A3)	<u> </u> Sandy Gleyed Matrix (S4)	<u> </u> Redox Depressions (F8)
<u> </u> Hydrogen Sulfide (A4)	<u> </u> Sandy Redox (S5)	Indicators for Problematic Hydric Soils
<u> </u> Stratified Layers (A5)	<u> </u> Stripped Matrix (S6)	<u> </u> Coast Prairie Redox (A16)
<u> </u> 2 cm Muck (A10)	<u> </u> Loamy Mucky Mineral (F1)	<u> </u> Iron-Manganese Masses (F12)
<u> </u> Depleted Below Dark Surface (A11)	<u> </u> Loamy Gleyed Matrix (F2)	<u> </u> Very Shallow Dark Surface (F12)
<u> </u> Thick Dark Surface (A12)	<u> </u> Depleted Matrix (F3)	<u> </u> Other

Restrictive Layer (if observed): Type: Depth (Inches):

Remarks: No soil pit taken, residential area

Hydric Soil Present? Yes No

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (check all that apply)	Secondary Indicators
<u> </u> Surface Water (A1)	<u> </u> Surface Soil Cracks (B6)
<u> </u> High Water Table (A2)	<u> </u> Drainage Patterns (B10)
<u> </u> Saturation (A3)	<u> </u> Dry-Season Water Table (C2)
<u> </u> Water Marks (B1)	<u> </u> Crayfish Burrows (C8)
<u> </u> Sediment Deposits (B2)	<u> </u> Saturation Visible on Aerial Imagery (C9)
<u> </u> Drift Deposits (B3)	<u> </u> Stunted or Stressed Plants (D1)
<u> </u> Algal Mat or Crust (B4)	<u> </u> Geomorphic Position (D2)
<u> </u> Iron Deposits (B5)	<u> </u> FAC-Neutral Test (D5)
<u> </u> Inundation Visible on Aerial Imagery (B7)	<u> </u> <u> </u>
<u> </u> Sparsely Vegetated Concave Surface	<u> </u> <u> </u>

Field Observations: Surface Water Present? Yes No Depth (inches)
 Water Table Present? Yes No Depth (inches)
 Saturation Present? Yes No Depth (inches)

Hydrology Indicators Present? Yes No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
No hydric indicators

WETLAND DETERMINATION FORM-MIDWEST REGION

Site: W. Lancaster-S. Baltimore-W. Millersport City/County: _____ Date: 28 March 2024 Data Point: 36
 Client: AEP State: OH Section, Township, Range: Sec S23, T 15N, R 19W
 Investigator(s): N. Houk, N. Barnett Landform Till Plains Local Relief Convex
 Slope (%): 1-3 Lat. 39.764870 Long. -82.631439 Datum NAD83 NWI Class: N/A
 Soil Map Unit Name: Amanda silt loam, 6 to 12 percent slopes, eroded
 Climatic/hydrologic conditions typical for time of year? Y/N Y
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic
 Are Normal Circumstances Present? Yes x No _____

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes _____ No <u>x</u>	Is the DP within a Wetland? Yes _____ No _____ x
Hydric Soil Present? Yes _____ No <u>x</u>	
Wetland Hydrology Present? Yes _____ No <u>x</u>	

Remarks: _____

VEGETATION

Tree Stratum	Plot size: <u>30'</u>	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet Number of dominant species that are OBL, FACW, or FAC: <u>0</u> Total number of dominant species across all strata: <u>1</u> Percent of dominant species that are OBL, FACW, or FAC: <u>0.00</u> Prevalence Index Worksheet Total % cover of: OBL species <u>0</u> x <u>1</u> = <u>0</u> FACW species <u>0</u> x <u>2</u> = <u>0</u> FAC species <u>0</u> x <u>3</u> = <u>0</u> FACU species <u>100</u> x <u>4</u> = <u>400</u> UPL species <u>0</u> x <u>5</u> = <u>0</u> Total <u>100</u> Prevalence Index: <u>4.00</u>
1. _____	_____	_____	_____	_____	
2. _____	_____	_____	_____	_____	
3. _____	_____	_____	_____	_____	
4. _____	_____	_____	_____	_____	
5. _____	_____	<u>0</u>	Total Cover	_____	
Shrub Stratum	Plot size: <u>15'</u>				OBL species <u>0</u> x <u>1</u> = <u>0</u> FACW species <u>0</u> x <u>2</u> = <u>0</u> FAC species <u>0</u> x <u>3</u> = <u>0</u> FACU species <u>100</u> x <u>4</u> = <u>400</u> UPL species <u>0</u> x <u>5</u> = <u>0</u> Total <u>100</u> Prevalence Index: <u>4.00</u>
1. _____	_____				
2. _____	_____				
3. _____	_____				
4. _____	_____				
5. _____	_____	<u>0</u>	Total Cover	_____	
Herb Stratum	Plot size: <u>5'</u>				Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Veg. _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0* _____ Morphological Adaptations* _____ Problematic Hydrophytic Vegetation* _____ *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic Hydrophytic Vegetation Present? Yes _____ No _____ x
1. <u>Dactylis glomerata</u>	_____	<u>80</u>	<u>Y</u>	<u>FACU</u> <u>4</u>	
2. <u>Achillea millefolium</u>	_____	<u>10</u>	<u>N</u>	<u>FACU</u> <u>4</u>	
3. <u>Trifolium repens</u>	_____	<u>10</u>	<u>N</u>	<u>FACU</u> <u>4</u>	
4. _____	_____	_____	_____	_____	
5. _____	_____	_____	_____	_____	
6. _____	_____	_____	_____	_____	
7. _____	_____	_____	_____	_____	
8. _____	_____	_____	_____	_____	
_____	_____	<u>100</u>	Total Cover	_____	
Woody Vine Stratum	Plot size: <u>30'</u>				
1. _____	_____				
2. _____	_____				
_____	_____	<u>0</u>	Total Cover	_____	

Remarks: _____

SOIL

Profile Description: (Describe to depth needed to document the indicator or confirm absence of indicators.)

Depth (inches)	Matrix		Redox Features					
	Color	%	Color	%	Type*	Loc**	Texture	Remarks
0-18	10YR 4/2	100					Si L	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

_____ Histosol (A1)	_____ Sandy Mucky Mineral (S1)	_____ Redox Dark Surface (F6)
_____ Histic Epipedon (A2)	_____ 5cm Mucky Peat or Peat	_____ Depleted Dark Surface (F7)
_____ Black Histic (A3)	_____ Sandy Gleyed Matrix (S4)	_____ Redox Depressions (F8)
_____ Hydrogen Sulfide (A4)	_____ Sandy Redox (S5)	Indicators for Problematic Hydric Soils
_____ Stratified Layers (A5)	_____ Stripped Matrix (S6)	_____ Coast Prairie Redox (A16)
_____ 2 cm Muck (A10)	_____ Loamy Mucky Mineral (F1)	_____ Iron-Manganese Masses (F12)
_____ Depleted Below Dark Surface (A11)	_____ Loamy Gleyed Matrix (F2)	_____ Very Shallow Dark Surface (F12)
_____ Thick Dark Surface (A12)	_____ Depleted Matrix (F3)	_____ Other

Restrictive Layer (if observed): Type: _____ Depth (Inches): _____

Hydric Soil Present? Yes _____ No _____ x

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (check all that apply)	Secondary Indicators
_____ Surface Water (A1)	_____ Surface Soil Cracks (B6)
_____ High Water Table (A2)	_____ Drainage Patterns (B10)
_____ Saturation (A3)	_____ Dry-Season Water Table (C2)
_____ Water Marks (B1)	_____ Crayfish Burrows (C8)
_____ Sediment Deposits (B2)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Drift Deposits (B3)	_____ Stunted or Stressed Plants (D1)
_____ Algal Mat or Crust (B4)	_____ Geomorphic Position (D2)
_____ Iron Deposits (B5)	_____ FAC-Neutral Test (D5)
_____ Inundation Visible on Aerial Imagery (B7)	
_____ Sparsely Vegetated Concave Surface	
_____ Water Stained Leaves (B9)	
_____ Aquatic Fauna (B13)	
_____ True Aquatic Plants (B14)	
_____ Hydrogen Sulfide Odor (C1)	
_____ Oxidized Rhizospheres on Living Roots	
_____ Presence of Reduced Iron (C4)	
_____ Recent Iron Reduction in Tilled Soil (C6)	
_____ Thin Muck Surface (C7)	
_____ Gauge or Well Data (D9)	
_____ Other	

Field Observations: Surface Water Present? Yes _____ No x Depth (inches) _____
 Water Table Present? Yes _____ No x Depth (inches) _____
 Saturation Present? Yes _____ No x Depth (inches) _____

Hydrology Indicators Present? Yes _____ No _____ x

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: _____

WETLAND DETERMINATION FORM-MIDWEST REGION

Site: W. Lancaster-S. Baltimore-W. Millersport City/County: _____ Date: 28 March 2024 Data Point: 34
 Client: AEP State: OH Section, Township, Range: Sec S23, T 15N, R 19W
 Investigator(s): N. Houk, N. Barnett Landform Till Plains Local Relief Convex
 Slope (%): 1-3 Lat. 39.759099 Long. -82.633227 Datum NAD83 NWI Class: N/A
 Soil Map Unit Name: Amanda silt loam, 6 to 12 percent slopes, eroded
 Climatic/hydrologic conditions typical for time of year? Y/N Y
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic
 Are Normal Circumstances Present? Yes x No _____

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes _____ No <u>x</u>	Is the DP within a Wetland? Yes _____ No _____ x
Hydric Soil Present? Yes _____ No <u>x</u>	
Wetland Hydrology Present? Yes _____ No <u>x</u>	

Remarks: _____

VEGETATION

Tree Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet Number of dominant species that are OBL, FACW, or FAC: <u>0</u> Total number of dominant species across all strata: <u>2</u> Percent of dominant species that are OBL, FACW, or FAC: <u>0.00</u> Prevalence Index Worksheet Total % cover of: OBL species <u>0</u> x <u>1</u> = <u>0</u> FACW species <u>0</u> x <u>2</u> = <u>0</u> FAC species <u>0</u> x <u>3</u> = <u>0</u> FACU species <u>40</u> x <u>4</u> = <u>160</u> UPL species <u>55</u> x <u>5</u> = <u>275</u> Total <u>95</u> Prevalence Index: <u>4.58</u>
1. _____	<u>30'</u>	_____	_____	_____	
2. _____	_____	_____	_____	_____	
3. _____	_____	_____	_____	_____	
4. _____	_____	_____	_____	_____	
5. _____	_____	<u>0</u>	Total Cover	_____	
Shrub Stratum Plot size: <u>15'</u>					
1. _____	_____	_____	_____	_____	
2. _____	_____	_____	_____	_____	
3. _____	_____	_____	_____	_____	
4. _____	_____	_____	_____	_____	
5. _____	_____	<u>0</u>	Total Cover	_____	
Herb Stratum Plot size: <u>5'</u>					
1. <u>Glycine max residue</u>	_____	<u>50</u>	<u>Y</u>	<u>UPL</u> <u>5</u>	
2. <u>Stellaria media</u>	_____	<u>40</u>	<u>Y</u>	<u>FACU</u> <u>4</u>	
3. <u>Lamium purpureum</u>	_____	<u>5</u>	<u>N</u>	<u>UPL</u> <u>5</u>	
4. _____	_____	_____	_____	_____	
5. _____	_____	_____	_____	_____	
6. _____	_____	_____	_____	_____	
7. _____	_____	_____	_____	_____	
8. _____	_____	<u>95</u>	Total Cover	_____	
Woody Vine Stratum Plot size: <u>30'</u>					
1. _____	_____	_____	_____	_____	
2. _____	_____	_____	_____	_____	
_____	_____	<u>0</u>	Total Cover	_____	

Remarks: _____

SOIL

Profile Description: (Describe to depth needed to document the indicator or confirm absence of indicators.)

Depth (inches)	Matrix		Redox Features					
	Color	%	Color	%	Type*	Loc**	Texture	Remarks
0-18	10YR 4/3	100					Si L	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

_____ Histosol (A1)	_____ Sandy Mucky Mineral (S1)	_____ Redox Dark Surface (F6)
_____ Histic Epipedon (A2)	_____ 5cm Mucky Peat or Peat	_____ Depleted Dark Surface (F7)
_____ Black Histic (A3)	_____ Sandy Gleyed Matrix (S4)	_____ Redox Depressions (F8)
_____ Hydrogen Sulfide (A4)	_____ Sandy Redox (S5)	Indicators for Problematic Hydric Soils
_____ Stratified Layers (A5)	_____ Stripped Matrix (S6)	_____ Coast Prairie Redox (A16)
_____ 2 cm Muck (A10)	_____ Loamy Mucky Mineral (F1)	_____ Iron-Manganese Masses (F12)
_____ Depleted Below Dark Surface (A11)	_____ Loamy Gleyed Matrix (F2)	_____ Very Shallow Dark Surface (F12)
_____ Thick Dark Surface (A12)	_____ Depleted Matrix (F3)	_____ Other

Restrictive Layer (if observed): Type: _____	Hydric Soil Present? Yes _____ No _____ x
Depth (Inches): _____	

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (check all that apply)	Secondary Indicators
_____ Surface Water (A1)	_____ Surface Soil Cracks (B6)
_____ High Water Table (A2)	_____ Drainage Patterns (B10)
_____ Saturation (A3)	_____ Dry-Season Water Table (C2)
_____ Water Marks (B1)	_____ Crayfish Burrows (C8)
_____ Sediment Deposits (B2)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Drift Deposits (B3)	_____ Stunted or Stressed Plants (D1)
_____ Algal Mat or Crust (B4)	_____ Geomorphic Position (D2)
_____ Iron Deposits (B5)	_____ FAC-Neutral Test (D5)
_____ Inundation Visible on Aerial Imagery (B7)	_____
_____ Sparsely Vegetated Concave Surface	_____

Field Observations: Surface Water Present? Yes _____ No <u>x</u> Depth (inches) _____	Hydrology Indicators Present? Yes _____ No _____ x
Water Table Present? Yes _____ No <u>x</u> Depth (inches) _____	
Saturation Present? Yes _____ No <u>x</u> Depth (inches) _____	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: _____

WETLAND DETERMINATION FORM-MIDWEST REGION

Site: W. Lancaster-S. Baltimore-W. Millersport City/County: _____ Date: 28 March 2024 Data Point: 32
 Client: AEP State: OH Section, Township, Range: Sec S26, T 15N, R 19W
 Investigator(s): N. Houk, N. Barnett Landform Till Plains Local Relief Concave
 Slope (%): 1-3 Lat. 39.754944 Long. -82.634647 Datum NAD83 NWI Class: N/A
 Soil Map Unit Name: Marengo clay loam
 Climatic/hydrologic conditions typical for time of year? Y/N Y
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic
 Are Normal Circumstances Present? Yes x No _____

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes <u>x</u> No _____	Is the DP within a Wetland? Yes <u> </u> No <u> </u> x
Hydric Soil Present? Yes <u>x</u> No _____	
Wetland Hydrology Present? Yes _____ No <u>x</u>	

Remarks: **Stormwater basin overflow area**

VEGETATION

Tree Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet Number of dominant species that are OBL, FACW, or FAC: <u>1</u> Total number of dominant species across all strata: <u>1</u> Percent of dominant species that are OBL, FACW, or FAC: <u>100.00</u>
1. _____	<u>30'</u>	_____	_____	_____	
2. _____	_____	_____	_____	_____	
3. _____	_____	_____	_____	_____	
4. _____	_____	_____	_____	_____	
5. _____	_____	<u>0</u>	Total Cover	_____	
Shrub Stratum Plot size: <u>15'</u>					Prevalence Index Worksheet Total % cover of: OBL species <u>0</u> x <u>1</u> = <u>0</u> FACW species <u>100</u> x <u>2</u> = <u>200</u> FAC species <u>0</u> x <u>3</u> = <u>0</u> FACU species <u>0</u> x <u>4</u> = <u>0</u> UPL species <u>0</u> x <u>5</u> = <u>0</u> Total <u>100</u> Prevalence Index: <u>2.00</u>
1. _____	_____	_____	_____	_____	
2. _____	_____	_____	_____	_____	
3. _____	_____	_____	_____	_____	
4. _____	_____	_____	_____	_____	
5. _____	_____	<u>0</u>	Total Cover	_____	
Herb Stratum Plot size: <u>5'</u>					Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Veg. <u>x</u> Dominance Test is >50% <u>x</u> Prevalence Index is ≤3.0* _____ Morphological Adaptations* _____ Problematic Hydrophytic Vegetation* _____ *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic Hydrophytic Vegetation Present? Yes <u>x</u> No _____
1. <u>Phalaris arundinacea</u>	_____	<u>100</u>	<u>Y</u>	<u>FACW</u> <u>2</u>	
2. _____	_____	_____	_____	_____	
3. _____	_____	_____	_____	_____	
4. _____	_____	_____	_____	_____	
5. _____	_____	_____	_____	_____	
6. _____	_____	_____	_____	_____	
7. _____	_____	_____	_____	_____	
8. _____	_____	<u>100</u>	Total Cover	_____	
Woody Vine Stratum Plot size: <u>30'</u>					
1. _____	_____	_____	_____	_____	
2. _____	_____	_____	_____	_____	
3. _____	_____	_____	_____	_____	
4. _____	_____	_____	_____	_____	
5. _____	_____	_____	_____	_____	
6. _____	_____	_____	_____	_____	
7. _____	_____	_____	_____	_____	
8. _____	_____	<u>0</u>	Total Cover	_____	

Remarks: _____

SOIL

Profile Description: (Describe to depth needed to document the indicator or confirm absence of indicators.)

Depth (inches)	Matrix		Redox Features					Texture	Remarks
	Color	%	Color	%	Type*	Loc**			
0-4	10YR 3/1	100						Si C L	
4-8	10YR 3/1	95	10YR 5/6	5	C		M	Si C L	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

_____ Histosol (A1)	_____ Sandy Mucky Mineral (S1)	_____ Redox Dark Surface (F6)
_____ Histic Epipedon (A2)	_____ 5cm Mucky Peat or Peat	_____ Depleted Dark Surface (F7)
_____ Black Histic (A3)	_____ Sandy Gleyed Matrix (S4)	_____ Redox Depressions (F8)
_____ Hydrogen Sulfide (A4)	_____ Sandy Redox (S5)	Indicators for Problematic Hydric Soils
_____ Stratified Layers (A5)	_____ Stripped Matrix (S6)	_____ Coast Prairie Redox (A16)
_____ 2 cm Muck (A10)	_____ Loamy Mucky Mineral (F1)	_____ Iron-Manganese Masses (F12)
_____ Depleted Below Dark Surface (A11)	_____ Loamy Gleyed Matrix (F2)	_____ Very Shallow Dark Surface (F12)
_____ Thick Dark Surface (A12)	<u>x</u> Depleted Matrix (F3)	_____ Other

Restrictive Layer (if observed): Type: Rip-rap Depth (Inches): 8 Hydric Soil Present? Yes x No _____

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (check all that apply)	Secondary Indicators
_____ Surface Water (A1)	_____ Surface Soil Cracks (B6)
_____ High Water Table (A2)	_____ Drainage Patterns (B10)
_____ Saturation (A3)	_____ Dry-Season Water Table (C2)
_____ Water Marks (B1)	_____ Crayfish Burrows (C8)
_____ Sediment Deposits (B2)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Drift Deposits (B3)	_____ Stunted or Stressed Plants (D1)
_____ Algal Mat or Crust (B4)	_____ Geomorphic Position (D2)
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Guage or Well Data (D9)
_____ Sparsely Vegetated Concave Surface	_____ Other
_____ Water Stained Leaves (B9)	
_____ Aquatic Fauna (B13)	
_____ True Aquatic Plants (B14)	
_____ Hydrogen Sulfide Odor (C1)	
_____ Oxidized Rhizospheres on Living Roots	
_____ Presence of Reduced Iron (C4)	
_____ Recent Iron Reduction in Tilled Soil (C6)	
_____ Other	

Field Observations: Surface Water Present? Yes _____ No x Depth (inches) _____
 Water Table Present? Yes _____ No x Depth (inches) _____
 Saturation Present? Yes _____ No x Depth (inches) _____
 Hydrology Indicators Present? Yes _____ No x

Describe Recorded Data (stream guage, monitoring well, aerial photos, previous inspections), if available:

WETLAND DETERMINATION FORM-MIDWEST REGION

Site: W. Lancaster-S. Baltimore-W. Millersport City/County: _____ Date: 28 March 2024 Data Point: 32A
 Client: AEP State: OH Section, Township, Range: Sec S26, T 15N, R 19W
 Investigator(s): N. Houk, N. Barnett Landform Till Plains Local Relief Convex
 Slope (%): 2-5 Lat. 39.754906 Long. -82.634636 Datum NAD83 NWI Class: N/A
 Soil Map Unit Name: Marengo clay loam
 Climatic/hydrologic conditions typical for time of year? Y/N Y
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic
 Are Normal Circumstances Present? Yes x No _____

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes _____ No <u>x</u>	Is the DP within a Wetland? Yes _____ No _____ x
Hydric Soil Present? Yes _____ No <u>x</u>	
Wetland Hydrology Present? Yes _____ No <u>x</u>	

VEGETATION

Tree Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet Number of dominant species that are OBL, FACW, or FAC: <u>0</u> Total number of dominant species across all strata: <u>1</u> Percent of dominant species that are OBL, FACW, or FAC: <u>0.00</u> Prevalence Index Worksheet Total % cover of: OBL species <u>0</u> x <u>1</u> = <u>0</u> FACW species <u>10</u> x <u>2</u> = <u>20</u> FAC species <u>20</u> x <u>3</u> = <u>60</u> FACU species <u>70</u> x <u>4</u> = <u>280</u> UPL species <u>0</u> x <u>5</u> = <u>0</u> Total <u>100</u> Prevalence Index: <u>3.60</u>
1. _____	<u>30'</u>	_____	_____	_____	
2. _____		_____	_____	_____	
3. _____		_____	_____	_____	
4. _____		_____	_____	_____	
5. _____		<u>0</u>	Total Cover	_____	
Shrub Stratum	Plot size: <u>15'</u>				
1. _____					
2. _____					
3. _____					
4. _____					
5. _____		<u>0</u>	Total Cover	_____	
Herb Stratum	Plot size: <u>5'</u>				
1. <u>Sorghum halepense</u>		<u>60</u>	<u>Y</u>	<u>FACU</u> <u>4</u>	
2. <u>Ambrosia trifida</u>		<u>10</u>	<u>N</u>	<u>FAC</u> <u>3</u>	
3. <u>Conium maculatum</u>		<u>10</u>	<u>N</u>	<u>FACW</u> <u>2</u>	
4. <u>Solidago canadensis</u>		<u>10</u>	<u>N</u>	<u>FACU</u> <u>4</u>	
5. <u>Vernonia gigantea</u>		<u>10</u>	<u>N</u>	<u>FAC</u> <u>3</u>	
6. _____					
7. _____					
8. _____					
		<u>100</u>	Total Cover	_____	
Woody Vine Stratum	Plot size: <u>30'</u>				
1. _____					
2. _____					
		<u>0</u>	Total Cover	_____	

Remarks: _____

SOIL

Profile Description: (Describe to depth needed to document the indicator or confirm absence of indicators.)

Depth (inches)	Matrix		Redox Features					Texture	Remarks
	Color	%	Color	%	Type*	Loc**			
0-18	10YR 3/1	100					Si C L		

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:		
_____ Histosol (A1)	_____ Sandy Mucky Mineral (S1)	_____ Redox Dark Surface (F6)
_____ Histic Epipedon (A2)	_____ 5cm Mucky Peat or Peat	_____ Depleted Dark Surface (F7)
_____ Black Histic (A3)	_____ Sandy Gleyed Matrix (S4)	_____ Redox Depressions (F8)
_____ Hydrogen Sulfide (A4)	_____ Sandy Redox (S5)	Indicators for Problematic Hydric Soils
_____ Stratified Layers (A5)	_____ Stripped Matrix (S6)	_____ Coast Prairie Redox (A16)
_____ 2 cm Muck (A10)	_____ Loamy Mucky Mineral (F1)	_____ Iron-Manganese Masses (F12)
_____ Depleted Below Dark Surface (A11)	_____ Loamy Gleyed Matrix (F2)	_____ Very Shallow Dark Surface (F12)
_____ Thick Dark Surface (A12)	_____ Depleted Matrix (F3)	_____ Other

Restrictive Layer (if observed): Type: _____ Depth (Inches): _____ **Hydric Soil Present?** Yes _____ No _____ x

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators	
Primary Indicators (check all that apply)			
_____ Surface Water (A1)	_____ Water Stained Leaves (B9)	_____ Surface Soil Cracks (B6)	
_____ High Water Table (A2)	_____ Aquatic Fauna (B13)	_____ Drainage Patterns (B10)	
_____ Saturation (A3)	_____ True Aquatic Plants (B14)	_____ Dry-Season Water Table (C2)	
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	_____ Crayfish Burrows (C8)	
_____ Sediment Deposits (B2)	_____ Oxidized Rhizospheres on Living Roots	_____ Saturation Visible on Aerial Imagery (C9)	
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)	_____ Stunted or Stressed Plants (D1)	
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soil (C6)	_____ Geomorphic Position (D2)	
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)	_____ FAC-Neutral Test (D5)	
_____ Inundation Visible on Aerial Imagery (B7)	_____ Gauge or Well Data (D9)		
_____ Sparsely Vegetated Concave Surface	_____ Other		

Field Observations: Surface Water Present? Yes _____ No x Depth (inches) _____
 Water Table Present? Yes _____ No x Depth (inches) _____
 Saturation Present? Yes _____ No x Depth (inches) _____ **Hydrology Indicators Present?** Yes _____ No _____ x

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: _____

WETLAND DETERMINATION FORM-MIDWEST REGION

Site: W. Lancaster-S. Baltimore-W. Millersport City/County: _____ Date: 28 March 2024 Data Point: 31A
 Client: AEP State: OH Section, Township, Range: Sec S26, T 15N, R 19W
 Investigator(s): N. Houk, N. Barnett Landform Moraines Local Relief Convex
 Slope (%): 1-3 Lat. 39.753261 Long. -82.635187 Datum NAD83 NWI Class: N/A
 Soil Map Unit Name: Centersburg silt loam, 2 to 6 percent slopes
 Climatic/hydrologic conditions typical for time of year? Y/N Y
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic
 Are Normal Circumstances Present? Yes x No _____

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes _____ No <u>x</u>	Is the DP within a Wetland? Yes _____ No _____ x
Hydric Soil Present? Yes _____ No <u>x</u>	
Wetland Hydrology Present? Yes _____ No <u>x</u>	
Remarks: _____	

VEGETATION

Tree Stratum	Plot size: <u>30'</u>	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet Number of dominant species that are OBL, FACW, or FAC: <u>1</u> Total number of dominant species across all strata: <u>2</u> Percent of dominant species that are OBL, FACW, or FAC: <u>50.00</u> Prevalence Index Worksheet Total % cover of: OBL species <u>0</u> x <u>1</u> = <u>0</u> FACW species <u>0</u> x <u>2</u> = <u>0</u> FAC species <u>45</u> x <u>3</u> = <u>135</u> FACU species <u>50</u> x <u>4</u> = <u>200</u> UPL species <u>5</u> x <u>5</u> = <u>25</u> Total <u>100</u> Prevalence Index: <u>3.60</u>
1. _____	_____	_____	_____	_____	
2. _____	_____	_____	_____	_____	
3. _____	_____	_____	_____	_____	
4. _____	_____	_____	_____	_____	
5. _____	_____	<u>0</u>	Total Cover	_____	
Shrub Stratum	Plot size: <u>15'</u>				
1. _____	_____	_____	_____	_____	
2. _____	_____	_____	_____	_____	
3. _____	_____	_____	_____	_____	
4. _____	_____	_____	_____	_____	
5. _____	_____	<u>0</u>	Total Cover	_____	
Herb Stratum	Plot size: <u>5'</u>				
1. <u>Schedonorus arundinaceus</u>	_____	<u>50</u>	<u>Y</u>	<u>FACU</u> <u>4</u>	
2. <u>Poa pratensis</u>	_____	<u>45</u>	<u>Y</u>	<u>FAC</u> <u>3</u>	
3. <u>Lamium purpureum</u>	_____	<u>5</u>	<u>N</u>	<u>UPL</u> <u>5</u>	
4. _____	_____	_____	_____	_____	
5. _____	_____	_____	_____	_____	
6. _____	_____	_____	_____	_____	
7. _____	_____	_____	_____	_____	
8. _____	_____	<u>100</u>	Total Cover	_____	
Woody Vine Stratum	Plot size: <u>30'</u>				
1. _____	_____	_____	_____	_____	
2. _____	_____	_____	_____	_____	
3. _____	_____	_____	_____	_____	
4. _____	_____	<u>0</u>	Total Cover	_____	
Remarks: _____					Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Veg. _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0* _____ Morphological Adaptations* _____ Problematic Hydrophytic Vegetation* _____ *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic Hydrophytic Vegetation Present? Yes _____ No _____ x

SOIL

Profile Description: (Describe to depth needed to document the indicator or confirm absence of indicators.)

Depth (inches)	Matrix		Redox Features						Texture	Remarks
	Color	%	Color	%	Type*	Loc**	Si	C		
0-18	10YR 4/3	100								

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

_____ Histosol (A1)	_____ Sandy Mucky Mineral (S1)	_____ Redox Dark Surface (F6)
_____ Histic Epipedon (A2)	_____ 5cm Mucky Peat or Peat	_____ Depleted Dark Surface (F7)
_____ Black Histic (A3)	_____ Sandy Gleyed Matrix (S4)	_____ Redox Depressions (F8)
_____ Hydrogen Sulfide (A4)	_____ Sandy Redox (S5)	Indicators for Problematic Hydric Soils
_____ Stratified Layers (A5)	_____ Stripped Matrix (S6)	_____ Coast Prairie Redox (A16)
_____ 2 cm Muck (A10)	_____ Loamy Mucky Mineral (F1)	_____ Iron-Manganese Masses (F12)
_____ Depleted Below Dark Surface (A11)	_____ Loamy Gleyed Matrix (F2)	_____ Very Shallow Dark Surface (F12)
_____ Thick Dark Surface (A12)	_____ Depleted Matrix (F3)	_____ Other

Restrictive Layer (if observed): Type: _____	Hydric Soil Present? Yes _____ No _____ x
Depth (Inches): _____	
Remarks: _____	

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (check all that apply)	Secondary Indicators
_____ Surface Water (A1)	_____ Surface Soil Cracks (B6)
_____ High Water Table (A2)	_____ Drainage Patterns (B10)
_____ Saturation (A3)	_____ Dry-Season Water Table (C2)
_____ Water Marks (B1)	_____ Crayfish Burrows (C8)
_____ Sediment Deposits (B2)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Drift Deposits (B3)	_____ Stunted or Stressed Plants (D1)
_____ Algal Mat or Crust (B4)	_____ Geomorphic Position (D2)
_____ Iron Deposits (B5)	_____ FAC-Neutral Test (D5)
_____ Inundation Visible on Aerial Imagery (B7)	_____
_____ Sparsely Vegetated Concave Surface	_____

Field Observations: Surface Water Present? Yes _____ No <u>x</u> Depth (inches) _____	Hydrology Indicators Present? Yes _____ No _____ x
Water Table Present? Yes _____ No <u>x</u> Depth (inches) _____	
Saturation Present? Yes _____ No <u>x</u> Depth (inches) _____	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: _____

WETLAND DETERMINATION FORM-MIDWEST REGION

Site: W. Lancaster-S. Baltimore-W. Millersport City/County: _____ Date: 28 March 2024 Data Point: 26
 Client: AEP State: OH Section, Township, Range: Sec 26, T 15N, R 19W
 Investigator(s): N. Houk, N. Barnett Landform Moraines Local Relief Convex
 Slope (%): 1-3 Lat. 39.743462 Long. -82.638348 Datum NAD83 NWI Class: N/A
 Soil Map Unit Name: Centersburg silt loam, 2 to 6 percent slopes
 Climatic/hydrologic conditions typical for time of year? Y/N Y
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic
 Are Normal Circumstances Present? Yes x No _____

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes _____ No <u>x</u>	Is the DP within a Wetland? Yes _____ No _____ x _____
Hydric Soil Present? Yes _____ No <u>x</u>	
Wetland Hydrology Present? Yes _____ No <u>x</u>	

Remarks:

VEGETATION

Tree Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet Number of dominant species that are OBL, FACW, or FAC: _____ Total number of dominant species across all strata: _____ Percent of dominant species that are OBL, FACW, or FAC: _____
1. _____	30'				
2. _____					4
3. _____					0.00
4. _____					
5. _____		0	Total Cover		
Shrub Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	Prevalence Index Worksheet Total % cover of: OBL species _____ x 1 _____ FACW species _____ x 2 _____ FAC species _____ x 3 _____ FACU species _____ x 4 _____ UPL species _____ x 5 _____ Total _____ Prevalence Index: _____
1. <u>Pyrus calleryana</u>	15'	40	Y	UPL 5	
2. <u>Lonicera maackii</u>		10	Y	UPL 5	0
3. _____					0
4. _____					0
5. _____		50	Total Cover		300
Herb Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Veg. _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0* _____ Morphological Adaptations* _____ Problematic Hydrophytic Vegetation* _____ *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic Hydrophytic Vegetation Present? Yes _____ No _____ x _____
1. <u>Stellaria media</u>	5'	50	Y	FACU 4	
2. <u>Euonymus fortunei</u>		20	Y	UPL 5	4.50
3. <u>Allium vineale</u>		10	N	FACU 4	
4. <u>Cirsium arvense</u>		10	N	FACU 4	
5. <u>Digitaria sanguinalis</u>		5	N	FACU 4	
6. <u>Lamium purpureum</u>		5	N	UPL 5	
7. _____					
8. _____		100	Total Cover		
Woody Vine Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	
1. _____	30'				
2. _____					
		0	Total Cover		

Remarks:

SOIL

Profile Description: (Describe to depth needed to document the indicator or confirm absence of indicators.)

Depth (inches)	Color	Matrix %	Color	%	Type*	Loc**	Texture	Remarks
0-18	10YR 3/2	100					SiCL	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

_____ Histosol (A1)	_____ Sandy Mucky Mineral (S1)	_____ Redox Dark Surface (F6)
_____ Histic Epipedon (A2)	_____ 5cm Mucky Peat or Peat	_____ Depleted Dark Surface (F7)
_____ Black Histic (A3)	_____ Sandy Gleyed Matrix (S4)	_____ Redox Depressions (F8)
_____ Hydrogen Sulfide (A4)	_____ Sandy Redox (S5)	Indicators for Problematic Hydric Soils
_____ Stratified Layers (A5)	_____ Stripped Matrix (S6)	_____ Coast Prairie Redox (A16)
_____ 2 cm Muck (A10)	_____ Loamy Mucky Mineral (F1)	_____ Iron-Manganese Masses (F12)
_____ Depleted Below Dark Surface (A11)	_____ Loamy Gleyed Matrix (F2)	_____ Very Shallow Dark Surface (F12)
_____ Thick Dark Surface (A12)	_____ Depleted Matrix (F3)	_____ Other

Restrictive Layer (if observed): Type: _____ Depth (Inches): _____
Hydric Soil Present? Yes _____ No _____ X _____
 Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (check all that apply)	Secondary Indicators
_____ Surface Water (A1)	_____ Water Stained Leaves (B9)
_____ High Water Table (A2)	_____ Aquatic Fauna (B13)
_____ Saturation (A3)	_____ True Aquatic Plants (B14)
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)
_____ Sediment Deposits (B2)	_____ Oxidized Rhizospheres on Living Roots
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soil (C6)
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)
_____ Inundation Visible on Aerial Imagery (B7)	_____ Gauge or Well Data (D9)
_____ Sparsely Vegetated Concave Surface	_____ Other

Field Observations: Surface Water Present? Yes _____ No _____ x _____ Depth (inches) _____
 Water Table Present? Yes _____ No _____ x _____ Depth (inches) _____
 Saturation Present? Yes _____ No _____ x _____ Depth (inches) _____
Hydrology Indicators Present? Yes _____ No _____ x _____
 Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

WETLAND DETERMINATION FORM-MIDWEST REGION

Site: W. Lancaster-S. Baltimore-W. Millersport City/County: Fairfield County Date: 28 March 2024 Data Point: 23
 Client: AEP State: OH Section, Township, Range: Sec S35, T 15N, R 19W
 Investigator(s): N. Houk, N. Barnett Landform Terraces Local Relief Convex
 Slope (%): 1-3 Lat. 39.737525 Long. -82.641287 Datum NAD83 NWI Class: N/A
 Soil Map Unit Name: Fox silt loam, 0 to 2 percent slopes
 Climatic/hydrologic conditions typical for time of year? Y/N Y
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic
 Are Normal Circumstances Present? Yes x No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes <u> </u> No <u>x</u>	Is the DP within a Wetland? Yes <u> </u> No <u> </u> x
Hydric Soil Present? Yes <u> </u> No <u>x</u>	
Wetland Hydrology Present? Yes <u> </u> No <u>x</u>	

VEGETATION

Tree Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet Number of dominant species that are OBL, FACW, or FAC: <u>1</u> Total number of dominant species across all strata: <u>3</u> Percent of dominant species that are OBL, FACW, or FAC: <u>33.33</u> Prevalence Index Worksheet Total % cover of: OBL species <u>0</u> x <u>1</u> = <u>0</u> FACW species <u>0</u> x <u>2</u> = <u>0</u> FAC species <u>30</u> x <u>3</u> = <u>90</u> FACU species <u>70</u> x <u>4</u> = <u>280</u> UPL species <u>0</u> x <u>5</u> = <u>0</u> Total <u>100</u> Prevalence Index: <u>3.70</u>
1. <u> </u>	<u>30'</u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>		<u>0</u>	Total Cover		
Shrub Stratum	Plot size: <u>15'</u>				
1. <u> </u>					
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>		<u>0</u>	Total Cover		
Herb Stratum	Plot size: <u>5'</u>				
1. <u>Schedonorus arundinaceus</u>		<u>40</u>	<u>Y</u>	<u>FACU 4</u>	
2. <u>Poa pratensis</u>		<u>30</u>	<u>Y</u>	<u>FAC 3</u>	
3. <u>Trifolium repens</u>		<u>20</u>	<u>Y</u>	<u>FACU 4</u>	
4. <u>Digitaria sanguinalis</u>		<u>5</u>	<u>N</u>	<u>FACU 4</u>	
5. <u>Plantago lanceolata</u>		<u>5</u>	<u>N</u>	<u>FACU 4</u>	
6. <u> </u>					
7. <u> </u>					
8. <u> </u>		<u>100</u>	Total Cover		
Woody Vine Stratum	Plot size: <u>30'</u>				
1. <u> </u>					
2. <u> </u>					
		<u>0</u>	Total Cover		

SOIL

Profile Description: (Describe to depth needed to document the indicator or confirm absence of indicators.)

Depth (inches)	Matrix		Redox Features					
	Color	%	Color	%	Type*	Loc**	Texture	Remarks
0-18	10YR 3/3	100					Si C L	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

<u> </u> Histosol (A1)	<u> </u> Sandy Mucky Mineral (S1)	<u> </u> Redox Dark Surface (F6)
<u> </u> Histic Epipedon (A2)	<u> </u> 5cm Mucky Peat or Peat	<u> </u> Depleted Dark Surface (F7)
<u> </u> Black Histic (A3)	<u> </u> Sandy Gleyed Matrix (S4)	<u> </u> Redox Depressions (F8)
<u> </u> Hydrogen Sulfide (A4)	<u> </u> Sandy Redox (S5)	Indicators for Problematic Hydric Soils
<u> </u> Stratified Layers (A5)	<u> </u> Stripped Matrix (S6)	<u> </u> Coast Prairie Redox (A16)
<u> </u> 2 cm Muck (A10)	<u> </u> Loamy Mucky Mineral (F1)	<u> </u> Iron-Manganese Masses (F12)
<u> </u> Depleted Below Dark Surface (A11)	<u> </u> Loamy Gleyed Matrix (F2)	<u> </u> Very Shallow Dark Surface (F12)
<u> </u> Thick Dark Surface (A12)	<u> </u> Depleted Matrix (F3)	<u> </u> Other

Restrictive Layer (if observed): Type: Depth (Inches): Hydric Soil Present? Yes No x

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (check all that apply)	Secondary Indicators
<u> </u> Surface Water (A1)	<u> </u> Surface Soil Cracks (B6)
<u> </u> High Water Table (A2)	<u> </u> Drainage Patterns (B10)
<u> </u> Saturation (A3)	<u> </u> Dry-Season Water Table (C2)
<u> </u> Water Marks (B1)	<u> </u> Crayfish Burrows (C8)
<u> </u> Sediment Deposits (B2)	<u> </u> Saturation Visible on Aerial Imagery (C9)
<u> </u> Drift Deposits (B3)	<u> </u> Stunted or Stressed Plants (D1)
<u> </u> Algal Mat or Crust (B4)	<u> </u> Geomorphic Position (D2)
<u> </u> Iron Deposits (B5)	<u> </u> FAC-Neutral Test (D5)
<u> </u> Inundation Visible on Aerial Imagery (B7)	
<u> </u> Sparsely Vegetated Concave Surface	
<u> </u> Water Stained Leaves (B9)	
<u> </u> Aquatic Fauna (B13)	
<u> </u> True Aquatic Plants (B14)	
<u> </u> Hydrogen Sulfide Odor (C1)	
<u> </u> Oxidized Rhizospheres on Living Roots	
<u> </u> Presence of Reduced Iron (C4)	
<u> </u> Recent Iron Reduction in Tilled Soil (C6)	
<u> </u> Thin Muck Surface (C7)	
<u> </u> Gauge or Well Data (D9)	
<u> </u> Other	

Field Observations: Surface Water Present? Yes No x Depth (inches)
 Water Table Present? Yes No x Depth (inches)
 Saturation Present? Yes No x Depth (inches)

Hydrology Indicators Present? Yes No x

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

WETLAND DETERMINATION FORM-MIDWEST REGION

Site: W. Lancaster-S. Baltimore-W. Millersport City/County: Fairfield County Date: 28 March 2024 Data Point: 22
 Client: AEP State: OH Section, Township, Range: Sec S 34, T 15N, R 19W
 Investigator(s): N. Houk, N. Barnett Landform Terraces Local Relief Convex
 Slope (%): 1-3 Lat. 39.735590 Long. -82.641314 Datum NAD83 NWI Class: N/A
 Soil Map Unit Name: Fox silt loam, 0 to 2 percent slopes
 Climatic/hydrologic conditions typical for time of year? Y/N Y
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic
 Are Normal Circumstances Present? Yes x No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes <u> </u> No <u>x</u>	Is the DP within a Wetland? Yes <u> </u> No <u> </u> x
Hydric Soil Present? Yes <u> </u> No <u>x</u>	
Wetland Hydrology Present? Yes <u> </u> No <u>x</u>	
Remarks:	

VEGETATION

Tree Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet Number of dominant species that are OBL, FACW, or FAC: <u>1</u> Total number of dominant species across all strata: <u>3</u> Percent of dominant species that are OBL, FACW, or FAC: <u>33.33</u> Prevalence Index Worksheet Total % cover of: OBL species <u>0</u> x <u>1</u> = <u>0</u> FACW species <u>0</u> x <u>2</u> = <u>0</u> FAC species <u>40</u> x <u>3</u> = <u>120</u> FACU species <u>45</u> x <u>4</u> = <u>180</u> UPL species <u>45</u> x <u>5</u> = <u>225</u> Total <u>130</u> = <u>525</u> Prevalence Index: <u>4.04</u>
1. <u> </u>	<u>30'</u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>		<u>0</u>	Total Cover		
Shrub Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Veg. <u> </u> Dominance Test is >50% <u> </u> Prevalence Index is ≤3.0* <u> </u> Morphological Adaptations* <u> </u> Problematic Hydrophytic Vegetation* <u> </u> *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic Hydrophytic Vegetation Present? Yes <u> </u> No <u> </u> x
1. <u>Pyrus calleryana</u>	<u>15'</u>	<u>40</u>	<u>Y</u>	<u>UPL 5</u>	
2. <u> </u>					
3. <u> </u>					
4. <u> </u>		<u>40</u>	Total Cover		
Herb Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic Hydrophytic Vegetation Present? Yes <u> </u> No <u> </u> x
1. <u>Andropogon virginicus</u>	<u>5'</u>	<u>40</u>	<u>Y</u>	<u>FACU 4</u>	
2. <u>Setaria pumila</u>		<u>30</u>	<u>Y</u>	<u>FAC 3</u>	
3. <u>Verbena urticifolia</u>		<u>10</u>	<u>N</u>	<u>FAC 3</u>	
4. <u>Daucus carota</u>		<u>5</u>	<u>N</u>	<u>UPL 5</u>	
5. <u>Solidago canadensis</u>		<u>5</u>	<u>N</u>	<u>FACU 4</u>	
6. <u> </u>					
7. <u> </u>					
8. <u> </u>		<u>90</u>	Total Cover		
Woody Vine Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic Hydrophytic Vegetation Present? Yes <u> </u> No <u> </u> x
1. <u> </u>	<u>30'</u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>		<u>0</u>	Total Cover		
Remarks:					

SOIL

Profile Description: (Describe to depth needed to document the indicator or confirm absence of indicators.)

Depth (inches)	Matrix		Redox Features						Remarks
	Color	%	Color	%	Type*	Loc**	Texture		
0-7	10YR 3/3	100						Si C L	
7-18	10YR 4/3	100						L	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

<u> </u> Histosol (A1)	<u> </u> Sandy Mucky Mineral (S1)	<u> </u> Redox Dark Surface (F6)
<u> </u> Histic Epipedon (A2)	<u> </u> 5cm Mucky Peat or Peat	<u> </u> Depleted Dark Surface (F7)
<u> </u> Black Histic (A3)	<u> </u> Sandy Gleyed Matrix (S4)	<u> </u> Redox Depressions (F8)
<u> </u> Hydrogen Sulfide (A4)	<u> </u> Sandy Redox (S5)	Indicators for Problematic Hydric Soils
<u> </u> Stratified Layers (A5)	<u> </u> Stripped Matrix (S6)	<u> </u> Coast Prairie Redox (A16)
<u> </u> 2 cm Muck (A10)	<u> </u> Loamy Mucky Mineral (F1)	<u> </u> Iron-Manganese Masses (F12)
<u> </u> Depleted Below Dark Surface (A11)	<u> </u> Loamy Gleyed Matrix (F2)	<u> </u> Very Shallow Dark Surface (F12)
<u> </u> Thick Dark Surface (A12)	<u> </u> Depleted Matrix (F3)	<u> </u> Other

Restrictive Layer (if observed): Type: Depth (Inches):

Remarks:

Hydric Soil Present? Yes No x

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (check all that apply)	Secondary Indicators
<u> </u> Surface Water (A1)	<u> </u> Surface Soil Cracks (B6)
<u> </u> High Water Table (A2)	<u> </u> Drainage Patterns (B10)
<u> </u> Saturation (A3)	<u> </u> Dry-Season Water Table (C2)
<u> </u> Water Marks (B1)	<u> </u> Crayfish Burrows (C8)
<u> </u> Sediment Deposits (B2)	<u> </u> Saturation Visible on Aerial Imagery (C9)
<u> </u> Drift Deposits (B3)	<u> </u> Stunted or Stressed Plants (D1)
<u> </u> Algal Mat or Crust (B4)	<u> </u> Geomorphic Position (D2)
<u> </u> Iron Deposits (B5)	<u> </u> FAC-Neutral Test (D5)
<u> </u> Inundation Visible on Aerial Imagery (B7)	<u> </u> Guage or Well Data (D9)
<u> </u> Sparsely Vegetated Concave Surface	<u> </u> Other
Field Observations: Surface Water Present? Yes <u> </u> No <u>x</u> Depth (inches) <u> </u>	Hydrology Indicators Present? Yes <u> </u> No <u> </u> x
Water Table Present? Yes <u> </u> No <u>x</u> Depth (inches) <u> </u>	
Saturation Present? Yes <u> </u> No <u>x</u> Depth (inches) <u> </u>	
Describe Recorded Data (stream guage, monitoring well, aerial photos, previous inspections), if available:	

WETLAND DETERMINATION FORM-MIDWEST REGION

Site: W. Lancaster-S. Baltimore-W. Millersport City/County: Fairfield County Date: 28 March 2024 Data Point: 20
 Client: AEP State: OH Section, Township, Range: Sec S35, T 15N, R 19W
 Investigator(s): N. Houk, N. Barnett Landform Flood Plains Local Relief Convex
 Slope (%): 1-3 Lat. 39.731196 Long. -82.636576 Datum NAD83 NWI Class: N/A
 Soil Map Unit Name: Aetna silt loam, occasionally flooded
 Climatic/hydrologic conditions typical for time of year? Y/N Y
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic
 Are Normal Circumstances Present? Yes x No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes <u> </u> No <u>x</u>	Is the DP within a Wetland? Yes <u> </u> No <u> </u> x
Hydric Soil Present? Yes <u> </u> No <u>x</u>	
Wetland Hydrology Present? Yes <u> </u> No <u>x</u>	
Remarks:	

VEGETATION

Tree Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet Number of dominant species that are OBL, FACW, or FAC: <u>0</u> Total number of dominant species across all strata: <u>3</u> Percent of dominant species that are OBL, FACW, or FAC: <u>0.00</u> Prevalence Index Worksheet Total % cover of: OBL species <u>0</u> x <u>1</u> = <u>0</u> FACW species <u>0</u> x <u>2</u> = <u>0</u> FAC species <u>0</u> x <u>3</u> = <u>0</u> FACU species <u>40</u> x <u>4</u> = <u>160</u> UPL species <u>60</u> x <u>5</u> = <u>300</u> Total <u>100</u> Prevalence Index: <u>4.60</u>
1. <u> </u>	<u>30'</u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>		<u>0</u>	Total Cover		
Shrub Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	OBL species <u>0</u> x <u>1</u> = <u>0</u> FACW species <u>0</u> x <u>2</u> = <u>0</u> FAC species <u>0</u> x <u>3</u> = <u>0</u> FACU species <u>40</u> x <u>4</u> = <u>160</u> UPL species <u>60</u> x <u>5</u> = <u>300</u> Total <u>100</u> Prevalence Index: <u>4.60</u>
1. <u> </u>	<u>15'</u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>		<u>0</u>	Total Cover		
Herb Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	OBL species <u>0</u> x <u>1</u> = <u>0</u> FACW species <u>0</u> x <u>2</u> = <u>0</u> FAC species <u>0</u> x <u>3</u> = <u>0</u> FACU species <u>40</u> x <u>4</u> = <u>160</u> UPL species <u>60</u> x <u>5</u> = <u>300</u> Total <u>100</u> Prevalence Index: <u>4.60</u>
1. <u>Glycine max residue</u>	<u>5'</u>	<u>40</u>	<u>Y</u>	<u>UPL 5</u>	
2. <u>Stellaria media</u>		<u>40</u>	<u>Y</u>	<u>FACU 4</u>	
3. <u>Lamium purpureum</u>		<u>20</u>	<u>Y</u>	<u>UPL 5</u>	
4. <u> </u>					
5. <u> </u>					
6. <u> </u>					
7. <u> </u>					
8. <u> </u>					
		<u>100</u>	Total Cover		
Woody Vine Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic Hydrophytic Vegetation Present? Yes <u> </u> No <u> </u> x
1. <u> </u>	<u>30'</u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>					
		<u>0</u>	Total Cover		
Remarks:					

SOIL

Profile Description: (Describe to depth needed to document the indicator or confirm absence of indicators.)

Depth (inches)	Matrix		Redox Features					
	Color	%	Color	%	Type*	Loc**	Texture	Remarks
0-18	10YR 4/2	100					Si C L	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

<u> </u> Histosol (A1)	<u> </u> Sandy Mucky Mineral (S1)	<u> </u> Redox Dark Surface (F6)
<u> </u> Histic Epipedon (A2)	<u> </u> 5cm Mucky Peat or Peat	<u> </u> Depleted Dark Surface (F7)
<u> </u> Black Histic (A3)	<u> </u> Sandy Gleyed Matrix (S4)	<u> </u> Redox Depressions (F8)
<u> </u> Hydrogen Sulfide (A4)	<u> </u> Sandy Redox (S5)	Indicators for Problematic Hydric Soils
<u> </u> Stratified Layers (A5)	<u> </u> Stripped Matrix (S6)	<u> </u> Coast Prairie Redox (A16)
<u> </u> 2 cm Muck (A10)	<u> </u> Loamy Mucky Mineral (F1)	<u> </u> Iron-Manganese Masses (F12)
<u> </u> Depleted Below Dark Surface (A11)	<u> </u> Loamy Gleyed Matrix (F2)	<u> </u> Very Shallow Dark Surface (F12)
<u> </u> Thick Dark Surface (A12)	<u> </u> Depleted Matrix (F3)	<u> </u> Other

Restrictive Layer (if observed): Type: Depth (Inches):

Remarks:

Hydric Soil Present? Yes No x

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (check all that apply)	Secondary Indicators
<u> </u> Surface Water (A1)	<u> </u> Surface Soil Cracks (B6)
<u> </u> High Water Table (A2)	<u> </u> Drainage Patterns (B10)
<u> </u> Saturation (A3)	<u> </u> Dry-Season Water Table (C2)
<u> </u> Water Marks (B1)	<u> </u> Crayfish Burrows (C8)
<u> </u> Sediment Deposits (B2)	<u> </u> Saturation Visible on Aerial Imagery (C9)
<u> </u> Drift Deposits (B3)	<u> </u> Stunted or Stressed Plants (D1)
<u> </u> Algal Mat or Crust (B4)	<u> </u> Geomorphic Position (D2)
<u> </u> Iron Deposits (B5)	<u> </u> FAC-Neutral Test (D5)
<u> </u> Inundation Visible on Aerial Imagery (B7)	
<u> </u> Sparsely Vegetated Concave Surface	
<u> </u> Water Stained Leaves (B9)	
<u> </u> Aquatic Fauna (B13)	
<u> </u> True Aquatic Plants (B14)	
<u> </u> Hydrogen Sulfide Odor (C1)	
<u> </u> Oxidized Rhizospheres on Living Roots	
<u> </u> Presence of Reduced Iron (C4)	
<u> </u> Recent Iron Reduction in Tilled Soil (C6)	
<u> </u> Thin Muck Surface (C7)	
<u> </u> Gauge or Well Data (D9)	
<u> </u> Other	
Field Observations: Surface Water Present? Yes <u> </u> No <u>x</u> Depth (inches) <u> </u>	Hydrology Indicators Present? Yes <u> </u> No <u> </u> x
Water Table Present? Yes <u> </u> No <u>x</u> Depth (inches) <u> </u>	
Saturation Present? Yes <u> </u> No <u>x</u> Depth (inches) <u> </u>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	

WETLAND DETERMINATION FORM-MIDWEST REGION

Site: W. Lancaster-S. Baltimore-W. Millersport City/County: Fairfield County Date: 28 March 2024 Data Point: 15
 Client: AEP State: OH Section, Township, Range: Sec S2, T 14N, R 19W
 Investigator(s): N. Houk, N. Barnett Landform Flood Plains Local Relief Convex
 Slope (%): 1-3 Lat. 39.725039 Long. -82.632003 Datum NAD83 NWI Class: N/A
 Soil Map Unit Name: Aetna silt loam, occasionally flooded
 Climatic/hydrologic conditions typical for time of year? Y/N Y
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic
 Are Normal Circumstances Present? Yes x No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes <u>x</u> No <u> </u>	Is the DP within a Wetland? Yes <u> </u> No <u> </u> x <u> </u>
Hydric Soil Present? Yes <u> </u> No <u>x</u>	
Wetland Hydrology Present? Yes <u> </u> No <u>x</u>	

Remarks:

VEGETATION

Tree Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet Number of dominant species that are OBL, FACW, or FAC: <u>2</u> Total number of dominant species across all strata: <u>3</u> Percent of dominant species that are OBL, FACW, or FAC: <u>66.67</u>
1. <u> </u>	<u>30'</u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
3. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
Total Cover: <u>0</u>					Prevalence Index Worksheet Total % cover of: OBL species <u>0</u> x <u>1</u> = <u>0</u> FACW species <u>30</u> x <u>2</u> = <u>60</u> FAC species <u>40</u> x <u>3</u> = <u>120</u> FACU species <u>2</u> x <u>4</u> = <u>8</u> UPL species <u>20</u> x <u>5</u> = <u>100</u> Total <u>92</u> Prevalence Index: <u>3.13</u>
Shrub Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	
1. <u>Sambucus canadensis</u>	<u>15'</u>	<u>2</u>	<u>N</u>	<u>FACU 4</u>	
2. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
3. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
5. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
Total Cover: <u>2</u>					
Herb Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Veg. <u>x</u> Dominance Test is >50% Prevalence Index is ≤3.0* Morphological Adaptations* Problematic Hydrophytic Vegetation* *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic Hydrophytic Vegetation Present? Yes <u>x</u> No <u> </u>
1. <u>Poa pratensis</u>	<u>30'</u>	<u>40</u>	<u>Y</u>	<u>FAC 3</u>	
2. <u>Conium maculatum</u>		<u>20</u>	<u>Y</u>	<u>FACW 2</u>	
3. <u>Echinacea pallida</u>		<u>20</u>	<u>Y</u>	<u>UPL 5</u>	
4. <u>Phalaris arundinacea</u>		<u>10</u>	<u>N</u>	<u>FACW 2</u>	
5. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
6. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
7. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
8. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
Total Cover: <u>90</u>					
Woody Vine Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	
1. <u> </u>	<u>5'</u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
Total Cover: <u>0</u>					

Remarks:

SOIL

Profile Description: (Describe to depth needed to document the indicator or confirm absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture Si C L	Remarks
	Color	%	Color	%	Type*	Loc**		
0-18	10YR 3/2	100						

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

<u> </u> Histosol (A1)	<u> </u> Sandy Mucky Mineral (S1)	<u> </u> Redox Dark Surface (F6)
<u> </u> Histic Epipedon (A2)	<u> </u> 5cm Mucky Peat or Peat	<u> </u> Depleted Dark Surface (F7)
<u> </u> Black Histic (A3)	<u> </u> Sandy Gleyed Matrix (S4)	<u> </u> Redox Depressions (F8)
<u> </u> Hydrogen Sulfide (A4)	<u> </u> Sandy Redox (S5)	Indicators for Problematic Hydric Soils
<u> </u> Stratified Layers (A5)	<u> </u> Stripped Matrix (S6)	<u> </u> Coast Prairie Redox (A16)
<u> </u> 2 cm Muck (A10)	<u> </u> Loamy Mucky Mineral (F1)	<u> </u> Iron-Manganese Masses (F12)
<u> </u> Depleted Below Dark Surface (A11)	<u> </u> Loamy Gleyed Matrix (F2)	<u> </u> Very Shallow Dark Surface (F12)
<u> </u> Thick Dark Surface (A12)	<u> </u> Depleted Matrix (F3)	<u> </u> Other

Restrictive Layer (if observed): Type:
 Depth (Inches):

Hydric Soil Present? Yes No x

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (check all that apply)	Secondary Indicators
<u> </u> Surface Water (A1)	<u> </u> Surface Soil Cracks (B6)
<u> </u> High Water Table (A2)	<u> </u> Drainage Patterns (B10)
<u> </u> Saturation (A3)	<u> </u> Dry-Season Water Table (C2)
<u> </u> Water Marks (B1)	<u> </u> Crayfish Burrows (C8)
<u> </u> Sediment Deposits (B2)	<u> </u> Saturation Visible on Aerial Imagery (C9)
<u> </u> Drift Deposits (B3)	<u> </u> Stunted or Stressed Plants (D1)
<u> </u> Algal Mat or Crust (B4)	<u> </u> Geomorphic Position (D2)
<u> </u> Iron Deposits (B5)	<u> </u> FAC-Neutral Test (D5)
<u> </u> Inundation Visible on Aerial Imagery (B7)	<u> </u> Guage or Well Data (D9)
<u> </u> Sparsely Vegetated Concave Surface	<u> </u> Other

Field Observations: Surface Water Present? Yes No x Depth (inches)
 Water Table Present? Yes No x Depth (inches)
 Saturation Present? Yes No x Depth (inches)

Hydrology Indicators Present? Yes No x

Describe Recorded Data (stream guage, monitoring well, aerial photos, previous inspections), if available:

WETLAND DETERMINATION FORM-MIDWEST REGION

Site: W. Lancaster-S. Baltimore-W. Millersport City/County: Fairfield County Date: 28 March 2024 Data Point: 13
 Client: AEP State: OH Section, Township, Range: Sec S2, T 14N, R 19W
 Investigator(s): N. Houk, N. Barnett Landform Till Plains Local Relief Convex
 Slope (%): 1-3 Lat. 39.722039 Long. -82.634875 Datum NAD83 NWI Class: NA
 Soil Map Unit Name: Urban land-Bennington complex, 0 to 6 percent slopes
 Climatic/hydrologic conditions typical for time of year? Y/N Y
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic
 Are Normal Circumstances Present? Yes x No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes <u> </u> No <u>x</u>	Is the DP within a Wetland? Yes <u> </u> No <u> </u> x
Hydric Soil Present? Yes <u> </u> No <u>x</u>	
Wetland Hydrology Present? Yes <u> </u> No <u>x</u>	
Remarks:	

VEGETATION

Tree Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet Number of dominant species that are OBL, FACW, or FAC: <u>1</u> Total number of dominant species across all strata: <u>3</u> Percent of dominant species that are OBL, FACW, or FAC: <u>33.33</u> Prevalence Index Worksheet Total % cover of: OBL species <u>0</u> x <u>1</u> = <u>0</u> FACW species <u>0</u> x <u>2</u> = <u>0</u> FAC species <u>60</u> x <u>3</u> = <u>180</u> FACU species <u>40</u> x <u>4</u> = <u>160</u> UPL species <u>0</u> x <u>5</u> = <u>0</u> Total <u>100</u> Prevalence Index: <u>3.40</u>
1. <u> </u>	<u>30'</u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>		<u>0</u>	Total Cover		
Shrub Stratum	Plot size: 15'				
1. <u> </u>					
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>		<u>0</u>	Total Cover		
Herb Stratum	Plot size: 5'				
1. <u>Poa pratensis</u>		<u>60</u>	<u>Y</u>	<u>FAC</u> <u>3</u>	
2. <u>Glechoma hederacea</u>		<u>20</u>	<u>Y</u>	<u>FACU</u> <u>4</u>	
3. <u>Trifolium repens</u>		<u>20</u>	<u>Y</u>	<u>FACU</u> <u>4</u>	
4. <u> </u>					
5. <u> </u>					
6. <u> </u>					
7. <u> </u>					
8. <u> </u>					
		<u>100</u>	Total Cover		
Woody Vine Stratum	Plot size: 30'				
1. <u> </u>					
2. <u> </u>					
		<u>0</u>	Total Cover		
Remarks:					Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Veg. <u> </u> Dominance Test is >50% <u> </u> Prevalence Index is ≤3.0* <u> </u> Morphological Adaptations* <u> </u> Problematic Hydrophytic Vegetation* <u> </u> *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic Hydrophytic Vegetation Present? Yes <u> </u> No <u> </u> x

SOIL

Profile Description: (Describe to depth needed to document the indicator or confirm absence of indicators.)

Depth (inches)	Matrix		Redox Features					
	Color	%	Color	%	Type*	Loc**	Texture	Remarks
0-18	10YR 4/2	100					Si C L	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

<u> </u> Histosol (A1)	<u> </u> Sandy Mucky Mineral (S1)	<u> </u> Redox Dark Surface (F6)
<u> </u> Histic Epipedon (A2)	<u> </u> 5cm Mucky Peat or Peat	<u> </u> Depleted Dark Surface (F7)
<u> </u> Black Histic (A3)	<u> </u> Sandy Gleyed Matrix (S4)	<u> </u> Redox Depressions (F8)
<u> </u> Hydrogen Sulfide (A4)	<u> </u> Sandy Redox (S5)	Indicators for Problematic Hydric Soils
<u> </u> Stratified Layers (A5)	<u> </u> Stripped Matrix (S6)	<u> </u> Coast Prairie Redox (A16)
<u> </u> 2 cm Muck (A10)	<u> </u> Loamy Mucky Mineral (F1)	<u> </u> Iron-Manganese Masses (F12)
<u> </u> Depleted Below Dark Surface (A11)	<u> </u> Loamy Gleyed Matrix (F2)	<u> </u> Very Shallow Dark Surface (F12)
<u> </u> Thick Dark Surface (A12)	<u> </u> Depleted Matrix (F3)	<u> </u> Other

Restrictive Layer (if observed): Type: Depth (Inches):

Remarks:

Hydric Soil Present? Yes No x

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (check all that apply)	Secondary Indicators
<u> </u> Surface Water (A1)	<u> </u> Surface Soil Cracks (B6)
<u> </u> High Water Table (A2)	<u> </u> Drainage Patterns (B10)
<u> </u> Saturation (A3)	<u> </u> Dry-Season Water Table (C2)
<u> </u> Water Marks (B1)	<u> </u> Crayfish Burrows (C8)
<u> </u> Sediment Deposits (B2)	<u> </u> Saturation Visible on Aerial Imagery (C9)
<u> </u> Drift Deposits (B3)	<u> </u> Stunted or Stressed Plants (D1)
<u> </u> Algal Mat or Crust (B4)	<u> </u> Geomorphic Position (D2)
<u> </u> Iron Deposits (B5)	<u> </u> FAC-Neutral Test (D5)
<u> </u> Inundation Visible on Aerial Imagery (B7)	<u> </u> <u> </u>
<u> </u> Sparsely Vegetated Concave Surface	<u> </u> <u> </u>
Field Observations: Surface Water Present? Yes <u> </u> No <u>x</u> Depth (inches) <u> </u>	Hydrology Indicators Present? Yes <u> </u> No <u> </u> x
Water Table Present? Yes <u> </u> No <u>x</u> Depth (inches) <u> </u>	
Saturation Present? Yes <u> </u> No <u>x</u> Depth (inches) <u> </u>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	

WETLAND DETERMINATION FORM-MIDWEST REGION

Site: W. Lancaster-S. Baltimore-W. Millersport City/County: Fairfield County Date: 28 March 2024 Data Point: 11
 Client: AEP State: OH Section, Township, Range: Sec S3, T 14N, R 19W
 Investigator(s): N. Houk, N. Barnett Landform Till Plains Local Relief Convex
 Slope (%): 1-3 Lat. 39.718202 Long. -82.639982 Datum NAD83 NWI Class: NA
 Soil Map Unit Name: Marengo clay loam
 Climatic/hydrologic conditions typical for time of year? Y/N Y
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic
 Are Normal Circumstances Present? Yes x No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes <u> </u> No <u>x</u>	Is the DP within a Wetland? Yes <u> </u> No <u> </u> x
Hydric Soil Present? Yes <u> </u> No <u>x</u>	
Wetland Hydrology Present? Yes <u> </u> No <u>x</u>	

Remarks:

VEGETATION

Tree Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet Number of dominant species that are OBL, FACW, or FAC: <u>0</u> Total number of dominant species across all strata: <u>2</u> Percent of dominant species that are OBL, FACW, or FAC: <u>0.00</u> Prevalence Index Worksheet Total % cover of: OBL species <u>0</u> x <u>1</u> = <u>0</u> FACW species <u>0</u> x <u>2</u> = <u>0</u> FAC species <u>0</u> x <u>3</u> = <u>0</u> FACU species <u>95</u> x <u>4</u> = <u>380</u> UPL species <u>5</u> x <u>5</u> = <u>25</u> Total <u>100</u> Prevalence Index: <u>4.05</u>
1. <u> </u>	<u>30'</u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>		<u>0</u>	Total Cover		
Shrub Stratum	Plot size: <u>15'</u>				
1. <u> </u>					
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>		<u>0</u>	Total Cover		
Herb Stratum	Plot size: <u>5'</u>				
1. <u>Dactylis glomerata</u>		<u>75</u>	<u>Y</u>	<u>FACU</u> <u>4</u>	
2. <u>Schedonorus arundinaceus</u>		<u>20</u>	<u>Y</u>	<u>FACU</u> <u>4</u>	
3. <u>Lamium purpureum</u>		<u>5</u>	<u>N</u>	<u>UPL</u> <u>5</u>	
4. <u> </u>					
5. <u> </u>					
6. <u> </u>					
7. <u> </u>					
8. <u> </u>					
		<u>100</u>	Total Cover		
Woody Vine Stratum	Plot size: <u>30'</u>				
1. <u> </u>					
2. <u> </u>					
		<u>0</u>	Total Cover		

Remarks:

SOIL

Profile Description: (Describe to depth needed to document the indicator or confirm absence of indicators.)

Depth (inches)	Matrix		Redox Features						Texture Si C L	Remarks
	Color	%	Color	%	Type*	Loc**				
0-18	10YR 3/2	100								

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

<u> </u> Histosol (A1)	<u> </u> Sandy Mucky Mineral (S1)	<u> </u> Redox Dark Surface (F6)
<u> </u> Histic Epipedon (A2)	<u> </u> 5cm Mucky Peat or Peat	<u> </u> Depleted Dark Surface (F7)
<u> </u> Black Histic (A3)	<u> </u> Sandy Gleyed Matrix (S4)	<u> </u> Redox Depressions (F8)
<u> </u> Hydrogen Sulfide (A4)	<u> </u> Sandy Redox (S5)	Indicators for Problematic Hydric Soils
<u> </u> Stratified Layers (A5)	<u> </u> Stripped Matrix (S6)	<u> </u> Coast Prairie Redox (A16)
<u> </u> 2 cm Muck (A10)	<u> </u> Loamy Mucky Mineral (F1)	<u> </u> Iron-Manganese Masses (F12)
<u> </u> Depleted Below Dark Surface (A11)	<u> </u> Loamy Gleyed Matrix (F2)	<u> </u> Very Shallow Dark Surface (F12)
<u> </u> Thick Dark Surface (A12)	<u> </u> Depleted Matrix (F3)	<u> </u> Other

Restrictive Layer (if observed): Type:
 Depth (Inches):

Hydric Soil Present? Yes No x

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (check all that apply)	Secondary Indicators
<u> </u> Surface Water (A1)	<u> </u> Surface Soil Cracks (B6)
<u> </u> High Water Table (A2)	<u> </u> Drainage Patterns (B10)
<u> </u> Saturation (A3)	<u> </u> Dry-Season Water Table (C2)
<u> </u> Water Marks (B1)	<u> </u> Crayfish Burrows (C8)
<u> </u> Sediment Deposits (B2)	<u> </u> Saturation Visible on Aerial Imagery (C9)
<u> </u> Drift Deposits (B3)	<u> </u> Stunted or Stressed Plants (D1)
<u> </u> Algal Mat or Crust (B4)	<u> </u> Geomorphic Position (D2)
<u> </u> Iron Deposits (B5)	<u> </u> FAC-Neutral Test (D5)
<u> </u> Inundation Visible on Aerial Imagery (B7)	
<u> </u> Sparsely Vegetated Concave Surface	
<u> </u> Water Stained Leaves (B9)	
<u> </u> Aquatic Fauna (B13)	
<u> </u> True Aquatic Plants (B14)	
<u> </u> Hydrogen Sulfide Odor (C1)	
<u> </u> Oxidized Rhizospheres on Living Roots	
<u> </u> Presence of Reduced Iron (C4)	
<u> </u> Recent Iron Reduction in Tilled Soil (C6)	
<u> </u> Thin Muck Surface (C7)	
<u> </u> Gauge or Well Data (D9)	
<u> </u> Other	

Field Observations: Surface Water Present? Yes No x Depth (inches)
 Water Table Present? Yes No x Depth (inches)
 Saturation Present? Yes No x Depth (inches)

Hydrology Indicators Present? Yes No x

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

WETLAND DETERMINATION FORM-MIDWEST REGION

Site: W. Lancaster-S. Baltimore-W. Millersport City/County: Fairfield County Date: 28 March 2024 Data Point: 8A
 Client: AEP State: OH Section, Township, Range: Sec S3, T 14N, R 19W
 Investigator(s): N. Houk, N. Barnett Landform Till Plains1 Local Relief Convex
 Slope (%): 3-5 Lat. 39.714393 Long. -82.641548 Datum NAD83 NWI Class: NA
 Soil Map Unit Name: Amanda silt loam, 12 to 20 percent slopes, eroded
 Climatic/hydrologic conditions typical for time of year? Y/N Y
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic
 Are Normal Circumstances Present? Yes x No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes <u> </u> No <u>x</u>	Is the DP within a Wetland? Yes <u> </u> No <u> </u> x
Hydric Soil Present? Yes <u> </u> No <u>x</u>	
Wetland Hydrology Present? Yes <u> </u> No <u>x</u>	

VEGETATION

Tree Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet Number of dominant species that are OBL, FACW, or FAC: <u>1</u> Total number of dominant species across all strata: <u>3</u> Percent of dominant species that are OBL, FACW, or FAC: <u>33.33</u>
1. <u> </u>	<u>30'</u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
3. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
0 Total Cover					Prevalence Index Worksheet Total % cover of: OBL species <u>0</u> x <u>1</u> = <u>0</u> FACW species <u>0</u> x <u>2</u> = <u>0</u> FAC species <u>30</u> x <u>3</u> = <u>90</u> FACU species <u>140</u> x <u>4</u> = <u>560</u> UPL species <u>5</u> x <u>5</u> = <u>25</u> Total <u>175</u> Prevalence Index: <u>3.86</u>
Shrub Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	
1. <u>Sassafras albidum</u>	<u>15'</u>	<u>75</u>	<u>Y</u>	<u>FACU 4</u>	
2. <u>Rosa multiflora</u>		<u>10</u>	<u>N</u>	<u>FACU 4</u>	
3. <u>Rubus allegheniensis</u>		<u>5</u>	<u>N</u>	<u>FACU 4</u>	
4. <u>Rubus occidentalis</u>		<u>5</u>	<u>N</u>	<u>UPL 5</u>	
95 Total Cover					
Herb Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Veg. <u> </u> Dominance Test is >50% <u> </u> Prevalence Index is ≤3.0* <u> </u> Morphological Adaptations* <u> </u> Problematic Hydrophytic Vegetation* <u> </u> *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic Hydrophytic Vegetation Present? Yes <u> </u> No <u> </u> x
1. <u>Dactylis glomerata</u>	<u>5'</u>	<u>50</u>	<u>Y</u>	<u>FACU 4</u>	
2. <u>Geum canadense</u>		<u>20</u>	<u>Y</u>	<u>FAC 3</u>	
3. <u>Alliaria petiolata</u>		<u>10</u>	<u>N</u>	<u>FAC 3</u>	
4. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
5. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
6. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
7. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
80 Total Cover					
Woody Vine Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	
1. <u> </u>	<u>30'</u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
0 Total Cover					

SOIL

Profile Description: (Describe to depth needed to document the indicator or confirm absence of indicators.)

Depth (inches)	Color	%	Color	%	Type*	Loc**	Texture	Remarks
0-8	10YR 3/2	100					Si C L	
8-18	10YR 4/3	100					Si C L	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

<u> </u> Histosol (A1)	<u> </u> Sandy Mucky Mineral (S1)	<u> </u> Redox Dark Surface (F6)
<u> </u> Histic Epipedon (A2)	<u> </u> 5cm Mucky Peat or Peat	<u> </u> Depleted Dark Surface (F7)
<u> </u> Black Histic (A3)	<u> </u> Sandy Gleyed Matrix (S4)	<u> </u> Redox Depressions (F8)
<u> </u> Hydrogen Sulfide (A4)	<u> </u> Sandy Redox (S5)	Indicators for Problematic Hydric Soils
<u> </u> Stratified Layers (A5)	<u> </u> Stripped Matrix (S6)	<u> </u> Coast Prairie Redox (A16)
<u> </u> 2 cm Muck (A10)	<u> </u> Loamy Mucky Mineral (F1)	<u> </u> Iron-Manganese Masses (F12)
<u> </u> Depleted Below Dark Surface (A11)	<u> </u> Loamy Gleyed Matrix (F2)	<u> </u> Very Shallow Dark Surface (F12)
<u> </u> Thick Dark Surface (A12)	<u> </u> Depleted Matrix (F3)	<u> </u> Other

Restrictive Layer (if observed): Type: Depth (Inches): Hydric Soil Present? Yes No x

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (check all that apply)	Secondary Indicators
<u> </u> Surface Water (A1)	<u> </u> Surface Soil Cracks (B6)
<u> </u> High Water Table (A2)	<u> </u> Drainage Patterns (B10)
<u> </u> Saturation (A3)	<u> </u> Dry-Season Water Table (C2)
<u> </u> Water Marks (B1)	<u> </u> Crayfish Burrows (C8)
<u> </u> Sediment Deposits (B2)	<u> </u> Saturation Visible on Aerial Imagery (C9)
<u> </u> Drift Deposits (B3)	<u> </u> Stunted or Stressed Plants (D1)
<u> </u> Algal Mat or Crust (B4)	<u> </u> Geomorphic Position (D2)
<u> </u> Iron Deposits (B5)	<u> </u> FAC-Neutral Test (D5)
<u> </u> Inundation Visible on Aerial Imagery (B7)	<u> </u> Guage or Well Data (D9)
<u> </u> Sparsely Vegetated Concave Surface	<u> </u> Other

Field Observations: Surface Water Present? Yes No x Depth (inches)
 Water Table Present? Yes No x Depth (inches)
 Saturation Present? Yes No x Depth (inches)

Hydrology Indicators Present? Yes No x

Describe Recorded Data (stream guage, monitoring well, aerial photos, previous inspections), if available:

WETLAND DETERMINATION FORM-MIDWEST REGION

Site: W. Lancaster-S. Baltimore-W. Millersport City/County: Fairfield County Date: 28 March 2024 Data Point: 7
 Client: AEP State: OH Section, Township, Range: Sec S3, T 14N, R 19W
 Investigator(s): N. Houk, N. Barnett Landform Till Plains Local Relief Convex
 Slope (%): 1-3 Lat. 39.712451 Long. -82.641544 Datum NAD83 NWI Class: NA
 Soil Map Unit Name: Amanda silt loam, 6 to 12 percent slopes, eroded
 Climatic/hydrologic conditions typical for time of year? Y/N Y
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic
 Are Normal Circumstances Present? Yes x No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes <u> </u> No <u>x</u>	Is the DP within a Wetland? Yes <u> </u> No <u> </u> x
Hydric Soil Present? Yes <u> </u> No <u>x</u>	
Wetland Hydrology Present? Yes <u> </u> No <u>x</u>	
Remarks: <u> </u>	

VEGETATION

Tree Stratum	Plot size: <u>30'</u>	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet Number of dominant species that are OBL, FACW, or FAC: <u>1</u> Total number of dominant species across all strata: <u>4</u> Percent of dominant species that are OBL, FACW, or FAC: <u>25.00</u>
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
		0	Total Cover		Prevalence Index Worksheet Total % cover of: OBL species <u>0</u> x <u>1</u> = <u>0</u> FACW species <u>0</u> x <u>2</u> = <u>0</u> FAC species <u>30</u> x <u>3</u> = <u>90</u> FACU species <u>73</u> x <u>4</u> = <u>292</u> UPL species <u>10</u> x <u>5</u> = <u>50</u> Total <u>113</u> Prevalence Index: <u>3.82</u>
Shrub Stratum	Plot size: <u>15'</u>				
1. <u>Rubus occidentalis</u>	<u> </u>	<u>10</u>	<u>Y</u>	<u>UPL</u> <u>5</u>	
2. <u>Rosa multiflora</u>	<u> </u>	<u>3</u>	<u>N</u>	<u>FACU</u> <u>4</u>	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
		13	Total Cover		
Herb Stratum	Plot size: <u>5'</u>				
1. <u>Dactylis glomerata</u>	<u> </u>	<u>35</u>	<u>Y</u>	<u>FACU</u> <u>4</u>	
2. <u>Panicum virgatum</u>	<u> </u>	<u>30</u>	<u>Y</u>	<u>FAC</u> <u>3</u>	
3. <u>Solidago canadensis</u>	<u> </u>	<u>20</u>	<u>Y</u>	<u>FACU</u> <u>4</u>	
4. <u>Schedonorus arundinaceus</u>	<u> </u>	<u>10</u>	<u>N</u>	<u>FACU</u> <u>4</u>	
5. <u>Taraxacum officinale</u>	<u> </u>	<u>5</u>	<u>N</u>	<u>FACU</u> <u>4</u>	
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
		100	Total Cover		
Woody Vine Stratum	Plot size: <u>30'</u>				
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
		0	Total Cover		
Remarks: <u> </u>					

SOIL

Profile Description: (Describe to depth needed to document the indicator or confirm absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color	%	Color	%	Type*	Loc**		
0-4	10YR 3/3	100					Si L	
4-18	10YR 4/4	100					Si C L	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

<u> </u> Histosol (A1)	<u> </u> Sandy Mucky Mineral (S1)	<u> </u> Redox Dark Surface (F6)
<u> </u> Histic Epipedon (A2)	<u> </u> 5cm Mucky Peat or Peat	<u> </u> Depleted Dark Surface (F7)
<u> </u> Black Histic (A3)	<u> </u> Sandy Gleyed Matrix (S4)	<u> </u> Redox Depressions (F8)
<u> </u> Hydrogen Sulfide (A4)	<u> </u> Sandy Redox (S5)	Indicators for Problematic Hydric Soils
<u> </u> Stratified Layers (A5)	<u> </u> Stripped Matrix (S6)	<u> </u> Coast Prairie Redox (A16)
<u> </u> 2 cm Muck (A10)	<u> </u> Loamy Mucky Mineral (F1)	<u> </u> Iron-Manganese Masses (F12)
<u> </u> Depleted Below Dark Surface (A11)	<u> </u> Loamy Gleyed Matrix (F2)	<u> </u> Very Shallow Dark Surface (F12)
<u> </u> Thick Dark Surface (A12)	<u> </u> Depleted Matrix (F3)	<u> </u> Other

Restrictive Layer (if observed): Type: Depth (Inches):

Remarks:

Hydric Soil Present? Yes No x

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (check all that apply)	Secondary Indicators
<u> </u> Surface Water (A1)	<u> </u> Water Stained Leaves (B9)
<u> </u> High Water Table (A2)	<u> </u> Aquatic Fauna (B13)
<u> </u> Saturation (A3)	<u> </u> True Aquatic Plants (B14)
<u> </u> Water Marks (B1)	<u> </u> Hydrogen Sulfide Odor (C1)
<u> </u> Sediment Deposits (B2)	<u> </u> Oxidized Rhizospheres on Living Roots
<u> </u> Drift Deposits (B3)	<u> </u> Presence of Reduced Iron (C4)
<u> </u> Algal Mat or Crust (B4)	<u> </u> Recent Iron Reduction in Tilled Soil (C6)
<u> </u> Iron Deposits (B5)	<u> </u> Thin Muck Surface (C7)
<u> </u> Inundation Visible on Aerial Imagery (B7)	<u> </u> Gauge or Well Data (D9)
<u> </u> Sparsely Vegetated Concave Surface	<u> </u> Other
Field Observations: Surface Water Present? Yes <u> </u> No <u>x</u> Depth (inches) <u> </u>	Hydrology Indicators Present? Yes <u> </u> No <u> </u> x
Water Table Present? Yes <u> </u> No <u>x</u> Depth (inches) <u> </u>	
Saturation Present? Yes <u> </u> No <u>x</u> Depth (inches) <u> </u>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: <u> </u>	

WETLAND DETERMINATION FORM-MIDWEST REGION

Site: W. Lancaster-S. Baltimore-W. Millersport City/County: Fairfield County Date: 28 March 2024 Data Point: 5A
 Client: AEP State: OH Section, Township, Range: Sec S10, T 14N, R 19W
 Investigator(s): N. Houk, N. Barnett Landform Till Plains Local Relief Convex
 Slope (%): 1-3 Lat. 39.707972 Long. -82.640540 Datum NAD83 NWI Class: NA
 Soil Map Unit Name: Amanda silt loam, 6 to 12 percent slopes

Climatic/hydrologic conditions typical for time of year? Y/N Y
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic

Are Normal Circumstances Present? Yes x No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes <u> </u> No <u>x</u>	Is the DP within a Wetland? Yes <u> </u> No <u> </u> x
Hydric Soil Present? Yes <u> </u> No <u>x</u>	
Wetland Hydrology Present? Yes <u> </u> No <u>x</u>	

Remarks:

VEGETATION

Tree Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet Number of dominant species that are OBL, FACW, or FAC: <u>0</u> Total number of dominant species across all strata: <u>2</u> Percent of dominant species that are OBL, FACW, or FAC: <u>0.00</u> Prevalence Index Worksheet Total % cover of: OBL species <u>0</u> x <u>1</u> = <u>0</u> FACW species <u>0</u> x <u>2</u> = <u>0</u> FAC species <u>0</u> x <u>3</u> = <u>0</u> FACU species <u>20</u> x <u>4</u> = <u>80</u> UPL species <u>70</u> x <u>5</u> = <u>350</u> Total <u>90</u> Prevalence Index: <u>4.78</u>
1. <u> </u>	<u>30'</u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>		<u>0</u>	Total Cover		
Shrub Stratum Plot size: <u>15'</u>					
1. <u> </u>					
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>		<u>0</u>	Total Cover		
Herb Stratum Plot size: <u>5'</u>					
1. <u>Zea mays residue</u>		<u>60</u>	<u>Y</u>	<u>UPL</u> <u>5</u>	
2. <u>Stellaria media</u>		<u>20</u>	<u>Y</u>	<u>FACU</u> <u>4</u>	
3. <u>Lamium purpureum</u>		<u>10</u>	<u>N</u>	<u>UPL</u> <u>5</u>	
4. <u> </u>					
5. <u> </u>					
6. <u> </u>					
7. <u> </u>					
8. <u> </u>					
		<u>90</u>	Total Cover		
Woody Vine Stratum Plot size: <u>30'</u>					
1. <u> </u>					
2. <u> </u>					
		<u>0</u>	Total Cover		

Remarks:

SOIL

Profile Description: (Describe to depth needed to document the indicator or confirm absence of indicators.)

Depth (inches)	Matrix		Redox Features					
	Color	%	Color	%	Type*	Loc**	Texture	Remarks
0-18	10YR 4/4	100					Si L	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

<u> </u> Histosol (A1)	<u> </u> Sandy Mucky Mineral (S1)	<u> </u> Redox Dark Surface (F6)
<u> </u> Histic Epipedon (A2)	<u> </u> 5cm Mucky Peat or Peat	<u> </u> Depleted Dark Surface (F7)
<u> </u> Black Histic (A3)	<u> </u> Sandy Gleyed Matrix (S4)	<u> </u> Redox Depressions (F8)
<u> </u> Hydrogen Sulfide (A4)	<u> </u> Sandy Redox (S5)	Indicators for Problematic Hydric Soils
<u> </u> Stratified Layers (A5)	<u> </u> Stripped Matrix (S6)	<u> </u> Coast Prairie Redox (A16)
<u> </u> 2 cm Muck (A10)	<u> </u> Loamy Mucky Mineral (F1)	<u> </u> Iron-Manganese Masses (F12)
<u> </u> Depleted Below Dark Surface (A11)	<u> </u> Loamy Gleyed Matrix (F2)	<u> </u> Very Shallow Dark Surface (F12)
<u> </u> Thick Dark Surface (A12)	<u> </u> Depleted Matrix (F3)	<u> </u> Other

Restrictive Layer (if observed): Type:
 Depth (Inches):

Hydric Soil Present? Yes No x

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (check all that apply)	Secondary Indicators
<u> </u> Surface Water (A1)	<u> </u> Surface Soil Cracks (B6)
<u> </u> High Water Table (A2)	<u> </u> Drainage Patterns (B10)
<u> </u> Saturation (A3)	<u> </u> Dry-Season Water Table (C2)
<u> </u> Water Marks (B1)	<u> </u> Crayfish Burrows (C8)
<u> </u> Sediment Deposits (B2)	<u> </u> Saturation Visible on Aerial Imagery (C9)
<u> </u> Drift Deposits (B3)	<u> </u> Stunted or Stressed Plants (D1)
<u> </u> Algal Mat or Crust (B4)	<u> </u> Geomorphic Position (D2)
<u> </u> Iron Deposits (B5)	<u> </u> FAC-Neutral Test (D5)
<u> </u> Inundation Visible on Aerial Imagery (B7)	
<u> </u> Sparsely Vegetated Concave Surface	
<u> </u> Water Stained Leaves (B9)	
<u> </u> Aquatic Fauna (B13)	
<u> </u> True Aquatic Plants (B14)	
<u> </u> Hydrogen Sulfide Odor (C1)	
<u> </u> Oxidized Rhizospheres on Living Roots	
<u> </u> Presence of Reduced Iron (C4)	
<u> </u> Recent Iron Reduction in Tilled Soil (C6)	
<u> </u> Thin Muck Surface (C7)	
<u> </u> Gauge or Well Data (D9)	
<u> </u> Other	

Field Observations: Surface Water Present? Yes No x Depth (inches)
 Water Table Present? Yes No x Depth (inches)
 Saturation Present? Yes No x Depth (inches)

Hydrology Indicators Present? Yes No x

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

WETLAND DETERMINATION FORM-MIDWEST REGION

Site: W. Lancaster-S. Baltimore-W. Millersport City/County: Fairfield County Date: 28 March 2024 Data Point: 3A
 Client: AEP State: OH Section, Township, Range: Sec S10, T 14N, R 19W
 Investigator(s): N. Houk, N. Barnett Landform Till Plains Local Relief Convex
 Slope (%): 1-3 Lat. 39.704089 Long. -82.639314 Datum NAD83 NWI Class: NA
 Soil Map Unit Name: Amanda silt loam, 6 to 12 percent slopes, eroded
 Climatic/hydrologic conditions typical for time of year? Y/N Y
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic
 Are Normal Circumstances Present? Yes x No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes <u> </u> No <u>x</u>	Is the DP within a Wetland? Yes <u> </u> No <u> </u> x
Hydric Soil Present? Yes <u> </u> No <u>x</u>	
Wetland Hydrology Present? Yes <u> </u> No <u>x</u>	

VEGETATION

Tree Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet Number of dominant species that are OBL, FACW, or FAC: <u>0</u> Total number of dominant species across all strata: <u>1</u> Percent of dominant species that are OBL, FACW, or FAC: <u>0.00</u> Prevalence Index Worksheet Total % cover of: OBL species <u>0</u> x <u>1</u> = <u>0</u> FACW species <u>0</u> x <u>2</u> = <u>0</u> FAC species <u>0</u> x <u>3</u> = <u>0</u> FACU species <u>100</u> x <u>4</u> = <u>400</u> UPL species <u>0</u> x <u>5</u> = <u>0</u> Total <u>100</u> = <u>400</u> Prevalence Index: <u>4.00</u>
1. <u> </u>	<u>30'</u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>		<u>0</u>	Total Cover		
Shrub Stratum	Plot size:				
1. <u> </u>	<u>15'</u>				
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>		<u>0</u>	Total Cover		
Herb Stratum	Plot size:				
1. <u>Schedonorus arundinaceus</u>	<u>5'</u>	<u>100</u>	<u>Y</u>	<u>FACU 4</u>	
2. <u> </u>					
3. <u> </u>					
4. <u> </u>					
5. <u> </u>					
6. <u> </u>					
7. <u> </u>					
8. <u> </u>		<u>100</u>	Total Cover		
Woody Vine Stratum	Plot size:				
1. <u> </u>	<u>30'</u>				
2. <u> </u>					
		<u>0</u>	Total Cover		

Remarks: **Hydrophytic Vegetation Present?** Yes No x

SOIL

Profile Description: (Describe to depth needed to document the indicator or confirm absence of indicators.)

Depth (inches)	Matrix		Redox Features					
	Color	%	Color	%	Type*	Loc**	Texture	Remarks
0-18	10YR 4/4	100					Si L	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

<u> </u> Histosol (A1)	<u> </u> Sandy Mucky Mineral (S1)	<u> </u> Redox Dark Surface (F6)
<u> </u> Histic Epipedon (A2)	<u> </u> 5cm Mucky Peat or Peat	<u> </u> Depleted Dark Surface (F7)
<u> </u> Black Histic (A3)	<u> </u> Sandy Gleyed Matrix (S4)	<u> </u> Redox Depressions (F8)
<u> </u> Hydrogen Sulfide (A4)	<u> </u> Sandy Redox (S5)	Indicators for Problematic Hydric Soils
<u> </u> Stratified Layers (A5)	<u> </u> Stripped Matrix (S6)	<u> </u> Coast Prairie Redox (A16)
<u> </u> 2 cm Muck (A10)	<u> </u> Loamy Mucky Mineral (F1)	<u> </u> Iron-Manganese Masses (F12)
<u> </u> Depleted Below Dark Surface (A11)	<u> </u> Loamy Gleyed Matrix (F2)	<u> </u> Very Shallow Dark Surface (F12)
<u> </u> Thick Dark Surface (A12)	<u> </u> Depleted Matrix (F3)	<u> </u> Other

Restrictive Layer (if observed): Type: Depth (Inches): **Hydric Soil Present?** Yes No x

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (check all that apply)	Secondary Indicators
<u> </u> Surface Water (A1)	<u> </u> Surface Soil Cracks (B6)
<u> </u> High Water Table (A2)	<u> </u> Drainage Patterns (B10)
<u> </u> Saturation (A3)	<u> </u> Dry-Season Water Table (C2)
<u> </u> Water Marks (B1)	<u> </u> Crayfish Burrows (C8)
<u> </u> Sediment Deposits (B2)	<u> </u> Saturation Visible on Aerial Imagery (C9)
<u> </u> Drift Deposits (B3)	<u> </u> Stunted or Stressed Plants (D1)
<u> </u> Algal Mat or Crust (B4)	<u> </u> Geomorphic Position (D2)
<u> </u> Iron Deposits (B5)	<u> </u> FAC-Neutral Test (D5)
<u> </u> Inundation Visible on Aerial Imagery (B7)	
<u> </u> Sparsely Vegetated Concave Surface	
Field Observations: Surface Water Present? Yes <u> </u> No <u>x</u> Depth (inches) <u> </u>	Hydrology Indicators Present? Yes <u> </u> No <u> </u> x
Water Table Present? Yes <u> </u> No <u>x</u> Depth (inches) <u> </u>	
Saturation Present? Yes <u> </u> No <u>x</u> Depth (inches) <u> </u>	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

WETLAND DETERMINATION FORM-MIDWEST REGION

Site: W. Lancaster-S. Baltimore-W. Millersport City/County: Fairfield County Date: 28 March 2024 Data Point: 1A
 Client: AEP State: OH Section, Township, Range: Sec S10, T 14N, R 19W
 Investigator(s): N. Houk, N. Barnett Landform Flood Plains Local Relief Convex
 Slope (%): 1-3 Lat. 39.701956 Long. -82.638831 Datum NAD83 NWI Class: NA
 Soil Map Unit Name: Aetna silt loam, occasionally flooded
 Climatic/hydrologic conditions typical for time of year? Y/N Y
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic
 Are Normal Circumstances Present? Yes x No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes <u> </u> No <u>x</u>	Is the DP within a Wetland? Yes <u> </u> No <u> </u> x
Hydric Soil Present? Yes <u> </u> No <u>x</u>	
Wetland Hydrology Present? Yes <u> </u> No <u>x</u>	
Remarks:	

VEGETATION

Tree Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet Number of dominant species that are OBL, FACW, or FAC: <u>1</u> Total number of dominant species across all strata: <u>5</u> Percent of dominant species that are OBL, FACW, or FAC: <u>20.00</u>
1. <u>Juglans nigra</u>	<u>30'</u>	<u>20</u>	<u>Y</u>	<u>FACU 4</u>	
2. <u>Robinia pseudoacacia</u>		<u>10</u>	<u>Y</u>	<u>FACU 4</u>	
3. <u> </u>					
4. <u> </u>					
		<u>30</u>	<u>Total Cover</u>		Prevalence Index Worksheet Total % cover of: OBL species <u>0</u> x <u>1</u> = <u>0</u> FACW species <u>70</u> x <u>2</u> = <u>140</u> FAC species <u>0</u> x <u>3</u> = <u>0</u> FACU species <u>100</u> x <u>4</u> = <u>400</u> UPL species <u>10</u> x <u>5</u> = <u>50</u> Total <u>180</u> Prevalence Index: <u>3.28</u>
Shrub Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	
1. <u>Robinia pseudoacacia</u>	<u>15'</u>	<u>30</u>	<u>Y</u>	<u>FACU 4</u>	
2. <u>Juglans nigra</u>		<u>20</u>	<u>Y</u>	<u>FACU 4</u>	
3. <u> </u>					
4. <u> </u>					
		<u>50</u>	<u>Total Cover</u>		
Herb Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	
1. <u>Conium maculatum</u>	<u>5'</u>	<u>70</u>	<u>Y</u>	<u>FACW 2</u>	
2. <u>Allium vineale</u>		<u>10</u>	<u>N</u>	<u>FACU 4</u>	
3. <u>Lamium purpureum</u>		<u>10</u>	<u>N</u>	<u>UPL 5</u>	
4. <u>Symphotrichum ericoides</u>		<u>10</u>	<u>N</u>	<u>FACU 4</u>	
5. <u> </u>					
6. <u> </u>					
7. <u> </u>					
8. <u> </u>					
		<u>100</u>	<u>Total Cover</u>		
Woody Vine Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	
1. <u> </u>	<u>30'</u>				
2. <u> </u>					
		<u>0</u>	<u>Total Cover</u>		
Remarks:					

SOIL

Profile Description: (Describe to depth needed to document the indicator or confirm absence of indicators.)

Depth (inches)	Matrix		Redox Features					
	Color	%	Color	%	Type*	Loc**	Texture	Remarks
0-18	10YR 3/3	100					Si L	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

<u> </u> Histosol (A1)	<u> </u> Sandy Mucky Mineral (S1)	<u> </u> Redox Dark Surface (F6)
<u> </u> Histic Epipedon (A2)	<u> </u> 5cm Mucky Peat or Peat	<u> </u> Depleted Dark Surface (F7)
<u> </u> Black Histic (A3)	<u> </u> Sandy Gleyed Matrix (S4)	<u> </u> Redox Depressions (F8)
<u> </u> Hydrogen Sulfide (A4)	<u> </u> Sandy Redox (S5)	Indicators for Problematic Hydric Soils
<u> </u> Stratified Layers (A5)	<u> </u> Stripped Matrix (S6)	<u> </u> Coast Prairie Redox (A16)
<u> </u> 2 cm Muck (A10)	<u> </u> Loamy Mucky Mineral (F1)	<u> </u> Iron-Manganese Masses (F12)
<u> </u> Depleted Below Dark Surface (A11)	<u> </u> Loamy Gleyed Matrix (F2)	<u> </u> Very Shallow Dark Surface (F12)
<u> </u> Thick Dark Surface (A12)	<u> </u> Depleted Matrix (F3)	<u> </u> Other

Restrictive Layer (if observed): Type: Depth (Inches):

Remarks:

Hydric Soil Present? Yes No x

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (check all that apply)	Secondary Indicators
<u> </u> Surface Water (A1)	<u> </u> Surface Soil Cracks (B6)
<u> </u> High Water Table (A2)	<u> </u> Drainage Patterns (B10)
<u> </u> Saturation (A3)	<u> </u> Dry-Season Water Table (C2)
<u> </u> Water Marks (B1)	<u> </u> Crayfish Burrows (C8)
<u> </u> Sediment Deposits (B2)	<u> </u> Saturation Visible on Aerial Imagery (C9)
<u> </u> Drift Deposits (B3)	<u> </u> Stunted or Stressed Plants (D1)
<u> </u> Algal Mat or Crust (B4)	<u> </u> Geomorphic Position (D2)
<u> </u> Iron Deposits (B5)	<u> </u> FAC-Neutral Test (D5)
<u> </u> Inundation Visible on Aerial Imagery (B7)	
<u> </u> Sparsely Vegetated Concave Surface	
<u> </u> Water Stained Leaves (B9)	
<u> </u> Aquatic Fauna (B13)	
<u> </u> True Aquatic Plants (B14)	
<u> </u> Hydrogen Sulfide Odor (C1)	
<u> </u> Oxidized Rhizospheres on Living Roots	
<u> </u> Presence of Reduced Iron (C4)	
<u> </u> Recent Iron Reduction in Tilled Soil (C6)	
<u> </u> Thin Muck Surface (C7)	
<u> </u> Gauge or Well Data (D9)	
<u> </u> Other	

Field Observations: Surface Water Present? Yes No x Depth (inches)
 Water Table Present? Yes No x Depth (inches)
 Saturation Present? Yes No x Depth (inches)

Hydrology Indicators Present? Yes No x

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

WETLAND DETERMINATION FORM-MIDWEST REGION

Site: W. Lancaster-S. Baltimore-W. Millersport City/County: Fairfield County Date: 28 March 2024 Data Point: 1
 Client: AEP State: OH Section, Township, Range: Sec S10, T 14N, R 19W
 Investigator(s): N. Houk, N. Barnett Landform Terrances Local Relief Convex
 Slope (%): 1-3 Lat. 39.701956 Long. -82.638831 Datum NAD83 NWI Class: NA
 Soil Map Unit Name: Thackery silt loam, 0 to 2 percent slopes
 Climatic/hydrologic conditions typical for time of year? Y/N Y
 Vegetation N, Soil N or Hydrology N significantly disturbed
 Vegetation N, Soil N or Hydrology N naturally problematic
 Are Normal Circumstances Present? Yes x No

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes <u>x</u> No <u> </u>	Is the DP within a Wetland? Yes <u> </u> No <u> </u> x <u> </u>
Hydric Soil Present? Yes <u> </u> No <u>x</u>	
Wetland Hydrology Present? Yes <u> </u> No <u>x</u>	
Remarks: <u> </u>	

VEGETATION

Tree Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	Dominance Test Worksheet Number of dominant species that are OBL, FACW, or FAC: <u>3</u> Total number of dominant species across all strata: <u>5</u> Percent of dominant species that are OBL, FACW, or FAC: <u>60.00</u>
1. <u> </u>	<u>30'</u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
3. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
		<u>0</u>	Total Cover		
Shrub Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	Prevalence Index Worksheet Total % cover of: OBL species <u>0</u> x <u>1</u> = <u>0</u> FACW species <u>40</u> x <u>2</u> = <u>80</u> FAC species <u>30</u> x <u>3</u> = <u>90</u> FACU species <u>105</u> x <u>4</u> = <u>420</u> UPL species <u>0</u> x <u>5</u> = <u>0</u> Total <u>175</u> Prevalence Index: <u>3.37</u>
1. <u>Robinia pseudoacacia</u>	<u>15'</u>	<u>80</u>	<u>Y</u>	<u>FACU 4</u>	
2. <u>Rubus allegheniensis</u>		<u>5</u>	<u>N</u>	<u>FACU 4</u>	
3. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
		<u>85</u>	Total Cover		
Herb Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Veg. <u>x</u> Dominance Test is >50% Prevalence Index is ≤3.0* Morphological Adaptations* Problematic Hydrophytic Vegetation* *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic Hydrophytic Vegetation Present? Yes <u>x</u> No <u> </u>
1. <u>Conium maculatum</u>	<u>5'</u>	<u>20</u>	<u>Y</u>	<u>FACW 2</u>	
2. <u>Phalaris arundinacea</u>		<u>20</u>	<u>Y</u>	<u>FACW 2</u>	
3. <u>Poa pratensis</u>		<u>20</u>	<u>Y</u>	<u>FAC 3</u>	
4. <u>Solidago canadensis</u>		<u>20</u>	<u>Y</u>	<u>FACU 4</u>	
5. <u>Alliaria petiolata</u>		<u>10</u>	<u>N</u>	<u>FAC 3</u>	
6. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
7. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
		<u>90</u>	Total Cover		
Woody Vine Stratum	Plot size:	Absolute % Cover	Dominant Species	Indicator Status	
1. <u> </u>	<u>30'</u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>		<u> </u>	<u> </u>	<u> </u>	
		<u>0</u>	Total Cover		
Remarks: <u> </u>					

SOIL

Profile Description: (Describe to depth needed to document the indicator or confirm absence of indicators.)

Depth (inches)	Matrix		Redox Features					
	Color	%	Color	%	Type*	Loc**	Texture	Remarks
0-18	10YR 3/2	100					Si L	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Coated Sand grains **Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

<u> </u> Histosol (A1)	<u> </u> Sandy Mucky Mineral (S1)	<u> </u> Redox Dark Surface (F6)
<u> </u> Histic Epipedon (A2)	<u> </u> 5cm Mucky Peat or Peat	<u> </u> Depleted Dark Surface (F7)
<u> </u> Black Histic (A3)	<u> </u> Sandy Gleyed Matrix (S4)	<u> </u> Redox Depressions (F8)
<u> </u> Hydrogen Sulfide (A4)	<u> </u> Sandy Redox (S5)	Indicators for Problematic Hydric Soils
<u> </u> Stratified Layers (A5)	<u> </u> Stripped Matrix (S6)	<u> </u> Coast Prairie Redox (A16)
<u> </u> 2 cm Muck (A10)	<u> </u> Loamy Mucky Mineral (F1)	<u> </u> Iron-Manganese Masses (F12)
<u> </u> Depleted Below Dark Surface (A11)	<u> </u> Loamy Gleyed Matrix (F2)	<u> </u> Very Shallow Dark Surface (F12)
<u> </u> Thick Dark Surface (A12)	<u> </u> Depleted Matrix (F3)	<u> </u> Other

Restrictive Layer (if observed): Type: Depth (Inches):

Remarks:

Hydric Soil Present? Yes No x

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (check all that apply)	Secondary Indicators
<u> </u> Surface Water (A1)	<u> </u> Surface Soil Cracks (B6)
<u> </u> High Water Table (A2)	<u> </u> Drainage Patterns (B10)
<u> </u> Saturation (A3)	<u> </u> Dry-Season Water Table (C2)
<u> </u> Water Marks (B1)	<u> </u> Crayfish Burrows (C8)
<u> </u> Sediment Deposits (B2)	<u> </u> Saturation Visible on Aerial Imagery (C9)
<u> </u> Drift Deposits (B3)	<u> </u> Stunted or Stressed Plants (D1)
<u> </u> Algal Mat or Crust (B4)	<u> </u> Geomorphic Position (D2)
<u> </u> Iron Deposits (B5)	<u> </u> FAC-Neutral Test (D5)
<u> </u> Inundation Visible on Aerial Imagery (B7)	<u> </u> Guage or Well Data (D9)
<u> </u> Sparsely Vegetated Concave Surface	<u> </u> Other
Field Observations: Surface Water Present? Yes <u> </u> No <u>x</u> Depth (inches) <u> </u>	Hydrology Indicators Present? Yes <u> </u> No <u> </u> x <u> </u>
Water Table Present? Yes <u> </u> No <u>x</u> Depth (inches) <u> </u>	
Saturation Present? Yes <u> </u> No <u>x</u> Depth (inches) <u> </u>	
Describe Recorded Data (stream guage, monitoring well, aerial photos, previous inspections), if available: <u> </u>	

Appendix D

ORAM Forms



ORAM Summary Worksheet

		Circle answer or insert score	Result
Narrative Rating	Question 1: Critical Habitat	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 3.
	Question 2: Threatened or Engagered Species	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 3.
	Question 3: High Quality Natural Wetland	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 3.
	Question 4: Significant bird habitat	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 3.
	Question 5: Category 1 Wetlands	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 1
	Questions 6: Bogs	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 3.
	Question 7: Fens	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 3.
	Questions 8a: Old Growth Forest	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 3.
	Question 8b: Mature Forested Wetland	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Questions 9b: Lake Erie Wetlands – Restricted	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Questions 9d: Lake Erie Wetlands - Unrestricted	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 3.
	Questions 9e: Lake Erie Wetlands – Unrestricted with invasive plants	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10: Oak Openings	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 3.
	Quest 11: Relict Wet Prairies	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1: Size	2	
	Metric 2: Buffers and surrounding land use	4	
	Metric 3: Hydrology	17	
	Metric 4: Habitat	15.5	
	Metric 5: Special Wetland Communities	0	
	Metric 6: Plant communities, interspersion, microtopography	5	
	TOTAL SCORE Consult most recent score calibration report at http://www.epa.state.oh.us/dsw/401/401.html to determine the wetland's category based on its quantitative score	43.5	

Complete Wetland Categorization Worksheet

Wetland Categorization Worksheet

Choices	Circle one		Evaluation
<p>Did you answer “Yes” to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10.</p>	<input type="checkbox"/> YES Wetland is categorized as a Category 3 wetland	<input checked="" type="checkbox"/> NO	Is quantitative rating score less than the Category 2 scoring threshold (excluding gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been over-categorized by the ORAM
<p>Did you answer “Yes” to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11</p>	<input type="checkbox"/> YES Wetland should be evaluated for possible Category 3 status	<input checked="" type="checkbox"/> NO	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and or functional assessments may also be used to determine the wetland’s category.
<p>Did you answer “Yes” to Narrative Rating No. 5</p>	<input type="checkbox"/> YES Wetland is categorized as a Category 1 wetland	<input checked="" type="checkbox"/> NO	Is quantitative rating score greater than the Category 2 scoring threshold (including any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
<p>Does the quantitative score fall within the scoring range of a Category 1, 2 or 3 wetlands?</p>	<input type="checkbox"/> YES Wetland is assigned to the appropriate category based on the scoring range	<input checked="" type="checkbox"/> NO	If the score of the wetland is located within the scoring range for a particular category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on an quantitative score.
<p>Does the quantitative score fall with the “gray zone” for Category 1 or 2 or Category 2 or 3 wetlands?</p>	<input checked="" type="checkbox"/> YES Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	<input type="checkbox"/> NO	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).
<p>Does the wetland otherwise exhibit moderate or superior hydrologic OR habitat, OR recreational functions AND the wetland was not categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?</p>	<input type="checkbox"/> YES Wetland was under categorized by this method. A written justification for re-categorization should be provided on Background Information Form	<input checked="" type="checkbox"/> NO	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland’s biotic communities may be degraded by human activities, but the wetland may still exhibit superior hydrologic functions because of its type, landscape position, size, local or regional significance, etc. In this circumstance, the narrative criteria, in OAC Rula 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A ritten justification with supporting reasons or information for this determination should be provided.

Final Category

Choose One <input type="checkbox"/> Category 1 <input checked="" type="checkbox"/> Category 2 <input type="checkbox"/> Category 3

End of Ohio Rapid Assessment Method for Wetlands

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2	2
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Metric 1. Wetland Area (size).

max 6 pts. subtotal

Select one size class and assign score.

- >50 acres (>20.2ha) (6pts)
- 25 to <50acrea (10.1 to <20.2ha) (5pts)
- 10 to <25 acres (4 to <10.1ha) (4pts)
- 3 to <10 acres (1.2 to <4ha) (3pts)
- 0.3 to <3 acres (0.12 to 1.2ha) (2pts)
- .1 to <0.3acres (0.04 to <0.12ha) (1pts)
- <0.1 acres (0.04ha) (0pts)

4	6
---	---

Metric 2. Upland buffers and surrounding land use.

max 14 pts. subtotal

- 2a. Calculate average buffer width. Select only one and assign score. Do not double check.
- WIDE. Buffers average 50 m (164ft) or more around wetland perimeter (7pts)
 - MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4pts)
 - NARROW. Buffers average 10m to <25m (32ft < 82ft) around wetland perimeter (1pts)
 - VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)
- 2b. Calculate average buffer width. Select only one and assign score. Do not double check.
- VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7pts)
 - LOW. Old field (>10 years), shrub land, young second growth forest. (5pts)
 - MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3pts)
 - HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1pts)

17	23
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Metric 3. Hydrology.

Max 30 pts. subtotal

- 3a. Sources of Water. Score all that apply
- High pH groundwater (5pts)
 - Other groundwater (3pts)
 - Precipitation (1pts)
 - Seasonal/Intermittent surface water (3pts)
 - Perennial surface water (lake or stream) (5pts)
- 3b. Connectivity. Score all that apply
- 100 year floodplain (1pts)
 - Between stream/lake and other human use (1pts)
 - Part of wetland/upland (e.g. forest), complex (1pts)
 - Part of riparian or upland corridor (1pts)
- 3c. Maximum water depth. Select only one and assign score.
- >0.7 (27.6in) (3pts)
 - 0.4 to 0.7m (15.7 to 27.6in) 2pts)
 - <0.4m (<15.7in) (1pts)
- 3d. Duration inundation/saturation. Score one or dbl check.
- Semi- to permanently inundated/saturated (4pts)
 - Regularly inundate/saturated (3pts)
 - Seasonally inundated (2pts)
 - Seasonally saturated in upper 30cm (12in) (1pts)
- 3e. Modifications to natural hydrologic regime. Score one or double check and average.
- None or none apparent (12pts)
 - Recovered (7pts)
 - Recovering (3pts)
 - Recent or no recovery (1pts)

Check all disturbances observed	
<input type="checkbox"/> Ditch	<input type="checkbox"/> Point source (non-storm water)
<input type="checkbox"/> Tile	<input type="checkbox"/> Filing/grading
<input type="checkbox"/> Dike	<input type="checkbox"/> Road bed/RR track
<input type="checkbox"/> Weir	<input type="checkbox"/> Dredging
<input type="checkbox"/> Storm water input	<input type="checkbox"/> Other

15.5	38.5
------	------

Metric 4. Habitat Alteration and Development.

Max 20pts. Subtotal

- 4a. Substrate disturbance. Score one or double-check and average.
- None or none apparent (4pts)
 - Recovered (3pts)
 - Recovered (2pts)
 - Recent or no recovery (1pts)
- 4b. Habitat development. Select only one and assign score.
- Excellent (7pts)
 - Very good (6pts)
 - Good (5pts)
 - Moderately good (4pts)
 - Fair (3pts)
 - Poor to fair (2pts)
 - Poor (pts)
- 4c. Habitat alteration. Score one or double-check and average.
- None or none apparent (9pts)
 - Recovered (6pts)
 - Recovering (3pts)
 - Recent or no recovery (1pts)

Check all disturbances observed	
<input type="checkbox"/> Mowing	<input type="checkbox"/> Shrub/sapling removal
<input type="checkbox"/> Grazing	<input type="checkbox"/> Herbaceous/aquatic bed removal
<input type="checkbox"/> Clear-cutting	<input type="checkbox"/> Sedimentation
<input type="checkbox"/> Selective cutting	<input type="checkbox"/> Dredging
<input type="checkbox"/> Woody debris removal	<input checked="" type="checkbox"/> Farming
<input type="checkbox"/> Toxic pollutants	<input type="checkbox"/> Nutrient enrichment

38.5

Subtotal this page

38.5

Subtotal first page

0	38.5
Max 10pts	Subtotal

Metric 5. Special wetlands.

Check all that apply and score as indicated

- Bog (10pts)
- Fen (10pts)
- Old growth forest (10pts)
- Mature forested wetland (5 pts)
- Lake Erie coastal/tributary wetland-unrestricted hydrology (10pts)
- Lake Erie coastal tributary wetland-restricted hydrology (5pts)
- Lake Plain Sand Prairies (Oak Openings) (10pts)
- Relict Wet Prairies (10pts)
- Known occurrence state/federal threatened or endangered species (10pts)
- Significant migratory songbird/water fowl habitat or usage (10pts)
- Category 1 Wetland. See Question 1 Qualitative Rating (-10pts)

5	43.5
Max 20 pts.	Subtotal

Metric 6. Plant communities, interspersions, micro topography..

6a. Wetland Vegetation Communities
Score all present using 0 to 3 scale.

- | | |
|---|-------------|
| 0 | Aquatic Bed |
| 2 | Emergent |
| 0 | Shrub |
| 0 | Forest |
| 0 | Mudflats |
| 0 | Open Water |
| 0 | Other _____ |

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part put is of low quality
2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
3	Present and comprises significant part, or more of wetland's vegetation and is of high quality

6b. Horizontal (plan view) Interspersion

Select only one.

- High (5pts)
- Moderately high (4pts)
- Moderate (3pts)
- Moderately low (2pts)
- Low (1pts)
- None (0pts)

Narrative Description of Vegetation Quality

low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage

- Extensive >75% cover (-5pts)
- Moderate 25-75% cover (-3pts)
- Sparse 5-25% cover (-1)
- Nearly absent >5% cover (0pts)
- Absent (1pts)

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

6d. Micro topography

Score all present using 0 to 3 scale.

- | | |
|---|---------------------------------|
| 2 | Vegetated hummocks/tussocks |
| 0 | Coarse woody debris >15cm (6in) |
| 0 | Standing dead >25cm (10in) dbh |
| 0 | Amphibian breeding pools |

Micro topography Cover Scale

0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or In small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

43.5

GRAND TOTAL (max 100 pts)

Quantitative Rating

Metric 1. Wetland area (max 6pts). Estimate the area of wetland. Select the appropriate size class and assign score. Estimated areas should clearly place the wetland within the appropriate class.

		score
6pts	≥ 50 acres (≥ 20.2ha)	
5pts	25 - <50 acres (10.1 - <20.2ha)	
4pts	10 - <25 acres (4.0 - <10.1ha)	
3pts	3 - <10 acres (1.2 - <4.0ha)	
2pts	0.3 - <3 acres (0.12 - <1.2ha)	2
1pt	0.1 - <0.3 acres (0.04 - <0.12ha)	
0pts	<0.1 acres (0.04ha)	

Table 2. Metric to English conversion table with visual estimation sizes

acres	ft ²	yd ²	ft on side	yd on side	ha	m ²	m on side
50	2,177,983	241,998	1476	492	20.2	202,000	449
25	1,088,992	120,999	1044	348	10.1	101,000	318
10	435,596	48,340	660	220	4.1	41,000	203
3	130,679	14,520	362	121	1.2	12,000	110
0.3	13,067	1,452	114	38	0.12	1,200	35
0.1	4,356	484	66	22	0.04	400	20

Metric 2. Upland buffers and intensity of surrounding land uses. Maximum 14 points. Wetlands are systems transitional between upland and aquatic environments. Wetlands without "buffers," or that are located where human land use is more intensive, are often, but not always, more degraded.

	score
2a. Average Buffer Width (abw). Calculate the average buffer width and select only one score. To calculate abw, estimate buffer width on each side (max of 50m) and divide by the number of sides. Example: abw of a wetland with buffers of 100m, 25m, 10m and 0m would be calculated as follows: $abw = (50m + 25m + 10m + 0m)/4 = 21.25m$. Intensive land uses are not buffers, e.g. active row cropping, recently abandoned fields, paved areas, housing developments, unfenced pasture, etc.	1
7pts WIDE. >50m (164ft) or more around perimeter	<input type="checkbox"/>
4pts MEDIUM. 25m to <50m (82 to <164ft) around the perimeter	<input type="checkbox"/>
1pt NARROW. 10m to <25m (32 to <82ft) around the perimeter	<input checked="" type="checkbox"/>
0pts VERY NARROW. <10m (<32ft) around perimeter.	<input type="checkbox"/>
2b. Intensity of predominant surround land use(s). Select one, or double check up to two and average score, for the intensity of the predominant land use(s) outside the wetland's buffer zone (if any).	3
7pts VERY LOW. 2 nd growth or older forest, prairie, savannah, wildlife area, etc.	<input type="checkbox"/>
5pts LOW. Old field (>10 yrs), shrubland, young 2 nd growth forest, etc.	<input checked="" type="checkbox"/>
3pts MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field, etc.	<input type="checkbox"/>
1pt HIGH. Urban, industrial, open pasture, row cropping, mining, construction, etc.	<input checked="" type="checkbox"/>

6

Subtotal

Subtotal from previous page

Metric 3. Hydrology Maximum 30 points. **This metric evaluates the wetland's water budget, hydro period, the hydrologic connectivity of the wetland to other surface water, and the degree to which the wetland's hydrology has been altered by human activity.** A wetland can receive no more than 30 points for Metric 3 even though it is possible to score more than 30 points.

		score
3a. Sources of Water. Select all that apply and sum score. This question relates to a wetland's water budget. It also is reflective that wetlands with certain types of water sources, or multiple water sources, e.g. high pH groundwater or perennial surface water connections, can be very high quality wetlands or can have high functions and values.		1
5pts	High pH groundwater (7.5-9.0)	<input type="checkbox"/>
3pts	Other groundwater	<input type="checkbox"/>
1pt	Precipitation	<input checked="" type="checkbox"/>
3pts	Seasonal surface water	<input type="checkbox"/>
5pts	Perennial surface water (lake or stream)	<input type="checkbox"/>
3b. Connectivity. Select all that apply and sum score		1
1pt	100-year floodplain. "Floodplain is defined in OAC Rule 3745-1-50(P) as "...the relatively level land next to a stream or river channel that is periodically submerged by floodwaters. It is composed of alluvium deposited by the present stream or river when it floods." Where they are available, flood insurance rate maps (FIRMs) and flood boundary and floodway maps may be used.	<input type="checkbox"/>
1pt	Between stream/lake and other human land use. This question asks whether the wetland is located <u>between</u> a surface water and a different adjacent land use, such that run-off from the adjacent land use could flow through wetland before it discharges into the surface water. "Different adjacent land uses" include agricultural, commercial, industrial, mining, or residential uses.	<input type="checkbox"/>
1pt	Part of wetland or upland (e.g. forest, prairie) complex. Both this and the next question ask whether the wetland is in physical proximity to, or a part of other nearby wetland or upland natural areas. The difference is whether the area the wetland is "long and narrow" like a river, or more "squarish" like a large forest or woodlot. If the latter is the case, this question applies: if the former, the next question applies. In a few instances, both may apply.	<input checked="" type="checkbox"/>
1pt	Part of riparian or upland corridor. See description above.	<input type="checkbox"/>
3c. Maximum water depth. Select only one and assign score. The Rater <i>does not</i> need to actually observe the wetland when its water depth is greatest in order to award the maximum points for this question. The use of secondary indicators, as outlined in the 1987 Manual will be useful in answering this question.		1
3pts	>0.7m (27.6in)	<input type="checkbox"/>
2pts	0.4 to 0.7m (15.7 to 27.6in)	<input type="checkbox"/>
1pt	<0.4m (<15.7in)	<input checked="" type="checkbox"/>
3d. Duration of inundation/saturation. Select one or double-check and average the scores if duration is uncertain. The use of secondary indicator s is necessary and expected in order to properly answer this Question. Categories correspond to Zones II, III, and IV of 1987 Manual (Table 5). Zone IV subdivided into seasonally		2
4pts	Semi permanently to permanently inundated or saturated.	<input type="checkbox"/>
3pts	Regularly inundated or saturated.	<input type="checkbox"/>
2pts	Seasonally inundated.	<input checked="" type="checkbox"/>
1pt	Seasonally saturated in the upper 30cm (12in) of soil.	<input type="checkbox"/>

Subtotal

Subtotal from previous page

3e. **Modifications to natural hydrologic regime.** Check all observable modifications from list below. Score by selecting the most appropriate description of the wetland. Scores may be double checked and averaged. This question asks the Rater to evaluate the "intactness" of, or lack of disturbance to, the natural hydrologic regime of the type of wetland that is being evaluated.

It is very important to stress that this question does not discriminate between wetlands with different types of hydrologic regime, e.g. between a forested seep wetland located on a floodplain with seasonal inundation and a leather leaf (*Chamaedaphne calyculata*) bog with precipitation and minor amounts of surface run-off from a small watershed. Rather, it asks the rater to evaluate the "intactness" of the hydrologic regime attributable to *that type of wetland*. In the example above, both the forested seep wetland and the leather leaf bog can score the maximum points (12) if they're no, or no apparent, modifications to the natural hydrologic regime.

Once the Rater has listed all possible past and ongoing disturbances, the Rater should check the most appropriate category to describe the present state of the wetland. In instances where the Rater believes that a wetland falls between two categories, or where the Rater is uncertain as to which category is appropriate, it is appropriate to "double check" and average the score.

The labels on the scoring categories are intended to be descriptive but not controlling. In some instances, it may be more appropriate to consider the scoring categories as fixed locations on a hydrologic disturbance continuum, from very high to very low or no disturbance.

The Rater may check one or several of these possible disturbance, yet still determine that the natural hydrologic regime is intact. However, see Metric 4 where these same disturbances may be habitat alterations.

Check all that are observed present in or near the wetland

<input type="checkbox"/> ditch(es), in or near the wetland	<input type="checkbox"/> point source discharges to the (non-storm water)
<input type="checkbox"/> tile(s), in or near the wetland	<input type="checkbox"/> filling/grading activities in or near the wetland
<input type="checkbox"/> dike(s), in or near the wetland	<input type="checkbox"/> road beds/RR beds in or near the wetland
<input type="checkbox"/> weir(s), in or near the wetland	<input type="checkbox"/> dredging activities in or near the wetland
<input type="checkbox"/> storm water inputs (addition of water)	<input type="checkbox"/> other (specify)

<p>Circle one answer. Have any of the disturbances identified above caused or appear to have caused more than trivial alterations to the wetland's natural hydrologic regime, or have they occurred so far in the past that current hydrology should be considered to be "natural"?</p>	<p>YES</p> <p>Assign a score 1, 3 or 7, or an intermediate score, depending on degree of recovery from the disturbance.</p>	<p>NO</p> <p>Assign a score of 12 since there are no or no apparent modifications.</p>	<p>NOT SURE</p> <p>Double check "none or none apparent" and "recovered" and assign a score of 9.5</p>
		X	

Select one or double check adjoining number and average the score.		score
12pts	NONE OR NONE APPARENT. There are no modifications or no modifications that are apparent to the Rater.	12
7pts	RECOVERED. The wetland appears to have recovered from past modifications.	<input checked="" type="checkbox"/>
3pts	RECOVERING. The wetland appears to be in the process of recovering from past modifications	<input type="checkbox"/>
1pt	RECENT OR NO RECOVERY. The modifications have occurred, recently occurred, and/or the wetland has not recovered from past modifications, and/or the modifications are ongoing.	<input type="checkbox"/>

Subtotal

Subtotal from previous page

Metric 4. Habitat Alteration and Development. Maximum 20 points. While hydrology may be the single most important determinant for the establishment and maintenance of specific types of wetlands and wetland processes, there is a range of other factors and activities which affect wetland quality and cause disturbances to wetlands that are unrelated to hydrology. This metric attempts to evaluate these things under the rubric "habitat alteration." In many instances, items checked as possible hydrologic disturbances in Question 3e will be instead alterations to a wetland's habitat or disruptions in its development (succession state). In other instances, a disturbance may be appropriately considered under both Metric 3 and Metric 4. In any case, the Rater should carefully consider what is the actual proximate (direct) cause of the disturbance to the wetland.

4a. **Substrate/Soil Disturbance.** Select one or double check and average. This question evaluates physical disturbances to the soil and surface substrates of the wetland. Note also that the labels on the scoring categories are intended to be descriptive but not controlling. In some instances, it may be more appropriate to consider the scoring categories as fixed locations on a disturbance continuum, from very high to very low or no disturbance.

Examples of substrate/soil disturbance include filling and grading, plowing, grazing (hooves), vehicle use (motorbikes, off-road vehicles, construction vehicles), sedimentation, dredging, and other mechanical disturbances to the surface substrates or soils.

<p>Circle one answer. Have any of soil or substrate disturbances caused or appear to have caused more than trivial alterations to the wetland's natural soils or substrates, or have they occurred so far in the past that current conditions should be considered to be "natural"?</p>	<p>YES <input checked="" type="checkbox"/></p> <p>Assign a score 1, 2 or 3, or an intermediate score, depending on degree of recovery from the disturbance.</p> <p style="text-align: right;">3</p>	<p>NO <input type="checkbox"/></p> <p>Assign a score of 4 since there are no or no apparent modifications.</p>	<p>NOT SURE <input type="checkbox"/></p> <p>Double check "none or none apparent" and "recovered" and assign a score of 3.5</p>
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Select one or double check adjoining number and average the score.		score
4pts	NONE OR NONE APPARENT. There are no modifications or no modifications that are apparent to the Rater.	<input type="checkbox"/>
3pts	RECOVERED. The wetland appears to have recovered from past modifications.	<input checked="" type="checkbox"/>
2pts	RECOVERING. The wetland appears to be in the process of recovering from past modifications	<input type="checkbox"/>
1pt	RECENT OR NO RECOVERY. The modifications have occurred, recently occurred, and/or the wetland has not recovered from past modifications, and/or the modifications are ongoing.	<input type="checkbox"/>

4b. Habitat development. Select only one and assign score. This question asks the Rater to assign an overall qualitative rating of how well developed the wetland is in comparison to other ecologically or hydrogeomorphically similar wetlands. This question presumes a good sense of the types of wetlands and the range in quality typical of the region, watershed, or state.		5
7pts	EXCELLENT. Wetland appears to represent the best of its type or class.	<input type="checkbox"/>
6pts	VERY GOOD. Wetland appears to be a very good example of its type or class but is lacking in characteristics, which would make it excellent.	<input type="checkbox"/>
5pts	GOOD. Wetland appears to be a good example of its type or class but because of past or present disturbances, successional state, or other reasons, is not excellent.	<input checked="" type="checkbox"/>
4pts	MODERATELY GOOD. Wetland appears to be a fair to good example of its type or class.	<input type="checkbox"/>
3pts	FAIR. Wetland appears to be a moderately good example of its type or class but because of past or present disturbances, successional state, etc. is not good.	<input type="checkbox"/>
2pts	POOR TO FAIR. Wetland appears to be a poor to fair example of its type or class.	<input type="checkbox"/>
1pt	POOR. Wetland appears to <u>not</u> be a good example of its type or class because of past or present disturbances, successional state, etc.	<input type="checkbox"/>

Subtotal

Subtotal from previous page

4c. **Habitat alteration.** This question evaluates the “intactness” the natural habitat of the type of wetland that is being evaluated. This question does not discriminate between wetlands with different types of habitat. Check all possible alterations that are observed. All available information, field visits, aerial photos, maps, etc. can be used to identify a possible alteration. Evaluate whether the alteration is trivial in relation to the wetlands overall habitat. Select the most appropriate score that best describes the present state of the wetland. It is appropriate to “double check” and average scores. In some instances, the scores can be viewed as a habitat alteration continuum, from very high to very low or no disturbance. **The Rater may check one or several of these possible disturbances, yet still determine that the natural habitat is intact.**

Check all that are observed present in or near the wetland

<input type="checkbox"/> Mowing	<input type="checkbox"/> Herbaceous layer/aquatic bed removal
<input type="checkbox"/> Grazing (cattle, sheep, pigs, etc.)	<input type="checkbox"/> Sedimentation
<input type="checkbox"/> Clear cutting	<input type="checkbox"/> Dredging
<input type="checkbox"/> Selective cutting	<input checked="" type="checkbox"/> Farming
<input type="checkbox"/> Woody debris removal	<input type="checkbox"/> Nutrient enrichment, e.g. nuisance algae
<input type="checkbox"/> Toxic pollutants	<input type="checkbox"/> Other (specify)
<input type="checkbox"/> Shrub/sapling removal	<input type="checkbox"/> Other (specify)

<p>Circle one answer. Have any of the disturbances identified above caused or appear to have caused more than trivial alterations to the wetland’s natural hydrologic regime, or have they occurred so far in the past that current hydrology should be considered to be “natural”?</p>	<p>YES</p> <p>Assign a score 1, 3 or 6, or an intermediate score, depending on degree of recovery from the disturbance.</p>	<p>NO</p> <p>Assign a score of 9 since there are no or no apparent modifications.</p>	<p>NOT SURE</p> <p>Double check “none or none apparent” and “recovered” and assign a score of 7.5</p>
			X

Select one or double check adjoining number and average the score.		score
		7.5
9pts	NONE OR NONE APPARENT. There are no alterations or no alterations that are apparent to the Rater.	<input checked="" type="checkbox"/>
6pts	RECOVERED. The wetland appears to have recovered from past alterations.	<input checked="" type="checkbox"/>
3pts	RECOVERING. The wetland appears to be in the process of recovering from past alterations/	<input type="checkbox"/>
1pt	RECENT OR NO RECOVERY. The alterations/ have occurred, recently occurred, and/or the wetland has not recovered from past alterations/, and/or the alterations/ are ongoing.	<input type="checkbox"/>

Metric 5. Special wetland communities. Maximum 10 points. Assign or deduct points if wetland has the feature described. Refer to Narrative Rating for guidance. No wetland can receive more than 10 points even if multiple categories are applicable.

<input type="checkbox"/> Bog (10pts)	<input type="checkbox"/> Lake plains sand prairies (Oak Openings) (10 pts)
<input type="checkbox"/> Fen (10 pts)	<input type="checkbox"/> Relict wet prairies (10 pts)
<input type="checkbox"/> Old Growth Forest (10 pts)	<input type="checkbox"/> Known occurrence of threatened/endangered species (10pts)
<input type="checkbox"/> Mature Forested Wetland (5 pts)	<input type="checkbox"/> Significant migratory songbird/waterfowl habitat (10 pts)
<input type="checkbox"/> Coastal wetlands, unrestricted hydrology (10 pts)	<input type="checkbox"/> Category 1 wetlands (See Narrative Rating #5) (-10 pts)
<input type="checkbox"/> Coastal wetlands, restricted hydrology (5 pts)	

Subtotal

Subtotal from previous page

Metric 6. Vegetation, Interspersion, and Microtopography. Maximum 20 points.

6a. Wetland Vegetation Communities. Check each community present <u>both vertically and horizontally</u> within the wetland with an area of at least 0.1hectares or 100m ² (0.2471 acres). Assign a score of 0 to 3 using Tables 3, Table 4 or Table 5. Sum the scores for the classes present.	2
<input type="checkbox"/> Aquatic Bed. Includes areas of wetlands dominated by plants that grow principally on or below the surface of the water for most of the growing season in most years. Floating aquatic species like duckweed (<i>Lemna</i> spp., <i>spirodelaspp.</i>) are excluded from definition of "aquatic bed." Aquatic beds often occur as a distinct zone as an "understory" below shrubs or trees.	0
<input type="checkbox"/> Emergent. Includes areas of wetland dominated by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens. This vegetation is present for most of the growing season in most years. Common names for emergent communities include marsh, wet meadow, wet prairie, sedge meadow, fens, prairie pothole, and bluejoint slough.	2
<input type="checkbox"/> Shrub. Includes areas of wetlands dominated by woody vegetation less than 6m (20ft) tall. The plant species include true shrubs, young trees, or trees or shrubs that are small or stunted because of environmental conditions. Shrub wetlands may represent a successional stage leading to a forested wetland or they may be relatively stable plant communities.	0
<input type="checkbox"/> Forested. Includes wetlands or areas of wetlands characterized by wood vegetation greater than 6m (20ft) or taller. Forested wetlands have an overstory of trees and often contain an understory of young trees and shrubs and an herbaceous layer, although the young tree/shrub and herbaceous layers can be largely missing from some types of forested wetlands. Some forested wetlands are defined as "vernal pools" in OAC Rule 3745-1-50.	0
<input type="checkbox"/> Open water. The "open water" class is equivalent to the "unconsolidated bottom/mud" class/subclass (pub ₃) described in Cowardin et al. (1979) and includes areas of wetlands characterized by exposed or shallowly inundated substrates with vegetative cover less than 30%.	0
<input type="checkbox"/> Other (See User's Manual)	

Table 3. Use this table to assign a cover score for Metric 6a to each of the vegetation communities identified on the preceding page. Refer to Table 6 for narrative descriptions of what "low," "moderate," and "high" quality mean.

Cover scale	Description
0	the vegetation community is either, 1) absent from wetland, or 2) comprises less than 0.1ha (0.2471 acres) of contiguous area within the wetland
1	vegetation community is present and either, 1) comprises a small part of the wetland's vegetation and is of low or moderate quality, or 2) if it comprises a significant part of the wetland's vegetation, the community is of low quality
2	the vegetation community is present and either, 1) comprises a significant part of the wetland's vegetation and is of moderate quality, or 2) the vegetation community comprises a small part of the wetland's vegetation but is of high quality.
3	the vegetation community is of high quality and comprises a significant part, or more of the wetland's vegetation

Table 4. Use this table in conjunction with Table 5 to determine what is a "low," "moderate," or "high quality community"

narrative	description
low	Low species diversity and/or a predominance of non-native or disturbance tolerant native species
moderate	Native species are the dominant component of the vegetation, although non-native or disturbance tolerant native species can also be present, and species diversity is moderate to moderately high, but generally without the presence of rare, threatened, or endangered species.
high	A predominance of native species, with non-native species absent or virtually absent, and high species diversity and sometimes, but not always, the presence of rare, threatened or endangered species.

Table 5. Mudflat and open water community cover scale

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1ha to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Subtotal

Subtotal from previous page

6b. Horizontal (plan view) interspersion. Select only one and assign score. Evaluate the wetland from a "plan view," i.e. as if the looking down upon it. See Figure 1.		1
5pts	HIGH. Wetland has a high degree of interspersion	<input type="checkbox"/>
4pts	MODERATELY HIGH. Wetland has a moderately high degree of interspersion	<input type="checkbox"/>
3pts	MODERATE. Wetland has a moderate degree of interspersion	<input type="checkbox"/>
2pts	MODERATELY LOW. Wetland has a moderately low degree of interspersion	<input type="checkbox"/>
1pt	LOW. Wetland has a low degree of interspersion	<input checked="" type="checkbox"/>
0pts	NONE. Wetland has no plan view interspersion	<input type="checkbox"/>

6c. Coverage of Invasive Plant Species. Refer to Table 1 on Page 7 for list. Select only one and assign score.		0
-5pts	Extensive. >75% areal cover of invasive species	<input type="checkbox"/>
-3pts	Moderate 25-75% areal cover of invasive species	<input type="checkbox"/>
-1pt	Sparse. 5-25% areal cover of invasive species	<input type="checkbox"/>
0pts	Nearly absent. <5% areal cover of invasive species	<input checked="" type="checkbox"/>
1pt	Absent	<input type="checkbox"/>

6d. Microtopography. Check each feature present in the wetland. Assign cover score of 0 to 3 using Table 6. Evaluate various microtopographic habitat features often present in wetlands.		2
	Vegetated hummocks and tussocks.	<input checked="" type="checkbox"/>
	Coarse woody debris >15cm (6in) diameter	<input type="checkbox"/>
	Standing dead trees >25cm (10in) diameter at breast height	<input type="checkbox"/>
	Amphibian breeding habitat, e.g. vernal pools with standing water of sufficient duration and depth to support reproduction, or habitat for from reproduction	<input type="checkbox"/>

Table 6. Cover scale for microtopographic habitat features.

Microtopographic habitat quality	narrative description
0	Feature is absent or functionally absent from the wetland
1	Feature is present in the wetland in very small amounts or if more common, of low quality
2	Feature is present in moderate amounts, but not of highest quality, or in small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

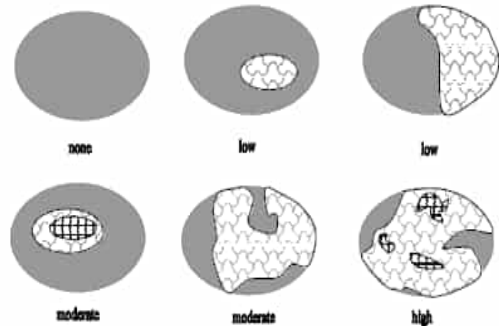


Figure 1. Hypothetical wetlands for estimating degree of interspersion.

GRAND TOTAL

End of Quantitative Rating. Complete Categorization Worksheets.

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: <http://www.epa.state.oh.us/dsw/401/401.html>

ORAM Summary Worksheet

		Circle answer or insert score	Result
Narrative Rating	Question 1: Critical Habitat	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 3.
	Question 2: Threatened or Engagered Species	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 3.
	Question 3: High Quality Natural Wetland	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 3.
	Question 4: Significant bird habitat	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 3.
	Question 5: Category 1 Wetlands	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	If yes, Category 1
	Questions 6: Bogs	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 3.
	Question 7: Fens	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 3.
	Questions 8a: Old Growth Forest	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 3.
	Question 8b: Mature Forested Wetland	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Questions 9b: Lake Erie Wetlands – Restricted	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Questions 9d: Lake Erie Wetlands - Unrestricted	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 3.
	Questions 9e: Lake Erie Wetlands – Unrestricted with invasive plants	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10: Oak Openings	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 3.
	Quest 11: Relict Wet Prairies	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1: Size	1	
	Metric 2: Buffers and surrounding land use	1	
	Metric 3: Hydrology	4	
	Metric 4: Habitat	3	
	Metric 5: Special Wetland Communities	-10	
	Metric 6: Plant communities, interspersion, microtopography	3	
	TOTAL SCORE Consult most recent score calibration report at http://www.epa.state.oh.us/dsw/401/401.html to determine the wetland's category based on its quantitative score	2	Category based on score breakpoints

Complete Wetland Categorization Worksheet

Wetland Categorization Worksheet

Choices	Circle one		Evaluation
<p>Did you answer “Yes” to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10.</p>	<input type="checkbox"/> YES Wetland is categorized as a Category 3 wetland	<input checked="" type="checkbox"/> NO	Is quantitative rating score less than the Category 2 scoring threshold (excluding gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been over-categorized by the ORAM
<p>Did you answer “Yes” to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11</p>	<input type="checkbox"/> YES Wetland should be evaluated for possible Category 3 status	<input checked="" type="checkbox"/> NO	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and or functional assessments may also be used to determine the wetland’s category.
<p>Did you answer “Yes” to Narrative Rating No. 5</p>	<input checked="" type="checkbox"/> YES Wetland is categorized as a Category 1 wetland	<input type="checkbox"/> NO	Is quantitative rating score greater than the Category 2 scoring threshold (including any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
<p>Does the quantitative score fall within the scoring range of a Category 1, 2 or 3 wetlands?</p>	<input checked="" type="checkbox"/> YES Wetland is assigned to the appropriate category based on the scoring range	<input type="checkbox"/> NO	If the score of the wetland is located within the scoring range for a particular category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on an quantitative score.
<p>Does the quantitative score fall with the “gray zone” for Category 1 or 2 or Category 2 or 3 wetlands?</p>	<input type="checkbox"/> YES Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	<input checked="" type="checkbox"/> NO	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).
<p>Does the wetland otherwise exhibit moderate or superior hydrologic OR habitat, OR recreational functions AND the wetland was not categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?</p>	<input type="checkbox"/> YES Wetland was under categorized by this method. A written justification for re-categorization should be provided on Background Information Form	<input checked="" type="checkbox"/> NO	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland’s biotic communities may be degraded by human activities, but the wetland may still exhibit superior hydrologic functions because of its type, landscape position, size, local or regional significance, etc. In this circumstance, the narrative criteria, in OAC Rula 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A ritten justification with supporting reasons or information for this determination should be provided.

Final Category

Choose One	<input checked="" type="checkbox"/> Category 1	<input type="checkbox"/> Category 2	<input type="checkbox"/> Category 3
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End of Ohio Rapid Assessment Method for Wetlands

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1	1
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Metric 1. Wetland Area (size).

max 6 pts. subtotal

Select one size class and assign score.

- >50 acres (>20.2ha) (6pts)
- 25 to <50acrea (10.1 to <20.2ha) (5pts)
- 10 to <25 acres (4 to <10.1ha) (4pts)
- 3 to <10 acres (1.2 to <4ha) (3pts)
- 0.3 to <3 acres (0.12 to 1.2ha) (2pts)
- .1 to <0.3acres (0.04 to <0.12ha) (1pts)
- <0.1 acres (0.04ha) (0pts)

1	2
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Metric 2. Upland buffers and surrounding land use.

max 14 pts. subtotal

- 2a. Calculate average buffer width. Select only one and assign score. Do not double check.
- WIDE. Buffers average 50 m (164ft) or more around wetland perimeter (7pts)
 - MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4pts)
 - NARROW. Buffers average 10m to <25m (32ft < 82ft) around wetland perimeter (1pts)
 - VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)
- 2b. Calculate average buffer width. Select only one and assign score. Do not double check.
- VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7pts)
 - LOW. Old field (>10 years), shrub land, young second growth forest. (5pts)
 - MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3pts)
 - HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1pts)

4	6
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Metric 3. Hydrology.

Max 30 pts. subtotal

- 3a. Sources of Water. Score all that apply
- High pH groundwater (5pts)
 - Other groundwater (3pts)
 - Precipitation (1pts)
 - Seasonal/Intermittent surface water (3pts)
 - Perennial surface water (lake or stream) (5pts)
- 3b. Connectivity. Score all that apply
- 100 year floodplain (1pts)
 - Between stream/lake and other human use (1pts)
 - Part of wetland/upland (e.g. forest), complex (1pts)
 - Part of riparian or upland corridor (1pts)
- 3c. Maximum water depth. Select only one and assign score.
- >0.7 (27.6in) (3pts)
 - 0.4 to 0.7m (15.7 to 27.6in) 2pts)
 - <0.4m (<15.7in) (1pts)
- 3d. Duration inundation/saturation. Score one or dbl check.
- Semi- to permanently inundated/saturated (4pts)
 - Regularly inundate/saturated (3pts)
 - Seasonally inundated (2pts)
 - Seasonally saturated in upper 30cm (12in) (1pts)
- 3e. Modifications to natural hydrologic regime. Score one or double check and average.
- | | | | | | | | | | | | |
|---|---|--------------------------------|---|-------------------------------|---|-------------------------------|---|-------------------------------|-----------------------------------|--|--------------------------------|
| <ul style="list-style-type: none"> <input type="checkbox"/> None or none apparent (12pts) <input type="checkbox"/> Recovered (7pts) <input type="checkbox"/> Recovering (3pts) <input checked="" type="checkbox"/> Recent or no recovery (1pts) | <p>Check all disturbances observed</p> <table style="width:100%;"> <tr> <td><input type="checkbox"/> Ditch</td> <td><input type="checkbox"/> Point source (non-storm water)</td> </tr> <tr> <td><input type="checkbox"/> Tile</td> <td><input type="checkbox"/> Filing/grading</td> </tr> <tr> <td><input type="checkbox"/> Dike</td> <td><input checked="" type="checkbox"/> Road bed/RR track</td> </tr> <tr> <td><input type="checkbox"/> Weir</td> <td><input type="checkbox"/> Dredging</td> </tr> <tr> <td><input type="checkbox"/> Storm water input</td> <td><input type="checkbox"/> Other</td> </tr> </table> | <input type="checkbox"/> Ditch | <input type="checkbox"/> Point source (non-storm water) | <input type="checkbox"/> Tile | <input type="checkbox"/> Filing/grading | <input type="checkbox"/> Dike | <input checked="" type="checkbox"/> Road bed/RR track | <input type="checkbox"/> Weir | <input type="checkbox"/> Dredging | <input type="checkbox"/> Storm water input | <input type="checkbox"/> Other |
| <input type="checkbox"/> Ditch | <input type="checkbox"/> Point source (non-storm water) | | | | | | | | | | |
| <input type="checkbox"/> Tile | <input type="checkbox"/> Filing/grading | | | | | | | | | | |
| <input type="checkbox"/> Dike | <input checked="" type="checkbox"/> Road bed/RR track | | | | | | | | | | |
| <input type="checkbox"/> Weir | <input type="checkbox"/> Dredging | | | | | | | | | | |
| <input type="checkbox"/> Storm water input | <input type="checkbox"/> Other | | | | | | | | | | |

3	9
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Metric 4. Habitat Alteration and Development.

Max 20pts. Subtotal

- 4a. Substrate disturbance. Score one or double-check and average.
- None or none apparent (4pts)
 - Recovered (3pts)
 - Recovered (2pts)
 - Recent or no recovery (1pts)
- 4b. Habitat development. Select only one and assign score.
- Excellent (7pts)
 - Very good (6pts)
 - Good (5pts)
 - Moderately good (4pts)
 - Fair (3pts)
 - Poor to fair (2pts)
 - Poor (pts)
- 4c. Habitat alteration. Score one or double-check and average.
- | | | | | | | | | | | | | | |
|--|--|--|--|----------------------------------|---|--|--|--|-----------------------------------|---|---|---|--|
| <ul style="list-style-type: none"> <input type="checkbox"/> None or none apparent (9pts) <input type="checkbox"/> Recovered (6pts) <input type="checkbox"/> Recovering (3pts) <input checked="" type="checkbox"/> Recent or no recovery (1pts) | <p>Check all disturbances observed</p> <table style="width:100%;"> <tr> <td><input checked="" type="checkbox"/> Mowing</td> <td><input type="checkbox"/> Shrub/sapling removal</td> </tr> <tr> <td><input type="checkbox"/> Grazing</td> <td><input type="checkbox"/> Herbaceous/aquatic bed removal</td> </tr> <tr> <td><input type="checkbox"/> Clear-cutting</td> <td><input type="checkbox"/> Sedimentation</td> </tr> <tr> <td><input type="checkbox"/> Selective cutting</td> <td><input type="checkbox"/> Dredging</td> </tr> <tr> <td><input type="checkbox"/> Woody debris removal</td> <td><input checked="" type="checkbox"/> Farming</td> </tr> <tr> <td><input type="checkbox"/> Toxic pollutants</td> <td><input type="checkbox"/> Nutrient enrichment</td> </tr> </table> | <input checked="" type="checkbox"/> Mowing | <input type="checkbox"/> Shrub/sapling removal | <input type="checkbox"/> Grazing | <input type="checkbox"/> Herbaceous/aquatic bed removal | <input type="checkbox"/> Clear-cutting | <input type="checkbox"/> Sedimentation | <input type="checkbox"/> Selective cutting | <input type="checkbox"/> Dredging | <input type="checkbox"/> Woody debris removal | <input checked="" type="checkbox"/> Farming | <input type="checkbox"/> Toxic pollutants | <input type="checkbox"/> Nutrient enrichment |
| <input checked="" type="checkbox"/> Mowing | <input type="checkbox"/> Shrub/sapling removal | | | | | | | | | | | | |
| <input type="checkbox"/> Grazing | <input type="checkbox"/> Herbaceous/aquatic bed removal | | | | | | | | | | | | |
| <input type="checkbox"/> Clear-cutting | <input type="checkbox"/> Sedimentation | | | | | | | | | | | | |
| <input type="checkbox"/> Selective cutting | <input type="checkbox"/> Dredging | | | | | | | | | | | | |
| <input type="checkbox"/> Woody debris removal | <input checked="" type="checkbox"/> Farming | | | | | | | | | | | | |
| <input type="checkbox"/> Toxic pollutants | <input type="checkbox"/> Nutrient enrichment | | | | | | | | | | | | |

9

Subtotal this page

9

Subtotal first page

-10	-1
Max 10pts	Subtotal

Metric 5. Special wetlands.

Check all that apply and score as indicated

- Bog (10pts)
- Fen (10pts)
- Old growth forest (10pts)
- Mature forested wetland (5 pts)
- Lake Erie coastal/tributary wetland-unrestricted hydrology (10pts)
- Lake Erie coastal tributary wetland-restricted hydrology (5pts)
- Lake Plain Sand Prairies (Oak Openings) (10pts)
- Relict Wet Prairies (10pts)
- Known occurrence state/federal threatened or endangered species (10pts)
- Significant migratory songbird/water fowl habitat or usage (10pts)
- Category 1 Wetland. See Question 1 Qualitative Rating (-10pts)

3	2
Max 20 pts.	Subtotal

Metric 6. Plant communities, interspersions, micro topography..

6a. Wetland Vegetation Communities
Score all present using 0 to 3 scale.

- | | |
|---|-------------|
| 0 | Aquatic Bed |
| 1 | Emergent |
| 0 | Shrub |
| 0 | Forest |
| 0 | Mudflats |
| 0 | Open Water |
| | Other _____ |

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part put is of low quality
2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
3	Present and comprises significant part, or more of wetland's vegetation and is of high quality

6b. Horizontal (plan view) Interspersion

Select only one.

- High (5pts)
- Moderately high (4pts)
- Moderate (3pts)
- Moderately low (2pts)
- Low (1pts)
- None (0pts)

Narrative Description of Vegetation Quality

low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage

- Extensive >75% cover (-5pts)
- Moderate 25-75% cover (-3pts)
- Sparse 5-25% cover (-1)
- Nearly absent >5% cover (0pts)
- Absent (1pts)

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

6d. Micro topography

Score all present using 0 to 3 scale.

- | | |
|---|---------------------------------|
| 0 | Vegetated hummocks/tussocks |
| 0 | Coarse woody debris >15cm (6in) |
| 0 | Standing dead >25cm (10in) dbh |
| 0 | Amphibian breeding pools |

Micro topography Cover Scale

0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or In small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

2

GRAND TOTAL (max 100 pts)

Quantitative Rating

Metric 1. Wetland area (max 6pts). Estimate the area of wetland. Select the appropriate size class and assign score. Estimated areas should clearly place the wetland within the appropriate class.

		score
6pts	≥ 50 acres (≥ 20.2ha)	
5pts	25 - <50 acres (10.1 - <20.2ha)	
4pts	10 - <25 acres (4.0 - <10.1ha)	
3pts	3 - <10 acres (1.2 - <4.0ha)	
2pts	0.3 - <3 acres (0.12 - <1.2ha)	
1pt	0.1 - <0.3 acres (0.04 - <0.12ha)	1
0pts	<0.1 acres (0.04ha)	

Table 2. Metric to English conversion table with visual estimation sizes

acres	ft ²	yd ²	ft on side	yd on side	ha	m ²	m on side
50	2,177,983	241,998	1476	492	20.2	202,000	449
25	1,088,992	120,999	1044	348	10.1	101,000	318
10	435,596	48,340	660	220	4.1	41,000	203
3	130,679	14,520	362	121	1.2	12,000	110
0.3	13,067	1,452	114	38	0.12	1,200	35
0.1	4,356	484	66	22	0.04	400	20

Metric 2. Upland buffers and intensity of surrounding land uses. Maximum 14 points. Wetlands are systems transitional between upland and aquatic environments. Wetlands without “buffers,” or that are located where human land use is more intensive, are often, but not always, more degraded.

		score
2a. Average Buffer Width (abw). Calculate the average buffer width and select only one score. To calculate abw, estimate buffer width on each side (max of 50m) and divide by the number of sides. Example: abw of a wetland with buffers of 100m, 25m, 10m and 0m would be calculated as follows: $abw = (50m + 25m + 10m + 0m)/4 = 21.25m$. Intensive land uses are not buffers, e.g. active row cropping, recently abandoned fields, paved areas, housing developments, unfenced pasture, etc.		0
7pts	WIDE. >50m (164ft) or more around perimeter	<input type="checkbox"/>
4pts	MEDIUM. 25m to <50m (82 to <164ft) around the perimeter	<input type="checkbox"/>
1pt	NARROW. 10m to <25m (32 to <82ft) around the perimeter	<input type="checkbox"/>
0pts	VERY NARROW. <10m (<32ft) around perimeter.	<input checked="" type="checkbox"/>
2b. Intensity of predominant surround land use(s). Select one, or double check up to two and average score, for the intensity of the predominant land use(s) outside the wetland’s buffer zone (if any).		1
7pts	VERY LOW. 2 nd growth or older forest, prairie, savannah, wildlife area, etc.	<input type="checkbox"/>
5pts	LOW. Old field (>10 yrs), shrubland, young 2 nd growth forest, etc.	<input type="checkbox"/>
3pts	MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field, etc.	<input type="checkbox"/>
1pt	HIGH. Urban, industrial, open pasture, row cropping, mining, construction, etc.	<input checked="" type="checkbox"/>

2

Subtotal

Subtotal from previous page

Metric 3. Hydrology Maximum 30 points. **This metric evaluates the wetland's water budget, hydro period, the hydrologic connectivity of the wetland to other surface water, and the degree to which the wetland's hydrology has been altered by human activity.** A wetland can receive no more than 30 points for Metric 3 even though it is possible to score more than 30 points.

		score
3a. Sources of Water. Select all that apply and sum score. This question relates to a wetland's water budget. It also is reflective that wetlands with certain types of water sources, or multiple water sources, e.g. high pH groundwater or perennial surface water connections, can be very high quality wetlands or can have high functions and values.		1
5pts	High pH groundwater (7.5-9.0)	<input type="checkbox"/>
3pts	Other groundwater	<input type="checkbox"/>
1pt	Precipitation	<input checked="" type="checkbox"/>
3pts	Seasonal surface water	<input type="checkbox"/>
5pts	Perennial surface water (lake or stream)	<input type="checkbox"/>
3b. Connectivity. Select all that apply and sum score		0
1pt	100-year floodplain. "Floodplain is defined in OAC Rule 3745-1-50(P) as "...the relatively level land next to a stream or river channel that is periodically submerged by floodwaters. It is composed of alluvium deposited by the present stream or river when it floods." Where they are available, flood insurance rate maps (FIRMs) and flood boundary and floodway maps may be used.	<input type="checkbox"/>
1pt	Between stream/lake and other human land use. This question asks whether the wetland is located <u>between</u> a surface water and a different adjacent land use, such that run-off from the adjacent land use could flow through wetland before it discharges into the surface water. "Different adjacent land uses" include agricultural, commercial, industrial, mining, or residential uses.	<input type="checkbox"/>
1pt	Part of wetland or upland (e.g. forest, prairie) complex. Both this and the next question ask whether the wetland is in physical proximity to, or a part of other nearby wetland or upland natural areas. The difference is whether the area the wetland is "long and narrow" like a river, or more "squarish" like a large forest or woodlot. If the latter is the case, this question applies: if the former, the next question applies. In a few instances, both may apply.	<input type="checkbox"/>
1pt	Part of riparian or upland corridor. See description above.	<input type="checkbox"/>
3c. Maximum water depth. Select only one and assign score. The Rater <i>does not</i> need to actually observe the wetland when its water depth is greatest in order to award the maximum points for this question. The use of secondary indicators, as outlined in the 1987 Manual will be useful in answering this question.		1
3pts	>0.7m (27.6in)	<input type="checkbox"/>
2pts	0.4 to 0.7m (15.7 to 27.6in)	<input type="checkbox"/>
1pt	<0.4m (<15.7in)	<input checked="" type="checkbox"/>
3d. Duration of inundation/saturation. Select one or double-check and average the scores if duration is uncertain. The use of secondary indicator s is necessary and expected in order to properly answer this Question. Categories correspond to Zones II, III, and IV of 1987 Manual (Table 5). Zone IV subdivided into seasonally		1
4pts	Semi permanently to permanently inundated or saturated.	<input type="checkbox"/>
3pts	Regularly inundated or saturated.	<input type="checkbox"/>
2pts	Seasonally inundated.	<input type="checkbox"/>
1pt	Seasonally saturated in the upper 30cm (12in) of soil.	<input checked="" type="checkbox"/>

Subtotal

Subtotal from previous page

3e. **Modifications to natural hydrologic regime.** Check all observable modifications from list below. Score by selecting the most appropriate description of the wetland. Scores may be double checked and averaged. This question asks the Rater to evaluate the "intactness" of, or lack of disturbance to, the natural hydrologic regime of the type of wetland that is being evaluated.

It is very important to stress that this question does not discriminate between wetlands with different types of hydrologic regime, e.g. between a forested seep wetland located on a floodplain with seasonal inundation and a leather leaf (*Chamaedaphne calyculata*) bog with precipitation and minor amounts of surface run-off from a small watershed. Rather, it asks the rater to evaluate the "intactness" of the hydrologic regime attributable to *that type of wetland*. In the example above, both the forested seep wetland and the leather leaf bog can score the maximum points (12) if they're no, or no apparent, modifications to the natural hydrologic regime.

Once the Rater has listed all possible past and ongoing disturbances, the Rater should check the most appropriate category to describe the present state of the wetland. In instances where the Rater believes that a wetland falls between two categories, or where the Rater is uncertain as to which category is appropriate, it is appropriate to "double check" and average the score.

The labels on the scoring categories are intended to be descriptive but not controlling. In some instances, it may be more appropriate to consider the scoring categories as fixed locations on a hydrologic disturbance continuum, from very high to very low or no disturbance.

The Rater may check one or several of these possible disturbance, yet still determine that the natural hydrologic regime is intact. However, see Metric 4 where these same disturbances may be habitat alterations.

Check all that are observed present in or near the wetland

<input type="checkbox"/> ditch(es), in or near the wetland	<input type="checkbox"/> point source discharges to the (non-storm water)
<input type="checkbox"/> tile(s), in or near the wetland	<input type="checkbox"/> filling/grading activities in or near the wetland
<input type="checkbox"/> dike(s), in or near the wetland	<input checked="" type="checkbox"/> road beds/RR beds in or near the wetland
<input type="checkbox"/> weir(s), in or near the wetland	<input type="checkbox"/> dredging activities in or near the wetland
<input type="checkbox"/> storm water inputs (addition of water)	<input type="checkbox"/> other (specify)

<p>Circle one answer. Have any of the disturbances identified above caused or appear to have caused more than trivial alterations to the wetland's natural hydrologic regime, or have they occurred so far in the past that current hydrology should be considered to be "natural"?</p>	<p>YES</p> <p>Assign a score 1, 3 or 7, or an intermediate score, depending on degree of recovery from the disturbance.</p>	<p>NO</p> <p>Assign a score of 12 since there are no or no apparent modifications.</p>	<p>NOT SURE</p> <p>Double check "none or none apparent" and "recovered" and assign a score of 9.5</p>
	X		

Select one or double check adjoining number and average the score.		score
12pts	NONE OR NONE APPARENT. There are no modifications or no modifications that are apparent to the Rater.	<input type="checkbox"/>
7pts	RECOVERED. The wetland appears to have recovered from past modifications.	<input type="checkbox"/>
3pts	RECOVERING. The wetland appears to be in the process of recovering from past modifications	<input type="checkbox"/>
1pt	RECENT OR NO RECOVERY. The modifications have occurred, recently occurred, and/or the wetland has not recovered from past modifications, and/or the modifications are ongoing.	<input checked="" type="checkbox"/>

Subtotal

Metric 4. Habitat Alteration and Development. Maximum 20 points. While hydrology may be the single most important determinant for the establishment and maintenance of specific types of wetlands and wetland processes, there is a range of other factors and activities which affect wetland quality and cause disturbances to wetlands that are unrelated to hydrology. This metric attempts to evaluate these things under the rubric "habitat alteration." In many instances, items checked as possible hydrologic disturbances in Question 3e will be instead alterations to a wetland's habitat or disruptions in its development (succession state). In other instances, a disturbance may be appropriately considered under both Metric 3 and Metric 4. In any case, the Rater should carefully consider what is the actual proximate (direct) cause of the disturbance to the wetland.

4a. **Substrate/Soil Disturbance.** Select one or double check and average. This question evaluates physical disturbances to the soil and surface substrates of the wetland. Note also that the labels on the scoring categories are intended to be descriptive but not controlling. In some instances, it may be more appropriate to consider the scoring categories as fixed locations on a disturbance continuum, from very high to very low or no disturbance.

Examples of substrate/soil disturbance include filling and grading, plowing, grazing (hooves), vehicle use (motorbikes, off-road vehicles, construction vehicles), sedimentation, dredging, and other mechanical disturbances to the surface substrates or soils.

<p>Circle one answer. Have any of soil or substrate disturbances caused or appear to have caused more than trivial alterations to the wetland's natural soils or substrates, or have they occurred so far in the past that current conditions should be considered to be "natural"?</p>	<p>YES <input checked="" type="checkbox"/></p> <p>Assign a score 1, 2 or 3, or an intermediate score, depending on degree of recovery from the disturbance.</p>	<p>NO <input type="checkbox"/></p> <p>Assign a score of 4 since there are no or no apparent modifications.</p>	<p>NOT SURE <input type="checkbox"/></p> <p>Double check "none or none apparent" and "recovered" and assign a score of 3.5</p>
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Select one or double check adjoining number and average the score.		score
4pts	NONE OR NONE APPARENT. There are no modifications or no modifications that are apparent to the Rater.	<input type="checkbox"/>
3pts	RECOVERED. The wetland appears to have recovered from past modifications.	<input type="checkbox"/>
2pts	RECOVERING. The wetland appears to be in the process of recovering from past modifications	<input type="checkbox"/>
1pt	RECENT OR NO RECOVERY. The modifications have occurred, recently occurred, and/or the wetland has not recovered from past modifications, and/or the modifications are ongoing.	<input checked="" type="checkbox"/>

<p>4b. Habitat development. Select only one and assign score. This question asks the Rater to assign an overall qualitative rating of how well developed the wetland is in comparison to other ecologically or hydrogeomorphically similar wetlands. This question presumes a good sense of the types of wetlands and the range in quality typical of the region, watershed, or state.</p>		1
7pts	EXCELLENT. Wetland appears to represent the best of its type or class.	<input type="checkbox"/>
6pts	VERY GOOD. Wetland appears to be a very good example of its type or class but is lacking in characteristics, which would make it excellent.	<input type="checkbox"/>
5pts	GOOD. Wetland appears to be a good example of its type or class but because of past or present disturbances, successional state, or other reasons, is not excellent.	<input type="checkbox"/>
4pts	MODERATELY GOOD. Wetland appears to be a fair to good example of its type or class.	<input type="checkbox"/>
3pts	FAIR. Wetland appears to be a moderately good example of its type or class but because of past or present disturbances, successional state, etc. is not good.	<input type="checkbox"/>
2pts	POOR TO FAIR. Wetland appears to be a poor to fair example of its type or class.	<input type="checkbox"/>
1pt	POOR. Wetland appears to <u>not</u> be a good example of its type or class because of past or present disturbances, successional state, etc.	<input checked="" type="checkbox"/>

Subtotal from previous page

4c. **Habitat alteration.** This question evaluates the “intactness” the natural habitat of the type of wetland that is being evaluated. This question does not discriminate between wetlands with different types of habitat. Check all possible alterations that are observed. All available information, field visits, aerial photos, maps, etc. can be used to identify a possible alteration. Evaluate whether the alteration is trivial in relation to the wetlands overall habitat. Select the most appropriate score that best describes the present state of the wetland. It is appropriate to “double check” and average scores. In some instances, the scores can be viewed as a habitat alteration continuum, from very high to very low or no disturbance. **The Rater may check one or several of these possible disturbances, yet still determine that the natural habitat is intact.**

Check all that are observed present in or near the wetland

<input checked="" type="checkbox"/>	Mowing	<input type="checkbox"/>	Herbaceous layer/aquatic bed removal
<input type="checkbox"/>	Grazing (cattle, sheep, pigs, etc.)	<input type="checkbox"/>	Sedimentation
<input type="checkbox"/>	Clear cutting	<input type="checkbox"/>	Dredging
<input type="checkbox"/>	Selective cutting	<input checked="" type="checkbox"/>	Farming
<input type="checkbox"/>	Woody debris removal	<input type="checkbox"/>	Nutrient enrichment, e.g. nuisance algae
<input type="checkbox"/>	Toxic pollutants	<input type="checkbox"/>	Other (specify)
<input type="checkbox"/>	Shrub/sapling removal	<input type="checkbox"/>	Other (specify)

<p>Circle one answer. Have any of the disturbances identified above caused or appear to have caused more than trivial alterations to the wetland's natural hydrologic regime, or have they occurred so far in the past that current hydrology should be considered to be “natural”?</p>	<p>YES</p> <p>Assign a score 1, 3 or 6, or an intermediate score, depending on degree of recovery from the disturbance.</p>	<p>NO</p> <p>Assign a score of 9 since there are no or no apparent modifications.</p>	<p>NOT SURE</p> <p>Double check “none or none apparent” and “recovered” and assign a score of 7.5</p>
X			

Select one or double check adjoining number and average the score.		score
9pts	NONE OR NONE APPARENT. There are no alterations or no alterations that are apparent to the Rater.	1
6pts	RECOVERED. The wetland appears to have recovered from past alterations.	<input type="checkbox"/>
3pts	RECOVERING. The wetland appears to be in the process of recovering from past alterations/	<input type="checkbox"/>
1pt	RECENT OR NO RECOVERY. The alterations/ have occurred, recently occurred, and/or the wetland has not recovered from past alterations/, and/or the alterations/ are ongoing.	<input checked="" type="checkbox"/>

Metric 5. Special wetland communities. Maximum 10 points. Assign or deduct points if wetland has the feature described. Refer to Narrative Rating for guidance. No wetland can receive more than 10 points even if multiple categories are applicable.

<input type="checkbox"/>	Bog (10pts)	<input type="checkbox"/>	Lake plains sand prairies (Oak Openings) (10 pts)
<input type="checkbox"/>	Fen (10 pts)	<input type="checkbox"/>	Relict wet prairies (10 pts)
<input type="checkbox"/>	Old Growth Forest (10 pts)	<input type="checkbox"/>	Known occurrence of threatened/endangered species (10pts)
<input type="checkbox"/>	Mature Forested Wetland (5 pts)	<input type="checkbox"/>	Significant migratory songbird/waterfowl habitat (10 pts)
<input type="checkbox"/>	Coastal wetlands, unrestricted hydrology (10 pts)	<input checked="" type="checkbox"/>	Category 1 wetlands (See Narrative Rating #5) (-10 pts)
<input type="checkbox"/>	Coastal wetlands, restricted hydrology (5 pts)		

Subtotal

Subtotal from previous page

Metric 6. Vegetation, Interspersion, and Microtopography. Maximum 20 points.

6a.	Wetland Vegetation Communities. Check each community present <u>both vertically and horizontally</u> within the wetland with an area of at least 0.1hectares or 100m ² (0.2471 acres). Assign a score of 0 to 3 using Tables 3, Table 4 or Table 5. Sum the scores for the classes present.	1
<input type="checkbox"/>	Aquatic Bed. Includes areas of wetlands dominated by plants that grow principally on or below the surface of the water for most of the growing season in most years. Floating aquatic species like duckweed (<i>Lemna</i> spp., <i>spirodelaspp.</i>) are excluded from definition of "aquatic bed." Aquatic beds often occur as a distinct zone as an "understory" below shrubs or trees.	0
<input checked="" type="checkbox"/>	Emergent. Includes areas of wetland dominated by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens. This vegetation is present for most of the growing season in most years. Common names for emergent communities include marsh, wet meadow, wet prairie, sedge meadow, fens, prairie pothole, and bluejoint slough.	1
<input type="checkbox"/>	Shrub. Includes areas of wetlands dominated by woody vegetation less than 6m (20ft) tall. The plant species include true shrubs, young trees, or trees or shrubs that are small or stunted because of environmental conditions. Shrub wetlands may represent a successional stage leading to a forested wetland or they may be relatively stable plant communities.	0
<input type="checkbox"/>	Forested. Includes wetlands or areas of wetlands characterized by wood vegetation greater than 6m (20ft) or taller. Forested wetlands have an overstory of trees and often contain an understory of young trees and shrubs and an herbaceous layer, although the young tree/shrub and herbaceous layers can be largely missing from some types of forested wetlands. Some forested wetlands are defined as "vernal pools" in OAC Rule 3745-1-50.	0
<input type="checkbox"/>	Open water. The "open water" class is equivalent to the "unconsolidated bottom/mud" class/subclass (pub ₃) described in Cowardin et al. (1979) and includes areas of wetlands characterized by exposed or shallowly inundated substrates with vegetative cover less than 30%.	0
<input type="checkbox"/>	Other (See User's Manual)	

Table 3. Use this table to assign a cover score for Metric 6a to each of the vegetation communities identified on the preceding page. Refer to Table 6 for narrative descriptions of what "low," "moderate," and "high" quality mean.

Cover scale	Description
0	the vegetation community is either, 1) absent from wetland, or 2) comprises less than 0.1ha (0.2471 acres) of contiguous area within the wetland
1	vegetation community is present and either, 1) comprises a small part of the wetland's vegetation and is of low or moderate quality, or 2) if it comprises a significant part of the wetland's vegetation, the community is of low quality
2	the vegetation community is present and either, 1) comprises a significant part of the wetland's vegetation and is of moderate quality, or 2) the vegetation community comprises a small part of the wetland's vegetation but is of high quality.
3	the vegetation community is of high quality and comprises a significant part, or more of the wetland's vegetation

Table 4. Use this table in conjunction with Table 5 to determine what is a "low," "moderate," or "high quality community"

narrative	description
low	Low species diversity and/or a predominance of non-native or disturbance tolerant native species
moderate	Native species are the dominant component of the vegetaion, although non-native or disturbance tolerant native species can also be present, and species diversity is moderate to moderately high, but generally without the presence of rare, threatened, or endangered species.
high	A predominance of native species, with non-native species absent or virtually absent, and high species diversity and sometimes, but not always, the presence of rare, threatened or endangered species.

Table 5. Mudflat and open water community cover scale

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1ha to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

0

Subtotal

6b. Horizontal (plan view) interspersion. Select only one and assign score. Evaluate the wetland from a "plan view," i.e. as if the looking down upon it. See Figure 1.		1
5pts	HIGH. Wetland has a high degree of interspersion	<input type="checkbox"/>
4pts	MODERATELY HIGH. Wetland has a moderately high degree of interspersion	<input type="checkbox"/>
3pts	MODERATE. Wetland has a moderate degree of interspersion	<input type="checkbox"/>
2pts	MODERATELY LOW. Wetland has a moderately low degree of interspersion	<input type="checkbox"/>
1pt	LOW. Wetland has a low degree of interspersion	<input checked="" type="checkbox"/>
0pts	NONE. Wetland has no plan view interspersion	<input type="checkbox"/>

6c. Coverage of Invasive Plant Species. Refer to Table 1 on Page 7 for list. Select only one and assign score.		1
-5pts	Extensive. >75% areal cover of invasive species	<input type="checkbox"/>
-3pts	Moderate 25-75% areal cover of invasive species	<input type="checkbox"/>
-1pt	Sparse. 5-25% areal cover of invasive species	<input type="checkbox"/>
0pts	Nearly absent. <5% areal cover of invasive species	<input type="checkbox"/>
1pt	Absent	<input checked="" type="checkbox"/>

6d. Microtopography. Check each feature present in the wetland. Assign cover score of 0 to 3 using Table 6. Evaluate various microtopographic habitat features often present in wetlands.		0
Vegetated hummocks and tussocks.		<input type="checkbox"/>
Coarse woody debris >15cm (6in) diameter		<input type="checkbox"/>
Standing dead trees >25cm (10in) diameter at breast height		<input type="checkbox"/>
Amphibian breeding habitat, e.g. vernal pools with standing water of sufficient duration and depth to support reproduction, or habitat for from reproduction		<input type="checkbox"/>

Table 6. Cover scale for microtopographic habitat features.

Microtopographic habitat quality	narrative description
0	Feature is absent or functionally absent from the wetland
1	Feature is present in the wetland in very small amounts or if more common, of low quality
2	Feature is present in moderate amounts, but not of highest quality, or in small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

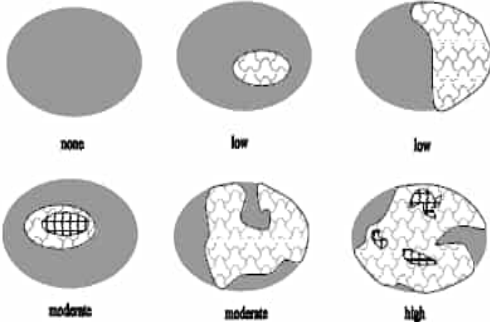


Figure 1. Hypothetical wetlands for estimating degree of interspersion.

End of Quantitative Rating. Complete Categorization Worksheets.

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: <http://www.epa.state.oh.us/dsw/401/401.html>

ORAM Summary Worksheet

		Circle answer or insert score	Result
Narrative Rating	Question 1: Critical Habitat	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 3.
	Question 2: Threatened or Engagered Species	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 3.
	Question 3: High Quality Natural Wetland	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 3.
	Question 4: Significant bird habitat	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 3.
	Question 5: Category 1 Wetlands	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 1
	Questions 6: Bogs	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 3.
	Question 7: Fens	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 3.
	Questions 8a: Old Growth Forest	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 3.
	Question 8b: Mature Forested Wetland	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Questions 9b: Lake Erie Wetlands – Restricted	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Questions 9d: Lake Erie Wetlands - Unrestricted	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 3.
	Questions 9e: Lake Erie Wetlands – Unrestricted with invasive plants	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10: Oak Openings	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 3.
Quest 11: Relict Wet Prairies	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, evaluate for Category 3; may also be 1 or 2.	
Quantitative Rating	Metric 1: Size	1	
	Metric 2: Buffers and surrounding land use	2	
	Metric 3: Hydrology	16	
	Metric 4: Habitat	7	
	Metric 5: Special Wetland Communities	-10	
	Metric 6: Plant communities, interspersion, microtopography	2	
	TOTAL SCORE Consult most recent score calibration report at http://www.epa.state.oh.us/dsw/401/401.html to determine the wetland's category based on its quantitative score	18	Category based on score breakpoints

Complete Wetland Categorization Worksheet

Wetland Categorization Worksheet

Choices	Circle one		Evaluation
<p>Did you answer “Yes” to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10.</p>	<input type="checkbox"/> YES Wetland is categorized as a Category 3 wetland	<input type="checkbox"/> NO	Is quantitative rating score less than the Category 2 scoring threshold (excluding gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been over-categorized by the ORAM
<p>Did you answer “Yes” to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11</p>	<input type="checkbox"/> YES Wetland should be evaluated for possible Category 3 status	<input checked="" type="checkbox"/> NO	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and or functional assessments may also be used to determine the wetland’s category.
<p>Did you answer “Yes” to Narrative Rating No. 5</p>	<input type="checkbox"/> YES Wetland is categorized as a Category 1 wetland	<input checked="" type="checkbox"/> NO	Is quantitative rating score greater than the Category 2 scoring threshold (including any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
<p>Does the quantitative score fall within the scoring range of a Category 1, 2 or 3 wetlands?</p>	<input type="checkbox"/> YES Wetland is assigned to the appropriate category based on the scoring range	<input checked="" type="checkbox"/> NO	If the score of the wetland is located within the scoring range for a particular category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on an quantitative score.
<p>Does the quantitative score fall with the “gray zone” for Category 1 or 2 or Category 2 or 3 wetlands?</p>	<input type="checkbox"/> YES Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	<input checked="" type="checkbox"/> NO	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).
<p>Does the wetland otherwise exhibit moderate or superior hydrologic OR habitat, OR recreational functions AND the wetland was not categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?</p>	<input type="checkbox"/> YES Wetland was under categorized by this method. A written justification for re-categorization should be provided on Background Information Form	<input checked="" type="checkbox"/> NO	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland’s biotic communities may be degraded by human activities, but the wetland may still exhibit superior hydrologic functions because of its type, landscape position, size, local or regional significance, etc. In this circumstance, the narrative criteria, in OAC Rula 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A ritten justification with supporting reasons or information for this determination should be provided.

Final Category

Choose One	<input checked="" type="checkbox"/> Category 1	<input type="checkbox"/> Category 2	<input type="checkbox"/> Category 3
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End of Ohio Rapid Assessment Method for Wetlands

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1	1
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Metric 1. Wetland Area (size).

max 6 pts. subtotal

Select one size class and assign score.

- >50 acres (>20.2ha) (6pts)
- 25 to <50acrea (10.1 to <20.2ha) (5pts)
- 10 to <25 acres (4 to <10.1ha) (4pts)
- 3 to <10 acres (1.2 to <4ha) (3pts)
- 0.3 to <3 acres (0.12 to 1.2ha) (2pts)
- .1 to <0.3acres (0.04 to <0.12ha) (1pts)
- <0.1 acres (0.04ha) (0pts)

1	2
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Metric 2. Upland buffers and surrounding land use.

max 14 pts. subtotal

- 2a. Calculate average buffer width. Select only one and assign score. Do not double check.
- WIDE. Buffers average 50 m (164ft) or more around wetland perimeter (7pts)
 - MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4pts)
 - NARROW. Buffers average 10m to <25m (32ft < 82ft) around wetland perimeter (1pts)
 - VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)
- 2b. Calculate average buffer width. Select only one and assign score. Do not double check.
- VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7pts)
 - LOW. Old field (>10 years), shrub land, young second growth forest. (5pts)
 - MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3pts)
 - HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1pts)

6	8
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Metric 3. Hydrology.

Max 30 pts. subtotal

- 3a. Sources of Water. Score all that apply
- High pH groundwater (5pts)
 - Other groundwater (3pts)
 - Precipitation (1pts)
 - Seasonal/Intermittent surface water (3pts)
 - Perennial surface water (lake or stream) (5pts)
- 3b. Connectivity. Score all that apply
- 100 year floodplain (1pts)
 - Between stream/lake and other human use (1pts)
 - Part of wetland/upland (e.g. forest), complex (1pts)
 - Part of riparian or upland corridor (1pts)
- 3c. Maximum water depth. Select only one and assign score.
- >0.7 (27.6in) (3pts)
 - 0.4 to 0.7m (15.7 to 27.6in) 2pts)
 - <0.4m (<15.7in) (1pts)
- 3d. Duration inundation/saturation. Score one or dbl check.
- Semi- to permanently inundated/saturated (4pts)
 - Regularly inundate/saturated (3pts)
 - Seasonally inundated (2pts)
 - Seasonally saturated in upper 30cm (12in) (1pts)
- 3e. Modifications to natural hydrologic regime. Score one or double check and average.
- None or none apparent (12pts)
 - Recovered (7pts)
 - Recovering (3pts)
 - Recent or no recovery (1pts)

Check all disturbances observed	
<input type="checkbox"/> Ditch	<input type="checkbox"/> Point source (non-storm water)
<input type="checkbox"/> Tile	<input type="checkbox"/> Filing/grading
<input type="checkbox"/> Dike	<input type="checkbox"/> Road bed/RR track
<input type="checkbox"/> Weir	<input type="checkbox"/> Dredging
<input type="checkbox"/> Storm water input	<input type="checkbox"/> Other

9	17
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Metric 4. Habitat Alteration and Development.

Max 20pts. Subtotal

- 4a. Substrate disturbance. Score one or double-check and average.
- None or none apparent (4pts)
 - Recovered (3pts)
 - Recovered (2pts)
 - Recent or no recovery (1pts)
- 4b. Habitat development. Select only one and assign score.
- Excellent (7pts)
 - Very good (6pts)
 - Good (5pts)
 - Moderately good (4pts)
 - Fair (3pts)
 - Poor to fair (2pts)
 - Poor (pts)
- 4c. Habitat alteration. Score one or double-check and average.
- None or none apparent (9pts)
 - Recovered (6pts)
 - Recovering (3pts)
 - Recent or no recovery (1pts)

Check all disturbances observed	
<input checked="" type="checkbox"/> Mowing	<input type="checkbox"/> Shrub/sapling removal
<input type="checkbox"/> Grazing	<input type="checkbox"/> Herbaceous/aquatic bed removal
<input checked="" type="checkbox"/> Clear-cutting	<input type="checkbox"/> Sedimentation
<input type="checkbox"/> Selective cutting	<input type="checkbox"/> Dredging
<input type="checkbox"/> Woody debris removal	<input checked="" type="checkbox"/> Farming
<input type="checkbox"/> Toxic pollutants	<input type="checkbox"/> Nutrient enrichment

17

Subtotal this page

17

Subtotal first page

-10	7
Max 10pts	Subtotal

Metric 5. Special wetlands.

Check all that apply and score as indicated

- Bog (10pts)
- Fen (10pts)
- Old growth forest (10pts)
- Mature forested wetland (5 pts)
- Lake Erie coastal/tributary wetland-unrestricted hydrology (10pts)
- Lake Erie coastal tributary wetland-restricted hydrology (5pts)
- Lake Plain Sand Prairies (Oak Openings) (10pts)
- Relict Wet Prairies (10pts)
- Known occurrence state/federal threatened or endangered species (10pts)
- Significant migratory songbird/water fowl habitat or usage (10pts)
- Category 1 Wetland. See Question 1 Qualitative Rating (-10pts)

14	21
Max 20 pts.	Subtotal

Metric 6. Plant communities, interspersions, micro topography..

6a. Wetland Vegetation Communities
Score all present using 0 to 3 scale.

- 0 Aquatic Bed
- 3 Emergent
- 1 Shrub
- 0 Forest
- 0 Mudflats
- 0 Open Water
- Other _____

Vegetation Community Cover Scale	
0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part put is of low quality
2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
3	Present and comprises significant part, or more of wetland's vegetation and is of high quality

6b. Horizontal (plan view) Interspersion

- Select only one.
- High (5pts)
 - Moderately high (4pts)
 - Moderate (3pts)
 - Moderately low (2pts)
 - Low (1pts)
 - None (0pts)

Narrative Description of Vegetation Quality	
low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage

- Extensive >75% cover (-5pts)
- Moderate 25-75% cover (-3pts)
- Sparse 5-25% cover (-1)
- Nearly absent >5% cover (0pts)
- Absent (1pts)

Mudflat and Open Water Class Quality	
0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

6d. Micro topography
Score all present using 0 to 3 scale.

- 0 Vegetated hummocks/tussocks
- 1 Coarse woody debris >15cn (6in)
- 0 Standing dead >25cm (10in) dbh
- 0 Amphibian breeding pools

Micro topography Cover Scale	
0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or In small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

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GRAND TOTAL (max 100 pts)

Quantitative Rating

Metric 1. Wetland area (max 6pts). Estimate the area of wetland. Select the appropriate size class and assign score. Estimated areas should clearly place the wetland within the appropriate class.

		score
6pts	≥ 50 acres (≥ 20.2ha)	
5pts	25 - <50 acres (10.1 - <20.2ha)	
4pts	10 - <25 acres (4.0 - <10.1ha)	
3pts	3 - <10 acres (1.2 - <4.0ha)	
2pts	0.3 - <3 acres (0.12 - <1.2ha)	
1pt	0.1 - <0.3 acres (0.04 - <0.12ha)	2
0pts	<0.1 acres (0.04ha)	

Table 2. Metric to English conversion table with visual estimation sizes

acres	ft ²	yd ²	ft on side	yd on side	ha	m ²	m on side
50	2,177,983	241,998	1476	492	20.2	202,000	449
25	1,088,992	120,999	1044	348	10.1	101,000	318
10	435,596	48,340	660	220	4.1	41,000	203
3	130,679	14,520	362	121	1.2	12,000	110
0.3	13,067	1,452	114	38	0.12	1,200	35
0.1	4,356	484	66	22	0.04	400	20

Metric 2. Upland buffers and intensity of surrounding land uses. Maximum 14 points. Wetlands are systems transitional between upland and aquatic environments. Wetlands without “buffers,” or that are located where human land use is more intensive, are often, but not always, more degraded.

		score
<p>2a. Average Buffer Width (abw). Calculate the average buffer width and select only one score. To calculate abw, estimate buffer width on each side (max of 50m) and divide by the number of sides. Example: abw of a wetland with buffers of 100m, 25m, 10m and 0m would be calculated as follows: $abw = (50m + 25m + 10m + 0m)/4 = 21.25m$. Intensive land uses are not buffers, e.g. active row cropping, recently abandoned fields, paved areas, housing developments, unfenced pasture, etc.</p>		
7pts	WIDE. >50m (164ft) or more around perimeter	<input type="checkbox"/>
4pts	MEDIUM. 25m to <50m (82 to <164ft) around the perimeter	<input type="checkbox"/>
1pt	NARROW. 10m to <25m (32 to <82ft) around the perimeter	<input type="checkbox"/>
0pts	VERY NARROW. <10m (<32ft) around perimeter.	<input checked="" type="checkbox"/>
<p>2b. Intensity of predominant surround land use(s). Select one, or double check up to two and average score, for the intensity of the predominant land use(s) outside the wetland’s buffer zone (if any).</p>		
7pts	VERY LOW. 2 nd growth or older forest, prairie, savannah, wildlife area, etc.	<input type="checkbox"/>
5pts	LOW. Old field (>10 yrs), shrubland, young 2 nd growth forest, etc.	<input type="checkbox"/>
3pts	MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field, etc.	<input type="checkbox"/>
1pt	HIGH. Urban, industrial, open pasture, row cropping, mining, construction, etc.	<input checked="" type="checkbox"/>

3

Subtotal

Subtotal from previous page

Metric 3. Hydrology Maximum 30 points. **This metric evaluates the wetland's water budget, hydro period, the hydrologic connectivity of the wetland to other surface water, and the degree to which the wetland's hydrology has been altered by human activity.** A wetland can receive no more than 30 points for Metric 3 even though it is possible to score more than 30 points.

		score
3a. Sources of Water. Select all that apply and sum score. This question relates to a wetland's water budget. It also is reflective that wetlands with certain types of water sources, or multiple water sources, e.g. high pH groundwater or perennial surface water connections, can be very high quality wetlands or can have high functions and values.		1
5pts	High pH groundwater (7.5-9.0)	<input type="checkbox"/>
3pts	Other groundwater	<input type="checkbox"/>
1pt	Precipitation	<input checked="" type="checkbox"/>
3pts	Seasonal surface water	<input type="checkbox"/>
5pts	Perennial surface water (lake or stream)	<input type="checkbox"/>
3b. Connectivity. Select all that apply and sum score		1
1pt	100-year floodplain. "Floodplain is defined in OAC Rule 3745-1-50(P) as "...the relatively level land next to a stream or river channel that is periodically submerged by floodwaters. It is composed of alluvium deposited by the present stream or river when it floods." Where they are available, flood insurance rate maps (FIRMs) and flood boundary and floodway maps may be used.	<input type="checkbox"/>
1pt	Between stream/lake and other human land use. This question asks whether the wetland is located <u>between</u> a surface water and a different adjacent land use, such that run-off from the adjacent land use could flow through wetland before it discharges into the surface water. "Different adjacent land uses" include agricultural, commercial, industrial, mining, or residential uses.	<input checked="" type="checkbox"/>
1pt	Part of wetland or upland (e.g. forest, prairie) complex. Both this and the next question ask whether the wetland is in physical proximity to, or a part of other nearby wetland or upland natural areas. The difference is whether the area the wetland is "long and narrow" like a river, or more "squarish" like a large forest or woodlot. If the latter is the case, this question applies: if the former, the next question applies. In a few instances, both may apply.	<input type="checkbox"/>
1pt	Part of riparian or upland corridor. See description above.	<input type="checkbox"/>
3c. Maximum water depth. Select only one and assign score. The Rater <i>does not</i> need to actually observe the wetland when its water depth is greatest in order to award the maximum points for this question. The use of secondary indicators, as outlined in the 1987 Manual will be useful in answering this question.		1
3pts	>0.7m (27.6in)	<input type="checkbox"/>
2pts	0.4 to 0.7m (15.7 to 27.6in)	<input type="checkbox"/>
1pt	<0.4m (<15.7in)	<input checked="" type="checkbox"/>
3d. Duration of inundation/saturation. Select one or double-check and average the scores if duration is uncertain. The use of secondary indicator s is necessary and expected in order to properly answer this Question. Categories correspond to Zones II, III, and IV of 1987 Manual (Table 5). Zone IV subdivided into seasonally		2
4pts	Semi permanently to permanently inundated or saturated.	<input type="checkbox"/>
3pts	Regularly inundated or saturated.	<input type="checkbox"/>
2pts	Seasonally inundated.	<input checked="" type="checkbox"/>
1pt	Seasonally saturated in the upper 30cm (12in) of soil.	<input type="checkbox"/>

Subtotal

Subtotal from previous page

3e. **Modifications to natural hydrologic regime.** Check all observable modifications from list below. Score by selecting the most appropriate description of the wetland. Scores may be double checked and averaged. This question asks the Rater to evaluate the "intactness" of, or lack of disturbance to, the natural hydrologic regime of the type of wetland that is being evaluated.

It is very important to stress that this question does not discriminate between wetlands with different types of hydrologic regime, e.g. between a forested seep wetland located on a floodplain with seasonal inundation and a leather leaf (*Chamaedaphne calyculata*) bog with precipitation and minor amounts of surface run-off from a small watershed. Rather, it asks the rater to evaluate the "intactness" of the hydrologic regime attributable to *that type of wetland*. In the example above, both the forested seep wetland and the leather leaf bog can score the maximum points (12) if they're no, or no apparent, modifications to the natural hydrologic regime.

Once the Rater has listed all possible past and ongoing disturbances, the Rater should check the most appropriate category to describe the present state of the wetland. In instances where the Rater believes that a wetland falls between two categories, or where the Rater is uncertain as to which category is appropriate, it is appropriate to "double check" and average the score.

The labels on the scoring categories are intended to be descriptive but not controlling. In some instances, it may be more appropriate to consider the scoring categories as fixed locations on a hydrologic disturbance continuum, from very high to very low or no disturbance.

The Rater may check one or several of these possible disturbance, yet still determine that the natural hydrologic regime is intact. However, see Metric 4 where these same disturbances may be habitat alterations.

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Check all that are observed present in or near the wetland

<input type="checkbox"/> ditch(es), in or near the wetland	<input type="checkbox"/> point source discharges to the (non-storm water)
<input type="checkbox"/> tile(s), in or near the wetland	<input type="checkbox"/> filling/grading activities in or near the wetland
<input type="checkbox"/> dike(s), in or near the wetland	<input type="checkbox"/> road beds/RR beds in or near the wetland
<input type="checkbox"/> weir(s), in or near the wetland	<input type="checkbox"/> dredging activities in or near the wetland
<input type="checkbox"/> storm water inputs (addition of water)	<input type="checkbox"/> other (specify)

<p>Circle one answer. Have any of the disturbances identified above caused or appear to have caused more than trivial alterations to the wetland's natural hydrologic regime, or have they occurred so far in the past that current hydrology should be considered to be "natural"?</p>	<p>YES</p> <p>Assign a score 1, 3 or 7, or an intermediate score, depending on degree of recovery from the disturbance.</p>	<p>NO</p> <p>Assign a score of 12 since there are no or no apparent modifications.</p>	<p>NOT SURE</p> <p>Double check "none or none apparent" and "recovered" and assign a score of 9.5</p>
			12

Select one or double check adjoining number and average the score.		score
	12pts NONE OR NONE APPARENT. There are no modifications or no modifications that are apparent to the Rater.	<input type="checkbox"/>
7pts	RECOVERED. The wetland appears to have recovered from past modifications.	<input type="checkbox"/>
3pts	RECOVERING. The wetland appears to be in the process of recovering from past modifications	<input checked="" type="checkbox"/>
1pt	RECENT OR NO RECOVERY. The modifications have occurred, recently occurred, and/or the wetland has not recovered from past modifications, and/or the modifications are ongoing.	<input type="checkbox"/>

Subtotal

Subtotal from previous page

Metric 4. Habitat Alteration and Development. Maximum 20 points. While hydrology may be the single most important determinant for the establishment and maintenance of specific types of wetlands and wetland processes, there is a range of other factors and activities which affect wetland quality and cause disturbances to wetlands that are unrelated to hydrology. This metric attempts to evaluate these things under the rubric "habitat alteration." In many instances, items checked as possible hydrologic disturbances in Question 3e will be instead alterations to a wetland's habitat or disruptions in its development (succession state). In other instances, a disturbance may be appropriately considered under both Metric 3 and Metric 4. In any case, the Rater should carefully consider what is the actual proximate (direct) cause of the disturbance to the wetland.

4a. **Substrate/Soil Disturbance.** Select one or double check and average. This question evaluates physical disturbances to the soil and surface substrates of the wetland. Note also that the labels on the scoring categories are intended to be descriptive but not controlling. In some instances, it may be more appropriate to consider the scoring categories as fixed locations on a disturbance continuum, from very high to very low or no disturbance.

Examples of substrate/soil disturbance include filling and grading, plowing, grazing (hooves), vehicle use (motorbikes, off-road vehicles, construction vehicles), sedimentation, dredging, and other mechanical disturbances to the surface substrates or soils.

2

<p>Circle one answer. Have any of soil or substrate disturbances caused or appear to have caused more than trivial alterations to the wetland's natural soils or substrates, or have they occurred so far in the past that current conditions should be considered to be "natural"?</p>	<p>YES <input checked="" type="checkbox"/></p> <p>Assign a score 1, 2 or 3, or an intermediate score, depending on degree of recovery from the disturbance.</p> <p style="text-align: right;">2</p>	<p>NO <input type="checkbox"/></p> <p>Assign a score of 4 since there are no or no apparent modifications.</p>	<p>NOT SURE <input type="checkbox"/></p> <p>Double check "none or none apparent" and "recovered" and assign a score of 3.5</p>
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Select one or double check adjoining number and average the score.		score
		2
4pts	NONE OR NONE APPARENT. There are no modifications or no modifications that are apparent to the Rater.	<input type="checkbox"/>
3pts	RECOVERED. The wetland appears to have recovered from past modifications.	<input type="checkbox"/>
2pts	RECOVERING. The wetland appears to be in the process of recovering from past modifications	<input checked="" type="checkbox"/>
1pt	RECENT OR NO RECOVERY. The modifications have occurred, recently occurred, and/or the wetland has not recovered from past modifications, and/or the modifications are ongoing.	<input type="checkbox"/>

4b. Habitat development. Select only one and assign score. This question asks the Rater to assign an overall qualitative rating of how well developed the wetland is in comparison to other ecologically or hydrogeomorphically similar wetlands. This question presumes a good sense of the types of wetlands and the range in quality typical of the region, watershed, or state.		3
7pts	EXCELLENT. Wetland appears to represent the best of its type or class.	<input type="checkbox"/>
6pts	VERY GOOD. Wetland appears to be a very good example of its type or class but is lacking in characteristics, which would make it excellent.	<input type="checkbox"/>
5pts	GOOD. Wetland appears to be a good example of its type or class but because of past or present disturbances, successional state, or other reasons, is not excellent.	<input type="checkbox"/>
4pts	MODERATELY GOOD. Wetland appears to be a fair to good example of its type or class.	<input type="checkbox"/>
3pts	FAIR. Wetland appears to be a moderately good example of its type or class but because of past or present disturbances, successional state, etc. is not good.	<input checked="" type="checkbox"/>
2pts	POOR TO FAIR. Wetland appears to be a poor to fair example of its type or class.	<input type="checkbox"/>
1pt	POOR. Wetland appears to <u>not</u> be a good example of its type or class because of past or present disturbances, successional state, etc.	<input type="checkbox"/>

Subtotal

Subtotal from previous page

4c. **Habitat alteration.** This question evaluates the “intactness” the natural habitat of the type of wetland that is being evaluated. This question does not discriminate between wetlands with different types of habitat. Check all possible alterations that are observed. All available information, field visits, aerial photos, maps, etc. can be used to identify a possible alteration. Evaluate whether the alteration is trivial in relation to the wetlands overall habitat. Select the most appropriate score that best describes the present state of the wetland. It is appropriate to “double check” and average scores. In some instances, the scores can be viewed as a habitat alteration continuum, from very high to very low or no disturbance. **The Rater may check one or several of these possible disturbances, yet still determine that the natural habitat is intact.**

3

Check all that are observed present in or near the wetland

<input checked="" type="checkbox"/>	Mowing	<input type="checkbox"/>	Herbaceous layer/aquatic bed removal
<input type="checkbox"/>	Grazing (cattle, sheep, pigs, etc.)	<input type="checkbox"/>	Sedimentation
<input checked="" type="checkbox"/>	Clear cutting	<input type="checkbox"/>	Dredging
<input type="checkbox"/>	Selective cutting	<input checked="" type="checkbox"/>	Farming
<input type="checkbox"/>	Woody debris removal	<input type="checkbox"/>	Nutrient enrichment, e.g. nuisance algae
<input type="checkbox"/>	Toxic pollutants	<input type="checkbox"/>	Other (specify)
<input type="checkbox"/>	Shrub/sapling removal	<input type="checkbox"/>	Other (specify)

<p>Circle one answer. Have any of the disturbances identified above caused or appear to have caused more than trivial alterations to the wetland's natural hydrologic regime, or have they occurred so far in the past that current hydrology should be considered to be “natural”?</p>	<p>YES</p> <p>Assign a score 1, 3 or 6, or an intermediate score, depending on degree of recovery from the disturbance.</p>	<p>NO</p> <p>Assign a score of 9 since there are no or no apparent modifications.</p>	<p>NOT SURE</p> <p>Double check “none or none apparent” and “recovered” and assign a score of 7.5</p>
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3

Select one or double check adjoining number and average the score.		score
		3
9pts	NONE OR NONE APPARENT. There are no alterations or no alterations that are apparent to the Rater.	<input type="checkbox"/>
6pts	RECOVERED. The wetland appears to have recovered from past alterations.	<input type="checkbox"/>
3pts	RECOVERING. The wetland appears to be in the process of recovering from past alterations/	<input checked="" type="checkbox"/>
1pt	RECENT OR NO RECOVERY. The alterations/ have occurred, recently occurred, and/or the wetland has not recovered from past alterations/, and/or the alterations/ are ongoing.	<input type="checkbox"/>

Metric 5. Special wetland communities. Maximum 10 points. Assign or deduct points if wetland has the feature described. Refer to Narrative Rating for guidance. No wetland can receive more than 10 points even if multiple categories are applicable.

<input type="checkbox"/>	Bog (10pts)	<input type="checkbox"/>	Lake plains sand prairies (Oak Openings) (10 pts)
<input type="checkbox"/>	Fen (10 pts)	<input type="checkbox"/>	Relict wet prairies (10 pts)
<input type="checkbox"/>	Old Growth Forest (10 pts)	<input type="checkbox"/>	Known occurrence of threatened/endangered species (10pts)
<input type="checkbox"/>	Mature Forested Wetland (5 pts)	<input type="checkbox"/>	Significant migratory songbird/waterfowl habitat (10 pts)
<input type="checkbox"/>	Coastal wetlands, unrestricted hydrology (10 pts)	<input checked="" type="checkbox"/>	Category 1 wetlands (See Narrative Rating #5) (-10 pts)
<input type="checkbox"/>	Coastal wetlands, restricted hydrology (5 pts)		

Subtotal

Subtotal from previous page

Metric 6. Vegetation, Interspersion, and Microtopography. Maximum 20 points.

6a.	Wetland Vegetation Communities. Check each community present <u>both vertically and horizontally</u> within the wetland with an area of at least 0.1hectares or 100m ² (0.2471 acres). Assign a score of 0 to 3 using Tables 3, Table 4 or Table 5. Sum the scores for the classes present.	4
<input type="checkbox"/>	Aquatic Bed. Includes areas of wetlands dominated by plants that grow principally on or below the surface of the water for most of the growing season in most years. Floating aquatic species like duckweed (<i>Lemna</i> spp., <i>spirodelaspp.</i>) are excluded from definition of "aquatic bed." Aquatic beds often occur as a distinct zone as an "understory" below shrubs or trees.	0
<input checked="" type="checkbox"/>	Emergent. Includes areas of wetland dominated by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens. This vegetation is present for most of the growing season in most years. Common names for emergent communities include marsh, wet meadow, wet prairie, sedge meadow, fens, prairie pothole, and bluejoint slough.	3
<input type="checkbox"/>	Shrub. Includes areas of wetlands dominated by woody vegetation less than 6m (20ft) tall. The plant species include true shrubs, young trees, or trees or shrubs that are small or stunted because of environmental conditions. Shrub wetlands may represent a successional stage leading to a forested wetland or they may be relatively stable plant communities.	1
<input type="checkbox"/>	Forested. Includes wetlands or areas of wetlands characterized by wood vegetation greater than 6m (20ft) or taller. Forested wetlands have an overstory of trees and often contain an understory of young trees and shrubs and an herbaceous layer, although the young tree/shrub and herbaceous layers can be largely missing from some types of forested wetlands. Some forested wetlands are defined as "vernal pools" in OAC Rule 3745-1-50.	0
<input type="checkbox"/>	Open water. The "open water" class is equivalent to the "unconsolidated bottom/mud" class/subclass (pub ₃) described in Cowardin et al. (1979) and includes areas of wetlands characterized by exposed or shallowly inundated substrates with vegetative cover less than 30%.	0
<input type="checkbox"/>	Other (See User's Manual)	0

Table 3. Use this table to assign a cover score for Metric 6a to each of the vegetation communities identified on the preceding page. Refer to Table 6 for narrative descriptions of what "low," "moderate," and "high" quality mean.

Cover scale	Description
0	the vegetation community is either, 1) absent from wetland, or 2) comprises less than 0.1ha (0.2471 acres) of contiguous area within the wetland
1	vegetation community is present and either, 1) comprises a small part of the wetland's vegetation and is of low or moderate quality, or 2) if it comprises a significant part of the wetland's vegetation, the community is of low quality
2	the vegetation community is present and either, 1) comprises a significant part of the wetland's vegetation and is of moderate quality, or 2) the vegetation community comprises a small part of the wetland's vegetation but is of high quality.
3	the vegetation community is of high quality and comprises a significant part, or more of the wetland's vegetation

Table 4. Use this table in conjunction with Table 5 to determine what is a "low," "moderate," or "high quality community"

narrative	description
low	Low species diversity and/or a predominance of non-native or disturbance tolerant native species
moderate	Native species are the dominant component of the vegetaion, although non-native or disturbance tolerant native species can also be present, and species diversity is moderate to moderately high, but generally without the presence of rare, threatened, or endangered species.
high	A predominance of native species, with non-native species absent or virtually absent, and high species diversity and sometimes, but not always, the presence of rare, threatened or endangered species.

Table 5. Mudflat and open water community cover scale

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1ha to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Subtotal

Subtotal from previous page

6b. Horizontal (plan view) interspersion. Select only one and assign score. Evaluate the wetland from a "plan view," i.e. as if the looking down upon it. See Figure 1.		3
5pts	HIGH. Wetland has a high degree of interspersion	<input type="checkbox"/>
4pts	MODERATELY HIGH. Wetland has a moderately high degree of interspersion	<input type="checkbox"/>
3pts	MODERATE. Wetland has a moderate degree of interspersion	<input checked="" type="checkbox"/>
2pts	MODERATELY LOW. Wetland has a moderately low degree of interspersion	<input type="checkbox"/>
1pt	LOW. Wetland has a low degree of interspersion	<input type="checkbox"/>
0pts	NONE. Wetland has no plan view interspersion	<input type="checkbox"/>

6c. Coverage of Invasive Plant Species. Refer to Table 1 on Page 7 for list. Select only one and assign score.		0
-5pts	Extensive. >75% areal cover of invasive species	<input type="checkbox"/>
-3pts	Moderate 25-75% areal cover of invasive species	<input type="checkbox"/>
-1pt	Sparse. 5-25% areal cover of invasive species	<input type="checkbox"/>
0pts	Nearly absent. <5% areal cover of invasive species	<input checked="" type="checkbox"/>
1pt	Absent	<input type="checkbox"/>

6d. Microtopography. Check each feature present in the wetland. Assign cover score of 0 to 3 using Table 6. Evaluate various microtopographic habitat features often present in wetlands.		0
Vegetated hummocks and tussocks.		<input type="checkbox"/>
Coarse woody debris >15cm (6in) diameter		<input type="checkbox"/>
Standing dead trees >25cm (10in) diameter at breast height		<input type="checkbox"/>
Amphibian breeding habitat, e.g. vernal pools with standing water of sufficient duration and depth to support reproduction, or habitat for from reproduction		<input type="checkbox"/>

Table 6. Cover scale for microtopographic habitat features.

Microtopographic habitat quality	narrative description
0	Feature is absent or functionally absent from the wetland
1	Feature is present in the wetland in very small amounts or if more common, of low quality
2	Feature is present in moderate amounts, but not of highest quality, or in small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

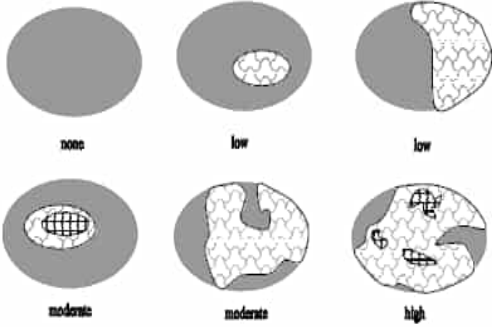


Figure 1. Hypothetical wetlands for estimating degree of interspersion.

GRAND TOTAL

End of Quantitative Rating. Complete Categorization Worksheets.

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: <http://www.epa.state.oh.us/dsw/401/401.html>

ORAM Summary Worksheet

		Circle answer or insert score	Result
Narrative Rating	Question 1: Critical Habitat	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 3.
	Question 2: Threatened or Engagered Species	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 3.
	Question 3: High Quality Natural Wetland	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 3.
	Question 4: Significant bird habitat	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 3.
	Question 5: Category 1 Wetlands	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 1
	Questions 6: Bogs	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 3.
	Question 7: Fens	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 3.
	Questions 8a: Old Growth Forest	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 3.
	Question 8b: Mature Forested Wetland	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Questions 9b: Lake Erie Wetlands – Restricted	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Questions 9d: Lake Erie Wetlands - Unrestricted	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 3.
	Questions 9e: Lake Erie Wetlands – Unrestricted with invasive plants	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10: Oak Openings	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 3.
Quest 11: Relict Wet Prairies	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, evaluate for Category 3; may also be 1 or 2.	
Quantitative Rating	Metric 1: Size	1	
	Metric 2: Buffers and surrounding land use	1	
	Metric 3: Hydrology	10	
	Metric 4: Habitat	7	
	Metric 5: Special Wetland Communities	-10	
	Metric 6: Plant communities, interspersion, microtopography	4	
	TOTAL SCORE Consult most recent score calibration report at http://www.epa.state.oh.us/dsw/401/401.html to determine the wetland's category based on its quantitative score	13	Category based on score breakpoints

Complete Wetland Categorization Worksheet

Wetland Categorization Worksheet

Choices	Circle one		Evaluation
<p>Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10.</p>	<input type="checkbox"/> YES Wetland is categorized as a Category 3 wetland	<input checked="" type="checkbox"/> NO	<p>Is quantitative rating score less than the Category 2 scoring threshold (excluding gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been over-categorized by the ORAM</p>
<p>Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11</p>	<input type="checkbox"/> YES Wetland should be evaluated for possible Category 3 status	<input checked="" type="checkbox"/> NO	<p>Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and or functional assessments may also be used to determine the wetland's category.</p>
<p>Did you answer "Yes" to Narrative Rating No. 5</p>	<input type="checkbox"/> YES Wetland is categorized as a Category 1 wetland	<input checked="" type="checkbox"/> NO	<p>Is quantitative rating score greater than the Category 2 scoring threshold (including any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM</p>
<p>Does the quantitative score fall within the scoring range of a Category 1, 2 or 3 wetlands?</p>	<input type="checkbox"/> YES Wetland is assigned to the appropriate category based on the scoring range	<input checked="" type="checkbox"/> NO	<p>If the score of the wetland is located within the scoring range for a particular category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on an quantitative score.</p>
<p>Does the quantitative score fall with the "gray zone" for Category 1 or 2 or Category 2 or 3 wetlands?</p>	<input type="checkbox"/> YES Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	<input checked="" type="checkbox"/> NO	<p>Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).</p>
<p>Does the wetland otherwise exhibit moderate or superior hydrologic OR habitat, OR recreational functions AND the wetland was not categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?</p>	<input type="checkbox"/> YES Wetland was under categorized by this method. A written justification for re-categorization should be provided on Background Information Form	<input checked="" type="checkbox"/> NO	<p>A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hydrologic functions because of its type, landscape position, size, local or regional significance, etc. In this circumstance, the narrative criteria, in OAC Rula 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A ritten justification with supporting reasons or information for this determination should be provided.</p>

Final Category

Choose One	<input checked="" type="checkbox"/> Category 1	<input type="checkbox"/> Category 2	<input type="checkbox"/> Category 3
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End of Ohio Rapid Assessment Method for Wetlands

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1	1
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Metric 1. Wetland Area (size).

max 6 pts. subtotal

Select one size class and assign score.

- >50 acres (>20.2ha) (6pts)
- 25 to <50acrea (10.1 to <20.2ha) (5pts)
- 10 to <25 acres (4 to <10.1ha) (4pts)
- 3 to <10 acres (1.2 to <4ha) (3pts)
- 0.3 to <3 acres (0.12 to 1.2ha) (2pts)
- .1 to <0.3acres (0.04 to <0.12ha) (1pts)
- <0.1 acres (0.04ha) (0pts)

3	4
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Metric 2. Upland buffers and surrounding land use.

max 14 pts. subtotal

- 2a. Calculate average buffer width. Select only one and assign score. Do not double check.
- WIDE. Buffers average 50 m (164ft) or more around wetland perimeter (7pts)
 - MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4pts)
 - NARROW. Buffers average 10m to <25m (32ft < 82ft) around wetland perimeter (1pts)
 - VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)
- 2b. Calculate average buffer width. Select only one and assign score. Do not double check.
- VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7pts)
 - LOW. Old field (>10 years), shrub land, young second growth forest. (5pts)
 - MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3pts)
 - HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1pts)

18	22
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Metric 3. Hydrology.

Max 30 pts. subtotal

- 3a. Sources of Water. Score all that apply
- High pH groundwater (5pts)
 - Other groundwater (3pts)
 - Precipitation (1pts)
 - Seasonal/Intermittent surface water (3pts)
 - Perennial surface water (lake or stream) (5pts)
- 3b. Connectivity. Score all that apply
- 100 year floodplain (1pts)
 - Between stream/lake and other human use (1pts)
 - Part of wetland/upland (e.g. forest), complex (1pts)
 - Part of riparian or upland corridor (1pts)
- 3c. Maximum water depth. Select only one and assign score.
- >0.7 (27.6in) (3pts)
 - 0.4 to 0.7m (15.7 to 27.6in) 2pts)
 - <0.4m (<15.7in) (1pts)
- 3d. Duration inundation/saturation. Score one or dbl check.
- Semi- to permanently inundated/saturated (4pts)
 - Regularly inundate/saturated (3pts)
 - Seasonally inundated (2pts)
 - Seasonally saturated in upper 30cm (12in) (1pts)
- 3e. Modifications to natural hydrologic regime. Score one or double check and average.
- None or none apparent (12pts)
 - Recovered (7pts)
 - Recovering (3pts)
 - Recent or no recovery (1pts)

Check all disturbances observed	
<input type="checkbox"/> Ditch	<input type="checkbox"/> Point source (non-storm water)
<input type="checkbox"/> Tile	<input type="checkbox"/> Filing/grading
<input type="checkbox"/> Dike	<input type="checkbox"/> Road bed/RR track
<input type="checkbox"/> Weir	<input type="checkbox"/> Dredging
<input type="checkbox"/> Storm water input	<input type="checkbox"/> Other

10	32
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Metric 4. Habitat Alteration and Development.

Max 20pts. Subtotal

- 4a. Substrate disturbance. Score one or double-check and average.
- None or none apparent (4pts)
 - Recovered (3pts)
 - Recovered (2pts)
 - Recent or no recovery (1pts)
- 4b. Habitat development. Select only one and assign score.
- Excellent (7pts)
 - Very good (6pts)
 - Good (5pts)
 - Moderately good (4pts)
 - Fair (3pts)
 - Poor to fair (2pts)
 - Poor (pts)
- 4c. Habitat alteration. Score one or double-check and average.
- None or none apparent (9pts)
 - Recovered (6pts)
 - Recovering (3pts)
 - Recent or no recovery (1pts)

Check all disturbances observed	
<input checked="" type="checkbox"/> Mowing	<input type="checkbox"/> Shrub/sapling removal
<input type="checkbox"/> Grazing	<input type="checkbox"/> Herbaceous/aquatic bed removal
<input checked="" type="checkbox"/> Clear-cutting	<input type="checkbox"/> Sedimentation
<input checked="" type="checkbox"/> Selective cutting	<input type="checkbox"/> Dredging
<input type="checkbox"/> Woody debris removal	<input type="checkbox"/> Farming
<input type="checkbox"/> Toxic pollutants	<input type="checkbox"/> Nutrient enrichment

32

Subtotal this page

32

Subtotal first page

-10	22
Max 10pts	Subtotal

Metric 5. Special wetlands.

Check all that apply and score as indicated

- Bog (10pts)
- Fen (10pts)
- Old growth forest (10pts)
- Mature forested wetland (5 pts)
- Lake Erie coastal/tributary wetland-unrestricted hydrology (10pts)
- Lake Erie coastal tributary wetland-restricted hydrology (5pts)
- Lake Plain Sand Prairies (Oak Openings) (10pts)
- Relict Wet Prairies (10pts)
- Known occurrence state/federal threatened or endangered species (10pts)
- Significant migratory songbird/water fowl habitat or usage (10pts)
- Category 1 Wetland. See Question 1 Qualitative Rating (-10pts)

3	25
Max 20 pts.	Subtotal

Metric 6. Plant communities, interspersions, micro topography..

6a. Wetland Vegetation Communities
Score all present using 0 to 3 scale.

- | | |
|---|-------------|
| 0 | Aquatic Bed |
| 2 | Emergent |
| 0 | Shrub |
| 0 | Forest |
| 0 | Mudflats |
| 0 | Open Water |
| 0 | Other _____ |

6b. Horizontal (plan view) Interspersion

- Select only one.
- High (5pts)
 - Moderately high (4pts)
 - Moderate (3pts)
 - Moderately low (2pts)
 - Low (1pts)
 - None (0pts)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage

- Extensive >75% cover (-5pts)
- Moderate 25-75% cover (-3pts)
- Sparse 5-25% cover (-1)
- Nearly absent >5% cover (0pts)
- Absent (1pts)

6d. Micro topography
Score all present using 0 to 3 scale.

- | | |
|---|---------------------------------|
| 0 | Vegetated hummocks/tussocks |
| 0 | Coarse woody debris >15cm (6in) |
| 0 | Standing dead >25cm (10in) dbh |
| 0 | Amphibian breeding pools |

Vegetation Community Cover Scale	
0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part put is of low quality
2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
3	Present and comprises significant part, or more of wetland's vegetation and is of high quality

Narrative Description of Vegetation Quality	
low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality	
0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Micro topography Cover Scale	
0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or In small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

25

GRAND TOTAL (max 100 pts)

Quantitative Rating

Metric 1. Wetland area (max 6pts). Estimate the area of wetland. Select the appropriate size class and assign score. Estimated areas should clearly place the wetland within the appropriate class.

		score
6pts	≥ 50 acres (≥ 20.2ha)	
5pts	25 - <50 acres (10.1 - <20.2ha)	
4pts	10 - <25 acres (4.0 - <10.1ha)	
3pts	3 - <10 acres (1.2 - <4.0ha)	
2pts	0.3 - <3 acres (0.12 - <1.2ha)	
1pt	0.1 - <0.3 acres (0.04 - <0.12ha)	1
0pts	<0.1 acres (0.04ha)	

Table 2. Metric to English conversion table with visual estimation sizes

acres	ft ²	yd ²	ft on side	yd on side	ha	m ²	m on side
50	2,177,983	241,998	1476	492	20.2	202,000	449
25	1,088,992	120,999	1044	348	10.1	101,000	318
10	435,596	48,340	660	220	4.1	41,000	203
3	130,679	14,520	362	121	1.2	12,000	110
0.3	13,067	1,452	114	38	0.12	1,200	35
0.1	4,356	484	66	22	0.04	400	20

Metric 2. Upland buffers and intensity of surrounding land uses. Maximum 14 points. Wetlands are systems transitional between upland and aquatic environments. Wetlands without "buffers," or that are located where human land use is more intensive, are often, but not always, more degraded.

	score
2a. Average Buffer Width (abw). Calculate the average buffer width and select only one score. To calculate abw, estimate buffer width on each side (max of 50m) and divide by the number of sides. Example: abw of a wetland with buffers of 100m, 25m, 10m and 0m would be calculated as follows: $abw = (50m + 25m + 10m + 0m)/4 = 21.25m$. Intensive land uses are not buffers, e.g. active row cropping, recently abandoned fields, paved areas, housing developments, unfenced pasture, etc.	0
7pts WIDE. >50m (164ft) or more around perimeter	<input type="checkbox"/>
4pts MEDIUM. 25m to <50m (82 to <164ft) around the perimeter	<input type="checkbox"/>
1pt NARROW. 10m to <25m (32 to <82ft) around the perimeter	<input type="checkbox"/>
0pts VERY NARROW. <10m (<32ft) around perimeter.	<input checked="" type="checkbox"/>
2b. Intensity of predominant surround land use(s). Select one, or double check up to two and average score, for the intensity of the predominant land use(s) outside the wetland's buffer zone (if any).	3
7pts VERY LOW. 2 nd growth or older forest, prairie, savannah, wildlife area, etc.	<input type="checkbox"/>
5pts LOW. Old field (>10 yrs), shrubland, young 2 nd growth forest, etc.	<input type="checkbox"/>
3pts MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field, etc.	<input checked="" type="checkbox"/>
1pt HIGH. Urban, industrial, open pasture, row cropping, mining, construction, etc.	<input type="checkbox"/>

4

Subtotal

Subtotal from previous page

Metric 3. Hydrology Maximum 30 points. **This metric evaluates the wetland's water budget, hydro period, the hydrologic connectivity of the wetland to other surface water, and the degree to which the wetland's hydrology has been altered by human activity.** A wetland can receive no more than 30 points for Metric 3 even though it is possible to score more than 30 points.

		score
3a. Sources of Water. Select all that apply and sum score. This question relates to a wetland's water budget. It also is reflective that wetlands with certain types of water sources, or multiple water sources, e.g. high pH groundwater or perennial surface water connections, can be very high quality wetlands or can have high functions and values.		4
5pts	High pH groundwater (7.5-9.0)	<input type="checkbox"/>
3pts	Other groundwater	<input checked="" type="checkbox"/>
1pt	Precipitation	<input checked="" type="checkbox"/>
3pts	Seasonal surface water	<input type="checkbox"/>
5pts	Perennial surface water (lake or stream)	<input type="checkbox"/>
3b. Connectivity. Select all that apply and sum score		1
1pt	100-year floodplain. "Floodplain is defined in OAC Rule 3745-1-50(P) as "...the relatively level land next to a stream or river channel that is periodically submerged by floodwaters. It is composed of alluvium deposited by the present stream or river when it floods." Where they are available, flood insurance rate maps (FIRMs) and flood boundary and floodway maps may be used.	<input type="checkbox"/>
1pt	Between stream/lake and other human land use. This question asks whether the wetland is located <u>between</u> a surface water and a different adjacent land use, such that run-off from the adjacent land use could flow through wetland before it discharges into the surface water. "Different adjacent land uses" include agricultural, commercial, industrial, mining, or residential uses.	<input checked="" type="checkbox"/>
1pt	Part of wetland or upland (e.g. forest, prairie) complex. Both this and the next question ask whether the wetland is in physical proximity to, or a part of other nearby wetland or upland natural areas. The difference is whether the area the wetland is "long and narrow" like a river, or more "squarish" like a large forest or woodlot. If the latter is the case, this question applies: if the former, the next question applies. In a few instances, both may apply.	<input type="checkbox"/>
1pt	Part of riparian or upland corridor. See description above.	<input type="checkbox"/>
3c. Maximum water depth. Select only one and assign score. The Rater <i>does not</i> need to actually observe the wetland when its water depth is greatest in order to award the maximum points for this question. The use of secondary indicators, as outlined in the 1987 Manual will be useful in answering this question.		1
3pts	>0.7m (27.6in)	<input type="checkbox"/>
2pts	0.4 to 0.7m (15.7 to 27.6in)	<input type="checkbox"/>
1pt	<0.4m (<15.7in)	<input checked="" type="checkbox"/>
3d. Duration of inundation/saturation. Select one or double-check and average the scores if duration is uncertain. The use of secondary indicator s is necessary and expected in order to properly answer this Question. Categories correspond to Zones II, III, and IV of 1987 Manual (Table 5). Zone IV subdivided into seasonally		1
4pts	Semi permanently to permanently inundated or saturated.	<input type="checkbox"/>
3pts	Regularly inundated or saturated.	<input type="checkbox"/>
2pts	Seasonally inundated.	<input type="checkbox"/>
1pt	Seasonally saturated in the upper 30cm (12in) of soil.	<input checked="" type="checkbox"/>

Subtotal

Subtotal from previous page

3e. **Modifications to natural hydrologic regime.** Check all observable modifications from list below. Score by selecting the most appropriate description of the wetland. Scores may be double checked and averaged. This question asks the Rater to evaluate the "intactness" of, or lack of disturbance to, the natural hydrologic regime of the type of wetland that is being evaluated.

It is very important to stress that this question does not discriminate between wetlands with different types of hydrologic regime, e.g. between a forested seep wetland located on a floodplain with seasonal inundation and a leather leaf (*Chamaedaphne calyculata*) bog with precipitation and minor amounts of surface run-off from a small watershed. Rather, it asks the rater to evaluate the "intactness" of the hydrologic regime attributable to *that type of wetland*. In the example above, both the forested seep wetland and the leather leaf bog can score the maximum points (12) if they're no, or no apparent, modifications to the natural hydrologic regime.

Once the Rater has listed all possible past and ongoing disturbances, the Rater should check the most appropriate category to describe the present state of the wetland. In instances where the Rater believes that a wetland falls between two categories, or where the Rater is uncertain as to which category is appropriate, it is appropriate to "double check" and average the score.

The labels on the scoring categories are intended to be descriptive but not controlling. In some instances, it may be more appropriate to consider the scoring categories as fixed locations on a hydrologic disturbance continuum, from very high to very low or no disturbance.

The Rater may check one or several of these possible disturbance, yet still determine that the natural hydrologic regime is intact. However, see Metric 4 where these same disturbances may be habitat alterations.

12

Check all that are observed present in or near the wetland

<input type="checkbox"/> ditch(es), in or near the wetland	<input type="checkbox"/> point source discharges to the (non-storm water)
<input type="checkbox"/> tile(s), in or near the wetland	<input type="checkbox"/> filling/grading activities in or near the wetland
<input type="checkbox"/> dike(s), in or near the wetland	<input type="checkbox"/> road beds/RR beds in or near the wetland
<input type="checkbox"/> weir(s), in or near the wetland	<input type="checkbox"/> dredging activities in or near the wetland
<input type="checkbox"/> storm water inputs (addition of water)	<input type="checkbox"/> other (specify)

<p>Circle one answer. Have any of the disturbances identified above caused or appear to have caused more than trivial alterations to the wetland's natural hydrologic regime, or have they occurred so far in the past that current hydrology should be considered to be "natural"?</p>	<p>YES</p> <p>Assign a score 1, 3 or 7, or an intermediate score, depending on degree of recovery from the disturbance.</p>	<p>NO</p> <p>Assign a score of 12 since there are no or no apparent modifications.</p> <p style="text-align: right;">12</p>	<p>NOT SURE</p> <p>Double check "none or none apparent" and "recovered" and assign a score of 9.5</p>
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Select one or double check adjoining number and average the score.		score
12pts	NONE OR NONE APPARENT. There are no modifications or no modifications that are apparent to the Rater.	<input type="checkbox"/>
7pts	RECOVERED. The wetland appears to have recovered from past modifications.	<input type="checkbox"/>
3pts	RECOVERING. The wetland appears to be in the process of recovering from past modifications	<input type="checkbox"/>
1pt	RECENT OR NO RECOVERY. The modifications have occurred, recently occurred, and/or the wetland has not recovered from past modifications, and/or the modifications are ongoing.	<input checked="" type="checkbox"/>

Subtotal

Subtotal from previous page

Metric 4. Habitat Alteration and Development. Maximum 20 points. While hydrology may be the single most important determinant for the establishment and maintenance of specific types of wetlands and wetland processes, there is a range of other factors and activities which affect wetland quality and cause disturbances to wetlands that are unrelated to hydrology. This metric attempts to evaluate these things under the rubric "habitat alteration." In many instances, items checked as possible hydrologic disturbances in Question 3e will be instead alterations to a wetland's habitat or disruptions in its development (succession state). In other instances, a disturbance may be appropriately considered under both Metric 3 and Metric 4. In any case, the Rater should carefully consider what is the actual proximate (direct) cause of the disturbance to the wetland.

4a. **Substrate/Soil Disturbance.** Select one or double check and average. This question evaluates physical disturbances to the soil and surface substrates of the wetland. Note also that the labels on the scoring categories are intended to be descriptive but not controlling. In some instances, it may be more appropriate to consider the scoring categories as fixed locations on a disturbance continuum, from very high to very low or no disturbance.

Examples of substrate/soil disturbance include filling and grading, plowing, grazing (hooves), vehicle use (motorbikes, off-road vehicles, construction vehicles), sedimentation, dredging, and other mechanical disturbances to the surface substrates or soils.

2

<p>Circle one answer. Have any of soil or substrate disturbances caused or appear to have caused more than trivial alterations to the wetland's natural soils or substrates, or have they occurred so far in the past that current conditions should be considered to be "natural"?</p>	<p>YES <input type="checkbox"/></p> <p>Assign a score 1, 2 or 3, or an intermediate score, depending on degree of recovery from the disturbance.</p> <p style="text-align: right;">2</p>	<p>NO <input type="checkbox"/></p> <p>Assign a score of 4 since there are no or no apparent modifications.</p>	<p>NOT SURE <input type="checkbox"/></p> <p>Double check "none or none apparent" and "recovered" and assign a score of 3.5</p>
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Select one or double check adjoining number and average the score.	score
	2
4pts NONE OR NONE APPARENT. There are no modifications or no modifications that are apparent to the Rater.	<input type="checkbox"/>
3pts RECOVERED. The wetland appears to have recovered from past modifications.	<input type="checkbox"/>
2pts RECOVERING. The wetland appears to be in the process of recovering from past modifications	<input checked="" type="checkbox"/>
1pt RECENT OR NO RECOVERY. The modifications have occurred, recently occurred, and/or the wetland has not recovered from past modifications, and/or the modifications are ongoing.	<input type="checkbox"/>

<p>4b. Habitat development. Select only one and assign score. This question asks the Rater to assign an overall qualitative rating of how well developed the wetland is in comparison to other ecologically or hydrogeomorphically similar wetlands. This question presumes a good sense of the types of wetlands and the range in quality typical of the region, watershed, or state.</p>	3
7pts EXCELLENT. Wetland appears to represent the best of its type or class.	<input type="checkbox"/>
6pts VERY GOOD. Wetland appears to be a very good example of its type or class but is lacking in characteristics, which would make it excellent.	<input type="checkbox"/>
5pts GOOD. Wetland appears to be a good example of its type or class but because of past or present disturbances, successional state, or other reasons, is not excellent.	<input type="checkbox"/>
4pts MODERATELY GOOD. Wetland appears to be a fair to good example of its type or class.	<input type="checkbox"/>
3pts FAIR. Wetland appears to be a moderately good example of its type or class but because of past or present disturbances, successional state, etc. is not good.	<input checked="" type="checkbox"/>
2pts POOR TO FAIR. Wetland appears to be a poor to fair example of its type or class.	<input type="checkbox"/>
1pt POOR. Wetland appears to <u>not</u> be a good example of its type or class because of past or present disturbances, successional state, etc.	<input type="checkbox"/>

Subtotal

Subtotal from previous page

4c. **Habitat alteration.** This question evaluates the “intactness” the natural habitat of the type of wetland that is being evaluated. This question does not discriminate between wetlands with different types of habitat. Check all possible alterations that are observed. All available information, field visits, aerial photos, maps, etc. can be used to identify a possible alteration. Evaluate whether the alteration is trivial in relation to the wetlands overall habitat. Select the most appropriate score that best describes the present state of the wetland. It is appropriate to “double check” and average scores. In some instances, the scores can be viewed as a habitat alteration continuum, from very high to very low or no disturbance. **The Rater may check one or several of these possible disturbances, yet still determine that the natural habitat is intact.**

3

Check all that are observed present in or near the wetland

<input checked="" type="checkbox"/>	Mowing	<input type="checkbox"/>	Herbaceous layer/aquatic bed removal
<input type="checkbox"/>	Grazing (cattle, sheep, pigs, etc.)	<input type="checkbox"/>	Sedimentation
<input checked="" type="checkbox"/>	Clear cutting	<input type="checkbox"/>	Dredging
<input checked="" type="checkbox"/>	Selective cutting	<input type="checkbox"/>	Farming
<input type="checkbox"/>	Woody debris removal	<input type="checkbox"/>	Nutrient enrichment, e.g. nuisance algae
<input type="checkbox"/>	Toxic pollutants	<input type="checkbox"/>	Other (specify)
<input type="checkbox"/>	Shrub/sapling removal	<input type="checkbox"/>	Other (specify)

<p>Circle one answer. Have any of the disturbances identified above caused or appear to have caused more than trivial alterations to the wetland's natural hydrologic regime, or have they occurred so far in the past that current hydrology should be considered to be “natural”?</p>	<p>YES</p> <p>Assign a score 1, 3 or 6, or an intermediate score, depending on degree of recovery from the disturbance.</p>	<p>NO</p> <p>Assign a score of 9 since there are no or no apparent modifications.</p>	<p>NOT SURE</p> <p>Double check “none or none apparent” and “recovered” and assign a score of 7.5</p>
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3

Select one or double check adjoining number and average the score.		score
		3
9pts	NONE OR NONE APPARENT. There are no alterations or no alterations that are apparent to the Rater.	<input type="checkbox"/>
6pts	RECOVERED. The wetland appears to have recovered from past alterations.	<input type="checkbox"/>
3pts	RECOVERING. The wetland appears to be in the process of recovering from past alterations/	<input checked="" type="checkbox"/>
1pt	RECENT OR NO RECOVERY. The alterations/ have occurred, recently occurred, and/or the wetland has not recovered from past alterations/, and/or the alterations/ are ongoing.	<input type="checkbox"/>

Metric 5. Special wetland communities. Maximum 10 points. Assign or deduct points if wetland has the feature described. Refer to Narrative Rating for guidance. No wetland can receive more than 10 points even if multiple categories are applicable.

<input type="checkbox"/>	Bog (10pts)	<input type="checkbox"/>	Lake plains sand prairies (Oak Openings) (10 pts)
<input type="checkbox"/>	Fen (10 pts)	<input type="checkbox"/>	Relict wet prairies (10 pts)
<input type="checkbox"/>	Old Growth Forest (10 pts)	<input type="checkbox"/>	Known occurrence of threatened/endangered species (10pts)
<input type="checkbox"/>	Mature Forested Wetland (5 pts)	<input type="checkbox"/>	Significant migratory songbird/waterfowl habitat (10 pts)
<input type="checkbox"/>	Coastal wetlands, unrestricted hydrology (10 pts)	<input checked="" type="checkbox"/>	Category 1 wetlands (See Narrative Rating #5) (-10 pts)
<input type="checkbox"/>	Coastal wetlands, restricted hydrology (5 pts)		

Subtotal

Subtotal from previous page

Metric 6. Vegetation, Interspersion, and Microtopography. Maximum 20 points.

6a.	Wetland Vegetation Communities. Check each community present <u>both vertically and horizontally</u> within the wetland with an area of at least 0.1hectares or 100m ² (0.2471 acres). Assign a score of 0 to 3 using Tables 3, Table 4 or Table 5. Sum the scores for the classes present.	2
<input type="checkbox"/>	Aquatic Bed. Includes areas of wetlands dominated by plants that grow principally on or below the surface of the water for most of the growing season in most years. Floating aquatic species like duckweed (<i>Lemna</i> spp., <i>spirodelaspp.</i>) are excluded from definition of "aquatic bed." Aquatic beds often occur as a distinct zone as an "understory" below shrubs or trees.	
<input checked="" type="checkbox"/>	Emergent. Includes areas of wetland dominated by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens. This vegetation is present for most of the growing season in most years. Common names for emergent communities include marsh, wet meadow, wet prairie, sedge meadow, fens, prairie pothole, and bluejoint slough.	2
<input type="checkbox"/>	Shrub. Includes areas of wetlands dominated by woody vegetation less than 6m (20ft) tall. The plant species include true shrubs, young trees, or trees or shrubs that are small or stunted because of environmental conditions. Shrub wetlands may represent a successional stage leading to a forested wetland or they may be relatively stable plant communities.	
<input type="checkbox"/>	Forested. Includes wetlands or areas of wetlands characterized by wood vegetation greater than 6m (20ft) or taller. Forested wetlands have an overstory of trees and often contain an understory of young trees and shrubs and an herbaceous layer, although the young tree/shrub and herbaceous layers can be largely missing from some types of forested wetlands. Some forested wetlands are defined as "vernal pools" in OAC Rule 3745-1-50.	
<input type="checkbox"/>	Open water. The "open water" class is equivalent to the "unconsolidated bottom/mud" class/subclass (pub ₃) described in Cowardin et al. (1979) and includes areas of wetlands characterized by exposed or shallowly inundated substrates with vegetative cover less than 30%.	
<input type="checkbox"/>	Other (See User's Manual)	

Table 3. Use this table to assign a cover score for Metric 6a to each of the vegetation communities identified on the preceding page. Refer to Table 6 for narrative descriptions of what "low," "moderate," and "high" quality mean.

Cover scale	Description
0	the vegetation community is either, 1) absent from wetland, or 2) comprises less than 0.1ha (0.2471 acres) of contiguous area within the wetland
1	vegetation community is present and either, 1) comprises a small part of the wetland's vegetation and is of low or moderate quality, or 2) if it comprises a significant part of the wetland's vegetation, the community is of low quality
2	the vegetation community is present and either, 1) comprises a significant part of the wetland's vegetation and is of moderate quality, or 2) the vegetation community comprises a small part of the wetland's vegetation but is of high quality.
3	the vegetation community is of high quality and comprises a significant part, or more of the wetland's vegetation

Table 4. Use this table in conjunction with Table 5 to determine what is a "low," "moderate," or "high quality community"

narrative	description
low	Low species diversity and/or a predominance of non-native or disturbance tolerant native species
moderate	Native species are the dominant component of the vegetaion, although non-native or disturbance tolerant native species can also be present, and species diversity is moderate to moderately high, but generally without the presence of rare, threatened, or endangered species.
high	A predominance of native species, with non-native species absent or virtually absent, and high species diversity and sometimes, but not always, the presence of rare, threatened or endangered species.

Table 5. Mudflat and open water community cover scale

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1ha to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Subtotal

Subtotal from previous page

6b. Horizontal (plan view) interspersion. Select only one and assign score. Evaluate the wetland from a "plan view," i.e. as if the looking down upon it. See Figure 1.		3
5pts	HIGH. Wetland has a high degree of interspersion	<input type="checkbox"/>
4pts	MODERATELY HIGH. Wetland has a moderately high degree of interspersion	<input type="checkbox"/>
3pts	MODERATE. Wetland has a moderate degree of interspersion	<input checked="" type="checkbox"/>
2pts	MODERATELY LOW. Wetland has a moderately low degree of interspersion	<input type="checkbox"/>
1pt	LOW. Wetland has a low degree of interspersion	<input type="checkbox"/>
0pts	NONE. Wetland has no plan view interspersion	<input type="checkbox"/>

6c. Coverage of Invasive Plant Species. Refer to Table 1 on Page 7 for list. Select only one and assign score.		-1
-5pts	Extensive. >75% areal cover of invasive species	<input type="checkbox"/>
-3pts	Moderate 25-75% areal cover of invasive species	<input type="checkbox"/>
-1pt	Sparse. 5-25% areal cover of invasive species	<input checked="" type="checkbox"/>
0pts	Nearly absent. <5% areal cover of invasive species	<input type="checkbox"/>
1pt	Absent	<input type="checkbox"/>

6d. Microtopography. Check each feature present in the wetland. Assign cover score of 0 to 3 using Table 6. Evaluate various microtopographic habitat features often present in wetlands.		0
Vegetated hummocks and tussocks.		<input type="checkbox"/>
Coarse woody debris >15cm (6in) diameter		<input type="checkbox"/>
Standing dead trees >25cm (10in) diameter at breast height		<input type="checkbox"/>
Amphibian breeding habitat, e.g. vernal pools with standing water of sufficient duration and depth to support reproduction, or habitat for from reproduction		<input type="checkbox"/>

Table 6. Cover scale for microtopographic habitat features.

Microtopographic habitat quality	narrative description
0	Feature is absent or functionally absent from the wetland
1	Feature is present in the wetland in very small amounts or if more common, of low quality
2	Feature is present in moderate amounts, but not of highest quality, or in small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

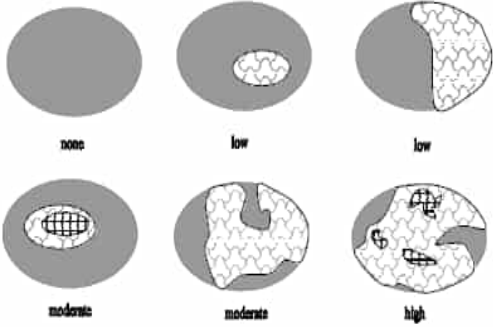


Figure 1. Hypothetical wetlands for estimating degree of interspersion.

GRAND TOTAL

End of Quantitative Rating. Complete Categorization Worksheets.

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: <http://www.epa.state.oh.us/dsw/401/401.html>

ORAM Summary Worksheet

		Circle answer or insert score	Result
Narrative Rating	Question 1: Critical Habitat	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 3.
	Question 2: Threatened or Engagered Species	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 3.
	Question 3: High Quality Natural Wetland	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 3.
	Question 4: Significant bird habitat	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 3.
	Question 5: Category 1 Wetlands	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 1
	Questions 6: Bogs	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 3.
	Question 7: Fens	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 3.
	Questions 8a: Old Growth Forest	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 3.
	Question 8b: Mature Forested Wetland	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Questions 9b: Lake Erie Wetlands – Restricted	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Questions 9d: Lake Erie Wetlands - Unrestricted	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 3.
	Questions 9e: Lake Erie Wetlands – Unrestricted with invasive plants	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10: Oak Openings	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 3.
	Quest 11: Relict Wet Prairies	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1: Size	2	
	Metric 2: Buffers and surrounding land use	3	
	Metric 3: Hydrology	10	
	Metric 4: Habitat	6	
	Metric 5: Special Wetland Communities	-9	
	Metric 6: Plant communities, interspersion, microtopography	7	
	TOTAL SCORE Consult most recent score calibration report at http://www.epa.state.oh.us/dsw/401/401.html to determine the wetland's category based on its quantitative score	19	Category based on score breakpoints

Complete Wetland Categorization Worksheet

Wetland Categorization Worksheet

Choices	Circle one		Evaluation
<p>Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10.</p>	<input type="checkbox"/> YES Wetland is categorized as a Category 3 wetland	<input checked="" type="checkbox"/> NO	Is quantitative rating score less than the Category 2 scoring threshold (excluding gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been over-categorized by the ORAM
<p>Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11</p>	<input type="checkbox"/> YES Wetland should be evaluated for possible Category 3 status	<input checked="" type="checkbox"/> NO	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and or functional assessments may also be used to determine the wetland's category.
<p>Did you answer "Yes" to Narrative Rating No. 5</p>	<input type="checkbox"/> YES Wetland is categorized as a Category 1 wetland	<input checked="" type="checkbox"/> NO	Is quantitative rating score greater than the Category 2 scoring threshold (including any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
<p>Does the quantitative score fall within the scoring range of a Category 1, 2 or 3 wetlands?</p>	<input type="checkbox"/> YES Wetland is assigned to the appropriate category based on the scoring range	<input checked="" type="checkbox"/> NO	If the score of the wetland is located within the scoring range for a particular category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on an quantitative score.
<p>Does the quantitative score fall with the "gray zone" for Category 1 or 2 or Category 2 or 3 wetlands?</p>	<input type="checkbox"/> YES Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	<input checked="" type="checkbox"/> NO	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).
<p>Does the wetland otherwise exhibit moderate or superior hydrologic OR habitat, OR recreational functions AND the wetland was not categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?</p>	<input type="checkbox"/> YES Wetland was under categorized by this method. A written justification for re-categorization should be provided on Background Information Form	<input checked="" type="checkbox"/> NO	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hydrologic functions because of its type, landscape position, size, local or regional significance, etc. In this circumstance, the narrative criteria, in OAC Rula 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A ritten justification with supporting reasons or information for this determination should be provided.

Final Category

Choose One	<input checked="" type="checkbox"/> Category 1	<input type="checkbox"/> Category 2	<input type="checkbox"/> Category 3
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End of Ohio Rapid Assessment Method for Wetlands

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2	2
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Metric 1. Wetland Area (size).

max 6 pts. subtotal

Select one size class and assign score.

- >50 acres (>20.2ha) (6pts)
- 25 to <50acrea (10.1 to <20.2ha) (5pts)
- 10 to <25 acres (4 to <10.1ha) (4pts)
- 3 to <10 acres (1.2 to <4ha) (3pts)
- 0.3 to <3 acres (0.12 to 1.2ha) (2pts)
- .1 to <0.3acres (0.04 to <0.12ha) (1pts)
- <0.1 acres (0.04ha) (0pts)

4	6
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Metric 2. Upland buffers and surrounding land use.

max 14 pts. subtotal

- 2a. Calculate average buffer width. Select only one and assign score. Do not double check.
- WIDE. Buffers average 50 m (164ft) or more around wetland perimeter (7pts)
 - MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4pts)
 - NARROW. Buffers average 10m to <25m (32ft < 82ft) around wetland perimeter (1pts)
 - VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)
- 2b. Calculate average buffer width. Select only one and assign score. Do not double check.
- VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7pts)
 - LOW. Old field (>10 years), shrub land, young second growth forest. (5pts)
 - MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3pts)
 - HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1pts)

13	19
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Metric 3. Hydrology.

Max 30 pts. subtotal

- 3a. Sources of Water. Score all that apply
- High pH groundwater (5pts)
 - Other groundwater (3pts)
 - Precipitation (1pts)
 - Seasonal/Intermittent surface water (3pts)
 - Perennial surface water (lake or stream) (5pts)
- 3b. Connectivity. Score all that apply
- 100 year floodplain (1pts)
 - Between stream/lake and other human use (1pts)
 - Part of wetland/upland (e.g. forest), complex (1pts)
 - Part of riparian or upland corridor (1pts)
- 3c. Maximum water depth. Select only one and assign score.
- >0.7 (27.6in) (3pts)
 - 0.4 to 0.7m (15.7 to 27.6in) 2pts)
 - <0.4m (<15.7in) (1pts)
- 3d. Duration inundation/saturation. Score one or dbl check.
- Semi- to permanently inundated/saturated (4pts)
 - Regularly inundate/saturated (3pts)
 - Seasonally inundated (2pts)
 - Seasonally saturated in upper 30cm (12in) (1pts)
- 3e. Modifications to natural hydrologic regime. Score one or double check and average.
- None or none apparent (12pts)
 - Recovered (7pts)
 - Recovering (3pts)
 - Recent or no recovery (1pts)

Check all disturbances observed	
<input type="checkbox"/> Ditch	<input type="checkbox"/> Point source (non-storm water)
<input type="checkbox"/> Tile	<input type="checkbox"/> Filing/grading
<input type="checkbox"/> Dike	<input type="checkbox"/> Road bed/RR track
<input type="checkbox"/> Weir	<input type="checkbox"/> Dredging
<input type="checkbox"/> Storm water input	<input type="checkbox"/> Other

10	29
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Metric 4. Habitat Alteration and Development.

Max 20pts. Subtotal

- 4a. Substrate disturbance. Score one or double-check and average.
- None or none apparent (4pts)
 - Recovered (3pts)
 - Recovered (2pts)
 - Recent or no recovery (1pts)
- 4b. Habitat development. Select only one and assign score.
- Excellent (7pts)
 - Very good (6pts)
 - Good (5pts)
 - Moderately good (4pts)
 - Fair (3pts)
 - Poor to fair (2pts)
 - Poor (pts)
- 4c. Habitat alteration. Score one or double-check and average.
- None or none apparent (9pts)
 - Recovered (6pts)
 - Recovering (3pts)
 - Recent or no recovery (1pts)

Check all disturbances observed	
<input checked="" type="checkbox"/> Mowing	<input type="checkbox"/> Shrub/sapling removal
<input type="checkbox"/> Grazing	<input type="checkbox"/> Herbaceous/aquatic bed removal
<input checked="" type="checkbox"/> Clear-cutting	<input type="checkbox"/> Sedimentation
<input checked="" type="checkbox"/> Selective cutting	<input type="checkbox"/> Dredging
<input type="checkbox"/> Woody debris removal	<input type="checkbox"/> Farming
<input type="checkbox"/> Toxic pollutants	<input type="checkbox"/> Nutrient enrichment

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Subtotal this page

29

Subtotal first page

-10	19
Max 10pts	Subtotal

Metric 5. Special wetlands.

Check all that apply and score as indicated

- Bog (10pts)
- Fen (10pts)
- Old growth forest (10pts)
- Mature forested wetland (5 pts)
- Lake Erie coastal/tributary wetland-unrestricted hydrology (10pts)
- Lake Erie coastal tributary wetland-restricted hydrology (5pts)
- Lake Plain Sand Prairies (Oak Openings) (10pts)
- Relict Wet Prairies (10pts)
- Known occurrence state/federal threatened or endangered species (10pts)
- Significant migratory songbird/water fowl habitat or usage (10pts)
- Category 1 Wetland. See Question 1 Qualitative Rating (-10pts)

4	23
Max 20 pts.	Subtotal

Metric 6. Plant communities, interspersions, micro topography..

6a. Wetland Vegetation Communities
Score all present using 0 to 3 scale.

- | | |
|---|-------------|
| 0 | Aquatic Bed |
| 3 | Emergent |
| 1 | Shrub |
| 0 | Forest |
| 0 | Mudflats |
| 0 | Open Water |
| | Other _____ |

6b. Horizontal (plan view) Interspersion

Select only one.

- High (5pts)
- Moderately high (4pts)
- Moderate (3pts)
- Moderately low (2pts)
- Low (1pts)
- None (0pts)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage

- Extensive >75% cover (-5pts)
- Moderate 25-75% cover (-3pts)
- Sparse 5-25% cover (-1)
- Nearly absent >5% cover (0pts)
- Absent (1pts)

6d. Micro topography
Score all present using 0 to 3 scale.

- | | |
|---|---------------------------------|
| 0 | Vegetated hummocks/tussocks |
| 0 | Coarse woody debris >15cm (6in) |
| 0 | Standing dead >25cm (10in) dbh |
| 0 | Amphibian breeding pools |

Vegetation Community Cover Scale	
0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part put is of low quality
2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
3	Present and comprises significant part, or more of wetland's vegetation and is of high quality

Narrative Description of Vegetation Quality	
low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality	
0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Micro topography Cover Scale	
0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or In small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

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GRAND TOTAL (max 100 pts)

Quantitative Rating

Metric 1. Wetland area (max 6pts). Estimate the area of wetland. Select the appropriate size class and assign score. Estimated areas should clearly place the wetland within the appropriate class.

		score
6pts	≥ 50 acres (≥ 20.2ha)	
5pts	25 - <50 acres (10.1 - <20.2ha)	
4pts	10 - <25 acres (4.0 - <10.1ha)	
3pts	3 - <10 acres (1.2 - <4.0ha)	
2pts	0.3 - <3 acres (0.12 - <1.2ha)	2
1pt	0.1 - <0.3 acres (0.04 - <0.12ha)	
0pts	<0.1 acres (0.04ha)	

Table 2. Metric to English conversion table with visual estimation sizes

acres	ft ²	yd ²	ft on side	yd on side	ha	m ²	m on side
50	2,177,983	241,998	1476	492	20.2	202,000	449
25	1,088,992	120,999	1044	348	10.1	101,000	318
10	435,596	48,340	660	220	4.1	41,000	203
3	130,679	14,520	362	121	1.2	12,000	110
0.3	13,067	1,452	114	38	0.12	1,200	35
0.1	4,356	484	66	22	0.04	400	20

Metric 2. Upland buffers and intensity of surrounding land uses. Maximum 14 points. Wetlands are systems transitional between upland and aquatic environments. Wetlands without "buffers," or that are located where human land use is more intensive, are often, but not always, more degraded.

	score
2a. Average Buffer Width (abw). Calculate the average buffer width and select only one score. To calculate abw, estimate buffer width on each side (max of 50m) and divide by the number of sides. Example: abw of a wetland with buffers of 100m, 25m, 10m and 0m would be calculated as follows: $abw = (50m + 25m + 10m + 0m)/4 = 21.25m$. Intensive land uses are not buffers, e.g. active row cropping, recently abandoned fields, paved areas, housing developments, unfenced pasture, etc.	1
7pts WIDE. >50m (164ft) or more around perimeter	<input type="checkbox"/>
4pts MEDIUM. 25m to <50m (82 to <164ft) around the perimeter	<input type="checkbox"/>
1pt NARROW. 10m to <25m (32 to <82ft) around the perimeter	<input checked="" type="checkbox"/>
0pts VERY NARROW. <10m (<32ft) around perimeter.	<input type="checkbox"/>
2b. Intensity of predominant surround land use(s). Select one, or double check up to two and average score, for the intensity of the predominant land use(s) outside the wetland's buffer zone (if any).	3
7pts VERY LOW. 2 nd growth or older forest, prairie, savannah, wildlife area, etc.	<input type="checkbox"/>
5pts LOW. Old field (>10 yrs), shrubland, young 2 nd growth forest, etc.	<input type="checkbox"/>
3pts MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field, etc.	<input checked="" type="checkbox"/>
1pt HIGH. Urban, industrial, open pasture, row cropping, mining, construction, etc.	<input type="checkbox"/>

6

Subtotal

Subtotal from previous page

Metric 3. Hydrology Maximum 30 points. **This metric evaluates the wetland's water budget, hydro period, the hydrologic connectivity of the wetland to other surface water, and the degree to which the wetland's hydrology has been altered by human activity.** A wetland can receive no more than 30 points for Metric 3 even though it is possible to score more than 30 points.

		score
3a. Sources of Water. Select all that apply and sum score. This question relates to a wetland's water budget. It also is reflective that wetlands with certain types of water sources, or multiple water sources, e.g. high pH groundwater or perennial surface water connections, can be very high quality wetlands or can have high functions and values.		4
5pts	High pH groundwater (7.5-9.0)	<input type="checkbox"/>
3pts	Other groundwater	<input checked="" type="checkbox"/>
1pt	Precipitation	<input checked="" type="checkbox"/>
3pts	Seasonal surface water	<input type="checkbox"/>
5pts	Perennial surface water (lake or stream)	<input type="checkbox"/>
3b. Connectivity. Select all that apply and sum score		1
1pt	100-year floodplain. "Floodplain is defined in OAC Rule 3745-1-50(P) as "...the relatively level land next to a stream or river channel that is periodically submerged by floodwaters. It is composed of alluvium deposited by the present stream or river when it floods." Where they are available, flood insurance rate maps (FIRMs) and flood boundary and floodway maps may be used.	<input type="checkbox"/>
1pt	Between stream/lake and other human land use. This question asks whether the wetland is located <u>between</u> a surface water and a different adjacent land use, such that run-off from the adjacent land use could flow through wetland before it discharges into the surface water. "Different adjacent land uses" include agricultural, commercial, industrial, mining, or residential uses.	<input checked="" type="checkbox"/>
1pt	Part of wetland or upland (e.g. forest, prairie) complex. Both this and the next question ask whether the wetland is in physical proximity to, or a part of other nearby wetland or upland natural areas. The difference is whether the area the wetland is "long and narrow" like a river, or more "squarish" like a large forest or woodlot. If the latter is the case, this question applies: if the former, the next question applies. In a few instances, both may apply.	<input type="checkbox"/>
1pt	Part of riparian or upland corridor. See description above.	<input type="checkbox"/>
3c. Maximum water depth. Select only one and assign score. The Rater <i>does not</i> need to actually observe the wetland when its water depth is greatest in order to award the maximum points for this question. The use of secondary indicators, as outlined in the 1987 Manual will be useful in answering this question.		1
3pts	>0.7m (27.6in)	<input type="checkbox"/>
2pts	0.4 to 0.7m (15.7 to 27.6in)	<input type="checkbox"/>
1pt	<0.4m (<15.7in)	<input checked="" type="checkbox"/>
3d. Duration of inundation/saturation. Select one or double-check and average the scores if duration is uncertain. The use of secondary indicator s is necessary and expected in order to properly answer this Question. Categories correspond to Zones II, III, and IV of 1987 Manual (Table 5). Zone IV subdivided into seasonally		2
4pts	Semi permanently to permanently inundated or saturated.	<input type="checkbox"/>
3pts	Regularly inundated or saturated.	<input type="checkbox"/>
2pts	Seasonally inundated.	<input checked="" type="checkbox"/>
1pt	Seasonally saturated in the upper 30cm (12in) of soil.	<input type="checkbox"/>

Subtotal

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3e. **Modifications to natural hydrologic regime.** Check all observable modifications from list below. Score by selecting the most appropriate description of the wetland. Scores may be double checked and averaged. This question asks the Rater to evaluate the "intactness" of, or lack of disturbance to, the natural hydrologic regime of the type of wetland that is being evaluated.

It is very important to stress that this question does not discriminate between wetlands with different types of hydrologic regime, e.g. between a forested seep wetland located on a floodplain with seasonal inundation and a leather leaf (*Chamaedaphne calyculata*) bog with precipitation and minor amounts of surface run-off from a small watershed. Rather, it asks the rater to evaluate the "intactness" of the hydrologic regime attributable to *that type of wetland*. In the example above, both the forested seep wetland and the leather leaf bog can score the maximum points (12) if they're no, or no apparent, modifications to the natural hydrologic regime.

Once the Rater has listed all possible past and ongoing disturbances, the Rater should check the most appropriate category to describe the present state of the wetland. In instances where the Rater believes that a wetland falls between two categories, or where the Rater is uncertain as to which category is appropriate, it is appropriate to "double check" and average the score.

The labels on the scoring categories are intended to be descriptive but not controlling. In some instances, it may be more appropriate to consider the scoring categories as fixed locations on a hydrologic disturbance continuum, from very high to very low or no disturbance.

The Rater may check one or several of these possible disturbance, yet still determine that the natural hydrologic regime is intact. However, see Metric 4 where these same disturbances may be habitat alterations.

12

Check all that are observed present in or near the wetland

<input type="checkbox"/>	ditch(es), in or near the wetland	<input type="checkbox"/>	point source discharges to the (non-storm water)
<input type="checkbox"/>	tile(s), in or near the wetland	<input type="checkbox"/>	filling/grading activities in or near the wetland
<input type="checkbox"/>	dike(s), in or near the wetland	<input type="checkbox"/>	road beds/RR beds in or near the wetland
<input type="checkbox"/>	weir(s), in or near the wetland	<input type="checkbox"/>	dredging activities in or near the wetland
<input type="checkbox"/>	storm water inputs (addition of water)	<input type="checkbox"/>	other (specify)

Circle one answer. Have any of the disturbances identified above caused or appear to have caused more than trivial alterations to the wetland's natural hydrologic regime, or have they occurred so far in the past that current hydrology should be considered to be "natural"?	YES Assign a score 1, 3 or 7, or an intermediate score, depending on degree of recovery from the disturbance.	NO Assign a score of 12 since there are no or no apparent modifications.	NOT SURE Double check "none or none apparent" and "recovered" and assign a score of 9.5
		12	

Select one or double check adjoining number and average the score.		score
		12
12pts	NONE OR NONE APPARENT. There are no modifications or no modifications that are apparent to the Rater.	<input checked="" type="checkbox"/>
7pts	RECOVERED. The wetland appears to have recovered from past modifications.	<input type="checkbox"/>
3pts	RECOVERING. The wetland appears to be in the process of recovering from past modifications	<input type="checkbox"/>
1pt	RECENT OR NO RECOVERY. The modifications have occurred, recently occurred, and/or the wetland has not recovered from past modifications, and/or the modifications are ongoing.	<input type="checkbox"/>

Subtotal

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Metric 4. Habitat Alteration and Development. Maximum 20 points. While hydrology may be the single most important determinant for the establishment and maintenance of specific types of wetlands and wetland processes, there is a range of other factors and activities which affect wetland quality and cause disturbances to wetlands that are unrelated to hydrology. This metric attempts to evaluate these things under the rubric "habitat alteration." In many instances, items checked as possible hydrologic disturbances in Question 3e will be instead alterations to a wetland's habitat or disruptions in its development (succession state). In other instances, a disturbance may be appropriately considered under both Metric 3 and Metric 4. In any case, the Rater should carefully consider what is the actual proximate (direct) cause of the disturbance to the wetland.

4a. **Substrate/Soil Disturbance.** Select one or double check and average. This question evaluates physical disturbances to the soil and surface substrates of the wetland. Note also that the labels on the scoring categories are intended to be descriptive but not controlling. In some instances, it may be more appropriate to consider the scoring categories as fixed locations on a disturbance continuum, from very high to very low or no disturbance.

Examples of substrate/soil disturbance include filling and grading, plowing, grazing (hooves), vehicle use (motorbikes, off-road vehicles, construction vehicles), sedimentation, dredging, and other mechanical disturbances to the surface substrates or soils.

1

<p>Circle one answer. Have any of soil or substrate disturbances caused or appear to have caused more than trivial alterations to the wetland's natural soils or substrates, or have they occurred so far in the past that current conditions should be considered to be "natural"?</p>	<p>YES <input checked="" type="checkbox"/></p> <p>Assign a score 1, 2 or 3, or an intermediate score, depending on degree of recovery from the disturbance.</p> <p style="text-align: right;">1</p>	<p>NO <input type="checkbox"/></p> <p>Assign a score of 4 since there are no or no apparent modifications.</p>	<p>NOT SURE <input type="checkbox"/></p> <p>Double check "none or none apparent" and "recovered" and assign a score of 3.5</p>
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Select one or double check adjoining number and average the score.		score
4pts	NONE OR NONE APPARENT. There are no modifications or no modifications that are apparent to the Rater.	<input type="checkbox"/>
3pts	RECOVERED. The wetland appears to have recovered from past modifications.	<input checked="" type="checkbox"/>
2pts	RECOVERING. The wetland appears to be in the process of recovering from past modifications	<input type="checkbox"/>
1pt	RECENT OR NO RECOVERY. The modifications have occurred, recently occurred, and/or the wetland has not recovered from past modifications, and/or the modifications are ongoing.	<input type="checkbox"/>

<p>4b. Habitat development. Select only one and assign score. This question asks the Rater to assign an overall qualitative rating of how well developed the wetland is in comparison to other ecologically or hydrogeomorphically similar wetlands. This question presumes a good sense of the types of wetlands and the range in quality typical of the region, watershed, or state.</p>		4
7pts	EXCELLENT. Wetland appears to represent the best of its type or class.	<input type="checkbox"/>
6pts	VERY GOOD. Wetland appears to be a very good example of its type or class but is lacking in characteristics, which would make it excellent.	<input type="checkbox"/>
5pts	GOOD. Wetland appears to be a good example of its type or class but because of past or present disturbances, successional state, or other reasons, is not excellent.	<input type="checkbox"/>
4pts	MODERATELY GOOD. Wetland appears to be a fair to good example of its type or class.	<input checked="" type="checkbox"/>
3pts	FAIR. Wetland appears to be a moderately good example of its type or class but because of past or present disturbances, successional state, etc. is not good.	<input type="checkbox"/>
2pts	POOR TO FAIR. Wetland appears to be a poor to fair example of its type or class.	<input type="checkbox"/>
1pt	POOR. Wetland appears to <u>not</u> be a good example of its type or class because of past or present disturbances, successional state, etc.	<input type="checkbox"/>

Subtotal

Subtotal from previous page

4c. **Habitat alteration.** This question evaluates the “intactness” the natural habitat of the type of wetland that is being evaluated. This question does not discriminate between wetlands with different types of habitat. Check all possible alterations that are observed. All available information, field visits, aerial photos, maps, etc. can be used to identify a possible alteration. Evaluate whether the alteration is trivial in relation to the wetlands overall habitat. Select the most appropriate score that best describes the present state of the wetland. It is appropriate to “double check” and average scores. In some instances, the scores can be viewed as a habitat alteration continuum, from very high to very low or no disturbance. **The Rater may check one or several of these possible disturbances, yet still determine that the natural habitat is intact.**

3

Check all that are observed present in or near the wetland

<input checked="" type="checkbox"/>	Mowing	<input type="checkbox"/>	Herbaceous layer/aquatic bed removal
<input type="checkbox"/>	Grazing (cattle, sheep, pigs, etc.)	<input type="checkbox"/>	Sedimentation
<input checked="" type="checkbox"/>	Clear cutting	<input type="checkbox"/>	Dredging
<input checked="" type="checkbox"/>	Selective cutting	<input type="checkbox"/>	Farming
<input type="checkbox"/>	Woody debris removal	<input type="checkbox"/>	Nutrient enrichment, e.g. nuisance algae
<input type="checkbox"/>	Toxic pollutants	<input type="checkbox"/>	Other (specify)
<input type="checkbox"/>	Shrub/sapling removal	<input type="checkbox"/>	Other (specify)

<p>Circle one answer. Have any of the disturbances identified above caused or appear to have caused more than trivial alterations to the wetland's natural hydrologic regime, or have they occurred so far in the past that current hydrology should be considered to be “natural”?</p>	<p>YES</p> <p>Assign a score 1, 3 or 6, or an intermediate score, depending on degree of recovery from the disturbance.</p>	<p>NO</p> <p>Assign a score of 9 since there are no or no apparent modifications.</p>	<p>NOT SURE</p> <p>Double check “none or none apparent” and “recovered” and assign a score of 7.5</p>
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3

Select one or double check adjoining number and average the score.		score
		3
9pts	NONE OR NONE APPARENT. There are no alterations or no alterations that are apparent to the Rater.	<input type="checkbox"/>
6pts	RECOVERED. The wetland appears to have recovered from past alterations.	<input type="checkbox"/>
3pts	RECOVERING. The wetland appears to be in the process of recovering from past alterations/	<input checked="" type="checkbox"/>
1pt	RECENT OR NO RECOVERY. The alterations/ have occurred, recently occurred, and/or the wetland has not recovered from past alterations/, and/or the alterations/ are ongoing.	<input type="checkbox"/>

Metric 5. Special wetland communities. Maximum 10 points. Assign or deduct points if wetland has the feature described. Refer to Narrative Rating for guidance. No wetland can receive more than 10 points even if multiple categories are applicable.

<input type="checkbox"/>	Bog (10pts)	<input type="checkbox"/>	Lake plains sand prairies (Oak Openings) (10 pts)
<input type="checkbox"/>	Fen (10 pts)	<input type="checkbox"/>	Relict wet prairies (10 pts)
<input type="checkbox"/>	Old Growth Forest (10 pts)	<input type="checkbox"/>	Known occurrence of threatened/endangered species (10pts)
<input type="checkbox"/>	Mature Forested Wetland (5 pts)	<input type="checkbox"/>	Significant migratory songbird/waterfowl habitat (10 pts)
<input type="checkbox"/>	Coastal wetlands, unrestricted hydrology (10 pts)	<input checked="" type="checkbox"/>	Category 1 wetlands (See Narrative Rating #5) (-10 pts)
<input type="checkbox"/>	Coastal wetlands, restricted hydrology (5 pts)		

Subtotal

Subtotal from previous page

Metric 6. Vegetation, Interspersion, and Microtopography. Maximum 20 points.

6a.	Wetland Vegetation Communities. Check each community present <u>both vertically and horizontally</u> within the wetland with an area of at least 0.1hectares or 100m ² (0.2471 acres). Assign a score of 0 to 3 using Tables 3, Table 4 or Table 5. Sum the scores for the classes present.	2
<input type="checkbox"/>	Aquatic Bed. Includes areas of wetlands dominated by plants that grow principally on or below the surface of the water for most of the growing season in most years. Floating aquatic species like duckweed (<i>Lemna</i> spp., <i>spirodelaspp.</i>) are excluded from definition of "aquatic bed." Aquatic beds often occur as a distinct zone as an "understory" below shrubs or trees.	
<input checked="" type="checkbox"/>	Emergent. Includes areas of wetland dominated by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens. This vegetation is present for most of the growing season in most years. Common names for emergent communities include marsh, wet meadow, wet prairie, sedge meadow, fens, prairie pothole, and bluejoint slough.	2
<input type="checkbox"/>	Shrub. Includes areas of wetlands dominated by woody vegetation less than 6m (20ft) tall. The plant species include true shrubs, young trees, or trees or shrubs that are small or stunted because of environmental conditions. Shrub wetlands may represent a successional stage leading to a forested wetland or they may be relatively stable plant communities.	
<input type="checkbox"/>	Forested. Includes wetlands or areas of wetlands characterized by wood vegetation greater than 6m (20ft) or taller. Forested wetlands have an overstory of trees and often contain an understory of young trees and shrubs and an herbaceous layer, although the young tree/shrub and herbaceous layers can be largely missing from some types of forested wetlands. Some forested wetlands are defined as "vernal pools" in OAC Rule 3745-1-50.	
<input type="checkbox"/>	Open water. The "open water" class is equivalent to the "unconsolidated bottom/mud" class/subclass (pub ₃) described in Cowardin et al. (1979) and includes areas of wetlands characterized by exposed or shallowly inundated substrates with vegetative cover less than 30%.	
<input type="checkbox"/>	Other (See User's Manual)	

Table 3. Use this table to assign a cover score for Metric 6a to each of the vegetation communities identified on the preceding page. Refer to Table 6 for narrative descriptions of what "low," "moderate," and "high" quality mean.

Cover scale	Description
0	the vegetation community is either, 1) absent from wetland, or 2) comprises less than 0.1ha (0.2471 acres) of contiguous area within the wetland
1	vegetation community is present and either, 1) comprises a small part of the wetland's vegetation and is of low or moderate quality, or 2) if it comprises a significant part of the wetland's vegetation, the community is of low quality
2	the vegetation community is present and either, 1) comprises a significant part of the wetland's vegetation and is of moderate quality, or 2) the vegetation community comprises a small part of the wetland's vegetation but is of high quality.
3	the vegetation community is of high quality and comprises a significant part, or more of the wetland's vegetation

Table 4. Use this table in conjunction with Table 5 to determine what is a "low," "moderate," or "high quality community"

narrative	description
low	Low species diversity and/or a predominance of non-native or disturbance tolerant native species
moderate	Native species are the dominant component of the vegetaion, although non-native or disturbance tolerant native species can also be present, and species diversity is moderate to moderately high, but generally without the presence of rare, threatened, or endangered species.
high	A predominance of native species, with non-native species absent or virtually absent, and high species diversity and sometimes, but not always, the presence of rare, threatened or endangered species.

Table 5. Mudflat and open water community cover scale

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1ha to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Subtotal

Subtotal from previous page

6b. Horizontal (plan view) interspersions. Select only one and assign score. Evaluate the wetland from a "plan view," i.e. as if the looking down upon it. See Figure 1.		2
5pts	HIGH. Wetland has a high degree of interspersions	<input type="checkbox"/>
4pts	MODERATELY HIGH. Wetland has a moderately high degree of interspersions	<input type="checkbox"/>
3pts	MODERATE. Wetland has a moderate degree of interspersions	<input type="checkbox"/>
2pts	MODERATELY LOW. Wetland has a moderately low degree of interspersions	<input checked="" type="checkbox"/>
1pt	LOW. Wetland has a low degree of interspersions	<input type="checkbox"/>
0pts	NONE. Wetland has no plan view interspersions	<input type="checkbox"/>

6c. Coverage of Invasive Plant Species. Refer to Table 1 on Page 7 for list. Select only one and assign score.		-1
-5pts	Extensive. >75% areal cover of invasive species	<input type="checkbox"/>
-3pts	Moderate 25-75% areal cover of invasive species	<input type="checkbox"/>
-1pt	Sparse. 5-25% areal cover of invasive species	<input checked="" type="checkbox"/>
0pts	Nearly absent. <5% areal cover of invasive species	<input type="checkbox"/>
1pt	Absent	<input type="checkbox"/>

6d. Microtopography. Check each feature present in the wetland. Assign cover score of 0 to 3 using Table 6. Evaluate various microtopographic habitat features often present in wetlands.		0
	Vegetated hummocks and tussocks.	<input type="checkbox"/>
	Coarse woody debris >15cm (6in) diameter	<input type="checkbox"/>
	Standing dead trees >25cm (10in) diameter at breast height	<input type="checkbox"/>
	Amphibian breeding habitat, e.g. vernal pools with standing water of sufficient duration and depth to support reproduction, or habitat for from reproduction	<input type="checkbox"/>

Table 6. Cover scale for microtopographic habitat features.

Microtopographic habitat quality	narrative description
0	Feature is absent or functionally absent from the wetland
1	Feature is present in the wetland in very small amounts or if more common, of low quality
2	Feature is present in moderate amounts, but not of highest quality, or in small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

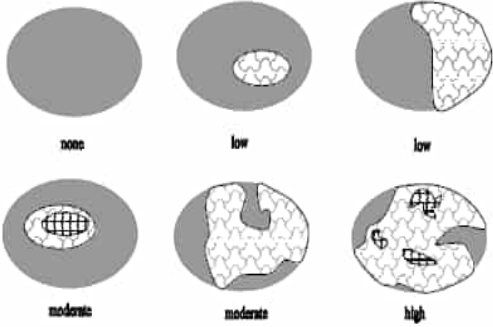


Figure 1. Hypothetical wetlands for estimating degree of interspersions.

GRAND TOTAL

End of Quantitative Rating. Complete Categorization Worksheets.

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: <http://www.epa.state.oh.us/dsw/401/401.html>

ORAM Summary Worksheet

		Circle answer or insert score	Result
Narrative Rating	Question 1: Critical Habitat	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 3.
	Question 2: Threatened or Engagered Species	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 3.
	Question 3: High Quality Natural Wetland	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 3.
	Question 4: Significant bird habitat	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 3.
	Question 5: Category 1 Wetlands	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 1
	Questions 6: Bogs	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 3.
	Question 7: Fens	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 3.
	Questions 8a: Old Growth Forest	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 3.
	Question 8b: Mature Forested Wetland	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Questions 9b: Lake Erie Wetlands – Restricted	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Questions 9d: Lake Erie Wetlands - Unrestricted	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 3.
	Questions 9e: Lake Erie Wetlands – Unrestricted with invasive plants	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10: Oak Openings	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 3.
	Quest 11: Relict Wet Prairies	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1: Size	1	
	Metric 2: Buffers and surrounding land use	1	
	Metric 3: Hydrology	18	
	Metric 4: Habitat	9	
	Metric 5: Special Wetland Communities	0	
	Metric 6: Plant communities, interspersion, microtopography	3	
	TOTAL SCORE Consult most recent score calibration report at http://www.epa.state.oh.us/dsw/401/401.html to determine the wetland's category based on its quantitative score	32	Category based on score breakpoints

Complete Wetland Categorization Worksheet

Wetland Categorization Worksheet

Choices	Circle one		Evaluation
<p>Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10.</p>	<input type="checkbox"/> YES Wetland is categorized as a Category 3 wetland	<input checked="" type="checkbox"/> NO	Is quantitative rating score less than the Category 2 scoring threshold (excluding gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been over-categorized by the ORAM
<p>Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11</p>	<input type="checkbox"/> YES Wetland should be evaluated for possible Category 3 status	<input checked="" type="checkbox"/> NO	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and or functional assessments may also be used to determine the wetland's category.
<p>Did you answer "Yes" to Narrative Rating No. 5</p>	<input type="checkbox"/> YES Wetland is categorized as a Category 1 wetland	<input checked="" type="checkbox"/> NO	Is quantitative rating score greater than the Category 2 scoring threshold (including any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
<p>Does the quantitative score fall within the scoring range of a Category 1, 2 or 3 wetlands?</p>	<input type="checkbox"/> YES Wetland is assigned to the appropriate category based on the scoring range	<input checked="" type="checkbox"/> NO	If the score of the wetland is located within the scoring range for a particular category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on an quantitative score.
<p>Does the quantitative score fall with the "gray zone" for Category 1 or 2 or Category 2 or 3 wetlands?</p>	<input checked="" type="checkbox"/> YES Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	<input type="checkbox"/> NO	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).
<p>Does the wetland otherwise exhibit moderate or superior hydrologic OR habitat, OR recreational functions AND the wetland was not categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?</p>	<input type="checkbox"/> YES Wetland was under categorized by this method. A written justification for re-categorization should be provided on Background Information Form	<input checked="" type="checkbox"/> NO	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hydrologic functions because of its type, landscape position, size, local or regional significance, etc. In this circumstance, the narrative criteria, in OAC Rula 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A ritten justification with supporting reasons or information for this determination should be provided.

Final Category

Choose One <input type="checkbox"/> Category 1 <input checked="" type="checkbox"/> Category 2 <input type="checkbox"/> Category 3

End of Ohio Rapid Assessment Method for Wetlands

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1	1
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Metric 1. Wetland Area (size).

max 6 pts. subtotal

Select one size class and assign score.

- >50 acres (>20.2ha) (6pts)
- 25 to <50acrea (10.1 to <20.2ha) (5pts)
- 10 to <25 acres (4 to <10.1ha) (4pts)
- 3 to <10 acres (1.2 to <4ha) (3pts)
- 0.3 to <3 acres (0.12 to 1.2ha) (2pts)
- .1 to <0.3acres (0.04 to <0.12ha) (1pts)
- <0.1 acres (0.04ha) (0pts)

1	2
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Metric 2. Upland buffers and surrounding land use.

max 14 pts. subtotal

- 2a. Calculate average buffer width. Select only one and assign score. Do not double check.
- WIDE. Buffers average 50 m (164ft) or more around wetland perimeter (7pts)
 - MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4pts)
 - NARROW. Buffers average 10m to <25m (32ft < 82ft) around wetland perimeter (1pts)
 - VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)
- 2b. Calculate average buffer width. Select only one and assign score. Do not double check.
- VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7pts)
 - LOW. Old field (>10 years), shrub land, young second growth forest. (5pts)
 - MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3pts)
 - HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1pts)

18	20
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Metric 3. Hydrology.

Max 30 pts. subtotal

- 3a. Sources of Water. Score all that apply
- High pH groundwater (5pts)
 - Other groundwater (3pts)
 - Precipitation (1pts)
 - Seasonal/Intermittent surface water (3pts)
 - Perennial surface water (lake or stream) (5pts)
- 3b. Connectivity. Score all that apply
- 100 year floodplain (1pts)
 - Between stream/lake and other human use (1pts)
 - Part of wetland/upland (e.g. forest), complex (1pts)
 - Part of riparian or upland corridor (1pts)
- 3c. Maximum water depth. Select only one and assign score.
- >0.7 (27.6in) (3pts)
 - 0.4 to 0.7m (15.7 to 27.6in) 2pts)
 - <0.4m (<15.7in) (1pts)
- 3d. Duration inundation/saturation. Score one or dbl check.
- Semi- to permanently inundated/saturated (4pts)
 - Regularly inundate/saturated (3pts)
 - Seasonally inundated (2pts)
 - Seasonally saturated in upper 30cm (12in) (1pts)
- 3e. Modifications to natural hydrologic regime. Score one or double check and average.
- None or none apparent (12pts)
 - Recovered (7pts)
 - Recovering (3pts)
 - Recent or no recovery (1pts)

Check all disturbances observed	
<input type="checkbox"/> Ditch	<input type="checkbox"/> Point source (non-storm water)
<input type="checkbox"/> Tile	<input type="checkbox"/> Filing/grading
<input type="checkbox"/> Dike	<input type="checkbox"/> Road bed/RR track
<input type="checkbox"/> Weir	<input type="checkbox"/> Dredging
<input type="checkbox"/> Storm water input	<input type="checkbox"/> Other

9	29
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Metric 4. Habitat Alteration and Development.

Max 20pts. Subtotal

- 4a. Substrate disturbance. Score one or double-check and average.
- None or none apparent (4pts)
 - Recovered (3pts)
 - Recovered (2pts)
 - Recent or no recovery (1pts)
- 4b. Habitat development. Select only one and assign score.
- Excellent (7pts)
 - Very good (6pts)
 - Good (5pts)
 - Moderately good (4pts)
 - Fair (3pts)
 - Poor to fair (2pts)
 - Poor (pts)
- 4c. Habitat alteration. Score one or double-check and average.
- None or none apparent (9pts)
 - Recovered (6pts)
 - Recovering (3pts)
 - Recent or no recovery (1pts)

Check all disturbances observed	
<input type="checkbox"/> Mowing	<input type="checkbox"/> Shrub/sapling removal
<input type="checkbox"/> Grazing	<input type="checkbox"/> Herbaceous/aquatic bed removal
<input type="checkbox"/> Clear-cutting	<input type="checkbox"/> Sedimentation
<input type="checkbox"/> Selective cutting	<input type="checkbox"/> Dredging
<input type="checkbox"/> Woody debris removal	<input checked="" type="checkbox"/> Farming
<input type="checkbox"/> Toxic pollutants	<input type="checkbox"/> Nutrient enrichment

29

Subtotal this page

29

Subtotal first page

0	29
Max 10pts	Subtotal

Metric 5. Special wetlands.

Check all that apply and score as indicated

- Bog (10pts)
- Fen (10pts)
- Old growth forest (10pts)
- Mature forested wetland (5 pts)
- Lake Erie coastal/tributary wetland-unrestricted hydrology (10pts)
- Lake Erie coastal tributary wetland-restricted hydrology (5pts)
- Lake Plain Sand Prairies (Oak Openings) (10pts)
- Relict Wet Prairies (10pts)
- Known occurrence state/federal threatened or endangered species (10pts)
- Significant migratory songbird/water fowl habitat or usage (10pts)
- Category 1 Wetland. See Question 1 Qualitative Rating (-10pts)

3	32
Max 20 pts.	Subtotal

Metric 6. Plant communities, interspersions, micro topography..

6a. Wetland Vegetation Communities
Score all present using 0 to 3 scale.

- | | |
|---|-------------|
| 0 | Aquatic Bed |
| 1 | Emergent |
| 0 | Shrub |
| 0 | Forest |
| 0 | Mudflats |
| 0 | Open Water |
| | Other _____ |

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part put is of low quality
2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
3	Present and comprises significant part, or more of wetland's vegetation and is of high quality

6b. Horizontal (plan view) Interspersion

Select only one.

- High (5pts)
- Moderately high (4pts)
- Moderate (3pts)
- Moderately low (2pts)
- Low (1pts)
- None (0pts)

Narrative Description of Vegetation Quality

low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage

- Extensive >75% cover (-5pts)
- Moderate 25-75% cover (-3pts)
- Sparse 5-25% cover (-1)
- Nearly absent >5% cover (0pts)
- Absent (1pts)

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

6d. Micro topography

Score all present using 0 to 3 scale.

- | | |
|---|---------------------------------|
| 0 | Vegetated hummocks/tussocks |
| 0 | Coarse woody debris >15cn (6in) |
| 0 | Standing dead >25cm (10in) dbh |
| 0 | Amphibian breeding pools |

Micro topography Cover Scale

0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or In small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

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GRAND TOTAL (max 100 pts)

Quantitative Rating

Metric 1. Wetland area (max 6pts). Estimate the area of wetland. Select the appropriate size class and assign score. Estimated areas should clearly place the wetland within the appropriate class.

		score
6pts	≥ 50 acres (≥ 20.2ha)	
5pts	25 - <50 acres (10.1 - <20.2ha)	
4pts	10 - <25 acres (4.0 - <10.1ha)	
3pts	3 - <10 acres (1.2 - <4.0ha)	
2pts	0.3 - <3 acres (0.12 - <1.2ha)	
1pt	0.1 - <0.3 acres (0.04 - <0.12ha)	1
0pts	<0.1 acres (0.04ha)	

Table 2. Metric to English conversion table with visual estimation sizes

acres	ft ²	yd ²	ft on side	yd on side	ha	m ²	m on side
50	2,177,983	241,998	1476	492	20.2	202,000	449
25	1,088,992	120,999	1044	348	10.1	101,000	318
10	435,596	48,340	660	220	4.1	41,000	203
3	130,679	14,520	362	121	1.2	12,000	110
0.3	13,067	1,452	114	38	0.12	1,200	35
0.1	4,356	484	66	22	0.04	400	20

Metric 2. Upland buffers and intensity of surrounding land uses. Maximum 14 points. Wetlands are systems transitional between upland and aquatic environments. Wetlands without “buffers,” or that are located where human land use is more intensive, are often, but not always, more degraded.

		score
2a. Average Buffer Width (abw). Calculate the average buffer width and select only one score. To calculate abw, estimate buffer width on each side (max of 50m) and divide by the number of sides. Example: abw of a wetland with buffers of 100m, 25m, 10m and 0m would be calculated as follows: $abw = (50m + 25m + 10m + 0m)/4 = 21.25m$. Intensive land uses are not buffers, e.g. active row cropping, recently abandoned fields, paved areas, housing developments, unfenced pasture, etc.		0
7pts	WIDE. >50m (164ft) or more around perimeter	<input type="checkbox"/>
4pts	MEDIUM. 25m to <50m (82 to <164ft) around the perimeter	<input type="checkbox"/>
1pt	NARROW. 10m to <25m (32 to <82ft) around the perimeter	<input type="checkbox"/>
0pts	VERY NARROW. <10m (<32ft) around perimeter.	<input checked="" type="checkbox"/>
2b. Intensity of predominant surround land use(s). Select one, or double check up to two and average score, for the intensity of the predominant land use(s) outside the wetland’s buffer zone (if any).		1
7pts	VERY LOW. 2 nd growth or older forest, prairie, savannah, wildlife area, etc.	<input type="checkbox"/>
5pts	LOW. Old field (>10 yrs), shrubland, young 2 nd growth forest, etc.	<input type="checkbox"/>
3pts	MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field, etc.	<input type="checkbox"/>
1pt	HIGH. Urban, industrial, open pasture, row cropping, mining, construction, etc.	<input checked="" type="checkbox"/>

2

Subtotal

Subtotal from previous page

Metric 3. Hydrology Maximum 30 points. **This metric evaluates the wetland's water budget, hydro period, the hydrologic connectivity of the wetland to other surface water, and the degree to which the wetland's hydrology has been altered by human activity.** A wetland can receive no more than 30 points for Metric 3 even though it is possible to score more than 30 points.

		score
3a. Sources of Water. Select all that apply and sum score. This question relates to a wetland's water budget. It also is reflective that wetlands with certain types of water sources, or multiple water sources, e.g. high pH groundwater or perennial surface water connections, can be very high quality wetlands or can have high functions and values.		4
5pts	High pH groundwater (7.5-9.0)	<input type="checkbox"/>
3pts	Other groundwater	<input checked="" type="checkbox"/>
1pt	Precipitation	<input checked="" type="checkbox"/>
3pts	Seasonal surface water	<input type="checkbox"/>
5pts	Perennial surface water (lake or stream)	<input type="checkbox"/>
3b. Connectivity. Select all that apply and sum score		0
1pt	100-year floodplain. "Floodplain is defined in OAC Rule 3745-1-50(P) as "...the relatively level land next to a stream or river channel that is periodically submerged by floodwaters. It is composed of alluvium deposited by the present stream or river when it floods." Where they are available, flood insurance rate maps (FIRMs) and flood boundary and floodway maps may be used.	<input type="checkbox"/>
1pt	Between stream/lake and other human land use. This question asks whether the wetland is located <u>between</u> a surface water and a different adjacent land use, such that run-off from the adjacent land use could flow through wetland before it discharges into the surface water. "Different adjacent land uses" include agricultural, commercial, industrial, mining, or residential uses.	<input type="checkbox"/>
1pt	Part of wetland or upland (e.g. forest, prairie) complex. Both this and the next question ask whether the wetland is in physical proximity to, or a part of other nearby wetland or upland natural areas. The difference is whether the area the wetland is "long and narrow" like a river, or more "squarish" like a large forest or woodlot. If the latter is the case, this question applies: if the former, the next question applies. In a few instances, both may apply.	<input type="checkbox"/>
1pt	Part of riparian or upland corridor. See description above.	<input type="checkbox"/>
3c. Maximum water depth. Select only one and assign score. The Rater <i>does not</i> need to actually observe the wetland when its water depth is greatest in order to award the maximum points for this question. The use of secondary indicators, as outlined in the 1987 Manual will be useful in answering this question.		1
3pts	>0.7m (27.6in)	<input type="checkbox"/>
2pts	0.4 to 0.7m (15.7 to 27.6in)	<input type="checkbox"/>
1pt	<0.4m (<15.7in)	<input checked="" type="checkbox"/>
3d. Duration of inundation/saturation. Select one or double-check and average the scores if duration is uncertain. The use of secondary indicator s is necessary and expected in order to properly answer this Question. Categories correspond to Zones II, III, and IV of 1987 Manual (Table 5). Zone IV subdivided into seasonally		1
4pts	Semi permanently to permanently inundated or saturated.	<input type="checkbox"/>
3pts	Regularly inundated or saturated.	<input type="checkbox"/>
2pts	Seasonally inundated.	<input type="checkbox"/>
1pt	Seasonally saturated in the upper 30cm (12in) of soil.	<input checked="" type="checkbox"/>

Subtotal

Subtotal from previous page

3e. **Modifications to natural hydrologic regime.** Check all observable modifications from list below. Score by selecting the most appropriate description of the wetland. Scores may be double checked and averaged. This question asks the Rater to evaluate the "intactness" of, or lack of disturbance to, the natural hydrologic regime of the type of wetland that is being evaluated.

It is very important to stress that this question does not discriminate between wetlands with different types of hydrologic regime, e.g. between a forested seep wetland located on a floodplain with seasonal inundation and a leather leaf (*Chamaedaphne calyculata*) bog with precipitation and minor amounts of surface run-off from a small watershed. Rather, it asks the rater to evaluate the "intactness" of the hydrologic regime attributable to *that type of wetland*. In the example above, both the forested seep wetland and the leather leaf bog can score the maximum points (12) if they're no, or no apparent, modifications to the natural hydrologic regime.

Once the Rater has listed all possible past and ongoing disturbances, the Rater should check the most appropriate category to describe the present state of the wetland. In instances where the Rater believes that a wetland falls between two categories, or where the Rater is uncertain as to which category is appropriate, it is appropriate to "double check" and average the score.

The labels on the scoring categories are intended to be descriptive but not controlling. In some instances, it may be more appropriate to consider the scoring categories as fixed locations on a hydrologic disturbance continuum, from very high to very low or no disturbance.

The Rater may check one or several of these possible disturbance, yet still determine that the natural hydrologic regime is intact. However, see Metric 4 where these same disturbances may be habitat alterations.

Check all that are observed present in or near the wetland

<input type="checkbox"/>	ditch(es), in or near the wetland	<input type="checkbox"/>	point source discharges to the (non-storm water)
<input type="checkbox"/>	tile(s), in or near the wetland	<input type="checkbox"/>	filling/grading activities in or near the wetland
<input type="checkbox"/>	dike(s), in or near the wetland	<input type="checkbox"/>	road beds/RR beds in or near the wetland
<input type="checkbox"/>	weir(s), in or near the wetland	<input type="checkbox"/>	dredging activities in or near the wetland
<input type="checkbox"/>	storm water inputs (addition of water)	<input type="checkbox"/>	other (specify)

<p>Circle one answer. Have any of the disturbances identified above caused or appear to have caused more than trivial alterations to the wetland's natural hydrologic regime, or have they occurred so far in the past that current hydrology should be considered to be "natural"?</p>	<p>YES</p> <p>Assign a score 1, 3 or 7, or an intermediate score, depending on degree of recovery from the disturbance.</p>	<p>NO</p> <p>Assign a score of 12 since there are no or no apparent modifications.</p>	<p>NOT SURE</p> <p>Double check "none or none apparent" and "recovered" and assign a score of 9.5</p>
	X		

Select one or double check adjoining number and average the score.			score
			12
12pts	NONE OR NONE APPARENT. There are no modifications or no modifications that are apparent to the Rater.		<input checked="" type="checkbox"/>
7pts	RECOVERED. The wetland appears to have recovered from past modifications.		<input type="checkbox"/>
3pts	RECOVERING. The wetland appears to be in the process of recovering from past modifications		<input type="checkbox"/>
1pt	RECENT OR NO RECOVERY. The modifications have occurred, recently occurred, and/or the wetland has not recovered from past modifications, and/or the modifications are ongoing.		<input type="checkbox"/>

Subtotal

Subtotal from previous page

Metric 4. Habitat Alteration and Development. Maximum 20 points. While hydrology may be the single most important determinant for the establishment and maintenance of specific types of wetlands and wetland processes, there is a range of other factors and activities which affect wetland quality and cause disturbances to wetlands that are unrelated to hydrology. This metric attempts to evaluate these things under the rubric "habitat alteration." In many instances, items checked as possible hydrologic disturbances in Question 3e will be instead alterations to a wetland's habitat or disruptions in its development (succession state). In other instances, a disturbance may be appropriately considered under both Metric 3 and Metric 4. In any case, the Rater should carefully consider what is the actual proximate (direct) cause of the disturbance to the wetland.

4a. **Substrate/Soil Disturbance.** Select one or double check and average. This question evaluates physical disturbances to the soil and surface substrates of the wetland. Note also that the labels on the scoring categories are intended to be descriptive but not controlling. In some instances, it may be more appropriate to consider the scoring categories as fixed locations on a disturbance continuum, from very high to very low or no disturbance.

Examples of substrate/soil disturbance include filling and grading, plowing, grazing (hooves), vehicle use (motorbikes, off-road vehicles, construction vehicles), sedimentation, dredging, and other mechanical disturbances to the surface substrates or soils.

<p>Circle one answer. Have any of soil or substrate disturbances caused or appear to have caused more than trivial alterations to the wetland's natural soils or substrates, or have they occurred so far in the past that current conditions should be considered to be "natural"?</p>	<p>YES <input type="checkbox"/></p> <p>Assign a score 1, 2 or 3, or an intermediate score, depending on degree of recovery from the disturbance.</p>	<p>NO <input checked="" type="checkbox"/></p> <p>Assign a score of 4 since there are no or no apparent modifications.</p>	<p>NOT SURE <input type="checkbox"/></p> <p>Double check "none or none apparent" and "recovered" and assign a score of 3.5</p>
4			

Select one or double check adjoining number and average the score.	score
4pts NONE OR NONE APPARENT. There are no modifications or no modifications that are apparent to the Rater.	<input checked="" type="checkbox"/>
3pts RECOVERED. The wetland appears to have recovered from past modifications.	<input type="checkbox"/>
2pts RECOVERING. The wetland appears to be in the process of recovering from past modifications	<input type="checkbox"/>
1pt RECENT OR NO RECOVERY. The modifications have occurred, recently occurred, and/or the wetland has not recovered from past modifications, and/or the modifications are ongoing.	<input type="checkbox"/>

4b. Habitat development. Select only one and assign score. This question asks the Rater to assign an overall qualitative rating of how well developed the wetland is in comparison to other ecologically or hydrogeomorphically similar wetlands. This question presumes a good sense of the types of wetlands and the range in quality typical of the region, watershed, or state.	4
7pts EXCELLENT. Wetland appears to represent the best of its type or class.	<input type="checkbox"/>
6pts VERY GOOD. Wetland appears to be a very good example of its type or class but is lacking in characteristics, which would make it excellent.	<input type="checkbox"/>
5pts GOOD. Wetland appears to be a good example of its type or class but because of past or present disturbances, successional state, or other reasons, is not excellent.	<input type="checkbox"/>
4pts MODERATELY GOOD. Wetland appears to be a fair to good example of its type or class.	<input type="checkbox"/>
3pts FAIR. Wetland appears to be a moderately good example of its type or class but because of past or present disturbances, successional state, etc. is not good.	<input type="checkbox"/>
2pts POOR TO FAIR. Wetland appears to be a poor to fair example of its type or class.	<input type="checkbox"/>
1pt POOR. Wetland appears to <u>not</u> be a good example of its type or class because of past or present disturbances, successional state, etc.	<input type="checkbox"/>

Subtotal

Subtotal from previous page

4c. **Habitat alteration.** This question evaluates the “intactness” the natural habitat of the type of wetland that is being evaluated. This question does not discriminate between wetlands with different types of habitat. Check all possible alterations that are observed. All available information, field visits, aerial photos, maps, etc. can be used to identify a possible alteration. Evaluate whether the alteration is trivial in relation to the wetlands overall habitat. Select the most appropriate score that best describes the present state of the wetland. It is appropriate to “double check” and average scores. In some instances, the scores can be viewed as a habitat alteration continuum, from very high to very low or no disturbance. **The Rater may check one or several of these possible disturbances, yet still determine that the natural habitat is intact.**

Check all that are observed present in or near the wetland

<input type="checkbox"/> Mowing	<input type="checkbox"/> Herbaceous layer/aquatic bed removal
<input type="checkbox"/> Grazing (cattle, sheep, pigs, etc.)	<input type="checkbox"/> Sedimentation
<input type="checkbox"/> Clear cutting	<input type="checkbox"/> Dredging
<input type="checkbox"/> Selective cutting	<input checked="" type="checkbox"/> Farming
<input type="checkbox"/> Woody debris removal	<input type="checkbox"/> Nutrient enrichment, e.g. nuisance algae
<input type="checkbox"/> Toxic pollutants	<input type="checkbox"/> Other (specify)
<input type="checkbox"/> Shrub/sapling removal	<input type="checkbox"/> Other (specify)

<p>Circle one answer. Have any of the disturbances identified above caused or appear to have caused more than trivial alterations to the wetland's natural hydrologic regime, or have they occurred so far in the past that current hydrology should be considered to be “natural”?</p>	<p>YES</p> <p>Assign a score 1, 3 or 6, or an intermediate score, depending on degree of recovery from the disturbance.</p> <p style="text-align: center;">1</p>	<p>NO</p> <p>Assign a score of 9 since there are no or no apparent modifications.</p>	<p>NOT SURE</p> <p>Double check “none or none apparent” and “recovered” and assign a score of 7.5</p>
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Select one or double check adjoining number and average the score.		score
9pts	NONE OR NONE APPARENT. There are no alterations or no alterations that are apparent to the Rater.	<input type="checkbox"/>
6pts	RECOVERED. The wetland appears to have recovered from past alterations.	<input type="checkbox"/>
3pts	RECOVERING. The wetland appears to be in the process of recovering from past alterations/	<input type="checkbox"/>
1pt	RECENT OR NO RECOVERY. The alterations/ have occurred, recently occurred, and/or the wetland has not recovered from past alterations/, and/or the alterations/ are ongoing.	<input checked="" type="checkbox"/>

Metric 5. Special wetland communities. Maximum 10 points. Assign or deduct points if wetland has the feature described. Refer to Narrative Rating for guidance. No wetland can receive more than 10 points even if multiple categories are applicable.

<input type="checkbox"/> Bog (10pts)	<input type="checkbox"/> Lake plains sand prairies (Oak Openings) (10 pts)
<input type="checkbox"/> Fen (10 pts)	<input type="checkbox"/> Relict wet prairies (10 pts)
<input type="checkbox"/> Old Growth Forest (10 pts)	<input type="checkbox"/> Known occurrence of threatened/endangered species (10pts)
<input type="checkbox"/> Mature Forested Wetland (5 pts)	<input type="checkbox"/> Significant migratory songbird/waterfowl habitat (10 pts)
<input type="checkbox"/> Coastal wetlands, unrestricted hydrology (10 pts)	<input type="checkbox"/> Category 1 wetlands (See Narrative Rating #5) (-10 pts)
<input type="checkbox"/> Coastal wetlands, restricted hydrology (5 pts)	

Subtotal

Subtotal from previous page

Metric 6. Vegetation, Interspersion, and Microtopography. Maximum 20 points.

6a.	Wetland Vegetation Communities. Check each community present <u>both vertically and horizontally</u> within the wetland with an area of at least 0.1hectares or 100m ² (0.2471 acres). Assign a score of 0 to 3 using Tables 3, Table 4 or Table 5. Sum the scores for the classes present.	1
<input type="checkbox"/>	Aquatic Bed. Includes areas of wetlands dominated by plants that grow principally on or below the surface of the water for most of the growing season in most years. Floating aquatic species like duckweed (<i>Lemna</i> spp., <i>spirodelaspp.</i>) are excluded from definition of "aquatic bed." Aquatic beds often occur as a distinct zone as an "understory" below shrubs or trees.	0
<input checked="" type="checkbox"/>	Emergent. Includes areas of wetland dominated by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens. This vegetation is present for most of the growing season in most years. Common names for emergent communities include marsh, wet meadow, wet prairie, sedge meadow, fens, prairie pothole, and bluejoint slough.	1
<input type="checkbox"/>	Shrub. Includes areas of wetlands dominated by woody vegetation less than 6m (20ft) tall. The plant species include true shrubs, young trees, or trees or shrubs that are small or stunted because of environmental conditions. Shrub wetlands may represent a successional stage leading to a forested wetland or they may be relatively stable plant communities.	0
<input type="checkbox"/>	Forested. Includes wetlands or areas of wetlands characterized by wood vegetation greater than 6m (20ft) or taller. Forested wetlands have an overstory of trees and often contain an understory of young trees and shrubs and an herbaceous layer, although the young tree/shrub and herbaceous layers can be largely missing from some types of forested wetlands. Some forested wetlands are defined as "vernal pools" in OAC Rule 3745-1-50.	0
<input type="checkbox"/>	Open water. The "open water" class is equivalent to the "unconsolidated bottom/mud" class/subclass (pub ₃) described in Cowardin et al. (1979) and includes areas of wetlands characterized by exposed or shallowly inundated substrates with vegetative cover less than 30%.	0
<input type="checkbox"/>	Other (See User's Manual)	

Table 3. Use this table to assign a cover score for Metric 6a to each of the vegetation communities identified on the preceding page. Refer to Table 6 for narrative descriptions of what "low," "moderate," and "high" quality mean.

Cover scale	Description
0	the vegetation community is either, 1) absent from wetland, or 2) comprises less than 0.1ha (0.2471 acres) of contiguous area within the wetland
1	vegetation community is present and either, 1) comprises a small part of the wetland's vegetation and is of low or moderate quality, or 2) if it comprises a significant part of the wetland's vegetation, the community is of low quality
2	the vegetation community is present and either, 1) comprises a significant part of the wetland's vegetation and is of moderate quality, or 2) the vegetation community comprises a small part of the wetland's vegetation but is of high quality.
3	the vegetation community is of high quality and comprises a significant part, or more of the wetland's vegetation

Table 4. Use this table in conjunction with Table 5 to determine what is a "low," "moderate," or "high quality community"

narrative	description
low	Low species diversity and/or a predominance of non-native or disturbance tolerant native species
moderate	Native species are the dominant component of the vegetaion, although non-native or disturbance tolerant native species can also be present, and species diversity is moderate to moderately high, but generally without the presence of rare, threatened, or endangered species.
high	A predominance of native species, with non-native species absent or virtually absent, and high species diversity and sometimes, but not always, the presence of rare, threatened or endangered species.

Table 5. Mudflat and open water community cover scale

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1ha to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Subtotal

Subtotal from previous page

6b. Horizontal (plan view) interspersion. Select only one and assign score. Evaluate the wetland from a "plan view," i.e. as if the looking down upon it. See Figure 1.		1
5pts	HIGH. Wetland has a high degree of interspersion	<input type="checkbox"/>
4pts	MODERATELY HIGH. Wetland has a moderately high degree of interspersion	<input type="checkbox"/>
3pts	MODERATE. Wetland has a moderate degree of interspersion	<input type="checkbox"/>
2pts	MODERATELY LOW. Wetland has a moderately low degree of interspersion	<input type="checkbox"/>
1pt	LOW. Wetland has a low degree of interspersion	<input checked="" type="checkbox"/>
0pts	NONE. Wetland has no plan view interspersion	<input type="checkbox"/>

6c. Coverage of Invasive Plant Species. Refer to Table 1 on Page 7 for list. Select only one and assign score.		1
-5pts	Extensive. >75% areal cover of invasive species	<input type="checkbox"/>
-3pts	Moderate 25-75% areal cover of invasive species	<input type="checkbox"/>
-1pt	Sparse. 5-25% areal cover of invasive species	<input type="checkbox"/>
0pts	Nearly absent. <5% areal cover of invasive species	<input type="checkbox"/>
1pt	Absent	<input checked="" type="checkbox"/>

6d. Microtopography. Check each feature present in the wetland. Assign cover score of 0 to 3 using Table 6. Evaluate various microtopographic habitat features often present in wetlands.		0
Vegetated hummocks and tussocks.		<input type="checkbox"/>
Coarse woody debris >15cm (6in) diameter		<input type="checkbox"/>
Standing dead trees >25cm (10in) diameter at breast height		<input type="checkbox"/>
Amphibian breeding habitat, e.g. vernal pools with standing water of sufficient duration and depth to support reproduction, or habitat for from reproduction		<input type="checkbox"/>

Table 6. Cover scale for microtopographic habitat features.

Microtopographic habitat quality	narrative description
0	Feature is absent or functionally absent from the wetland
1	Feature is present in the wetland in very small amounts or if more common, of low quality
2	Feature is present in moderate amounts, but not of highest quality, or in small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

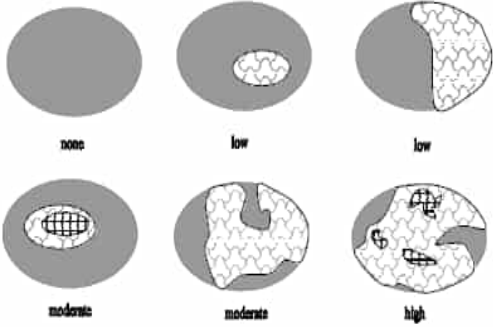


Figure 1. Hypothetical wetlands for estimating degree of interspersion.

GRAND TOTAL

End of Quantitative Rating. Complete Categorization Worksheets.

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: <http://www.epa.state.oh.us/dsw/401/401.html>

ORAM Summary Worksheet

		Circle answer or insert score	Result
Narrative Rating	Question 1: Critical Habitat	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 3.
	Question 2: Threatened or Engagered Species	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 3.
	Question 3: High Quality Natural Wetland	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 3.
	Question 4: Significant bird habitat	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 3.
	Question 5: Category 1 Wetlands	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 1
	Questions 6: Bogs	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 3.
	Question 7: Fens	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 3.
	Questions 8a: Old Growth Forest	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 3.
	Question 8b: Mature Forested Wetland	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Questions 9b: Lake Erie Wetlands – Restricted	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Questions 9d: Lake Erie Wetlands - Unrestricted	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 3.
	Questions 9e: Lake Erie Wetlands – Unrestricted with invasive plants	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10: Oak Openings	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 3.
	Quest 11: Relict Wet Prairies	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1: Size	1	
	Metric 2: Buffers and surrounding land use	3	
	Metric 3: Hydrology	15	
	Metric 4: Habitat	11	
	Metric 5: Special Wetland Communities	-9	
	Metric 6: Plant communities, interspersion, microtopography	11	
	TOTAL SCORE Consult most recent score calibration report at http://www.epa.state.oh.us/dsw/401/401.html to determine the wetland's category based on its quantitative score	33	Category based on score breakpoints

Complete Wetland Categorization Worksheet

Wetland Categorization Worksheet

Choices	Circle one		Evaluation
<p>Did you answer “Yes” to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10.</p>	<input type="checkbox"/> YES Wetland is categorized as a Category 3 wetland	<input checked="" type="checkbox"/> NO	Is quantitative rating score less than the Category 2 scoring threshold (excluding gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been over-categorized by the ORAM
<p>Did you answer “Yes” to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11</p>	<input type="checkbox"/> YES Wetland should be evaluated for possible Category 3 status	<input checked="" type="checkbox"/> NO	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and or functional assessments may also be used to determine the wetland’s category.
<p>Did you answer “Yes” to Narrative Rating No. 5</p>	<input type="checkbox"/> YES Wetland is categorized as a Category 1 wetland	<input checked="" type="checkbox"/> NO	Is quantitative rating score greater than the Category 2 scoring threshold (including any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
<p>Does the quantitative score fall within the scoring range of a Category 1, 2 or 3 wetlands?</p>	<input type="checkbox"/> YES Wetland is assigned to the appropriate category based on the scoring range	<input checked="" type="checkbox"/> NO	If the score of the wetland is located within the scoring range for a particular category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on an quantitative score.
<p>Does the quantitative score fall with the “gray zone” for Category 1 or 2 or Category 2 or 3 wetlands?</p>	<input checked="" type="checkbox"/> YES Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	<input type="checkbox"/> NO	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).
<p>Does the wetland otherwise exhibit moderate or superior hydrologic OR habitat, OR recreational functions AND the wetland was not categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?</p>	<input type="checkbox"/> YES Wetland was under categorized by this method. A written justification for re-categorization should be provided on Background Information Form	<input checked="" type="checkbox"/> NO	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland’s biotic communities may be degraded by human activities, but the wetland may still exhibit superior hydrologic functions because of its type, landscape position, size, local or regional significance, etc. In this circumstance, the narrative criteria, in OAC Rula 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A ritten justification with supporting reasons or information for this determination should be provided.

Final Category

Choose One	<input checked="" type="checkbox"/> Category 1	<input type="checkbox"/> Category 2	<input type="checkbox"/> Category 3
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End of Ohio Rapid Assessment Method for Wetlands

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2	2
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Metric 1. Wetland Area (size).

max 6 pts. subtotal

Select one size class and assign score.

- >50 acres (>20.2ha) (6pts)
- 25 to <50acrea (10.1 to <20.2ha) (5pts)
- 10 to <25 acres (4 to <10.1ha) (4pts)
- 3 to <10 acres (1.2 to <4ha) (3pts)
- 0.3 to <3 acres (0.12 to 1.2ha) (2pts)
- .1 to <0.3acres (0.04 to <0.12ha) (1pts)
- <0.1 acres (0.04ha) (0pts)

2	4
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Metric 2. Upland buffers and surrounding land use.

max 14 pts. subtotal

- 2a. Calculate average buffer width. Select only one and assign score. Do not double check.
- WIDE. Buffers average 50 m (164ft) or more around wetland perimeter (7pts)
 - MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4pts)
 - NARROW. Buffers average 10m to <25m (32ft < 82ft) around wetland perimeter (1pts)
 - VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)
- 2b. Calculate average buffer width. Select only one and assign score. Do not double check.
- VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7pts)
 - LOW. Old field (>10 years), shrub land, young second growth forest. (5pts)
 - MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3pts)
 - HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1pts)

9	13
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Metric 3. Hydrology.

Max 30 pts. subtotal

- 3a. Sources of Water. Score all that apply
- High pH groundwater (5pts)
 - Other groundwater (3pts)
 - Precipitation (1pts)
 - Seasonal/Intermittent surface water (3pts)
 - Perennial surface water (lake or stream) (5pts)
- 3b. Connectivity. Score all that apply
- 100 year floodplain (1pts)
 - Between stream/lake and other human use (1pts)
 - Part of wetland/upland (e.g. forest), complex (1pts)
 - Part of riparian or upland corridor (1pts)
- 3c. Maximum water depth. Select only one and assign score.
- >0.7 (27.6in) (3pts)
 - 0.4 to 0.7m (15.7 to 27.6in) 2pts)
 - <0.4m (<15.7in) (1pts)
- 3d. Duration inundation/saturation. Score one or dbl check.
- Semi- to permanently inundated/saturated (4pts)
 - Regularly inundate/saturated (3pts)
 - Seasonally inundated (2pts)
 - Seasonally saturated in upper 30cm (12in) (1pts)
- 3e. Modifications to natural hydrologic regime. Score one or double check and average.
- None or none apparent (12pts)
 - Recovered (7pts)
 - Recovering (3pts)
 - Recent or no recovery (1pts)

Check all disturbances observed	
<input type="checkbox"/> Ditch	<input type="checkbox"/> Point source (non-storm water)
<input checked="" type="checkbox"/> Tile	<input type="checkbox"/> Filing/grading
<input type="checkbox"/> Dike	<input type="checkbox"/> Road bed/RR track
<input type="checkbox"/> Weir	<input type="checkbox"/> Dredging
<input type="checkbox"/> Storm water input	<input type="checkbox"/> Other

8	21
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Metric 4. Habitat Alteration and Development.

Max 20pts. Subtotal

- 4a. Substrate disturbance. Score one or double-check and average.
- None or none apparent (4pts)
 - Recovered (3pts)
 - Recovered (2pts)
 - Recent or no recovery (1pts)
- 4b. Habitat development. Select only one and assign score.
- Excellent (7pts)
 - Very good (6pts)
 - Good (5pts)
 - Moderately good (4pts)
 - Fair (3pts)
 - Poor to fair (2pts)
 - Poor (pts)
- 4c. Habitat alteration. Score one or double-check and average.
- None or none apparent (9pts)
 - Recovered (6pts)
 - Recovering (3pts)
 - Recent or no recovery (1pts)

Check all disturbances observed	
<input checked="" type="checkbox"/> Mowing	<input checked="" type="checkbox"/> Shrub/sapling removal
<input type="checkbox"/> Grazing	<input type="checkbox"/> Herbaceous/aquatic bed removal
<input checked="" type="checkbox"/> Clear-cutting	<input type="checkbox"/> Sedimentation
<input type="checkbox"/> Selective cutting	<input type="checkbox"/> Dredging
<input type="checkbox"/> Woody debris removal	<input checked="" type="checkbox"/> Farming
<input type="checkbox"/> Toxic pollutants	<input type="checkbox"/> Nutrient enrichment

21

Subtotal this page

21

Subtotal first page

-10	11
Max 10pts	Subtotal

Metric 5. Special wetlands.

Check all that apply and score as indicated

- Bog (10pts)
- Fen (10pts)
- Old growth forest (10pts)
- Mature forested wetland (5 pts)
- Lake Erie coastal/tributary wetland-unrestricted hydrology (10pts)
- Lake Erie coastal tributary wetland-restricted hydrology (5pts)
- Lake Plain Sand Prairies (Oak Openings) (10pts)
- Relict Wet Prairies (10pts)
- Known occurrence state/federal threatened or endangered species (10pts)
- Significant migratory songbird/water fowl habitat or usage (10pts)
- Category 1 Wetland. See Question 1 Qualitative Rating (-10pts)

7	18
Max 20 pts.	Subtotal

Metric 6. Plant communities, interspersions, micro topography..

6a. Wetland Vegetation Communities
Score all present using 0 to 3 scale.

- 0 Aquatic Bed
- 3 Emergent
- 1 Shrub
- 0 Forest
- 0 Mudflats
- 0 Open Water
- Other _____

Vegetation Community Cover Scale	
0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part put is of low quality
2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
3	Present and comprises significant part, or more of wetland's vegetation and is of high quality

6b. Horizontal (plan view) Interspersion

- Select only one.
- High (5pts)
 - Moderately high (4pts)
 - Moderate (3pts)
 - Moderately low (2pts)
 - Low (1pts)
 - None (0pts)

Narrative Description of Vegetation Quality	
low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage

- Extensive >75% cover (-5pts)
- Moderate 25-75% cover (-3pts)
- Sparse 5-25% cover (-1)
- Nearly absent >5% cover (0pts)
- Absent (1pts)

Mudflat and Open Water Class Quality	
0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

6d. Micro topography
Score all present using 0 to 3 scale.

- 0 Vegetated hummocks/tussocks
- 1 Coarse woody debris >15cm (6in)
- 0 Standing dead >25cm (10in) dbh
- 0 Amphibian breeding pools

Micro topography Cover Scale	
0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or In small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

18

GRAND TOTAL (max 100 pts)

Quantitative Rating

Metric 1. Wetland area (max 6pts). Estimate the area of wetland. Select the appropriate size class and assign score. Estimated areas should clearly place the wetland within the appropriate class.

		score
6pts	≥ 50 acres (≥ 20.2ha)	
5pts	25 - <50 acres (10.1 - <20.2ha)	
4pts	10 - <25 acres (4.0 - <10.1ha)	
3pts	3 - <10 acres (1.2 - <4.0ha)	
2pts	0.3 - <3 acres (0.12 - <1.2ha)	2
1pt	0.1 - <0.3 acres (0.04 - <0.12ha)	
0pts	<0.1 acres (0.04ha)	

Table 2. Metric to English conversion table with visual estimation sizes

acres	ft ²	yd ²	ft on side	yd on side	ha	m ²	m on side
50	2,177,983	241,998	1476	492	20.2	202,000	449
25	1,088,992	120,999	1044	348	10.1	101,000	318
10	435,596	48,340	660	220	4.1	41,000	203
3	130,679	14,520	362	121	1.2	12,000	110
0.3	13,067	1,452	114	38	0.12	1,200	35
0.1	4,356	484	66	22	0.04	400	20

Metric 2. Upland buffers and intensity of surrounding land uses. Maximum 14 points. Wetlands are systems transitional between upland and aquatic environments. Wetlands without “buffers,” or that are located where human land use is more intensive, are often, but not always, more degraded.

	score
<p>2a. Average Buffer Width (abw). Calculate the average buffer width and select only one score. To calculate abw, estimate buffer width on each side (max of 50m) and divide by the number of sides. Example: abw of a wetland with buffers of 100m, 25m, 10m and 0m would be calculated as follows: $abw = (50m + 25m + 10m + 0m)/4 = 21.25m$. Intensive land uses are not buffers, e.g. active row cropping, recently abandoned fields, paved areas, housing developments, unfenced pasture, etc.</p>	0
7pts WIDE. >50m (164ft) or more around perimeter	<input type="checkbox"/>
4pts MEDIUM. 25m to <50m (82 to <164ft) around the perimeter	<input type="checkbox"/>
1pt NARROW. 10m to <25m (32 to <82ft) around the perimeter	<input type="checkbox"/>
0pts VERY NARROW. <10m (<32ft) around perimeter.	<input checked="" type="checkbox"/>
<p>2b. Intensity of predominant surround land use(s). Select one, or double check up to two and average score, for the intensity of the predominant land use(s) outside the wetland’s buffer zone (if any).</p>	1
7pts VERY LOW. 2 nd growth or older forest, prairie, savannah, wildlife area, etc.	<input type="checkbox"/>
5pts LOW. Old field (>10 yrs), shrubland, young 2 nd growth forest, etc.	<input type="checkbox"/>
3pts MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field, etc.	<input type="checkbox"/>
1pt HIGH. Urban, industrial, open pasture, row cropping, mining, construction, etc.	<input checked="" type="checkbox"/>

3

Subtotal

Subtotal from previous page

Metric 3. Hydrology Maximum 30 points. **This metric evaluates the wetland's water budget, hydro period, the hydrologic connectivity of the wetland to other surface water, and the degree to which the wetland's hydrology has been altered by human activity.** A wetland can receive no more than 30 points for Metric 3 even though it is possible to score more than 30 points.

		score
3a. Sources of Water. Select all that apply and sum score. This question relates to a wetland's water budget. It also is reflective that wetlands with certain types of water sources, or multiple water sources, e.g. high pH groundwater or perennial surface water connections, can be very high quality wetlands or can have high functions and values.		1
5pts	High pH groundwater (7.5-9.0)	<input type="checkbox"/>
3pts	Other groundwater	<input type="checkbox"/>
1pt	Precipitation	<input checked="" type="checkbox"/>
3pts	Seasonal surface water	<input type="checkbox"/>
5pts	Perennial surface water (lake or stream)	<input type="checkbox"/>
3b. Connectivity. Select all that apply and sum score		1
1pt	100-year floodplain. "Floodplain is defined in OAC Rule 3745-1-50(P) as "...the relatively level land next to a stream or river channel that is periodically submerged by floodwaters. It is composed of alluvium deposited by the present stream or river when it floods." Where they are available, flood insurance rate maps (FIRMs) and flood boundary and floodway maps may be used.	<input type="checkbox"/>
1pt	Between stream/lake and other human land use. This question asks whether the wetland is located <u>between</u> a surface water and a different adjacent land use, such that run-off from the adjacent land use could flow through wetland before it discharges into the surface water. "Different adjacent land uses" include agricultural, commercial, industrial, mining, or residential uses.	<input checked="" type="checkbox"/>
1pt	Part of wetland or upland (e.g. forest, prairie) complex. Both this and the next question ask whether the wetland is in physical proximity to, or a part of other nearby wetland or upland natural areas. The difference is whether the area the wetland is "long and narrow" like a river, or more "squarish" like a large forest or woodlot. If the latter is the case, this question applies: if the former, the next question applies. In a few instances, both may apply.	<input type="checkbox"/>
1pt	Part of riparian or upland corridor. See description above.	<input type="checkbox"/>
3c. Maximum water depth. Select only one and assign score. The Rater <i>does not</i> need to actually observe the wetland when its water depth is greatest in order to award the maximum points for this question. The use of secondary indicators, as outlined in the 1987 Manual will be useful in answering this question.		1
3pts	>0.7m (27.6in)	<input type="checkbox"/>
2pts	0.4 to 0.7m (15.7 to 27.6in)	<input type="checkbox"/>
1pt	<0.4m (<15.7in)	<input checked="" type="checkbox"/>
3d. Duration of inundation/saturation. Select one or double-check and average the scores if duration is uncertain. The use of secondary indicator s is necessary and expected in order to properly answer this Question. Categories correspond to Zones II, III, and IV of 1987 Manual (Table 5). Zone IV subdivided into seasonally		1
4pts	Semi permanently to permanently inundated or saturated.	<input type="checkbox"/>
3pts	Regularly inundated or saturated.	<input type="checkbox"/>
2pts	Seasonally inundated.	<input type="checkbox"/>
1pt	Seasonally saturated in the upper 30cm (12in) of soil.	<input checked="" type="checkbox"/>

Subtotal

Subtotal from previous page

3e. **Modifications to natural hydrologic regime.** Check all observable modifications from list below. Score by selecting the most appropriate description of the wetland. Scores may be double checked and averaged. This question asks the Rater to evaluate the "intactness" of, or lack of disturbance to, the natural hydrologic regime of the type of wetland that is being evaluated.

It is very important to stress that this question does not discriminate between wetlands with different types of hydrologic regime, e.g. between a forested seep wetland located on a floodplain with seasonal inundation and a leather leaf (*Chamaedaphne calyculata*) bog with precipitation and minor amounts of surface run-off from a small watershed. Rather, it asks the rater to evaluate the "intactness" of the hydrologic regime attributable to *that type of wetland*. In the example above, both the forested seep wetland and the leather leaf bog can score the maximum points (12) if they're no, or no apparent, modifications to the natural hydrologic regime.

Once the Rater has listed all possible past and ongoing disturbances, the Rater should check the most appropriate category to describe the present state of the wetland. In instances where the Rater believes that a wetland falls between two categories, or where the Rater is uncertain as to which category is appropriate, it is appropriate to "double check" and average the score.

The labels on the scoring categories are intended to be descriptive but not controlling. In some instances, it may be more appropriate to consider the scoring categories as fixed locations on a hydrologic disturbance continuum, from very high to very low or no disturbance.

The Rater may check one or several of these possible disturbance, yet still determine that the natural hydrologic regime is intact. However, see Metric 4 where these same disturbances may be habitat alterations.

Check all that are observed present in or near the wetland

<input type="checkbox"/> ditch(es), in or near the wetland	<input checked="" type="checkbox"/> point source discharges to the (non-storm water)
<input checked="" type="checkbox"/> tile(s), in or near the wetland	<input type="checkbox"/> filling/grading activities in or near the wetland
<input type="checkbox"/> dike(s), in or near the wetland	<input type="checkbox"/> road beds/RR beds in or near the wetland
<input type="checkbox"/> weir(s), in or near the wetland	<input type="checkbox"/> dredging activities in or near the wetland
<input type="checkbox"/> storm water inputs (addition of water)	<input type="checkbox"/> other (specify)

<p>Circle one answer. Have any of the disturbances identified above caused or appear to have caused more than trivial alterations to the wetland's natural hydrologic regime, or have they occurred so far in the past that current hydrology should be considered to be "natural"?</p>	<p>YES</p> <p>Assign a score 1, 3 or 7, or an intermediate score, depending on degree of recovery from the disturbance.</p>	<p>NO</p> <p>Assign a score of 12 since there are no or no apparent modifications.</p>	<p>NOT SURE</p> <p>Double check "none or none apparent" and "recovered" and assign a score of 9.5</p>
	1		

Select one or double check adjoining number and average the score.		score
12pts	NONE OR NONE APPARENT. There are no modifications or no modifications that are apparent to the Rater.	<input type="checkbox"/>
7pts	RECOVERED. The wetland appears to have recovered from past modifications.	<input checked="" type="checkbox"/>
3pts	RECOVERING. The wetland appears to be in the process of recovering from past modifications	<input type="checkbox"/>
1pt	RECENT OR NO RECOVERY. The modifications have occurred, recently occurred, and/or the wetland has not recovered from past modifications, and/or the modifications are ongoing.	<input type="checkbox"/>

Subtotal

Subtotal from previous page

Metric 4. Habitat Alteration and Development. Maximum 20 points. While hydrology may be the single most important determinant for the establishment and maintenance of specific types of wetlands and wetland processes, there is a range of other factors and activities which affect wetland quality and cause disturbances to wetlands that are unrelated to hydrology. This metric attempts to evaluate these things under the rubric "habitat alteration." In many instances, items checked as possible hydrologic disturbances in Question 3e will be instead alterations to a wetland's habitat or disruptions in its development (succession state). In other instances, a disturbance may be appropriately considered under both Metric 3 and Metric 4. In any case, the Rater should carefully consider what is the actual proximate (direct) cause of the disturbance to the wetland.

<p>4a. Substrate/Soil Disturbance. Select one or double check and average. This question evaluates physical disturbances to the soil and surface substrates of the wetland. Note also that the labels on the scoring categories are intended to be descriptive but not controlling. In some instances, it may be more appropriate to consider the scoring categories as fixed locations on a disturbance continuum, from very high to very low or no disturbance.</p> <p>Examples of substrate/soil disturbance include filling and grading, plowing, grazing (hooves), vehicle use (motorbikes, off-road vehicles, construction vehicles), sedimentation, dredging, and other mechanical disturbances to the surface substrates or soils.</p>			3.5
<p>Circle one answer. Have any of soil or substrate disturbances caused or appear to have caused more than trivial alterations to the wetland's natural soils or substrates, or have they occurred so far in the past that current conditions should be considered to be "natural"?</p>	<p>YES <input type="checkbox"/></p> <p>Assign a score 1, 2 or 3, or an intermediate score, depending on degree of recovery from the disturbance.</p>	<p>NO <input type="checkbox"/></p> <p>Assign a score of 4 since there are no or no apparent modifications.</p>	<p>NOT SURE <input checked="" type="checkbox"/></p> <p>Double check "none or none apparent" and "recovered" and assign a score of 3.5</p>
<p>Select one or double check adjoining number and average the score.</p>			score
			3
4pts	NONE OR NONE APPARENT. There are no modifications or no modifications that are apparent to the Rater.	<input type="checkbox"/>	
3pts	RECOVERED. The wetland appears to have recovered from past modifications.	<input checked="" type="checkbox"/>	
2pts	RECOVERING. The wetland appears to be in the process of recovering from past modifications	<input type="checkbox"/>	
1pt	RECENT OR NO RECOVERY. The modifications have occurred, recently occurred, and/or the wetland has not recovered from past modifications, and/or the modifications are ongoing.	<input type="checkbox"/>	
<p>4b. Habitat development. Select only one and assign score. This question asks the Rater to assign an overall qualitative rating of how well developed the wetland is in comparison to other ecologically or hydrogeomorphically similar wetlands. This question presumes a good sense of the types of wetlands and the range in quality typical of the region, watershed, or state.</p>			
7pts	EXCELLENT. Wetland appears to represent the best of its type or class.	<input type="checkbox"/>	
6pts	VERY GOOD. Wetland appears to be a very good example of its type or class but is lacking in characteristics, which would make it excellent.	<input type="checkbox"/>	
5pts	GOOD. Wetland appears to be a good example of its type or class but because of past or present disturbances, successional state, or other reasons, is not excellent.	<input type="checkbox"/>	
4pts	MODERATELY GOOD. Wetland appears to be a fair to good example of its type or class.	<input checked="" type="checkbox"/>	
3pts	FAIR. Wetland appears to be a moderately good example of its type or class but because of past or present disturbances, successional state, etc. is not good.	<input type="checkbox"/>	
2pts	POOR TO FAIR. Wetland appears to be a poor to fair example of its type or class.	<input type="checkbox"/>	
1pt	POOR. Wetland appears to <u>not</u> be a good example of its type or class because of past or present disturbances, successional state, etc.	<input type="checkbox"/>	

25.5

Subtotal

Subtotal from previous page

- 4c. **Habitat alteration.** This question evaluates the “intactness” the natural habitat of the type of wetland that is being evaluated. This question does not discriminate between wetlands with different types of habitat. Check all possible alterations that are observed. All available information, field visits, aerial photos, maps, etc. can be used to identify a possible alteration. Evaluate whether the alteration is trivial in relation to the wetlands overall habitat. Select the most appropriate score that best describes the present state of the wetland. It is appropriate to “double check” and average scores. In some instances, the scores can be viewed as a habitat alteration continuum, from very high to very low or no disturbance. **The Rater may check one or several of these possible disturbances, yet still determine that the natural habitat is intact.**

3

Check all that are observed present in or near the wetland

<input checked="" type="checkbox"/>	Mowing	<input type="checkbox"/>	Herbaceous layer/aquatic bed removal
<input type="checkbox"/>	Grazing (cattle, sheep, pigs, etc.)	<input type="checkbox"/>	Sedimentation
<input checked="" type="checkbox"/>	Clear cutting	<input type="checkbox"/>	Dredging
<input type="checkbox"/>	Selective cutting	<input checked="" type="checkbox"/>	Farming
<input type="checkbox"/>	Woody debris removal	<input type="checkbox"/>	Nutrient enrichment, e.g. nuisance algae
<input type="checkbox"/>	Toxic pollutants	<input type="checkbox"/>	Other (specify)
<input type="checkbox"/>	Shrub/sapling removal	<input type="checkbox"/>	Other (specify)

<p>Circle one answer. Have any of the disturbances identified above caused or appear to have caused more than trivial alterations to the wetland's natural hydrologic regime, or have they occurred so far in the past that current hydrology should be considered to be “natural”?</p>	<p>YES</p> <p>Assign a score 1, 3 or 6, or an intermediate score, depending on degree of recovery from the disturbance.</p>	<p>NO</p> <p>Assign a score of 9 since there are no or no apparent modifications.</p>	<p>NOT SURE</p> <p>Double check “none or none apparent” and “recovered” and assign a score of 7.5</p>
	3		
<p>Select one or double check adjoining number and average the score.</p>			score
			3
9pts	NONE OR NONE APPARENT. There are no alterations or no alterations that are apparent to the Rater.		<input type="checkbox"/>
6pts	RECOVERED. The wetland appears to have recovered from past alterations.		<input type="checkbox"/>
3pts	RECOVERING. The wetland appears to be in the process of recovering from past alterations/		<input checked="" type="checkbox"/>
1pt	RECENT OR NO RECOVERY. The alterations/ have occurred, recently occurred, and/or the wetland has not recovered from past alterations/, and/or the alterations/ are ongoing.		<input type="checkbox"/>

- Metric 5. Special wetland communities. Maximum 10 points.** Assign or deduct points if wetland has the feature described. Refer to Narrative Rating for guidance. No wetland can receive more than 10 points even if multiple categories are applicable.

<input type="checkbox"/>	Bog (10pts)	<input type="checkbox"/>	Lake plains sand prairies (Oak Openings) (10 pts)
<input type="checkbox"/>	Fen (10 pts)	<input type="checkbox"/>	Relict wet prairies (10 pts)
<input type="checkbox"/>	Old Growth Forest (10 pts)	<input type="checkbox"/>	Known occurrence of threatened/endangered species (10pts)
<input type="checkbox"/>	Mature Forested Wetland (5 pts)	<input type="checkbox"/>	Significant migratory songbird/waterfowl habitat (10 pts)
<input type="checkbox"/>	Coastal wetlands, unrestricted hydrology (10 pts)	<input checked="" type="checkbox"/>	Category 1 wetlands (See Narrative Rating #5) (-10 pts)
<input type="checkbox"/>	Coastal wetlands, restricted hydrology (5 pts)		

Subtotal

Subtotal from previous page

Metric 6. Vegetation, Interspersion, and Microtopography. Maximum 20 points.

6a. Wetland Vegetation Communities. Check each community present <u>both vertically and horizontally</u> within the wetland with an area of at least 0.1hectares or 100m ² (0.2471 acres). Assign a score of 0 to 3 using Tables 3, Table 4 or Table 5. Sum the scores for the classes present.		4
<input type="checkbox"/> Aquatic Bed. Includes areas of wetlands dominated by plants that grow principally on or below the surface of the water for most of the growing season in most years. Floating aquatic species like duckweed (<i>Lemna</i> spp., <i>spirodelaspp.</i>) are excluded from definition of "aquatic bed." Aquatic beds often occur as a distinct zone as an "understory" below shrubs or trees.		0
<input checked="" type="checkbox"/> Emergent. Includes areas of wetland dominated by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens. This vegetation is present for most of the growing season in most years. Common names for emergent communities include marsh, wet meadow, wet prairie, sedge meadow, fens, prairie pothole, and bluejoint slough.		2
<input checked="" type="checkbox"/> Shrub. Includes areas of wetlands dominated by woody vegetation less than 6m (20ft) tall. The plant species include true shrubs, young trees, or trees or shrubs that are small or stunted because of environmental conditions. Shrub wetlands may represent a successional stage leading to a forested wetland or they may be relatively stable plant communities.		1
<input type="checkbox"/> Forested. Includes wetlands or areas of wetlands characterized by wood vegetation greater than 6m (20ft) or taller. Forested wetlands have an overstory of trees and often contain an understory of young trees and shrubs and an herbaceous layer, although the young tree/shrub and herbaceous layers can be largely missing from some types of forested wetlands. Some forested wetlands are defined as "vernal pools" in OAC Rule 3745-1-50.		0
<input type="checkbox"/> Open water. The "open water" class is equivalent to the "unconsolidated bottom/mud" class/subclass (pub ₃) described in Cowardin et al. (1979) and includes areas of wetlands characterized by exposed or shallowly inundated substrates with vegetative cover less than 30%.		0
<input type="checkbox"/> Other (See User's Manual)		0

Table 3. Use this table to assign a cover score for Metric 6a to each of the vegetation communities identified on the preceding page. Refer to Table 6 for narrative descriptions of what "low," "moderate," and "high" quality mean.

Cover scale	Description
0	the vegetation community is either, 1) absent from wetland, or 2) comprises less than 0.1ha (0.2471 acres) of contiguous area within the wetland
1	vegetation community is present and either, 1) comprises a small part of the wetland's vegetation and is of low or moderate quality, or 2) if it comprises a significant part of the wetland's vegetation, the community is of low quality
2	the vegetation community is present and either, 1) comprises a significant part of the wetland's vegetation and is of moderate quality, or 2) the vegetation community comprises a small part of the wetland's vegetation but is of high quality.
3	the vegetation community is of high quality and comprises a significant part, or more of the wetland's vegetation

Table 4. Use this table in conjunction with Table 5 to determine what is a "low," "moderate," or "high quality community"

narrative	description
low	Low species diversity and/or a predominance of non-native or disturbance tolerant native species
moderate	Native species are the dominant component of the vegetaion, although non-native or disturbance tolerant native species can also be present, and species diversity is moderate to moderately high, but generally without the presence of rare, threatened, or endangered species.
high	A predominance of native species, with non-native species absent or virtually absent, and high species diversity and sometimes, but not always, the presence of rare, threatened or endangered species.

Table 5. Mudflat and open water community cover scale

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1ha to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Subtotal

Subtotal from previous page

6b. Horizontal (plan view) interspersion. Select only one and assign score. Evaluate the wetland from a "plan view," i.e. as if the looking down upon it. See Figure 1.		2
5pts	HIGH. Wetland has a high degree of interspersion	<input type="checkbox"/>
4pts	MODERATELY HIGH. Wetland has a moderately high degree of interspersion	<input type="checkbox"/>
3pts	MODERATE. Wetland has a moderate degree of interspersion	<input type="checkbox"/>
2pts	MODERATELY LOW. Wetland has a moderately low degree of interspersion	<input checked="" type="checkbox"/>
1pt	LOW. Wetland has a low degree of interspersion	<input type="checkbox"/>
0pts	NONE. Wetland has no plan view interspersion	<input type="checkbox"/>

6c. Coverage of Invasive Plant Species. Refer to Table 1 on Page 7 for list. Select only one and assign score.		-.1
-5pts	Extensive. >75% areal cover of invasive species	<input type="checkbox"/>
-3pts	Moderate 25-75% areal cover of invasive species	<input type="checkbox"/>
-1pt	Sparse. 5-25% areal cover of invasive species	<input checked="" type="checkbox"/>
0pts	Nearly absent. <5% areal cover of invasive species	<input type="checkbox"/>
1pt	Absent	<input type="checkbox"/>

6d. Microtopography. Check each feature present in the wetland. Assign cover score of 0 to 3 using Table 6. Evaluate various microtopographic habitat features often present in wetlands.		1
	Vegetated hummocks and tussocks.	<input type="checkbox"/>
	Coarse woody debris >15cm (6in) diameter	<input checked="" type="checkbox"/>
	Standing dead trees >25cm (10in) diameter at breast height	<input type="checkbox"/>
	Amphibian breeding habitat, e.g. vernal pools with standing water of sufficient duration and depth to support reproduction, or habitat for from reproduction	<input type="checkbox"/>

Table 6. Cover scale for microtopographic habitat features.

Microtopographic habitat quality	narrative description
0	Feature is absent or functionally absent from the wetland
1	Feature is present in the wetland in very small amounts or if more common, of low quality
2	Feature is present in moderate amounts, but not of highest quality, or in small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

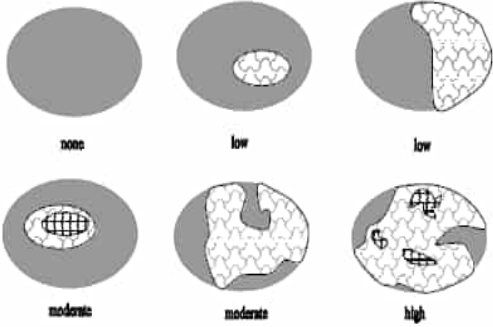


Figure 1. Hypothetical wetlands for estimating degree of interspersion.

GRAND TOTAL

End of Quantitative Rating. Complete Categorization Worksheets.

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: <http://www.epa.state.oh.us/dsw/401/401.html>

ORAM Summary Worksheet

		Circle answer or insert score	Result
Narrative Rating	Question 1: Critical Habitat	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 3.
	Question 2: Threatened or Engagered Species	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 3.
	Question 3: High Quality Natural Wetland	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 3.
	Question 4: Significant bird habitat	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 3.
	Question 5: Category 1 Wetlands	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 1
	Questions 6: Bogs	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 3.
	Question 7: Fens	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 3.
	Questions 8a: Old Growth Forest	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 3.
	Question 8b: Mature Forested Wetland	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Questions 9b: Lake Erie Wetlands – Restricted	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Questions 9d: Lake Erie Wetlands - Unrestricted	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 3.
	Questions 9e: Lake Erie Wetlands – Unrestricted with invasive plants	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10: Oak Openings	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, Category 3.
	Quest 11: Relict Wet Prairies	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1: Size	2	
	Metric 2: Buffers and surrounding land use	9	
	Metric 3: Hydrology	13	
	Metric 4: Habitat	15	
	Metric 5: Special Wetland Communities	0	
	Metric 6: Plant communities, interspersion, microtopography	1	
	TOTAL SCORE Consult most recent score calibration report at http://www.epa.state.oh.us/dsw/401/401.html to determine the wetland's category based on its quantitative score	40	Category based on score breakpoints

Complete Wetland Categorization Worksheet

Wetland Categorization Worksheet

Choices	Circle one		Evaluation
<p>Did you answer “Yes” to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10.</p>	<input type="checkbox"/> YES Wetland is categorized as a Category 3 wetland	<input checked="" type="checkbox"/> NO	<p>Is quantitative rating score less than the Category 2 scoring threshold (excluding gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been over-categorized by the ORAM</p>
<p>Did you answer “Yes” to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11</p>	<input type="checkbox"/> YES Wetland should be evaluated for possible Category 3 status	<input checked="" type="checkbox"/> NO	<p>Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and or functional assessments may also be used to determine the wetland’s category.</p>
<p>Did you answer “Yes” to Narrative Rating No. 5</p>	<input type="checkbox"/> YES Wetland is categorized as a Category 1 wetland	<input checked="" type="checkbox"/> NO	<p>Is quantitative rating score greater than the Category 2 scoring threshold (including any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM</p>
<p>Does the quantitative score fall within the scoring range of a Category 1, 2 or 3 wetlands?</p>	<input type="checkbox"/> YES Wetland is assigned to the appropriate category based on the scoring range	<input checked="" type="checkbox"/> NO	<p>If the score of the wetland is located within the scoring range for a particular category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on an quantitative score.</p>
<p>Does the quantitative score fall with the “gray zone” for Category 1 or 2 or Category 2 or 3 wetlands?</p>	<input checked="" type="checkbox"/> YES Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	<input type="checkbox"/> NO	<p>Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).</p>
<p>Does the wetland otherwise exhibit moderate or superior hydrologic OR habitat, OR recreational functions AND the wetland was not categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?</p>	<input type="checkbox"/> YES Wetland was under categorized by this method. A written justification for re-categorization should be provided on Background Information Form	<input checked="" type="checkbox"/> NO	<p>A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland’s biotic communities may be degraded by human activities, but the wetland may still exhibit superior hydrologic functions because of its type, landscape position, size, local or regional significance, etc. In this circumstance, the narrative criteria, in OAC Rula 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A ritten justification with supporting reasons or information for this determination should be provided.</p>

Final Category

Choose One <input type="checkbox"/> Category 1 <input checked="" type="checkbox"/> Category 2 <input type="checkbox"/> Category 3

End of Ohio Rapid Assessment Method for Wetlands

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2	2
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Metric 1. Wetland Area (size).

max 6 pts. subtotal

Select one size class and assign score.

- >50 acres (>20.2ha) (6pts)
- 25 to <50acrea (10.1 to <20.2ha) (5pts)
- 10 to <25 acres (4 to <10.1ha) (4pts)
- 3 to <10 acres (1.2 to <4ha) (3pts)
- 0.3 to <3 acres (0.12 to 1.2ha) (2pts)
- .1 to <0.3acres (0.04 to <0.12ha) (1pts)
- <0.1 acres (0.04ha) (0pts)

9	11
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Metric 2. Upland buffers and surrounding land use.

max 14 pts. subtotal

- 2a. Calculate average buffer width. Select only one and assign score. Do not double check.
- WIDE. Buffers average 50 m (164ft) or more around wetland perimeter (7pts)
 - MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4pts)
 - NARROW. Buffers average 10m to <25m (32ft < 82ft) around wetland perimeter (1pts)
 - VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)
- 2b. Calculate average buffer width. Select only one and assign score. Do not double check.
- VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7pts)
 - LOW. Old field (>10 years), shrub land, young second growth forest. (5pts)
 - MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3pts)
 - HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1pts)

13	24
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Metric 3. Hydrology.

Max 30 pts. subtotal

- 3a. Sources of Water. Score all that apply
- High pH groundwater (5pts)
 - Other groundwater (3pts)
 - Precipitation (1pts)
 - Seasonal/Intermittent surface water (3pts)
 - Perennial surface water (lake or stream) (5pts)
- 3b. Connectivity. Score all that apply
- 100 year floodplain (1pts)
 - Between stream/lake and other human use (1pts)
 - Part of wetland/upland (e.g. forest), complex (1pts)
 - Part of riparian or upland corridor (1pts)
- 3c. Maximum water depth. Select only one and assign score.
- >0.7 (27.6in) (3pts)
 - 0.4 to 0.7m (15.7 to 27.6in) 2pts)
 - <0.4m (<15.7in) (1pts)
- 3d. Duration inundation/saturation. Score one or dbl check.
- Semi- to permanently inundated/saturated (4pts)
 - Regularly inundate/saturated (3pts)
 - Seasonally inundated (2pts)
 - Seasonally saturated in upper 30cm (12in) (1pts)
- 3e. Modifications to natural hydrologic regime. Score one or double check and average.
- | | | | | | | | | | | | |
|---|---|--------------------------------|---|-------------------------------|---|-------------------------------|---|-------------------------------|-----------------------------------|--|--------------------------------|
| <ul style="list-style-type: none"> <input type="checkbox"/> None or none apparent (12pts) <input checked="" type="checkbox"/> Recovered (7pts) <input type="checkbox"/> Recovering (3pts) <input type="checkbox"/> Recent or no recovery (1pts) | <p>Check all disturbances observed</p> <table style="width:100%;"> <tr> <td><input type="checkbox"/> Ditch</td> <td><input type="checkbox"/> Point source (non-storm water)</td> </tr> <tr> <td><input type="checkbox"/> Tile</td> <td><input type="checkbox"/> Filing/grading</td> </tr> <tr> <td><input type="checkbox"/> Dike</td> <td><input checked="" type="checkbox"/> Road bed/RR track</td> </tr> <tr> <td><input type="checkbox"/> Weir</td> <td><input type="checkbox"/> Dredging</td> </tr> <tr> <td><input type="checkbox"/> Storm water input</td> <td><input type="checkbox"/> Other</td> </tr> </table> | <input type="checkbox"/> Ditch | <input type="checkbox"/> Point source (non-storm water) | <input type="checkbox"/> Tile | <input type="checkbox"/> Filing/grading | <input type="checkbox"/> Dike | <input checked="" type="checkbox"/> Road bed/RR track | <input type="checkbox"/> Weir | <input type="checkbox"/> Dredging | <input type="checkbox"/> Storm water input | <input type="checkbox"/> Other |
| <input type="checkbox"/> Ditch | <input type="checkbox"/> Point source (non-storm water) | | | | | | | | | | |
| <input type="checkbox"/> Tile | <input type="checkbox"/> Filing/grading | | | | | | | | | | |
| <input type="checkbox"/> Dike | <input checked="" type="checkbox"/> Road bed/RR track | | | | | | | | | | |
| <input type="checkbox"/> Weir | <input type="checkbox"/> Dredging | | | | | | | | | | |
| <input type="checkbox"/> Storm water input | <input type="checkbox"/> Other | | | | | | | | | | |

15	39
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Metric 4. Habitat Alteration and Development.

Max 20pts. Subtotal

- 4a. Substrate disturbance. Score one or double-check and average.
- None or none apparent (4pts)
 - Recovered (3pts)
 - Recovered (2pts)
 - Recent or no recovery (1pts)
- 4b. Habitat development. Select only one and assign score.
- Excellent (7pts)
 - Very good (6pts)
 - Good (5pts)
 - Moderately good (4pts)
 - Fair (3pts)
 - Poor to fair (2pts)
 - Poor (pts)
- 4c. Habitat alteration. Score one or double-check and average.
- None or none apparent (9pts)
 - Recovered (6pts)
 - Recovering (3pts)
 - Recent or no recovery (1pts)
- | | |
|--|--|
| <p>Check all disturbances observed</p> <ul style="list-style-type: none"> <input type="checkbox"/> Mowing <input type="checkbox"/> Grazing <input type="checkbox"/> Clear-cutting <input type="checkbox"/> Selective cutting <input type="checkbox"/> Woody debris removal <input type="checkbox"/> Toxic pollutants | <ul style="list-style-type: none"> <input type="checkbox"/> Shrub/sapling removal <input type="checkbox"/> Herbaceous/aquatic bed removal <input type="checkbox"/> Sedimentation <input type="checkbox"/> Dredging <input type="checkbox"/> Farming <input type="checkbox"/> Nutrient enrichment |
|--|--|

39

Subtotal this page

39

Subtotal first page

0	39
Max 10pts	Subtotal

Metric 5. Special wetlands.

Check all that apply and score as indicated

- Bog (10pts)
- Fen (10pts)
- Old growth forest (10pts)
- Mature forested wetland (5 pts)
- Lake Erie coastal/tributary wetland-unrestricted hydrology (10pts)
- Lake Erie coastal tributary wetland-restricted hydrology (5pts)
- Lake Plain Sand Prairies (Oak Openings) (10pts)
- Relict Wet Prairies (10pts)
- Known occurrence state/federal threatened or endangered species (10pts)
- Significant migratory songbird/water fowl habitat or usage (10pts)
- Category 1 Wetland. See Question 1 Qualitative Rating (-10pts)

1	40
Max 20 pts.	Subtotal

Metric 6. Plant communities, interspersions, micro topography..

6a. Wetland Vegetation Communities
Score all present using 0 to 3 scale.

- | | |
|---|-------------|
| 0 | Aquatic Bed |
| 1 | Emergent |
| 0 | Shrub |
| 0 | Forest |
| 0 | Mudflats |
| 0 | Open Water |
| 0 | Other _____ |

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part put is of low quality
2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
3	Present and comprises significant part, or more of wetland's vegetation and is of high quality

6b. Horizontal (plan view) Interspersion

Select only one.

- High (5pts)
- Moderately high (4pts)
- Moderate (3pts)
- Moderately low (2pts)
- Low (1pts)
- None (0pts)

Narrative Description of Vegetation Quality

low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage

- Extensive >75% cover (-5pts)
- Moderate 25-75% cover (-3pts)
- Sparse 5-25% cover (-1)
- Nearly absent >5% cover (0pts)
- Absent (1pts)

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

6d. Micro topography

Score all present using 0 to 3 scale.

- | | |
|---|---------------------------------|
| 0 | Vegetated hummocks/tussocks |
| 1 | Coarse woody debris >15cn (6in) |
| 0 | Standing dead >25cm (10in) dbh |
| 0 | Amphibian breeding pools |

Micro topography Cover Scale

0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or In small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

40

GRAND TOTAL (max 100 pts)

Quantitative Rating

Metric 1. Wetland area (max 6pts). Estimate the area of wetland. Select the appropriate size class and assign score. Estimated areas should clearly place the wetland within the appropriate class.

		score
6pts	≥ 50 acres (≥ 20.2ha)	
5pts	25 - <50 acres (10.1 - <20.2ha)	
4pts	10 - <25 acres (4.0 - <10.1ha)	
3pts	3 - <10 acres (1.2 - <4.0ha)	
2pts	0.3 - <3 acres (0.12 - <1.2ha)	2
1pt	0.1 - <0.3 acres (0.04 - <0.12ha)	
0pts	<0.1 acres (0.04ha)	

Table 2. Metric to English conversion table with visual estimation sizes

acres	ft ²	yd ²	ft on side	yd on side	ha	m ²	m on side
50	2,177,983	241,998	1476	492	20.2	202,000	449
25	1,088,992	120,999	1044	348	10.1	101,000	318
10	435,596	48,340	660	220	4.1	41,000	203
3	130,679	14,520	362	121	1.2	12,000	110
0.3	13,067	1,452	114	38	0.12	1,200	35
0.1	4,356	484	66	22	0.04	400	20

Metric 2. Upland buffers and intensity of surrounding land uses. Maximum 14 points. Wetlands are systems transitional between upland and aquatic environments. Wetlands without “buffers,” or that are located where human land use is more intensive, are often, but not always, more degraded.

	score
2a. Average Buffer Width (abw). Calculate the average buffer width and select only one score. To calculate abw, estimate buffer width on each side (max of 50m) and divide by the number of sides. Example: abw of a wetland with buffers of 100m, 25m, 10m and 0m would be calculated as follows: $abw = (50m + 25m + 10m + 0m)/4 = 21.25m$. Intensive land uses are not buffers, e.g. active row cropping, recently abandoned fields, paved areas, housing developments, unfenced pasture, etc.	4
7pts WIDE. >50m (164ft) or more around perimeter	<input type="checkbox"/>
4pts MEDIUM. 25m to <50m (82 to <164ft) around the perimeter	<input checked="" type="checkbox"/>
1pt NARROW. 10m to <25m (32 to <82ft) around the perimeter	<input type="checkbox"/>
0pts VERY NARROW. <10m (<32ft) around perimeter.	<input type="checkbox"/>
2b. Intensity of predominant surround land use(s). Select one, or double check up to two and average score, for the intensity of the predominant land use(s) outside the wetland’s buffer zone (if any).	5
7pts VERY LOW. 2 nd growth or older forest, prairie, savannah, wildlife area, etc.	<input type="checkbox"/>
5pts LOW. Old field (>10 yrs), shrubland, young 2 nd growth forest, etc.	<input checked="" type="checkbox"/>
3pts MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field, etc.	<input type="checkbox"/>
1pt HIGH. Urban, industrial, open pasture, row cropping, mining, construction, etc.	<input type="checkbox"/>

11

Subtotal

Subtotal from previous page

Metric 3. Hydrology Maximum 30 points. **This metric evaluates the wetland's water budget, hydro period, the hydrologic connectivity of the wetland to other surface water, and the degree to which the wetland's hydrology has been altered by human activity.** A wetland can receive no more than 30 points for Metric 3 even though it is possible to score more than 30 points.

		score
3a. Sources of Water. Select all that apply and sum score. This question relates to a wetland's water budget. It also is reflective that wetlands with certain types of water sources, or multiple water sources, e.g. high pH groundwater or perennial surface water connections, can be very high quality wetlands or can have high functions and values.		1
5pts	High pH groundwater (7.5-9.0)	<input type="checkbox"/>
3pts	Other groundwater	<input type="checkbox"/>
1pt	Precipitation	<input checked="" type="checkbox"/>
3pts	Seasonal surface water	<input type="checkbox"/>
5pts	Perennial surface water (lake or stream)	<input type="checkbox"/>
3b. Connectivity. Select all that apply and sum score		3
1pt	100-year floodplain. "Floodplain is defined in OAC Rule 3745-1-50(P) as "...the relatively level land next to a stream or river channel that is periodically submerged by floodwaters. It is composed of alluvium deposited by the present stream or river when it floods." Where they are available, flood insurance rate maps (FIRMs) and flood boundary and floodway maps may be used.	<input type="checkbox"/>
1pt	Between stream/lake and other human land use. This question asks whether the wetland is located <u>between</u> a surface water and a different adjacent land use, such that run-off from the adjacent land use could flow through wetland before it discharges into the surface water. "Different adjacent land uses" include agricultural, commercial, industrial, mining, or residential uses.	<input checked="" type="checkbox"/>
1pt	Part of wetland or upland (e.g. forest, prairie) complex. Both this and the next question ask whether the wetland is in physical proximity to, or a part of other nearby wetland or upland natural areas. The difference is whether the area the wetland is "long and narrow" like a river, or more "squarish" like a large forest or woodlot. If the latter is the case, this question applies: if the former, the next question applies. In a few instances, both may apply.	<input checked="" type="checkbox"/>
1pt	Part of riparian or upland corridor. See description above.	<input checked="" type="checkbox"/>
3c. Maximum water depth. Select only one and assign score. The Rater <i>does not</i> need to actually observe the wetland when its water depth is greatest in order to award the maximum points for this question. The use of secondary indicators, as outlined in the 1987 Manual will be useful in answering this question.		1
3pts	>0.7m (27.6in)	<input type="checkbox"/>
2pts	0.4 to 0.7m (15.7 to 27.6in)	<input type="checkbox"/>
1pt	<0.4m (<15.7in)	<input checked="" type="checkbox"/>
3d. Duration of inundation/saturation. Select one or double-check and average the scores if duration is uncertain. The use of secondary indicator s is necessary and expected in order to properly answer this Question. Categories correspond to Zones II, III, and IV of 1987 Manual (Table 5). Zone IV subdivided into seasonally		1
4pts	Semi permanently to permanently inundated or saturated.	<input type="checkbox"/>
3pts	Regularly inundated or saturated.	<input type="checkbox"/>
2pts	Seasonally inundated.	<input type="checkbox"/>
1pt	Seasonally saturated in the upper 30cm (12in) of soil.	<input checked="" type="checkbox"/>

Subtotal

Subtotal from previous page

- 3e. **Modifications to natural hydrologic regime.** Check all observable modifications from list below. Score by selecting the most appropriate description of the wetland. Scores may be double checked and averaged. This question asks the Rater to evaluate the "intactness" of, or lack of disturbance to, the natural hydrologic regime of the type of wetland that is being evaluated.

It is very important to stress that this question does not discriminate between wetlands with different types of hydrologic regime, e.g. between a forested seep wetland located on a floodplain with seasonal inundation and a leather leaf (*Chamaedaphne calyculata*) bog with precipitation and minor amounts of surface run-off from a small watershed. Rather, it asks the rater to evaluate the "intactness" of the hydrologic regime attributable to *that type of wetland*. In the example above, both the forested seep wetland and the leather leaf bog can score the maximum points (12) if they're no, or no apparent, modifications to the natural hydrologic regime.

Once the Rater has listed all possible past and ongoing disturbances, the Rater should check the most appropriate category to describe the present state of the wetland. In instances where the Rater believes that a wetland falls between two categories, or where the Rater is uncertain as to which category is appropriate, it is appropriate to "double check" and average the score.

The labels on the scoring categories are intended to be descriptive but not controlling. In some instances, it may be more appropriate to consider the scoring categories as fixed locations on a hydrologic disturbance continuum, from very high to very low or no disturbance.

The Rater may check one or several of these possible disturbance, yet still determine that the natural hydrologic regime is intact. However, see Metric 4 where these same disturbances may be habitat alterations.

Check all that are observed present in or near the wetland

<input type="checkbox"/>	ditch(es), in or near the wetland	<input type="checkbox"/>	point source discharges to the (non-storm water)
<input type="checkbox"/>	tile(s), in or near the wetland	<input type="checkbox"/>	filling/grading activities in or near the wetland
<input type="checkbox"/>	dike(s), in or near the wetland	<input checked="" type="checkbox"/>	road beds/RR beds in or near the wetland
<input type="checkbox"/>	weir(s), in or near the wetland	<input type="checkbox"/>	dredging activities in or near the wetland
<input type="checkbox"/>	storm water inputs (addition of water)	<input type="checkbox"/>	other (specify)

Circle one answer. Have any of the disturbances identified above caused or appear to have caused more than trivial alterations to the wetland's natural hydrologic regime, or have they occurred so far in the past that current hydrology should be considered to be "natural"?	YES Assign a score 1, 3 or 7, or an intermediate score, depending on degree of recovery from the disturbance.	NO Assign a score of 12 since there are no or no apparent modifications.	NOT SURE Double check "none or none apparent" and "recovered" and assign a score of 9.5
	7		

Select one or double check adjoining number and average the score.		score
12pts	NONE OR NONE APPARENT. There are no modifications or no modifications that are apparent to the Rater.	7
7pts	RECOVERED. The wetland appears to have recovered from past modifications.	<input checked="" type="checkbox"/>
3pts	RECOVERING. The wetland appears to be in the process of recovering from past modifications	<input type="checkbox"/>
1pt	RECENT OR NO RECOVERY. The modifications have occurred, recently occurred, and/or the wetland has not recovered from past modifications, and/or the modifications are ongoing.	<input type="checkbox"/>

Subtotal

Subtotal from previous page

Metric 4. Habitat Alteration and Development. Maximum 20 points. While hydrology may be the single most important determinant for the establishment and maintenance of specific types of wetlands and wetland processes, there is a range of other factors and activities which affect wetland quality and cause disturbances to wetlands that are unrelated to hydrology. This metric attempts to evaluate these things under the rubric "habitat alteration." In many instances, items checked as possible hydrologic disturbances in Question 3e will be instead alterations to a wetland's habitat or disruptions in its development (succession state). In other instances, a disturbance may be appropriately considered under both Metric 3 and Metric 4. In any case, the Rater should carefully consider what is the actual proximate (direct) cause of the disturbance to the wetland.

4a. **Substrate/Soil Disturbance.** Select one or double check and average. This question evaluates physical disturbances to the soil and surface substrates of the wetland. Note also that the labels on the scoring categories are intended to be descriptive but not controlling. In some instances, it may be more appropriate to consider the scoring categories as fixed locations on a disturbance continuum, from very high to very low or no disturbance.

Examples of substrate/soil disturbance include filling and grading, plowing, grazing (hooves), vehicle use (motorbikes, off-road vehicles, construction vehicles), sedimentation, dredging, and other mechanical disturbances to the surface substrates or soils.

<p>Circle one answer. Have any of soil or substrate disturbances caused or appear to have caused more than trivial alterations to the wetland's natural soils or substrates, or have they occurred so far in the past that current conditions should be considered to be "natural"?</p>	<p>YES <input checked="" type="checkbox"/></p> <p>Assign a score 1, 2 or 3, or an intermediate score, depending on degree of recovery from the disturbance.</p> <p style="text-align: right;">3</p>	<p>NO <input type="checkbox"/></p> <p>Assign a score of 4 since there are no or no apparent modifications.</p>	<p>NOT SURE <input type="checkbox"/></p> <p>Double check "none or none apparent" and "recovered" and assign a score of 3.5</p>
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Select one or double check adjoining number and average the score.	score
4pts NONE OR NONE APPARENT. There are no modifications or no modifications that are apparent to the Rater.	<input type="checkbox"/>
3pts RECOVERED. The wetland appears to have recovered from past modifications.	<input checked="" type="checkbox"/>
2pts RECOVERING. The wetland appears to be in the process of recovering from past modifications	<input type="checkbox"/>
1pt RECENT OR NO RECOVERY. The modifications have occurred, recently occurred, and/or the wetland has not recovered from past modifications, and/or the modifications are ongoing.	<input type="checkbox"/>

<p>4b. Habitat development. Select only one and assign score. This question asks the Rater to assign an overall qualitative rating of how well developed the wetland is in comparison to other ecologically or hydrogeomorphically similar wetlands. This question presumes a good sense of the types of wetlands and the range in quality typical of the region, watershed, or state.</p>	3
7pts EXCELLENT. Wetland appears to represent the best of its type or class.	<input type="checkbox"/>
6pts VERY GOOD. Wetland appears to be a very good example of its type or class but is lacking in characteristics, which would make it excellent.	<input type="checkbox"/>
5pts GOOD. Wetland appears to be a good example of its type or class but because of past or present disturbances, successional state, or other reasons, is not excellent.	<input type="checkbox"/>
4pts MODERATELY GOOD. Wetland appears to be a fair to good example of its type or class.	<input type="checkbox"/>
3pts FAIR. Wetland appears to be a moderately good example of its type or class but because of past or present disturbances, successional state, etc. is not good.	<input checked="" type="checkbox"/>
2pts POOR TO FAIR. Wetland appears to be a poor to fair example of its type or class.	<input type="checkbox"/>
1pt POOR. Wetland appears to <u>not</u> be a good example of its type or class because of past or present disturbances, successional state, etc.	<input type="checkbox"/>

Subtotal

Subtotal from previous page

4c. **Habitat alteration.** This question evaluates the “intactness” the natural habitat of the type of wetland that is being evaluated. This question does not discriminate between wetlands with different types of habitat. Check all possible alterations that are observed. All available information, field visits, aerial photos, maps, etc. can be used to identify a possible alteration. Evaluate whether the alteration is trivial in relation to the wetlands overall habitat. Select the most appropriate score that best describes the present state of the wetland. It is appropriate to “double check” and average scores. In some instances, the scores can be viewed as a habitat alteration continuum, from very high to very low or no disturbance. **The Rater may check one or several of these possible disturbances, yet still determine that the natural habitat is intact.**

Check all that are observed present in or near the wetland

<input type="checkbox"/> Mowing	<input type="checkbox"/> Herbaceous layer/aquatic bed removal
<input type="checkbox"/> Grazing (cattle, sheep, pigs, etc.)	<input type="checkbox"/> Sedimentation
<input type="checkbox"/> Clear cutting	<input type="checkbox"/> Dredging
<input type="checkbox"/> Selective cutting	<input type="checkbox"/> Farming
<input type="checkbox"/> Woody debris removal	<input type="checkbox"/> Nutrient enrichment, e.g. nuisance algae
<input type="checkbox"/> Toxic pollutants	<input type="checkbox"/> Other (specify)
<input type="checkbox"/> Shrub/sapling removal	<input type="checkbox"/> Other (specify)

<p>Circle one answer. Have any of the disturbances identified above caused or appear to have caused more than trivial alterations to the wetland’s natural hydrologic regime, or have they occurred so far in the past that current hydrology should be considered to be “natural”?</p>	<p>YES</p> <p>Assign a score 1, 3 or 6, or an intermediate score, depending on degree of recovery from the disturbance.</p>	<p>NO</p> <p>Assign a score of 9 since there are no or no apparent modifications.</p>	<p>NOT SURE</p> <p>Double check “none or none apparent” and “recovered” and assign a score of 7.5</p>
	X		

Select one or double check adjoining number and average the score.		score
		9
9pts	NONE OR NONE APPARENT. There are no alterations or no alterations that are apparent to the Rater.	<input checked="" type="checkbox"/>
6pts	RECOVERED. The wetland appears to have recovered from past alterations.	<input type="checkbox"/>
3pts	RECOVERING. The wetland appears to be in the process of recovering from past alterations/	<input type="checkbox"/>
1pt	RECENT OR NO RECOVERY. The alterations/ have occurred, recently occurred, and/or the wetland has not recovered from past alterations/, and/or the alterations/ are ongoing.	<input type="checkbox"/>

Metric 5. Special wetland communities. Maximum 10 points. Assign or deduct points if wetland has the feature described. Refer to Narrative Rating for guidance. No wetland can receive more than 10 points even if multiple categories are applicable.

<input type="checkbox"/> Bog (10pts)	<input type="checkbox"/> Lake plains sand prairies (Oak Openings) (10 pts)
<input type="checkbox"/> Fen (10 pts)	<input type="checkbox"/> Relict wet prairies (10 pts)
<input type="checkbox"/> Old Growth Forest (10 pts)	<input type="checkbox"/> Known occurrence of threatened/endangered species (10pts)
<input type="checkbox"/> Mature Forested Wetland (5 pts)	<input type="checkbox"/> Significant migratory songbird/waterfowl habitat (10 pts)
<input type="checkbox"/> Coastal wetlands, unrestricted hydrology (10 pts)	<input type="checkbox"/> Category 1 wetlands (See Narrative Rating #5) (-10 pts)
<input type="checkbox"/> Coastal wetlands, restricted hydrology (5 pts)	

Subtotal

Subtotal from previous page

Metric 6. Vegetation, Interspersion, and Microtopography. Maximum 20 points.

6a.	Wetland Vegetation Communities. Check each community present <u>both vertically and horizontally</u> within the wetland with an area of at least 0.1hectares or 100m ² (0.2471 acres). Assign a score of 0 to 3 using Tables 3, Table 4 or Table 5. Sum the scores for the classes present.	1
<input type="checkbox"/>	Aquatic Bed. Includes areas of wetlands dominated by plants that grow principally on or below the surface of the water for most of the growing season in most years. Floating aquatic species like duckweed (<i>Lemna</i> spp., <i>spirodelaspp.</i>) are excluded from definition of "aquatic bed." Aquatic beds often occur as a distinct zone as an "understory" below shrubs or trees.	0
<input checked="" type="checkbox"/>	Emergent. Includes areas of wetland dominated by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens. This vegetation is present for most of the growing season in most years. Common names for emergent communities include marsh, wet meadow, wet prairie, sedge meadow, fens, prairie pothole, and bluejoint slough.	1
<input type="checkbox"/>	Shrub. Includes areas of wetlands dominated by woody vegetation less than 6m (20ft) tall. The plant species include true shrubs, young trees, or trees or shrubs that are small or stunted because of environmental conditions. Shrub wetlands may represent a successional stage leading to a forested wetland or they may be relatively stable plant communities.	0
<input type="checkbox"/>	Forested. Includes wetlands or areas of wetlands characterized by wood vegetation greater than 6m (20ft) or taller. Forested wetlands have an overstory of trees and often contain an understory of young trees and shrubs and an herbaceous layer, although the young tree/shrub and herbaceous layers can be largely missing from some types of forested wetlands. Some forested wetlands are defined as "vernal pools" in OAC Rule 3745-1-50.	0
<input type="checkbox"/>	Open water. The "open water" class is equivalent to the "unconsolidated bottom/mud" class/subclass (pub ₃) described in Cowardin et al. (1979) and includes areas of wetlands characterized by exposed or shallowly inundated substrates with vegetative cover less than 30%.	0
<input type="checkbox"/>	Other (See User's Manual)	

Table 3. Use this table to assign a cover score for Metric 6a to each of the vegetation communities identified on the preceding page. Refer to Table 6 for narrative descriptions of what "low," "moderate," and "high" quality mean.

Cover scale	Description
0	the vegetation community is either, 1) absent from wetland, or 2) comprises less than 0.1ha (0.2471 acres) of contiguous area within the wetland
1	vegetation community is present and either, 1) comprises a small part of the wetland's vegetation and is of low or moderate quality, or 2) if it comprises a significant part of the wetland's vegetation, the community is of low quality
2	the vegetation community is present and either, 1) comprises a significant part of the wetland's vegetation and is of moderate quality, or 2) the vegetation community comprises a small part of the wetland's vegetation but is of high quality.
3	the vegetation community is of high quality and comprises a significant part, or more of the wetland's vegetation

Table 4. Use this table in conjunction with Table 5 to determine what is a "low," "moderate," or "high quality community"

narrative	description
low	Low species diversity and/or a predominance of non-native or disturbance tolerant native species
moderate	Native species are the dominant component of the vegetaion, although non-native or disturbance tolerant native species can also be present, and species diversity is moderate to moderately high, but generally without the presence of rare, threatened, or endangered species.
high	A predominance of native species, with non-native species absent or virtually absent, and high species diversity and sometimes, but not always, the presence of rare, threatened or endangered species.

Table 5. Mudflat and open water community cover scale

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1ha to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Subtotal

Subtotal from previous page

6b. Horizontal (plan view) interspersion. Select only one and assign score. Evaluate the wetland from a "plan view," i.e. as if the looking down upon it. See Figure 1.		2
5pts	HIGH. Wetland has a high degree of interspersion	<input type="checkbox"/>
4pts	MODERATELY HIGH. Wetland has a moderately high degree of interspersion	<input type="checkbox"/>
3pts	MODERATE. Wetland has a moderate degree of interspersion	<input type="checkbox"/>
2pts	MODERATELY LOW. Wetland has a moderately low degree of interspersion	<input checked="" type="checkbox"/>
1pt	LOW. Wetland has a low degree of interspersion	<input type="checkbox"/>
0pts	NONE. Wetland has no plan view interspersion	<input type="checkbox"/>

6c. Coverage of Invasive Plant Species. Refer to Table 1 on Page 7 for list. Select only one and assign score.		-3
-5pts	Extensive. >75% areal cover of invasive species	<input type="checkbox"/>
-3pts	Moderate 25-75% areal cover of invasive species	<input checked="" type="checkbox"/>
-1pt	Sparse. 5-25% areal cover of invasive species	<input type="checkbox"/>
0pts	Nearly absent. <5% areal cover of invasive species	<input type="checkbox"/>
1pt	Absent	<input type="checkbox"/>

6d. Microtopography. Check each feature present in the wetland. Assign cover score of 0 to 3 using Table 6. Evaluate various microtopographic habitat features often present in wetlands.		1
	Vegetated hummocks and tussocks.	<input type="checkbox"/>
	Coarse woody debris >15cm (6in) diameter	<input checked="" type="checkbox"/>
	Standing dead trees >25cm (10in) diameter at breast height	<input type="checkbox"/>
	Amphibian breeding habitat, e.g. vernal pools with standing water of sufficient duration and depth to support reproduction, or habitat for from reproduction	<input type="checkbox"/>

Table 6. Cover scale for microtopographic habitat features.

Microtopographic habitat quality	narrative description
0	Feature is absent or functionally absent from the wetland
1	Feature is present in the wetland in very small amounts or if more common, of low quality
2	Feature is present in moderate amounts, but not of highest quality, or in small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

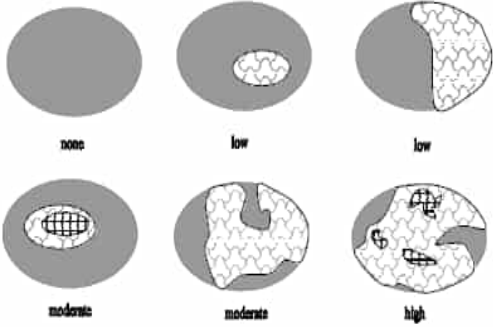


Figure 1. Hypothetical wetlands for estimating degree of interspersion.

GRAND TOTAL

End of Quantitative Rating. Complete Categorization Worksheets.

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: <http://www.epa.state.oh.us/dsw/401/401.html>

Appendix E

QHEI and HHEI Forms



SITE NAME/LOCATION W. Lancaster-S.Baltimore-W.Millersport
 SITE NUMBER ST-31-PER RIVER BASIN _____ DRAINAGE AREA (mi²) 0.37
 LENGTH OF STREAM REACH (ft) 200 LAT. 39.89130 LONG. -82.56970 RIVER CODE _____ RIVER MILE 1.14
 DATE 03/27/24 SCORER Nathan Barry COMMENTS _____

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

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

1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). 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"/> BDR SLABS [16 pts]	0%	<input checked="" type="checkbox"/> SILT [3 pt]	55%
<input type="checkbox"/> BOULDER (>256 mm) [16 pts]	0%	<input type="checkbox"/> LEAF PACK/WOODY DEBRIS [3 pts]	0%
<input type="checkbox"/> BEDROCK [16 pt]	0%	<input type="checkbox"/> FINE DETRITUS [3 pts]	0%
<input type="checkbox"/> COBBLE (65-256 mm) [12 pts]	0%	<input checked="" type="checkbox"/> CLAY or HARDPAN [0 pt]	40%
<input type="checkbox"/> GRAVEL (2-64 mm) [9 pts]	0%	<input type="checkbox"/> MUCK [0 pts]	0%
<input type="checkbox"/> SAND (<2 mm) [6 pts]	5%	<input type="checkbox"/> ARTIFICIAL [3 pts]	0%

Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock **0.00%** (A) Substrains Percentage Check: 100% (B)

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 3 **TOTAL NUMBER OF SUBSTRATE TYPES: 3**

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 checked="" 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 type="checkbox"/> NO WATER OR MOIST CHANNEL [0 pts]

COMMENTS _____ **MAXIMUM POOL DEPTH (centimeters): 45**

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 type="checkbox"/> < 1.0 m (<= 3' 3") [5 pts]
<input checked="" type="checkbox"/> > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]	

COMMENTS _____ **AVERAGE BANKFULL WIDTH (meters): 3.00**

HHEI Metric Points

Substrate Max = 40

6

A + B

Pool Depth Max = 30

20

Bankfull Width Max=30

20

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

COMMENTS _____

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

<input checked="" type="checkbox"/> Stream Flowing	<input 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

Flat (0.5 ft/100 ft) Flat to Moderate Moderate (2 ft/100 ft) Moderate to Severe Severe (10 ft/100 ft)

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

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

DOWNSTREAM DESIGNATED USE(S)

<input type="checkbox"/> WWH Name:	<input type="text"/>	Distance from Evaluated Stream	<input type="text"/>
<input type="checkbox"/> CWH Name:	<input type="text"/>	Distance from Evaluated Stream	<input type="text"/>
<input type="checkbox"/> EWH Name:	<input type="text"/>	Distance from Evaluated Stream	<input type="text"/>

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: Fairfield Township / City: Baltimore

MISCELLANEOUS

Base Flow Conditions? (Y/N): Y Date of last precipitation: 03/26/24 Quantity: 0.30

Photograph Information:

Elevated Turbidity? (Y/N): Y Canopy (% open): 100%

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

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

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

Additional comments/description of pollution impacts:

BIOTIC EVALUATION

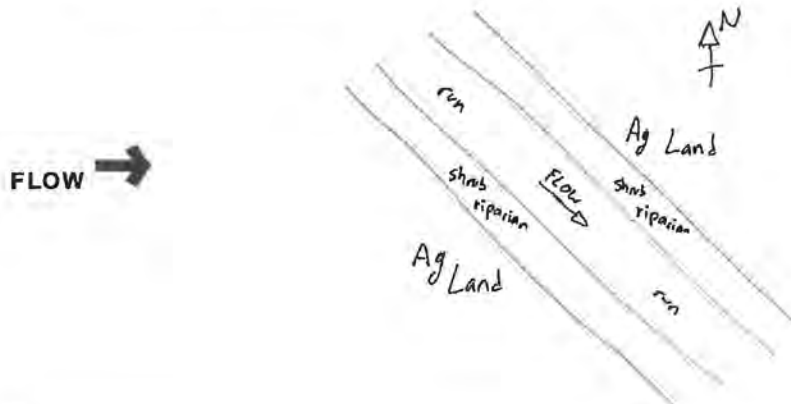
Performed? (Y/N): N (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)

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:

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



Stream & Location: W. Lancaster - S. Baltimore - W. Millersport

RM: Date: 3 / 27 / 24

ST-25-PER

Scorers Full Name & Affiliation: V3 Companies - Nathan Barnett

River Code: - - -

STORET #: - - -

Lat./ Long.: 39 . 87185 182 . 57663

Office verified location

1) SUBSTRATE Check ONLY Two substrate TYPE BOXES; estimate % or note every type present

Check ONE (Or 2 & average)

1) SUBSTRATE table with categories: BEST TYPES, OTHER TYPES, POOL RIFFLE, ORIGIN, QUALITY. Includes checkboxes for BLDR/SLABS, SAND, BEDROCK, etc.

NUMBER OF BEST TYPES: 4 or more [2] 3 or less [0]

Comments

2) INSTREAM COVER Indicate presence 0 to 3: 0-Absent; 1-Very small amounts or if more common of marginal quality; 2-Moderate amounts, but not of highest quality or in small amounts of highest quality; 3-Highest quality in moderate or greater amounts (e.g., very large boulders in deep or fast water, large diameter log that is stable, well developed rootwad in deep / fast water, or deep, well-defined, functional pools.

AMOUNT

Check ONE (Or 2 & average)

2) INSTREAM COVER table with categories: UNDERCUT BANKS, OVERHANGING VEGETATION, SHALLOWS, ROOTMATS, POOLS, ROOTWADS, BOULDERS, OXBOWS, BACKWATERS, AQUATIC MACROPHYTES, LOGS OR WOODY DEBRIS.

Comments

Cover Maximum 20 [3]

3) CHANNEL MORPHOLOGY Check ONE in each category (Or 2 & average)

3) CHANNEL MORPHOLOGY table with categories: SINUOSITY, DEVELOPMENT, CHANNELIZATION, STABILITY.

Comments

Channel Maximum 20 [10]

4) BANK EROSION AND RIPARIAN ZONE Check ONE in each category for EACH BANK (Or 2 per bank & average)

4) BANK EROSION AND RIPARIAN ZONE table with categories: EROSION, RIPARIAN WIDTH, FLOOD PLAIN QUALITY, CONSERVATION TILLAGE, URBAN OR INDUSTRIAL, MINING / CONSTRUCTION.

Comments

Riparian Maximum 10 [4]

5) POOL / GLIDE AND RIFFLE / RUN QUALITY

5) POOL / GLIDE AND RIFFLE / RUN QUALITY table with categories: MAXIMUM DEPTH, CHANNEL WIDTH, CURRENT VELOCITY.

Comments

Recreation Potential Primary Contact Secondary Contact (circle one and comment on back) Pool / Current Maximum 12 [6]

Indicate for functional riffles; Best areas must be large enough to support a population of riffle-obligate species:

Check ONE (Or 2 & average).

NO RIFFLE [metric=0]

5) POOL / GLIDE AND RIFFLE / RUN QUALITY table with categories: RIFFLE DEPTH, RUN DEPTH, RIFFLE / RUN SUBSTRATE, RIFFLE / RUN EMBEDDEDNESS.

Comments

Riffle / Run Maximum 8 [2]

6) GRADIENT (39 ft/mi) DRAINAGE AREA (1.2 mi²) VERY LOW - LOW [2-4] MODERATE [6-10] HIGH - VERY HIGH [10-6]

%POOL: 20 %GLIDE: 0 %RUN: 70 %RIFFLE: 10

Gradient Maximum 10 [8]

A) SAMPLED REACH

Check ALL that apply

METHOD

- BOAT
- WADE
- L. LINE
- OTHER

STAGE

- 1st -sample pass- 2nd
- HIGH
- UP
- NORMAL
- LOW
- DRY

DISTANCE

- 0.5 Km
- 0.2 Km
- 0.15 Km
- 0.12 Km
- OTHER

CLARITY

- 1st --sample pass-- 2nd
- < 20 cm
- 20-<40 cm
- 40-70 cm
- > 70 cm/ CTB
- SECCHI DEPTH

CANOPY

- > 85%- OPEN
- 55%-<85%
- 30%-<55%
- 10%-<30%
- <10%- CLOSED

- 1st _____ cm
- 2nd _____ cm

C) RECREATION

- AREA DEPTH
- POOL: >100ft² >3ft

Comment RE: Reach consistency/ Is reach typical of stream?, Recreation/ Observed - Inferred, Other/ Sampling observations. Concerns, Access directions, etc.

B) AESTHETICS

- NUISANCE ALGAE
- INVASIVE MACROPHYTES
- EXCESS TURBIDITY
- DISCOLORATION
- FOAM / SCUM
- OIL SHEEN
- TRASH / LITTER
- NUISANCE ODOR
- SLUDGE DEPOSITS
- CSOs/SSOs/OUTFALLS

D) MAINTENANCE

- PUBLIC ~~PRIVATE~~ BOTH / NA
- ACTIVE ~~HISTORIC~~ BOTH / NA
- YOUNG-SUCCESSION-OLD
- SPRAY / SNAG / REMOVED
- MODIFIED / DIPPED OUT / NA
- LEVEED / ONE SIDED
- RELOCATED / CUTOFFS
- MOVING-BEDLOAD STABLE
- ARMoured / SLUMPS
- ISLANDS / SCoured
- IMPOUNDED / DESICCATED
- FLOOD CONTROL DRAINAGE

Circle some & COMMENT

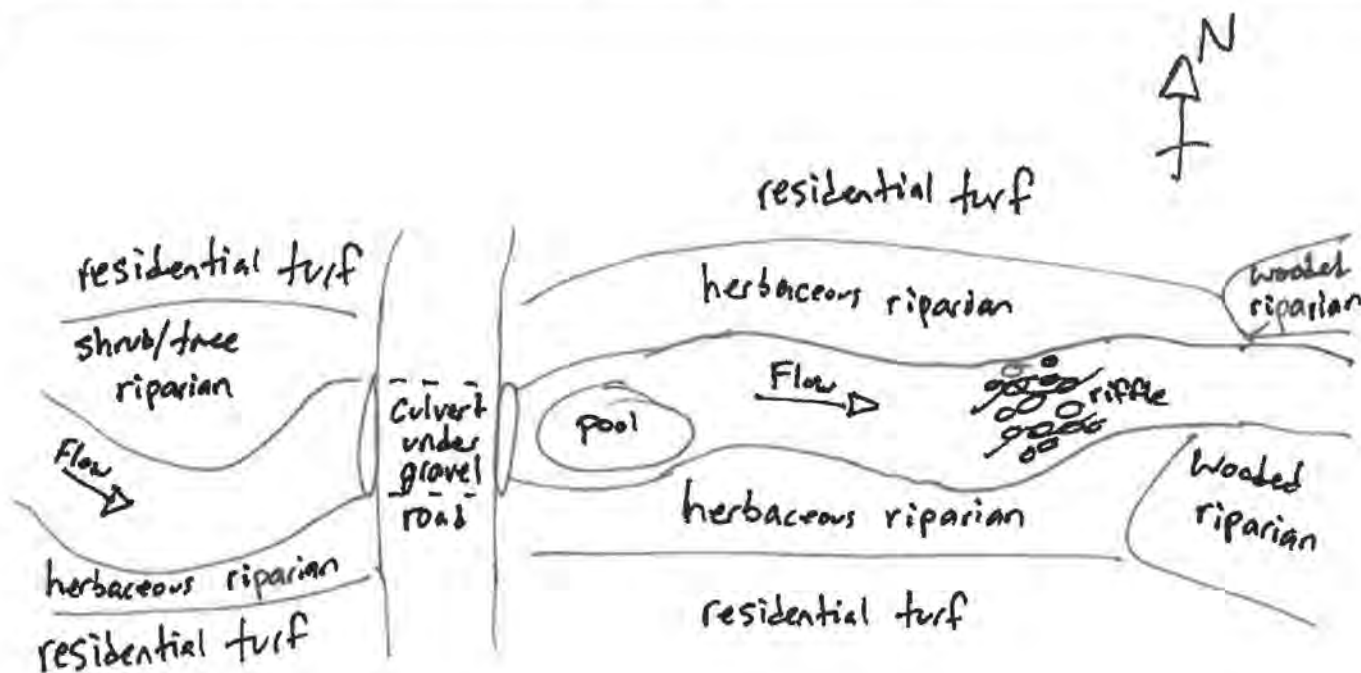
E) ISSUES

- WWTP / CSO / NPDES / INDUSTRY
- HARDENED / URBAN / DIRT&GRIME
- CONTAMINATED / LANDFILL
- BMPs-CONSTRUCTION SEDIMENT
- LOGGING / IRRIGATION / COOLING
- BANK / EROSION / SURFACE
- FALSE BANK / MANURE / LAGOON
- WASH H₂O / TILE / H₂O TABLE
- ACID / MINE / QUARRY / FLOW
- NATURAL / WETLAND / STAGNANT
- PARK / GOLF LAWN HOME
- ATMOSPHERE / DATA PAUCITY

F) MEASUREMENTS

- \bar{x} width
- \bar{x} depth
- max. depth
- \bar{x} bankfull width
- bankfull \bar{x} depth
- W/D ratio
- bankfull max. depth
- floodprone x^2 width
- entrench. ratio
- Legacy Tree:

Stream Drawing:



Stream & Location: W. Lancaster - S. Baltimore - W. Millersport

RM: ST-15-PER Date: 3/ 27/ 24

ST-15-PER

Scorers Full Name & Affiliation: V3 Companies - Nathan Barnett

River Code: STORET #: Lat./ Long.: 39 . 85415 / 82 . 58457 Office verified location

1] SUBSTRATE Check ONLY Two substrate TYPE BOXES; estimate % or note every type present

Substrate assessment grid with categories: BEST TYPES, OTHER TYPES, POOL RIFFLE, ORIGIN, and QUALITY. Includes a 'Substrate' score of 3 and a 'Maximum 20' label.

2] INSTREAM COVER Indicate presence 0 to 3: 0-Absent; 1-Very small amounts or if more common of marginal quality; 2-Moderate amounts, but not of highest quality or in small amounts of highest quality; 3-Highest quality in moderate or greater amounts (e.g., very large boulders in deep or fast water, large diameter log that is stable, well developed rootwad in deep / fast water, or deep, well-defined, functional pools.

Instream cover assessment grid with categories: UNDERCUT BANKS, OVERHANGING VEGETATION, SHALLOWS (IN SLOW WATER), ROOTMATS, POOLS > 70cm, ROOTWADS, BOULDERS, OXBOWS, BACKWATERS, AQUATIC MACROPHYTES, and LOGS OR WOODY DEBRIS. Includes a 'Cover' score of 9 and a 'Maximum 20' label.

3] CHANNEL MORPHOLOGY Check ONE in each category (Or 2 & average)

Channel morphology assessment grid with categories: SINUOSITY, DEVELOPMENT, CHANNELIZATION, STABILITY, and RECENT OR NO RECOVERY. Includes a 'Channel' score of 10 and a 'Maximum 20' label.

4] BANK EROSION AND RIPARIAN ZONE Check ONE in each category for EACH BANK (Or 2 per bank & average)

Bank erosion and riparian zone assessment grid with categories: EROSION, RIPARIAN WIDTH, FLOOD PLAIN QUALITY, and CONSERVATION TILLAGE. Includes a 'Riparian' score of 3 and a 'Maximum 10' label.

5] POOL / GLIDE AND RIFFLE / RUN QUALITY

Pool / glide and riffle / run quality assessment grid with categories: MAXIMUM DEPTH, CHANNEL WIDTH, CURRENT VELOCITY, and Recreation Potential. Includes a 'Pool / Current' score of 5 and a 'Maximum 12' label.

Indicate for functional riffles; Best areas must be large enough to support a population of riffle-obligate species:

Riffle assessment grid with categories: RIFFLE DEPTH, RUN DEPTH, RIFFLE / RUN SUBSTRATE, and RIFFLE / RUN EMBEDDEDNESS. Includes a 'Riffle / Run' score of 0 and a 'Maximum 8' label.

6] GRADIENT (ft/mi) DRAINAGE AREA (mi2)

Gradient assessment section with fields for %POOL, %GLIDE, %RUN, and %RIFFLER. Includes a 'Gradient' score of 3 and a 'Maximum 10' label.

A) SAMPLED REACH

Check ALL that apply

METHOD

- BOAT
- WADE
- L. LINE
- OTHER

STAGE

- 1st -sample pass- 2nd
- HIGH
 - UP
 - NORMAL
 - LOW
 - DRY

DISTANCE

- 0.5 Km
- 0.2 Km
- 0.15 Km
- 0.12 Km
- OTHER

CLARITY

- 1st --sample pass-- 2nd
- < 20 cm
 - 20-<40 cm
 - 40-70 cm
 - > 70 cm/ CTB
 - SECCHI DEPTH

CANOPY

- 1st pass _____ cm
- 2nd pass _____ cm
- > 85%- OPEN
 - 55%-<85%
 - 30%-<55%
 - 10%-<30%
 - <10%- CLOSED

C) RECREATION

- AREA DEPTH
- POOL: >100ft² >3ft

Comment RE: Reach consistency/ Is reach typical of stream?, Recreation/ Observed - Inferred, Other/ Sampling observations, Concerns, Access directions, etc.

B) AESTHETICS

- NUISANCE ALGAE
- INVASIVE MACROPHYTES
- EXCESS TURBIDITY
- DISCOLORATION
- FOAM / SCUM
- OIL SHEEN
- TRASH / LITTER
- NUISANCE ODOR
- SLUDGE DEPOSITS
- CSOs/SSOs/OUTFALLS

D) MAINTENANCE

- PUBLIC / PRIVATE / BOTH / NA
- ACTIVE / HISTORIC / BOTH / NA
- YOUNG-SUCCESSION-OLD
- SPRAY / SNAG / REMOVED
- MODIFIED / DIPPED OUT / NA
- LEVEED / ONE SIDED
- RELOCATED / CUTOFFS
- MOVING-BEDLOAD-STABLE
- ARMORED / SLUMPS
- ISLANDS / SCOURED
- IMPOUNDED / DESICCATED
- FLOOD CONTROL / DRAINAGE

Circle some & COMMENT

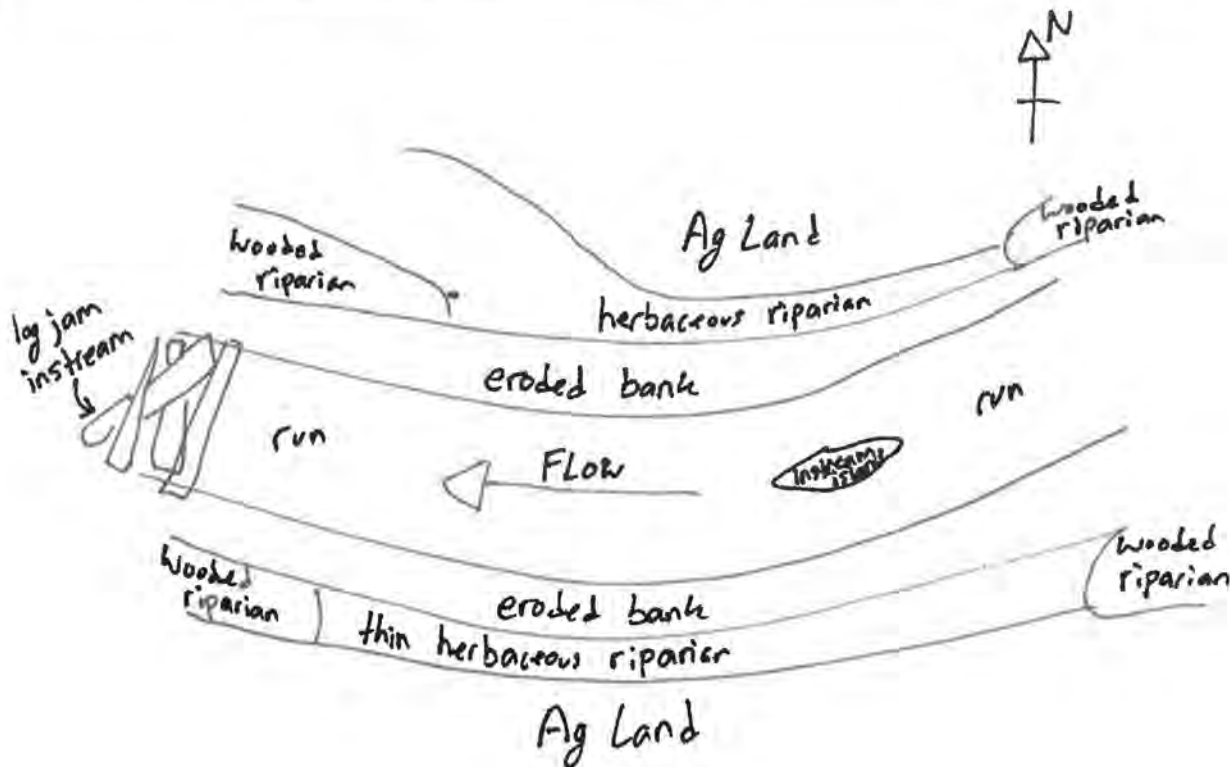
E) ISSUES

- WWTP / CSO / NPDES / INDUSTRY
- HARDENED / URBAN / DIRT&GRIME
- CONTAMINATED / LANDFILL
- BMPs-CONSTRUCTION-SEDIMENT
- LOGGING / IRRIGATION / COOLING
- BANK / EROSION / SURFACE
- FALSE BANK / MANURE / LAGOON
- WASH H₂O / TILE / H₂O TABLE
- ACID / MINE / QUARRY / FLOW
- NATURAL / WETLAND / STAGNANT
- PARK / GOLF / LAWN / HOME
- ATMOSPHERE / DATA PAUCITY

F) MEASUREMENTS

- \bar{x} width
- \bar{x} depth
- max. depth
- \bar{x} bankfull width
- bankfull \bar{x} depth
- W/D ratio
- bankfull max. depth
- floodprone x^2 width
- entrench. ratio
- Legacy Tree:

Stream Drawing:



Stream & Location: W. Lancaster - S. Baltimore - W. Millersport

RM: Date: 3 / 28 / 24

Walnut Creek

Scorers Full Name & Affiliation: V3 Companies - Emily Holt

River Code: STORET #: Lat./ Long.: 39 . 7020 182 . 6401 Office verified location

1) SUBSTRATE Check ONLY Two substrate TYPE BOXES; estimate % or note every type present

Check ONE (Or 2 & average)

Substrate assessment form with categories: BEST TYPES (BLDR/SLABS, BOULDER, COBBLE, GRAVEL, SAND, BEDROCK), OTHER TYPES (HARDPAN, DETRITUS, MUCK, SILT, ARTIFICIAL), ORIGIN (LIMESTONE, TILLS, WETLANDS, HARDPAN, SANDSTONE, RIP/RAP, LACUSTURINE, SHALE, COAL FINES), and QUALITY (HEAVY, MODERATE, NORMAL, FREE, EXTENSIVE, MODERATE, NORMAL, NONE).

2) INSTREAM COVER Indicate presence 0 to 3: 0-Absent; 1-Very small amounts or if more common of marginal quality; 2-Moderate amounts, but not of highest quality or in small amounts of highest quality; 3-Highest quality in moderate or greater amounts (e.g., very large boulders in deep or fast water, large diameter log that is stable, well developed rootwad in deep / fast water, or deep, well-defined, functional pools.

AMOUNT Check ONE (Or 2 & average)

Instream Cover assessment form with categories: UNDERCUT BANKS, OVERHANGING VEGETATION, SHALLOWS (IN SLOW WATER), ROOTMATS, POOLS > 70cm, ROOTWADS, BOULDERS, OXBOWS, BACKWATERS, AQUATIC MACROPHYTES, LOGS OR WOODY DEBRIS.

3) CHANNEL MORPHOLOGY Check ONE in each category (Or 2 & average)

Channel Morphology assessment form with categories: SINUOSITY (HIGH, MODERATE, LOW, NONE), DEVELOPMENT (EXCELLENT, GOOD, FAIR, POOR), CHANNELIZATION (NONE, RECOVERED, RECOVERING, RECENT OR NO RECOVERY), STABILITY (HIGH, MODERATE, LOW).

4) BANK EROSION AND RIPARIAN ZONE Check ONE in each category for EACH BANK (Or 2 per bank & average)

Bank Erosion and Riparian Zone assessment form with categories: EROSION (NONE/LITTLE, MODERATE, HEAVY/SEVERE), RIPARIAN WIDTH (WIDE, MODERATE, NARROW, VERY NARROW, NONE), FLOOD PLAIN QUALITY (FOREST/SWAMP, SHRUB/OLD FIELD, RESIDENTIAL/PARK/NEW FIELD, FENCED PASTURE, OPEN PASTURE/ROWCROP), CONSERVATION TILLAGE, URBAN OR INDUSTRIAL, MINING/CONSTRUCTION.

5) POOL / GLIDE AND RIFFLE / RUN QUALITY

Pool/Glide and Riffle/Run Quality assessment form with categories: MAXIMUM DEPTH, CHANNEL WIDTH, CURRENT VELOCITY (TORRENTIAL, VERY FAST, FAST, MODERATE, SLOW, INTERSTITIAL, INTERMITTENT, EDDIES), Recreation Potential (Primary Contact, Secondary Contact).

Indicate for functional riffles; Best areas must be large enough to support a population of riffle-obligate species: Check ONE (Or 2 & average) NO RIFFLE [metric=0]

Riffle/Run Quality assessment form with categories: RIFFLE DEPTH (BEST AREAS > 10cm, 5-10cm, < 5cm), RUN DEPTH (MAXIMUM > 50cm, < 50cm), RIFFLE / RUN SUBSTRATE (STABLE, MOD. STABLE, UNSTABLE), RIFFLE / RUN EMBEDDEDNESS (NONE, LOW, MODERATE, EXTENSIVE).

Gradient assessment form with categories: GRADIENT (VERY LOW-LOW, MODERATE, HIGH-VERY HIGH), DRAINAGE AREA (39.8 mi²), %POOL: 0, %GLIDE: 0, %RUN: 60, %RIFFLE: 40.

AJ SAMPLED REACH

Check ALL that apply

- METHOD**
- BOAT
 - WADE
 - L. LINE
 - OTHER
- STAGE**
- 1st-sample pass- 2nd
- HIGH
 - UP
 - NORMAL
 - LOW
 - DRY

DISTANCE

- 0.5 Km
- 0.2 Km
- 0.15 Km
- 0.12 Km
- OTHER

CLARITY

- 1st --sample pass-- 2nd
- < 20 cm
 - 20-<40 cm
 - 40-70 cm
 - > 70 cm/ CTB
 - SECCHI DEPTH

meters

CANOPY

- 1st pass _____ cm
- 2nd pass _____ cm
- > 85%- OPEN
 - 55%-<85%
 - 30%-<55%
 - 10%-<30%
 - <10%- CLOSED

CJ RECREATION

- AREA DEPTH
- POOL: >100ft² >3ft

BJ AESTHETICS

- NUISANCE ALGAE
- INVASIVE MACROPHYTES
- EXCESS TURBIDITY
- DISCOLORATION
- FOAM / SCUM
- OIL SHEEN
- TRASH / LITTER
- NUISANCE ODOR
- SLUDGE DEPOSITS
- CSOs/SSOs/OUTFALLS

DJ MAINTENANCE

- PUBLIC / ~~PRIVATE~~ / BOTH / NA
- ACTIVE / ~~HISTORIC~~ / BOTH / NA
- YOUNG-SUCCESSION-OLD
- SPRAY / SNAG / REMOVED
- MODIFIED / DIPPED OUT / NA
- LEVEED / ONE SIDED
- RELOCATED / CUTOFFS
- ~~MOVING~~ BEDLOAD-STABLE
- ARMOURED / SLUMPS
- ISLANDS / SCOURED
- IMPOUNDED / DESICCATED
- FLOOD CONTROL / DRAINAGE

Circle some & COMMENT

EJ ISSUES

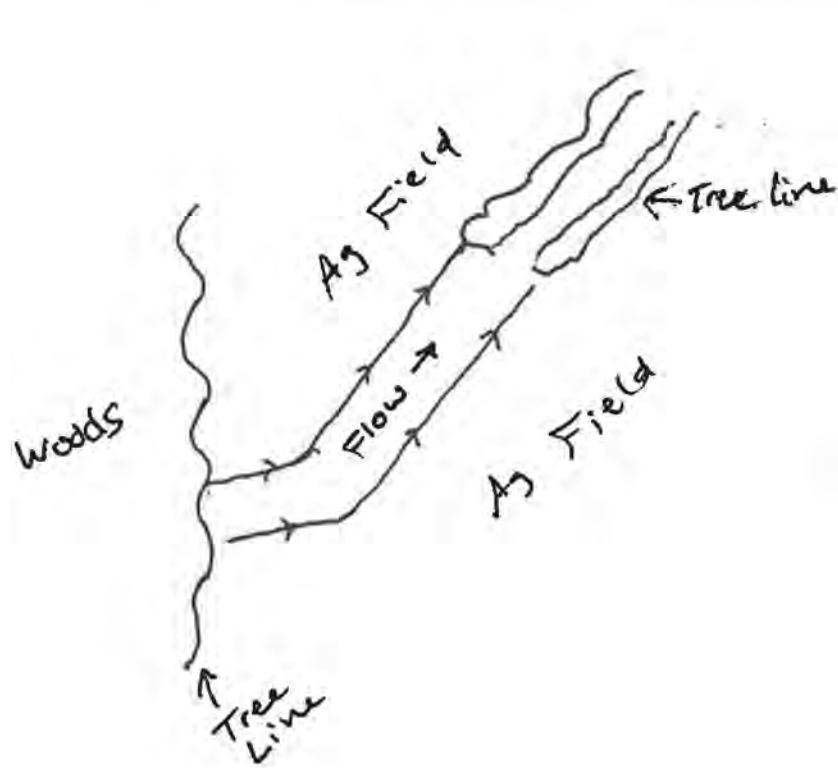
- WWTP / CSO / NPDES / INDUSTRY
- HARDENED / URBAN / DIRT&GRIME
- CONTAMINATED / LANDFILL
- BMPs-CONSTRUCTION-SEDIMENT
- LOGGING / IRRIGATION / COOLING
- BANK / ~~EROSION~~ / SURFACE
- FALSE BANK / MANURE / LAGOON
- WASH H₂O / TILE / H₂O TABLE
- ACID / MINE / QUARRY / FLOW
- NATURAL / WETLAND / STAGNANT
- PARK / GOLF / LAWN / HOME
- ATMOSPHERE / DATA PAUCITY

FJ MEASUREMENTS

- \bar{x} width
- \bar{x} depth
- max. depth
- \bar{x} bankfull width
- bankfull \bar{x} depth
- W/D ratio
- bankfull max. depth
- floodprone x^2 width
- entrench. ratio
- Legacy Tree:

Comment RE: Reach consistency/ Is reach typical of stream?, Recreation/ Observed - Inferred, Other/ Sampling observations, Concerns, Access directions, etc.

Stream Drawing:



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

SITE NAME/LOCATION W. Lancaster - S. Baltimore - W. Millersport
 SITE NUMBER ST-2-PER RIVER BASIN _____ DRAINAGE AREA (mi²) 0.53
 LENGTH OF STREAM REACH (ft) 75 LAT. 39.82879 LONG. -82.59313 RIVER CODE _____ RIVER MILE _____
 DATE 03/27/24 SCORER E.Holt COMMENTS _____

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

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

1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). 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]	0%	<input checked="" type="checkbox"/> SILT [3 pt]	100%
<input type="checkbox"/> BOULDER (>256 mm) [16 pts]	0%	<input type="checkbox"/> LEAF PACK/WOODY DEBRIS [3 pts]	0%
<input type="checkbox"/> BEDROCK [16 pt]	0%	<input type="checkbox"/> FINE DETRITUS [3 pts]	0%
<input type="checkbox"/> COBBLE (65-256 mm) [12 pts]	0%	<input type="checkbox"/> CLAY or HARDPAN [0 pt]	0%
<input type="checkbox"/> GRAVEL (2-64 mm) [9 pts]	0%	<input type="checkbox"/> MUCK [0 pts]	0%
<input type="checkbox"/> SAND (<2 mm) [6 pts]	0%	<input type="checkbox"/> ARTIFICIAL [3 pts]	0%

Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock 0.00% (A) 100% (B)

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 3 **TOTAL NUMBER OF SUBSTRATE TYPES:** 1

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 checked="" 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 type="checkbox"/> NO WATER OR MOIST CHANNEL [0 pts]

COMMENTS _____ **MAXIMUM POOL DEPTH (centimeters):**

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

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

COMMENTS _____ **AVERAGE BANKFULL WIDTH (meters):**

HHEI Metric Points

Substrate Max = 40

4

A + B

Pool Depth Max = 30

20

Bankfull Width Max=30

30

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	L	R
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(Per Bank)		(Most Predominant per Bank)			
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wide >10m		Mature Forest, Wetland		Conservation Tillage	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Moderate 5-10m		Immature Forest, Shrub or Old Field		Urban or Industrial	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Narrow <5m		Residential, Park, New Field		Open Pasture, Row Crop	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
None		Fenced Pasture		Mining or Construction	

COMMENTS _____

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

<input checked="" type="checkbox"/> Stream Flowing	<input 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 type="checkbox"/> None	<input checked="" 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 checked="" 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 type="checkbox"/> Severe (10 ft/100 ft)
--	---	---	---	--

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

QHEI PERFORMED? Yes No QHEI Score (If Yes, Attach Completed QHEI Form)

DOWNSTREAM DESIGNATED USE(S)

<input type="checkbox"/> WWH Name: <input type="text"/>	Distance from Evaluated Stream <input type="text"/>
<input type="checkbox"/> CWH Name: <input type="text"/>	Distance from Evaluated Stream <input type="text"/>
<input type="checkbox"/> EWH Name: <input type="text"/>	Distance from Evaluated Stream <input type="text"/>

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: Township / City:

MISCELLANEOUS

Base Flow Conditions? (Y/N): Y Date of last precipitation: Quantity:

Photograph Information:

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

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

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

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

Additional comments/description of pollution impacts:

BIOTIC EVALUATION

Performed? (Y/N): Y (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)

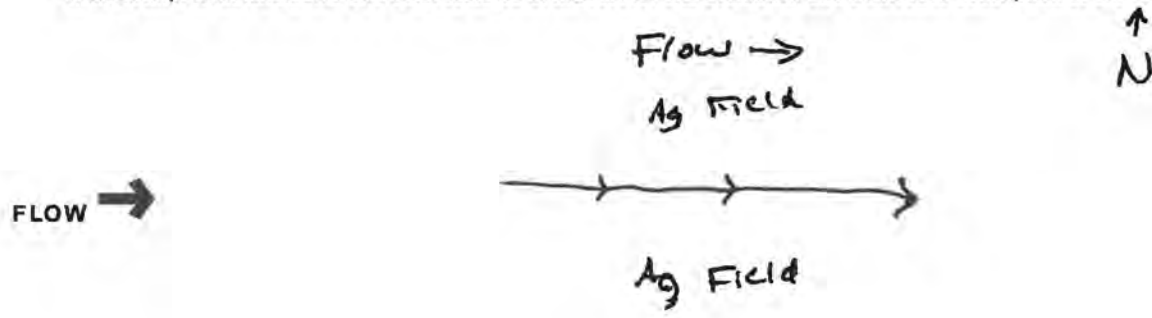
Fish Observed? (Y/N) Y Voucher? (Y/N) Y Salamanders Observed? (Y/N) Y Voucher? (Y/N) Y

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

Comments Regarding Biology:

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



SITE NAME/LOCATION **W. Lancaster - S. Baltimore - W. Millersport**

SITE NUMBER **ST-68-INT** RIVER BASIN **Walnut Creek** DRAINAGE AREA (mi²) **0.38**

LENGTH OF STREAM REACH (ft) **210** LAT. **39.82183** LONG. **-82.59785** RIVER CODE **EPH** RIVER MILE **N/A**

DATE **03/27/24** SCORER **L. Vine** COMMENTS _____

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

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

1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). 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]	0%	<input type="checkbox"/> <input checked="" type="checkbox"/> SILT [3 pt]	30%
<input type="checkbox"/> <input type="checkbox"/> BOULDER (>256 mm) [16 pts]	0%	<input type="checkbox"/> <input type="checkbox"/> LEAF PACK/WOODY DEBRIS [3 pts]	0%
<input type="checkbox"/> <input type="checkbox"/> BEDROCK [16 pt]	0%	<input type="checkbox"/> <input type="checkbox"/> FINE DETRITUS [3 pts]	0%
<input type="checkbox"/> <input type="checkbox"/> COBBLE (65-256 mm) [12 pts]	10%	<input checked="" type="checkbox"/> <input type="checkbox"/> CLAY or HARDPAN [0 pt]	0%
<input type="checkbox"/> <input type="checkbox"/> GRAVEL (2-64 mm) [9 pts]	40%	<input type="checkbox"/> <input type="checkbox"/> MUCK [0 pts]	0%
<input type="checkbox"/> <input type="checkbox"/> SAND (<2 mm) [6 pts]	20%	<input type="checkbox"/> <input type="checkbox"/> ARTIFICIAL [3 pts]	0%

Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock **10.00%** (A)

Substrate Percentage Check **100%** (B)

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 3 **TOTAL NUMBER OF SUBSTRATE TYPES: 4**

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 checked="" 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 type="checkbox"/> NO WATER OR MOIST CHANNEL [0 pts]

COMMENTS _____ **MAXIMUM POOL DEPTH (centimeters): 20**

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

COMMENTS _____ **AVERAGE BANKFULL WIDTH (meters): 2.00**

HHEI Metric Points

Substrate Max = 40

7

A + B

Pool Depth Max = 30

30

Bankfull Width Max=30

15

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 type="checkbox"/>	<input type="checkbox"/> (Per Bank)	<input type="checkbox"/>	<input type="checkbox"/> (Most Predominant per Bank)	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	Wide >10m	<input type="checkbox"/>	Mature Forest, Wetland	<input type="checkbox"/>	Conservation Tillage
<input type="checkbox"/>	Moderate 5-10m	<input checked="" type="checkbox"/>	Immature Forest, Shrub or Old Field	<input type="checkbox"/>	Urban or Industrial
<input type="checkbox"/>	Narrow <5m	<input type="checkbox"/>	Residential, Park, New Field	<input type="checkbox"/>	Open Pasture, Row Crop
<input checked="" type="checkbox"/>	None	<input type="checkbox"/>	Fenced Pasture	<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 type="checkbox"/> None	<input type="checkbox"/> 1.0	<input checked="" 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

Flat (0.5 ft/100 ft) Flat to Moderate Moderate (2 ft/100 ft) Moderate to Severe Severe (10 ft/100 ft)

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

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

DOWNSTREAM DESIGNATED USE(S)

<input checked="" type="checkbox"/> WWH Name: Walnut Creek	Distance from Evaluated Stream	0.69
<input type="checkbox"/> CWH Name: <input type="text"/>	Distance from Evaluated Stream	<input type="text"/>
<input type="checkbox"/> EWH Name: <input type="text"/>	Distance from Evaluated Stream	<input type="text"/>

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

USGS Quadrangle Name: **Baltimore** NRCS Soil Map Page: NRCS Soil Map Stream Order
County: **Fairfield** Township / City: **Baltimore**

MISCELLANEOUS

Base Flow Conditions? (Y/N): Y Date of last precipitation: **03/26/24** Quantity: **0.03**
Photograph Information:
Elevated Turbidity? (Y/N): Y Canopy (% open): **100%**
Were samples collected for water chemistry? (Y/N): N (Note lab sample no. or id. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) Y If not, please explain:

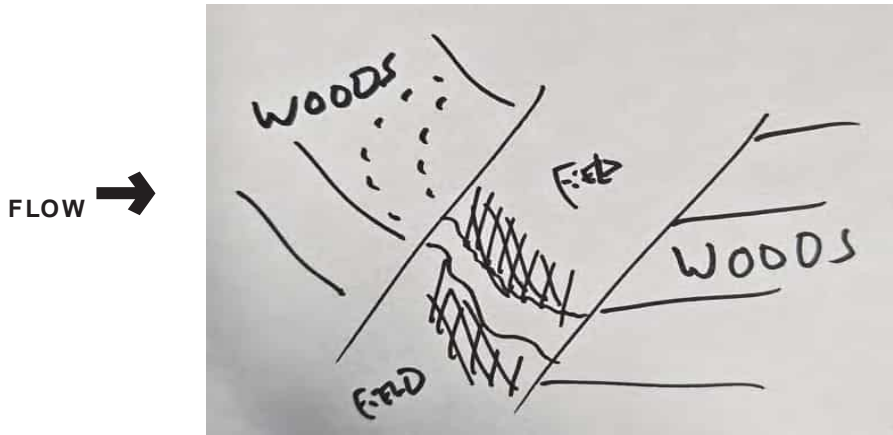
Additional comments/description of pollution impacts:

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:

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





Primary Headwater Habitat Evaluation Form

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

SITE NAME/LOCATION **W. Lancaster - S. Baltimore - W. Millersport**

SITE NUMBER **ST-63-INT** RIVER BASIN **Walnut Creek** DRAINAGE AREA (mi²) **0.00**

LENGTH OF STREAM REACH (ft) **153** LAT. **39.81450** LONG. **-82.60525** RIVER CODE **EPH** RIVER MILE **N/A**

DATE **03/27/24** SCORER **L. Vine** COMMENTS

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

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

1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). 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="text" value="0%"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> SILT [3 pt]	<input type="text" value="100%"/>
<input type="checkbox"/> <input type="checkbox"/> BOULDER (>256 mm) [16 pts]	<input type="text" value="0%"/>	<input type="checkbox"/> <input type="checkbox"/> LEAF PACK/WOODY DEBRIS [3 pts]	<input type="text" value="0%"/>
<input type="checkbox"/> <input type="checkbox"/> BEDROCK [16 pt]	<input type="text" value="0%"/>	<input type="checkbox"/> <input type="checkbox"/> FINE DETRITUS [3 pts]	<input type="text" value="0%"/>
<input type="checkbox"/> <input type="checkbox"/> COBBLE (65-256 mm) [12 pts]	<input type="text" value="0%"/>	<input type="checkbox"/> <input type="checkbox"/> CLAY or HARDPAN [0 pt]	<input type="text" value="0%"/>
<input type="checkbox"/> <input type="checkbox"/> GRAVEL (2-64 mm) [9 pts]	<input type="text" value="0%"/>	<input type="checkbox"/> <input type="checkbox"/> MUCK [0 pts]	<input type="text" value="0%"/>
<input type="checkbox"/> <input type="checkbox"/> SAND (<2 mm) [6 pts]	<input type="text" value="0%"/>	<input type="checkbox"/> <input type="checkbox"/> ARTIFICIAL [3 pts]	<input type="text" value="0%"/>

Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock **0.00%** (A)

Substrate Percentage Check **100%** (B)

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: **6**

TOTAL NUMBER OF SUBSTRATE TYPES: **1**

HHEI Metric Points

Substrate Max = 40

7

A + B

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 checked="" 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 type="checkbox"/> NO WATER OR MOIST CHANNEL [0 pts]

COMMENTS _____ MAXIMUM POOL DEPTH (centimeters): **20**

Pool Depth Max = 30

15

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

COMMENTS _____ AVERAGE BANKFULL WIDTH (meters): **2.00**

Bankfull Width Max=30

15

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 type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(Per Bank)		(Most Predominant per Bank)	
Wide >10m		Mature Forest, Wetland	<input type="checkbox"/>
Moderate 5-10m		Immature Forest, Shrub or Old Field	<input checked="" type="checkbox"/>
Narrow <5m		Residential, Park, New Field	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Fenced Pasture	<input type="checkbox"/>
None			<input type="checkbox"/>

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 type="checkbox"/> None	<input type="checkbox"/> 1.0	<input checked="" 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

Flat (0.5 ft/100 ft) Flat to Moderate Moderate (2 ft/100 ft) Moderate to Severe Severe (10 ft/100 ft)

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

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

DOWNSTREAM DESIGNATED USE(S)

<input checked="" type="checkbox"/> WWH Name: Walnut Creek	Distance from Evaluated Stream	0.69
<input type="checkbox"/> CWH Name: <input type="text"/>	Distance from Evaluated Stream	<input type="text"/>
<input type="checkbox"/> EWH Name: <input type="text"/>	Distance from Evaluated Stream	<input type="text"/>

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

USGS Quadrangle Name: **Baltimore** NRCS Soil Map Page: NRCS Soil Map Stream Order
County: **Fairfield** Township / City: **Baltimore**

MISCELLANEOUS

Base Flow Conditions? (Y/N): Y Date of last precipitation: **03/26/24** Quantity: **0.03**
Photograph Information:
Elevated Turbidity? (Y/N): Y Canopy (% open): **100%**
Were samples collected for water chemistry? (Y/N): N (Note lab sample no. or id. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) Y If not, please explain:

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:

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

FLOW 

SITE NAME/LOCATION W. Lancaster - S. Baltimore - W. Millersport
 SITE NUMBER ST-55-INT RIVER BASIN _____ DRAINAGE AREA (mi²) 0.24
 LENGTH OF STREAM REACH (ft) 145 LAT. 39.80056 LONG. -82.61736 RIVER CODE _____ RIVER MILE _____
 DATE 03/27/24 SCORER Nathan Barr COMMENTS _____

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

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

1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). 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]	0%	<input type="checkbox"/> Silt [3 pt]	0%
<input type="checkbox"/> Boulder (>256 mm) [16 pts]	0%	<input type="checkbox"/> Leaf Pack/Woody Debris [3 pts]	0%
<input type="checkbox"/> Bedrock [16 pt]	0%	<input type="checkbox"/> Fine Detritus [3 pts]	0%
<input type="checkbox"/> Cobble (65-256 mm) [12 pts]	5%	<input checked="" type="checkbox"/> Clay or Hardpan [0 pt]	60%
<input type="checkbox"/> Gravel (2-64 mm) [9 pts]	15%	<input type="checkbox"/> Muck [0 pts]	0%
<input checked="" type="checkbox"/> Sand (<2 mm) [6 pts]	20%	<input type="checkbox"/> Artificial [3 pts]	0%

Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock 5.00% (A) Substrate Percentage Chck 100% (B)

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 6 TOTAL NUMBER OF SUBSTRATE TYPES: 4

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

COMMENTS _____ MAXIMUM POOL DEPTH (centimeters): 15

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

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

COMMENTS _____ AVERAGE BANKFULL WIDTH (meters): 6.67

HHEI Metric Points

Substrate Max = 40

10

A + B

Pool Depth Max = 30

25

Bankfull Width Max=30

30

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

COMMENTS _____

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

<input checked="" type="checkbox"/> Stream Flowing	<input 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 checked="" type="checkbox"/> Flat to Moderate	<input type="checkbox"/> Moderate (2 ft/100 ft)	<input type="checkbox"/> Moderate to Severe	<input type="checkbox"/> Severe (10 ft/100 ft)
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ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):

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

DOWNSTREAM DESIGNATED USE(S)

<input type="checkbox"/> WWH Name:	<input type="text"/>	Distance from Evaluated Stream	<input type="text"/>
<input type="checkbox"/> CWH Name:	<input type="text"/>	Distance from Evaluated Stream	<input type="text"/>
<input type="checkbox"/> EWH Name:	<input type="text"/>	Distance from Evaluated Stream	<input type="text"/>

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: Fairfield Township / City: Lancaster

MISCELLANEOUS

Base Flow Conditions? (Y/N): Y Date of last precipitation: 03/26/24 Quantity: 0.30
 Photograph Information:
 Elevated Turbidity? (Y/N): N Canopy (% open): 0%
 Were samples collected for water chemistry? (Y/N): N (Note lab sample no. or id. and attach results) Lab Number: N/A
 Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm)
 Is the sampling reach representative of the stream (Y/N) Y If not, please explain:

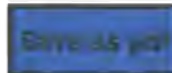
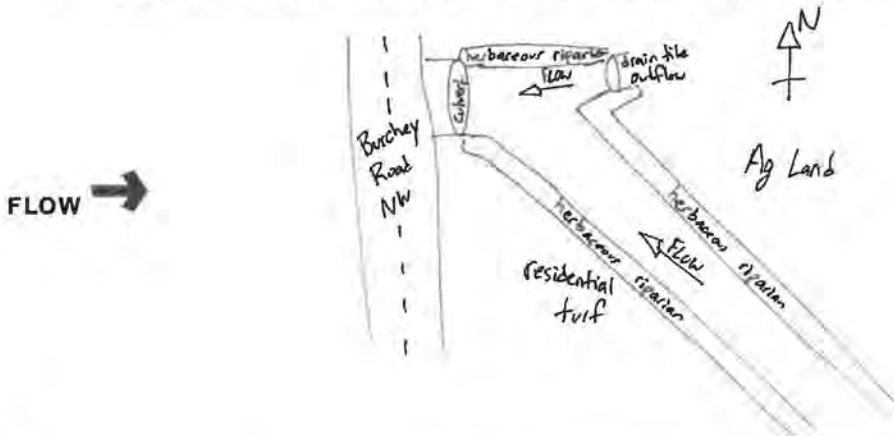
Additional comments/description of pollution impacts:

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: Not assessed

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



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

SITE NAME/LOCATION W. Lancaster - S. Baltimore - W. Millersport

SITE NUMBER ST-53-INT RIVER BASIN _____ DRAINAGE AREA (mi²) 0.30

LENGTH OF STREAM REACH (ft) 170 LAT. 39.79897 LONG. -82.61860 RIVER CODE _____ RIVER MILE _____

DATE 03/27/24 SCORER Nathan Barr COMMENTS _____

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

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

1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). 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]	0%	<input type="checkbox"/> SILT [3 pt]	0%
<input type="checkbox"/> BOULDER (>256 mm) [16 pts]	0%	<input type="checkbox"/> LEAF PACK/WOODY DEBRIS [3 pts]	0%
<input type="checkbox"/> BEDROCK [16 pt]	0%	<input type="checkbox"/> FINE DETRITUS [3 pts]	0%
<input checked="" type="checkbox"/> COBBLE (65-256 mm) [12 pts]	30%	<input type="checkbox"/> CLAY or HARDPAN [0 pt]	0%
<input checked="" type="checkbox"/> GRAVEL (2-64 mm) [9 pts]	40%	<input type="checkbox"/> MUCK [0 pts]	0%
<input type="checkbox"/> SAND (<2 mm) [6 pts]	30%	<input type="checkbox"/> ARTIFICIAL [3 pts]	0%

Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock **30.00%** (A) Substrate Percentages Check: 100% (B)

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 21 **TOTAL NUMBER OF SUBSTRATE TYPES: 3**

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

COMMENTS _____ **MAXIMUM POOL DEPTH (centimeters): 15**

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

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

COMMENTS _____ **AVERAGE BANKFULL WIDTH (meters): 5.00**

HHEI Metric Points

Substrate Max = 40

24

A + B

Pool Depth Max = 30

25

Bankfull Width Max=30

30

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 type="checkbox"/>	<input type="checkbox"/> (Per Bank) Wide >10m	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input checked="" type="checkbox"/> Narrow <5m	<input checked="" type="checkbox"/>	<input checked="" 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 checked="" type="checkbox"/> Stream Flowing	<input 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 checked="" type="checkbox"/> Flat to Moderate	<input type="checkbox"/> Moderate (2 ft/100 ft)	<input type="checkbox"/> Moderate to Severe	<input type="checkbox"/> Severe (10 ft/100 ft)
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ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):

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

DOWNSTREAM DESIGNATED USE(S)

<input type="checkbox"/> WWH Name:	<input type="text"/>	Distance from Evaluated Stream	<input type="text"/>
<input type="checkbox"/> CWH Name:	<input type="text"/>	Distance from Evaluated Stream	<input type="text"/>
<input type="checkbox"/> EWH Name:	<input type="text"/>	Distance from Evaluated Stream	<input type="text"/>

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: Fairfield Township / City: Lancaster

MISCELLANEOUS

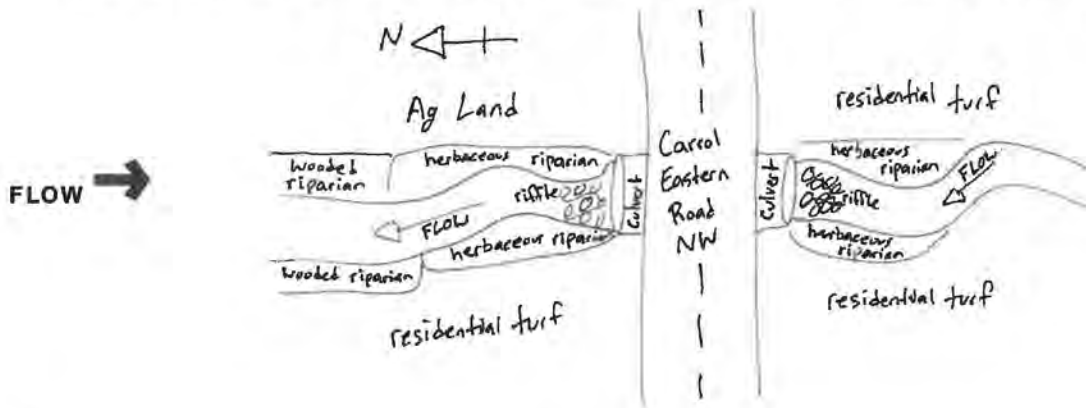
Base Flow Conditions? (Y/N): Y Date of last precipitation: 03/26/24 Quantity: 0.30
 Photograph Information:
 Elevated Turbidity? (Y/N): N Canopy (% open): 100%
 Were samples collected for water chemistry? (Y/N): N (Note lab sample no. or id. and attach results) Lab Number: N/A
 Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm)
 Is the sampling reach representative of the stream (Y/N) Y If not, please explain:
 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:

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



SITE NAME/LOCATION W. Lancaster - S. Baltimore - W. Millersport
 SITE NUMBER ST-48-EPH RIVER BASIN _____ DRAINAGE AREA (mi²) 0.27
 LENGTH OF STREAM REACH (ft) 115 LAT. 39.78862 LONG. -82.62272 RIVER CODE _____ RIVER MILE _____
 DATE 03/27/24 SCORER Nathan Barr COMMENTS _____

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

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

1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). 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]	0%	<input type="checkbox"/> <input checked="" type="checkbox"/> SILT [3 pt]	35%
<input type="checkbox"/> <input type="checkbox"/> BOULDER (>256 mm) [16 pts]	0%	<input type="checkbox"/> <input type="checkbox"/> LEAF PACK/WOODY DEBRIS [3 pts]	5%
<input type="checkbox"/> <input type="checkbox"/> BEDROCK [16 pt]	0%	<input type="checkbox"/> <input type="checkbox"/> FINE DETRITUS [3 pts]	10%
<input type="checkbox"/> <input type="checkbox"/> COBBLE (65-256 mm) [12 pts]	0%	<input checked="" type="checkbox"/> <input type="checkbox"/> CLAY or HARDPAN [0 pt]	50%
<input type="checkbox"/> <input type="checkbox"/> GRAVEL (2-64 mm) [9 pts]	0%	<input type="checkbox"/> <input type="checkbox"/> MUCK [0 pts]	0%
<input type="checkbox"/> <input type="checkbox"/> SAND (<2 mm) [6 pts]	0%	<input type="checkbox"/> <input type="checkbox"/> ARTIFICIAL [3 pts]	0%

Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock 0.00% (A) Substrate Percentages Check 100% (B)

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 3 TOTAL NUMBER OF SUBSTRATE TYPES: 4

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

COMMENTS _____ MAXIMUM POOL DEPTH (centimeters): 15

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 (> 9' 7" - 4' 8") [20 pts]	

COMMENTS _____ AVERAGE BANKFULL WIDTH (meters): 0.33

HHEI Metric Points

Substrate Max = 40

7
A + B

Pool Depth Max = 30

25

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	L	R
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(Per Bank)		(Most Predominant per Bank)		Conservation Tillage	
Wide >10m		Mature Forest, Wetland		Urban or Industrial	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Open Pasture, Row Crop	
Moderate 5-10m		Immature Forest, Shrub or Old Field		Mining or Construction	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Narrow <5m		Residential, Park, New Field			
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
None		Fenced Pasture			

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 checked="" type="checkbox"/> Flat to Moderate	<input type="checkbox"/> Moderate (2 ft/100 ft)	<input type="checkbox"/> Moderate to Severe	<input type="checkbox"/> Severe (10 ft/100 ft)
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ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):

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

DOWNSTREAM DESIGNATED USE(S)

<input type="checkbox"/> WWH Name: <input type="text"/>	Distance from Evaluated Stream <input type="text"/>
<input type="checkbox"/> CWH Name: <input type="text"/>	Distance from Evaluated Stream <input type="text"/>
<input type="checkbox"/> EWH Name: <input type="text"/>	Distance from Evaluated Stream <input type="text"/>

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: Fairfield Township / City: Lancaster

MISCELLANEOUS

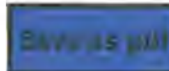
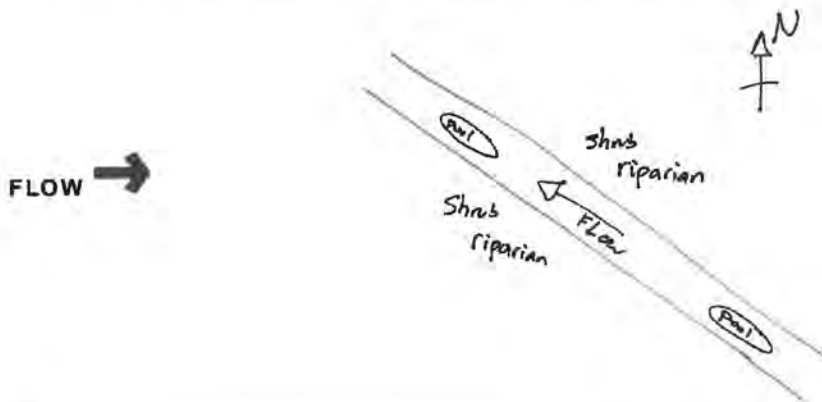
Base Flow Conditions? (Y/N): Y Date of last precipitation: 03/26/24 Quantity: 0.30
Photograph Information:
Elevated Turbidity? (Y/N): N Canopy (% open): 100%
Were samples collected for water chemistry? (Y/N): N (Note lab sample no. or id. and attach results) Lab Number: N/A
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) Y If not, please explain:
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: No biotic evaluation conducted

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



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

SITE NAME/LOCATION W. Lancaster - S. Baltimore - W. Millersport

SITE NUMBER ST-44-INT RIVER BASIN _____ DRAINAGE AREA (mi²) 0.15

LENGTH OF STREAM REACH (ft) 100 LAT. 39.78067 LONG. -82.62624 RIVER CODE _____ RIVER MILE _____

DATE 03/27/24 SCORER Nathan Barr COMMENTS _____

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

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

1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). 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"/> BDR SLABS [16 pts]	0%	<input type="checkbox"/> SILT [3 pt]	10%
<input type="checkbox"/> BOULDER (>256 mm) [16 pts]	0%	<input type="checkbox"/> LEAF PACK/WOODY DEBRIS [3 pts]	0%
<input type="checkbox"/> BEDROCK [16 pt]	0%	<input type="checkbox"/> FINE DETRITUS [3 pts]	0%
<input checked="" type="checkbox"/> COBBLE (65-256 mm) [12 pts]	30%	<input type="checkbox"/> CLAY or HARDPAN [0 pt]	0%
<input checked="" type="checkbox"/> GRAVEL (2-64 mm) [9 pts]	30%	<input type="checkbox"/> MUCK [0 pts]	0%
<input type="checkbox"/> SAND (<2 mm) [6 pts]	30%	<input type="checkbox"/> ARTIFICIAL [3 pts]	0%

Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock **30.00%** (A) (B) 100%

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 21 **TOTAL NUMBER OF SUBSTRATE TYPES: 4**

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 checked="" 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 type="checkbox"/> NO WATER OR MOIST CHANNEL [0 pts]

COMMENTS _____ **MAXIMUM POOL DEPTH (centimeters): 8**

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

COMMENTS _____ **AVERAGE BANKFULL WIDTH (meters): 1.20**

HHEI Metric Points

Substrate
Max = 40

25

A + B

Pool Depth
Max = 30

15

Bankfull
Width
Max=30

15

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	L	R
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(Per Bank)		(Most Predominant per Bank)			
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wide >10m		Mature Forest, Wetland		Conservation Tillage	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Moderate 5-10m		Immature Forest, Shrub or Old Field		Urban or Industrial	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Narrow <5m		Residential, Park, New Field		Open Pasture, Row Crop	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
None		Fenced Pasture		Mining or Construction	

COMMENTS _____

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

<input checked="" type="checkbox"/> Stream Flowing	<input 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 checked="" 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 type="checkbox"/> Severe (10 ft/100 ft)
--	---	---	---	--

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

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

DOWNSTREAM DESIGNATED USE(S)

<input type="checkbox"/> WWH Name:	<input type="text"/>	Distance from Evaluated Stream	<input type="text"/>
<input type="checkbox"/> CWH Name:	<input type="text"/>	Distance from Evaluated Stream	<input type="text"/>
<input type="checkbox"/> EWH Name:	<input type="text"/>	Distance from Evaluated Stream	<input type="text"/>

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: Fairfield Township / City: Lancaster

MISCELLANEOUS

Base Flow Conditions? (Y/N): Y Date of last precipitation: 03/26/24 Quantity: 0.30
 Photograph Information:
 Elevated Turbidity? (Y/N): N Canopy (% open): 90%
 Were samples collected for water chemistry? (Y/N): N (Note lab sample no. or id. and attach results) Lab Number: N/A
 Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm)
 Is the sampling reach representative of the stream (Y/N) Y If not, please explain:

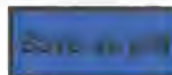
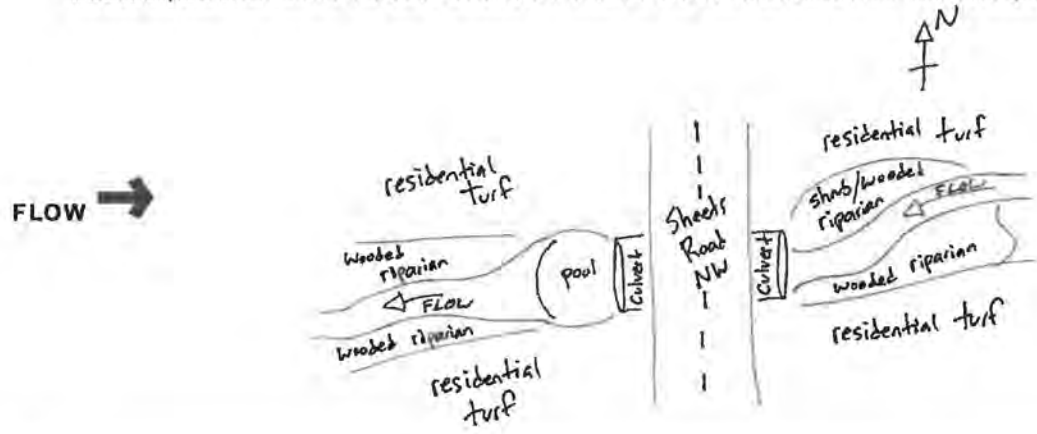
Additional comments/description of pollution impacts:

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:
No biotic evaluation conducted

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





Primary Headwater Habitat Evaluation Form

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

SITE NAME/LOCATION **W. Lancaster - S. Baltimore - W. Millersport**

SITE NUMBER **ST-44-EPH** RIVER BASIN **Hocking** DRAINAGE AREA (mi²) **0.32**

LENGTH OF STREAM REACH (ft) **221** LAT. **39.77551** LONG. **-82.62766** RIVER CODE **EPH** RIVER MILE **N/A**

DATE **03/27/24** SCORER **L. Vine** COMMENTS

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

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

1. **SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). 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="text" value="0%"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> SILT [3 pt]	<input type="text" value="100%"/>
<input type="checkbox"/> <input type="checkbox"/> BOULDER (>256 mm) [16 pts]	<input type="text" value="0%"/>	<input type="checkbox"/> <input type="checkbox"/> LEAF PACK/WOODY DEBRIS [3 pts]	<input type="text" value="0%"/>
<input type="checkbox"/> <input type="checkbox"/> BEDROCK [16 pt]	<input type="text" value="0%"/>	<input type="checkbox"/> <input type="checkbox"/> FINE DETRITUS [3 pts]	<input type="text" value="0%"/>
<input type="checkbox"/> <input type="checkbox"/> COBBLE (65-256 mm) [12 pts]	<input type="text" value="0%"/>	<input type="checkbox"/> <input type="checkbox"/> CLAY or HARDPAN [0 pt]	<input type="text" value="0%"/>
<input type="checkbox"/> <input type="checkbox"/> GRAVEL (2-64 mm) [9 pts]	<input type="text" value="0%"/>	<input type="checkbox"/> <input type="checkbox"/> MUCK [0 pts]	<input type="text" value="0%"/>
<input type="checkbox"/> <input type="checkbox"/> SAND (<2 mm) [6 pts]	<input type="text" value="0%"/>	<input type="checkbox"/> <input type="checkbox"/> ARTIFICIAL [3 pts]	<input type="text" value="0%"/>

Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock **0.00%** (A)

Substrate Percentage Check **100%** (B)

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: **6**

TOTAL NUMBER OF SUBSTRATE TYPES: **1**

HHEI Metric Points

Substrate Max = 40

7

A + B

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 checked="" 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 type="checkbox"/> NO WATER OR MOIST CHANNEL [0 pts]

COMMENTS _____ MAXIMUM POOL DEPTH (centimeters): **20**

Pool Depth Max = 30

15

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 (> 9' 7" - 4' 8") [20 pts]	

COMMENTS _____ AVERAGE BANKFULL WIDTH (meters): **2.00**

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	L	R
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(Per Bank)		(Most Predominant per Bank)		Conservation Tillage	
Wide >10m		Mature Forest, Wetland		Urban or Industrial	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Open Pasture, Row Crop	
Moderate 5-10m		Immature Forest, Shrub or Old Field		Mining or Construction	
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Narrow <5m		Residential, Park, New Field			
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Fenced Pasture			
None					

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 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

Flat (0.5 ft/100 ft) Flat to Moderate Moderate (2 ft/100 ft) Moderate to Severe Severe (10 ft/100 ft)

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

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

DOWNSTREAM DESIGNATED USE(S)

<input checked="" type="checkbox"/> WWH Name: Hocking River	Distance from Evaluated Stream	2.50
<input type="checkbox"/> CWH Name: <input type="text"/>	Distance from Evaluated Stream	<input type="text"/>
<input type="checkbox"/> EWH Name: <input type="text"/>	Distance from Evaluated Stream	<input type="text"/>

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

USGS Quadrangle Name: **Carroll** NRCS Soil Map Page: NRCS Soil Map Stream Order
County: **Fairfield** Township / City: **Dumontville**

MISCELLANEOUS

Base Flow Conditions? (Y/N): Y Date of last precipitation: **03/26/24** Quantity: **0.03**
Photograph Information:
Elevated Turbidity? (Y/N): Y Canopy (% open): **0%**
Were samples collected for water chemistry? (Y/N): N (Note lab sample no. or id. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) Y If not, please explain:

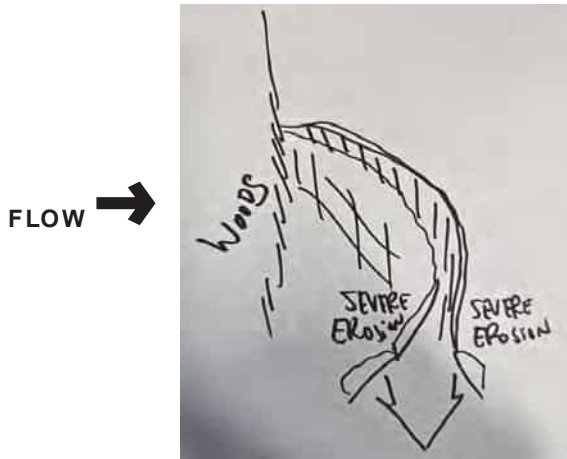
Additional comments/description of pollution impacts:

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:

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





Primary Headwater Habitat Evaluation Form

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

SITE NAME/LOCATION **W. Lancaster - S. Baltimore - W. Millersport**

SITE NUMBER **ST-42-INT** RIVER BASIN **Hocking** DRAINAGE AREA (mi²) **0.68**

LENGTH OF STREAM REACH (ft) **241** LAT. **39.77506** LONG. **-82.62789** RIVER CODE **INT** RIVER MILE **<1**

DATE **03/27/24** SCORER **L. Vine** COMMENTS

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

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

1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). 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"/> 0%	<input type="checkbox"/> <input type="checkbox"/> SILT [3 pt]	<input type="checkbox"/> 30%
<input type="checkbox"/> <input type="checkbox"/> BOULDER (>256 mm) [16 pts]	<input type="checkbox"/> 0%	<input type="checkbox"/> <input type="checkbox"/> LEAF PACK/WOODY DEBRIS [3 pts]	<input type="checkbox"/> 0%
<input type="checkbox"/> <input type="checkbox"/> BEDROCK [16 pt]	<input type="checkbox"/> 0%	<input type="checkbox"/> <input type="checkbox"/> FINE DETRITUS [3 pts]	<input type="checkbox"/> 0%
<input type="checkbox"/> <input type="checkbox"/> COBBLE (65-256 mm) [12 pts]	<input type="checkbox"/> 0%	<input type="checkbox"/> <input type="checkbox"/> CLAY or HARDPAN [0 pt]	<input type="checkbox"/> 0%
<input type="checkbox"/> <input checked="" type="checkbox"/> GRAVEL (2-64 mm) [9 pts]	<input type="checkbox"/> 40%	<input type="checkbox"/> <input type="checkbox"/> MUCK [0 pts]	<input type="checkbox"/> 0%
<input checked="" type="checkbox"/> <input type="checkbox"/> SAND (<2 mm) [6 pts]	<input type="checkbox"/> 30%	<input type="checkbox"/> <input type="checkbox"/> ARTIFICIAL [3 pts]	<input type="checkbox"/> 0%

Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock **0.00%** (A)

Substrate Percentage Check **100%** (B)

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: **15**

TOTAL NUMBER OF SUBSTRATE TYPES: **3**

HHEI Metric Points

Substrate Max = 40

18

A + B

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

COMMENTS _____ MAXIMUM POOL DEPTH (centimeters): **20**

Pool Depth Max = 30

25

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

COMMENTS _____ AVERAGE BANKFULL WIDTH (meters): **2.00**

Bankfull Width Max=30

20

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 type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(Per Bank)		(Most Predominant per Bank)	
Wide >10m		Mature Forest, Wetland	<input type="checkbox"/>
Moderate 5-10m		Immature Forest, Shrub or Old Field	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Residential, Park, New Field	<input type="checkbox"/>
Narrow <5m		Fenced Pasture	<input type="checkbox"/>
None			<input type="checkbox"/>

COMMENTS _____

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

<input checked="" type="checkbox"/> Stream Flowing	<input 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 type="checkbox"/> None	<input checked="" 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

Flat (0.5 ft/100 ft) Flat to Moderate Moderate (2 ft/100 ft) Moderate to Severe Severe (10 ft/100 ft)

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

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

DOWNSTREAM DESIGNATED USE(S)

<input checked="" type="checkbox"/> WWH Name: Hocking River	Distance from Evaluated Stream	2.50
<input type="checkbox"/> CWH Name: <input type="text"/>	Distance from Evaluated Stream	<input type="text"/>
<input type="checkbox"/> EWH Name: <input type="text"/>	Distance from Evaluated Stream	<input type="text"/>

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

USGS Quadrangle Name: **Carroll** NRCS Soil Map Page: NRCS Soil Map Stream Order
County: **Fairfield** Township / City: **Dumontville**

MISCELLANEOUS

Base Flow Conditions? (Y/N): Y Date of last precipitation: **03/26/24** Quantity: **0.03**
Photograph Information:
Elevated Turbidity? (Y/N): Y Canopy (% open): **0%**
Were samples collected for water chemistry? (Y/N): N (Note lab sample no. or id. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N) Y If not, please explain:

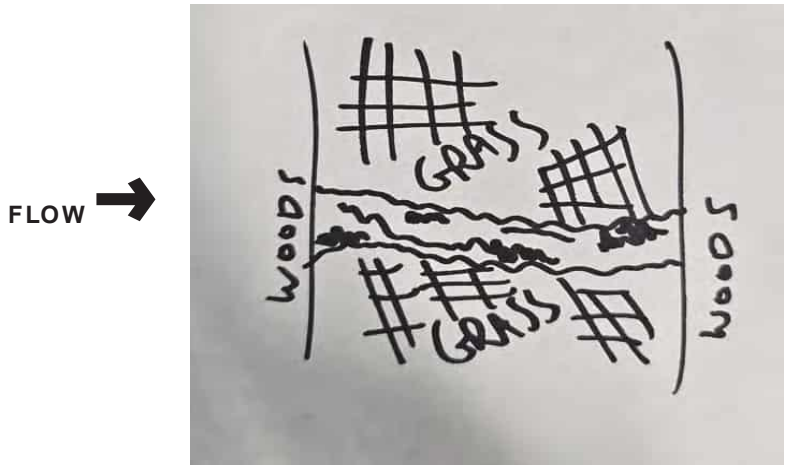
Additional comments/description of pollution impacts:

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:

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



Stream & Location: W. Lancaster - S. Baltimore - W. Millersport RM: Date: 3/28/24

Hocking River Scorers Full Name & Affiliation: V3 Companies - Nathan Barnett

River Code: STORET #: Lat./ Long.: 39.72957 182.63418 Office verified location

1] SUBSTRATE Check ONLY Two substrate TYPE BOXES; estimate % or note every type present

Form for Substrate assessment including categories: BEST TYPES, OTHER TYPES, POOL RIFFLE, ORIGIN, and QUALITY. Includes a score box for Substrate with a value of 13 and a maximum of 20.

2] INSTREAM COVER Indicate presence 0 to 3: 0-Absent; 1-Very small amounts or if more common of marginal quality; 2-Moderate amounts, but not of highest quality or in small amounts of highest quality; 3-Highest quality in moderate or greater amounts

Form for Instream Cover assessment including categories: UNDERCUT BANKS, OVERHANGING VEGETATION, SHALLOWS, ROOTMATS, POOLS, ROOTWADS, BOULDERS, OXBOWS, BACKWATERS, AQUATIC MACROPHYTES, LOGS OR WOODY DEBRIS. Includes a score box for Cover with a value of 9 and a maximum of 20.

3] CHANNEL MORPHOLOGY Check ONE in each category (Or 2 & average)

Form for Channel Morphology assessment including categories: SINUOSITY, DEVELOPMENT, CHANNELIZATION, STABILITY. Includes a score box for Channel with a value of 13 and a maximum of 20.

4] BANK EROSION AND RIPARIAN ZONE Check ONE in each category for EACH BANK (Or 2 per bank & average)

Form for Bank Erosion and Riparian Zone assessment including categories: EROSION, RIPARIAN WIDTH, FLOOD PLAIN QUALITY. Includes a score box for Riparian with a value of 6.5 and a maximum of 10.

5] POOL / GLIDE AND RIFFLE / RUN QUALITY

Form for Pool / Glide and Riffle / Run Quality assessment including categories: MAXIMUM DEPTH, CHANNEL WIDTH, CURRENT VELOCITY, Recreation Potential. Includes a score box for Pool / Current with a value of 7 and a maximum of 12.

Indicate for functional riffles; Best areas must be large enough to support a population of riffle-obligate species:

Form for Riffle / Run Quality assessment including categories: RIFFLE DEPTH, RUN DEPTH, RIFFLE / RUN SUBSTRATE, RIFFLE / RUN EMBEDDEDNESS. Includes a score box for Riffle / Run with a value of 5 and a maximum of 8.

Form for Gradient assessment including categories: GRADIENT, DRAINAGE AREA, %POOL, %GLIDE, %RUN, %RIFFLE. Includes a score box for Gradient with a value of 3 and a maximum of 10.

A) SAMPLED REACH

Check ALL that apply

METHOD

- BOAT
- WADE
- L. LINE
- OTHER

STAGE

- 1st -sample pass- 2nd
- HIGH
 - UP
 - NORMAL
 - LOW
 - DRY

DISTANCE

- 0.5 Km
- 0.2 Km
- 0.15 Km
- 0.12 Km
- OTHER

100
meters

CANOPY

- > 85%- OPEN
- 55%-<85%
- 30%-<55%
- 10%-<30%
- <10%- CLOSED

CLARITY

- 1st --sample pass-- 2nd
- < 20 cm
 - 20-<40 cm
 - 40-70 cm
 - > 70 cm/ CTB
 - SECCHI DEPTH

- 1st _____ cm
- pass
- 2nd _____ cm

C) RECREATION

- AREA DEPTH
- POOL: >100ft² >3ft

Comment RE: Reach consistency/ Is reach typical of stream?, Recreation/ Observed - Inferred, Other/ Sampling observations, Concerns, Access directions, etc.

B) AESTHETICS

- NUISANCE ALGAE
- INVASIVE MACROPHYTES
- EXCESS TURBIDITY
- DISCOLORATION
- FOAM / SCUM
- OIL SHEEN
- TRASH / LITTER
- NUISANCE ODOR
- SLUDGE DEPOSITS
- CSOs/SSOs/OUTFALLS

D) MAINTENANCE

- PUBLIC / PRIVATE / BOTH / NA
- ACTIVE / HISTORIC / BOTH / NA
- YOUNG-SUCCESSION-OLD
- SPRAY / SNAG / REMOVED
- MODIFIED / DIPPED OUT / NA
- LEVEED / ONE SIDED
- RELOCATED / CUTOFFS
- MOVING BEDLOAD-STABLE
- ARMoured / SLUMPS
- ISLANDS / SCoured
- IMPOUNDED / DESICCATED
- FLOOD CONTROL / DRAINAGE

Circle some & COMMENT

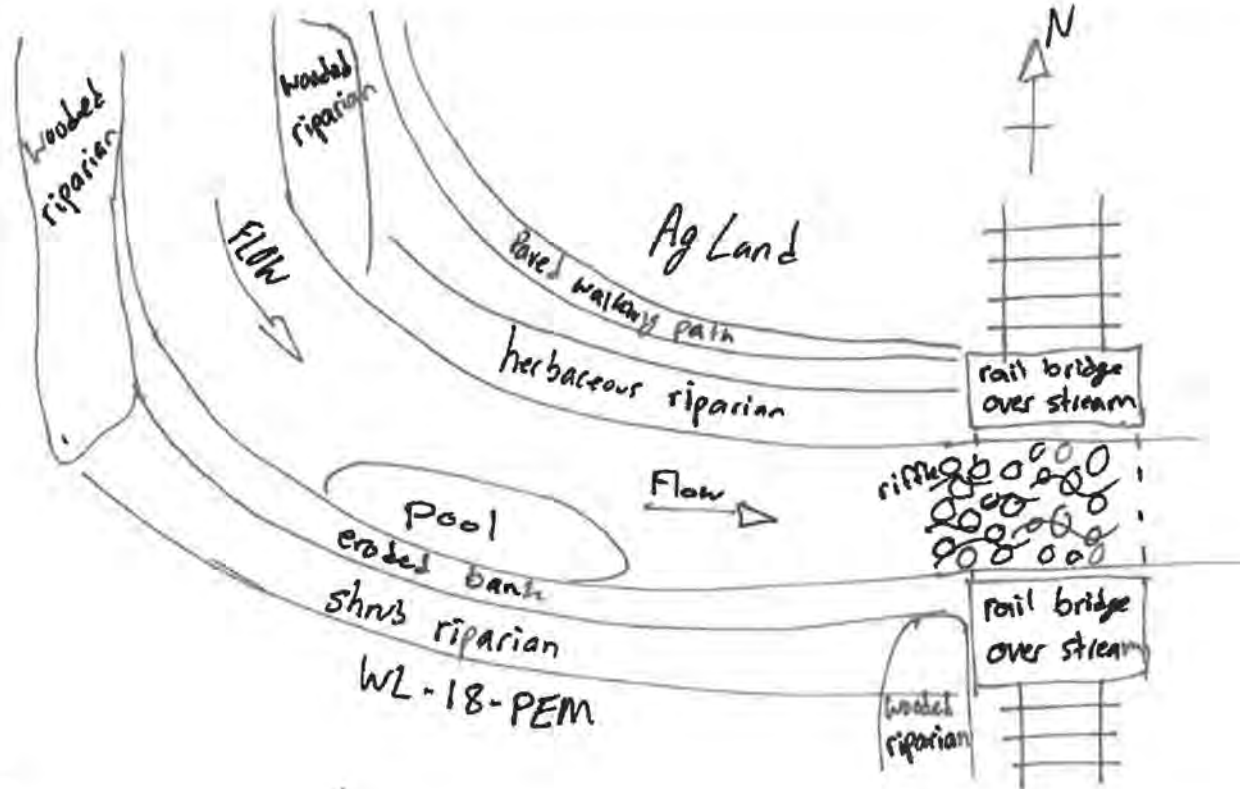
E) ISSUES

- WWTP / CSO / NPDES / INDUSTRY
- HARDENED / URBAN / DIRT&GRIME
- CONTAMINATED / LANDFILL
- BMPs-CONSTRUCTION-SEDIMENT
- LOGGING / IRRIGATION / COOLING
- BANK / EROSION SURFACE
- FALSE BANK / MANURE / LAGOON
- WASH H₂O / TILE / H₂O TABLE
- ACID / MINE / QUARRY / FLOW
- NATURAL / WETLAND / STAGNANT
- PARK / GOLF / LAWN / HOME
- ATMOSPHERE / DATA PAUCITY

F) MEASUREMENTS

- \bar{x} width
- \bar{x} depth
- max. depth
- \bar{x} bankfull width
- bankfull \bar{x} depth
- W/D ratio
- bankfull max. depth
- floodprone x^2 width
- entrench. ratio
- Legacy Tree:

Stream Drawing:



Stream & Location: W. Lancaster - S. Baltimore - W. Millersport RM: Date: 3/28/24
ST-14-PER Scorers Full Name & Affiliation: V3 Companies - Nathan Barnett

River Code: STORET #: Lat./Long.: 39.72526 182.63249 Office verified location

1) SUBSTRATE Check ONLY Two substrate TYPE BOXES; estimate % or note every type present. Check ONE (Or 2 & average). BEST TYPES: BLDR/SLABS [10], BOULDER [9], COBBLE [8], GRAVEL [7], SAND [6], BEDROCK [5]. OTHER TYPES: HARDPAN [4], DETRITUS [3], MUCK [2], SILT [2], ARTIFICIAL [0]. ORIGIN: LIMESTONE [1], TILLS [1], WETLANDS [0], HARDPAN [0], SANDSTONE [0], RIP/RAP [0], LACUSTURINE [0], SHALE [-1], COAL FINES [-2]. QUALITY: HEAVY [-2], MODERATE [-1], NORMAL [0], FREE [1], EXTENSIVE [-2], MODERATE [-1], NORMAL [0], NONE [1]. Substrate score: 14/20.

2) INSTREAM COVER Indicate presence 0 to 3: 0-Absent; 1-Very small amounts or if more common of marginal quality; 2-Moderate amounts, but not of highest quality or in small amounts of highest quality; 3-Highest quality in moderate or greater amounts. AMOUNT: Check ONE (Or 2 & average). UNDERCUT BANKS [1], OVERHANGING VEGETATION [1], SHALLOWS (IN SLOW WATER) [1], ROOTMATS [1]. POOLS > 70cm [2], ROOTWADS [1], BOULDERS [1]. OXBOWS, BACKWATERS [1], AQUATIC MACROPHYTES [1], LOGS OR WOODY DEBRIS [1]. Cover score: 7/20.

3) CHANNEL MORPHOLOGY Check ONE in each category (Or 2 & average). SINUOSITY: HIGH [4], MODERATE [3], LOW [2], NONE [1]. DEVELOPMENT: EXCELLENT [7], GOOD [5], FAIR [3], POOR [1]. CHANNELIZATION: NONE [6], RECOVERED [4], RECOVERING [3], RECENT OR NO RECOVERY [1]. STABILITY: HIGH [3], MODERATE [2], LOW [1]. Channel score: 8/20.

4) BANK EROSION AND RIPARIAN ZONE Check ONE in each category for EACH BANK (Or 2 per bank & average). RIPARIAN WIDTH: WIDE > 50m [4], MODERATE 10-50m [3], NARROW 5-10m [2], VERY NARROW < 5m [1], NONE [0]. FLOOD PLAIN QUALITY: FOREST, SWAMP [3], SHRUB OR OLD FIELD [2], RESIDENTIAL, PARK, NEW FIELD [1], FENCED PASTURE [1], OPEN PASTURE, ROWCROP [0]. CONSERVATION TILLAGE [1], URBAN OR INDUSTRIAL [0], MINING / CONSTRUCTION [0]. Riparian score: 3.25/10.

5) POOL / GLIDE AND RIFFLE / RUN QUALITY MAXIMUM DEPTH: > 1m [6], 0.7-1m [4], 0.4-0.7m [2], 0.2-0.4m [1], < 0.2m [0]. CHANNEL WIDTH: POOL WIDTH > RIFFLE WIDTH [2], POOL WIDTH = RIFFLE WIDTH [1], POOL WIDTH < RIFFLE WIDTH [0]. CURRENT VELOCITY: TORRENTIAL [-1], SLOW [1], VERY FAST [1], INTERSTITIAL [-1], FAST [1], INTERMITTENT [-2], MODERATE [1], EDDIES [1]. Recreation Potential: Primary Contact, Secondary Contact. Pool / Current score: 3/12.

Indicate for functional riffles; Best areas must be large enough to support a population of riffle-obligate species: Check ONE (Or 2 & average). NO RIFFLE [metric=0]. RIFFLE DEPTH: BEST AREAS > 10cm [2], BEST AREAS 5-10cm [1], BEST AREAS < 5cm [metric=0]. RUN DEPTH: MAXIMUM > 50cm [2], MAXIMUM < 50cm [1]. RIFFLE / RUN SUBSTRATE: STABLE (e.g., Cobble, Boulder) [2], MOD. STABLE (e.g., Large Gravel) [1], UNSTABLE (e.g., Fine Gravel, Sand) [0]. RIFFLE / RUN EMBEDDEDNESS: NONE [2], LOW [1], MODERATE [0], EXTENSIVE [-1]. Riffle / Run score: 2/8.

6) GRADIENT (ft/mi) VERY LOW - LOW [2-4], MODERATE [6-10], HIGH - VERY HIGH [10-6]. DRAINAGE AREA (1.39 mi²). %POOL: 0, %GLIDE: 0, %RUN: 75, %RIFFLE: 25. Gradient score: 3/10.

A) SAMPLED REACH

Check ALL that apply

METHOD

- BOAT
- WADE
- L. LINE
- OTHER

STAGE

- 1st -sample pass- 2nd
- HIGH
 - UP
 - NORMAL
 - LOW
 - DRY

DISTANCE

- 0.5 Km
- 0.2 Km
- 0.15 Km
- 0.12 Km
- OTHER

CLARITY

- 1st --sample pass-- 2nd
- < 20 cm
 - 20-40 cm
 - 40-70 cm
 - > 70 cm/ CTB
 - SECCHI DEPTH

CANOPY

- > 85%- OPEN
- 55%-<85%
- 30%-<55%
- 10%-<30%
- <10%- CLOSED

C) RECREATION

- AREA DEPTH
POOL: >100ft² >3ft

Comment RE: Reach consistency/ Is reach typical of stream?, Recreation/ Observed - Inferred, Other/ Sampling observations, Concerns, Access directions, etc.

B) AESTHETICS

- NUISANCE ALGAE
- INVASIVE MACROPHYTES
- EXCESS TURBIDITY
- DISCOLORATION
- FOAM / SCUM
- OIL SHEEN
- TRASH / LITTER
- NUISANCE ODOR
- SLUDGE DEPOSITS
- CSOs/SSOs/OUTFALLS

D) MAINTENANCE

- PUBLIC / PRIVATE BOTH / NA
- ACTIVE HISTORIC / BOTH / NA
- YOUNG-SUCCESSION-OLD
- SPRAY / SNAG / REMOVED
- MODIFIED / DIPPED OUT / NA
- LEVEED / ONE SIDED
- RELOCATED / CUTOFFS
- MOVING-BEDLOAD-STABLE
- ARMORED SLUMPS
- ISLANDS / SCOURED
- IMPOUNDED / DESICCATED
- FLOOD CONTROL / DRAINAGE

Circle some & COMMENT

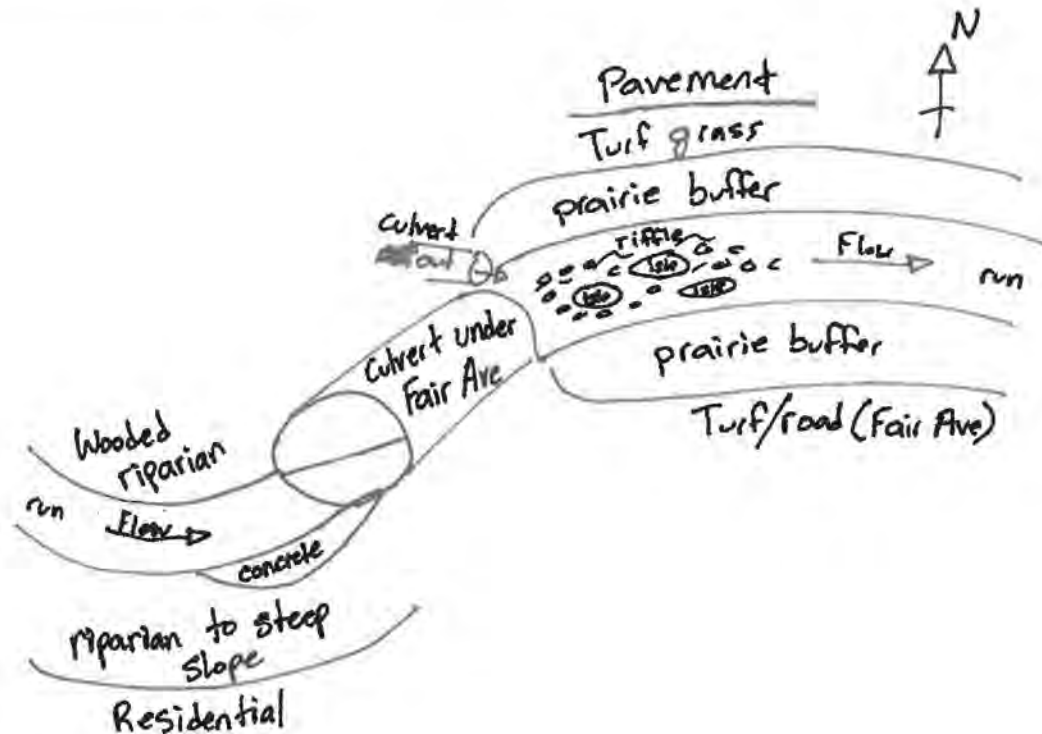
E) ISSUES

- WWTP / CSO / NPDES / INDUSTRY
- HARDENED URBAN / DIRT & GRIME
- CONTAMINATED / LANDFILL
- BMPs-CONSTRUCTION SEDIMENT
- LOGGING / IRRIGATION / COOLING
- BANK / EROSION / SURFACE
- FALSE BANK / MANURE / LAGOON
- WASH H₂O / TILE / H₂O TABLE
- ACID / MINE / QUARRY / FLOW
- NATURAL / WETLAND / STAGNANT
- PARK / GOLF LAWN / HOME
- ATMOSPHERE / DATA PAUCITY

F) MEASUREMENTS

- \bar{x} width
- \bar{x} depth
- max. depth
- \bar{x} bankfull width
- bankfull \bar{x} depth
- W/D ratio
- bankfull max. depth
- floodprone x^2 width
- entrench. ratio
- Legacy Tree:

Stream Drawing:



SITE NAME/LOCATION W. Lancaster - S. Baltimore - W. Millersport

SITE NUMBER ST-11-INT RIVER BASIN _____ DRAINAGE AREA (mi²) 0.06

LENGTH OF STREAM REACH (ft) 100 LAT. 39.71830 LONG. -82.63740 RIVER CODE _____ RIVER MILE _____

DATE 03/28/24 SCORER Nathan Barnes COMMENTS _____

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

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

1. SUBSTRATE (Estimate percent of every type of substrate present. Check ONLY two predominant substrate TYPE boxes (Max of 32). 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]	0%	<input checked="" type="checkbox"/> Silt [3 pt]	30%
<input type="checkbox"/> Boulder (>256 mm) [16 pts]	0%	<input type="checkbox"/> Leaf Pack/Woody Debris [3 pts]	0%
<input type="checkbox"/> Bedrock [16 pt]	0%	<input type="checkbox"/> Fine Detritus [3 pts]	0%
<input type="checkbox"/> Cobble (65-256 mm) [12 pts]	0%	<input checked="" type="checkbox"/> Clay or Hardpan [0 pt]	60%
<input type="checkbox"/> Gravel (2-64 mm) [9 pts]	0%	<input type="checkbox"/> Muck [0 pts]	0%
<input type="checkbox"/> Sand (<2 mm) [6 pts]	10%	<input type="checkbox"/> Artificial [3 pts]	0%

Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock 0.00% (A) Substrate Percentage Check: 100% (B)

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 3 **TOTAL NUMBER OF SUBSTRATE TYPES:** 3

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 checked="" 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 type="checkbox"/> NO WATER OR MOIST CHANNEL [0 pts]

COMMENTS _____ **MAXIMUM POOL DEPTH (centimeters):** 8

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

COMMENTS _____ **AVERAGE BANKFULL WIDTH (meters):** 0.75

HHEI Metric Points

Substrate Max = 40

6

A + B

Pool Depth Max = 30

15

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

COMMENTS: _____

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

<input checked="" type="checkbox"/> Stream Flowing	<input 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

Flat (0.5 ft/100 ft) Flat to Moderate Moderate (2 ft/100 ft) Moderate to Severe Severe (10 ft/100 ft)

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

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

DOWNSTREAM DESIGNATED USE(S)

<input type="checkbox"/> WWH Name:	<input type="text"/>	Distance from Evaluated Stream	<input type="text"/>
<input type="checkbox"/> CWH Name:	<input type="text"/>	Distance from Evaluated Stream	<input type="text"/>
<input type="checkbox"/> EWH Name:	<input type="text"/>	Distance from Evaluated Stream	<input type="text"/>

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: **Fairfield** Township / City: **Lancaster**

MISCELLANEOUS

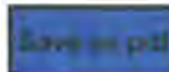
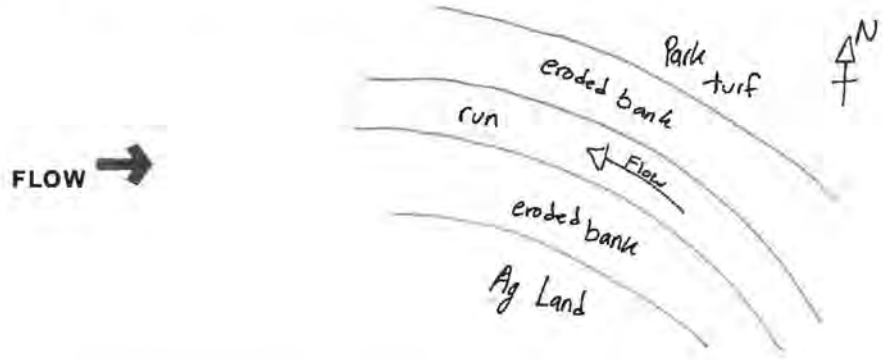
Base Flow Conditions? (Y/N): Y Date of last precipitation: **03/26/24** Quantity: **0.30**
Photograph Information:
Elevated Turbidity? (Y/N): N Canopy (% open): **100%**
Were samples collected for water chemistry? (Y/N): N (Note lab sample no. or id. and attach results) Lab Number: **N/A**
Field Measures: Temp (°C) Dissolved Oxygen (mg/l) pH (S.U.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N): Y If not, please explain:
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: **No biotic evaluation conducted**

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



Stream & Location: W. Lancaster - S. Baltimore - W. Millersport

RM: Date: 3/ 28 / 24

Hunters Run

Scorers Full Name & Affiliation: V3 Companies - Nathan Barnett

River Code: STORET #: Lat./ Long.: 39 . 7020 / 82 . 6401 Office verified location

1) SUBSTRATE Check ONLY Two substrate TYPE BOXES; estimate % or note every type present

Check ONE (Or 2 & average)

Substrate assessment table with categories: BEST TYPES, OTHER TYPES, ORIGIN, and QUALITY. Includes checkboxes for various substrate types and a score box for 16.

2) INSTREAM COVER Indicate presence 0 to 3: 0-Absent; 1-Very small amounts or if more common of marginal quality; 2-Moderate amounts, but not of highest quality or in small amounts of highest quality; 3-Highest quality in moderate or greater amounts (e.g., very large boulders in deep or fast water, large diameter log that is stable, well developed rootwad in deep / fast water, or deep, well-defined, functional pools.

AMOUNT Check ONE (Or 2 & average)

Instream Cover assessment table with categories: UNDERCUT BANKS, OVERHANGING VEGETATION, SHALLOWS, ROOTMATS, POOLS, OXBOWS, AQUATIC MACROPHYTES, BOULDERS, LOGS OR WOODY DEBRIS. Includes checkboxes and a score box for 8.

3) CHANNEL MORPHOLOGY Check ONE in each category (Or 2 & average)

Channel Morphology assessment table with categories: SINUOSITY, DEVELOPMENT, CHANNELIZATION, STABILITY. Includes checkboxes and a score box for 8.

4) BANK EROSION AND RIPARIAN ZONE Check ONE in each category for EACH BANK (Or 2 per bank & average)

Bank Erosion and Riparian Zone assessment table with categories: EROSION, RIPARIAN WIDTH, FLOOD PLAIN QUALITY. Includes checkboxes and a score box for 3.

5) POOL / GLIDE AND RIFFLE / RUN QUALITY

Pool / Glide and Riffle / Run Quality assessment table with categories: MAXIMUM DEPTH, CHANNEL WIDTH, CURRENT VELOCITY. Includes checkboxes and a score box for 3.

Indicate for functional riffles; Best areas must be large enough to support a population of riffle-obligate species: Check ONE (Or 2 & average)

Riffle / Run Quality assessment table with categories: RIFFLE DEPTH, RUN DEPTH, RIFFLE / RUN SUBSTRATE, RIFFLE / RUN EMBEDDEDNESS. Includes checkboxes and a score box for 3.

6) GRADIENT (ft/mi) DRAINAGE AREA (9.2 mi2) VERY LOW - LOW [2-4] MODERATE [6-10] HIGH - VERY HIGH [10-6] %POOL: 0 %GLIDE: 0 %RUN: 60 %RIFFLE: 40 Gradient Maximum 10

A) SAMPLED REACH

Check ALL that apply

METHOD

- BOAT
- WADE
- L. LINE
- OTHER

STAGE

- 1st -sample pass- 2nd
- HIGH
 - UP
 - NORMAL
 - LOW
 - DRY

DISTANCE

- 0.5 Km
 - 0.2 Km
 - 0.15 Km
 - 0.12 Km
 - OTHER
- 50 meters

CLARITY

- 1st -sample pass- 2nd
- < 20 cm
 - 20-40 cm
 - 40-70 cm
 - > 70 cm/ CTB
 - SECCHI DEPTH

CANOPY

- 1st _____ cm
- 2nd _____ cm
- > 85%- OPEN
 - 55%-<85%
 - 30%-<55%
 - 10%-<30%
 - <10%- CLOSED

C) RECREATION

- AREA DEPTH
- POOL: >100ft² >3ft

Comment RE: Reach consistency/ Is reach typical of stream?, Recreation/ Observed - Inferred, Other/ Sampling observations, Concerns, Access directions, etc.

B) AESTHETICS

- NUISANCE ALGAE
- INVASIVE MACROPHYTES
- EXCESS TURBIDITY
- DISCOLORATION
- FOAM / SCUM
- OIL SHEEN
- TRASH / LITTER
- NUISANCE ODOR
- SLUDGE DEPOSITS
- CSOs/SSOs/OUTFALLS

D) MAINTENANCE

- Circle some & COMMENT
- PUBLIC ~~PRIVATE~~ BOTH / NA
 - ACTIVE ~~HISTORIC~~ BOTH / NA
 - YOUNG-SUCCESSION-OLD
 - SPRAY / SNAG / REMOVED
 - MODIFIED / DIPPED OUT / NA
 - LEVEED / ONE SIDED
 - RELOCATED / CUTOFFS
 - MOVING ~~BEDLOAD-STABLE~~
 - ARMORED / SLUMPS
 - ISLANDS / SCOURED
 - IMPOUNDED / DESICCATED
 - FLOOD CONTROL ~~DRAINAGE~~

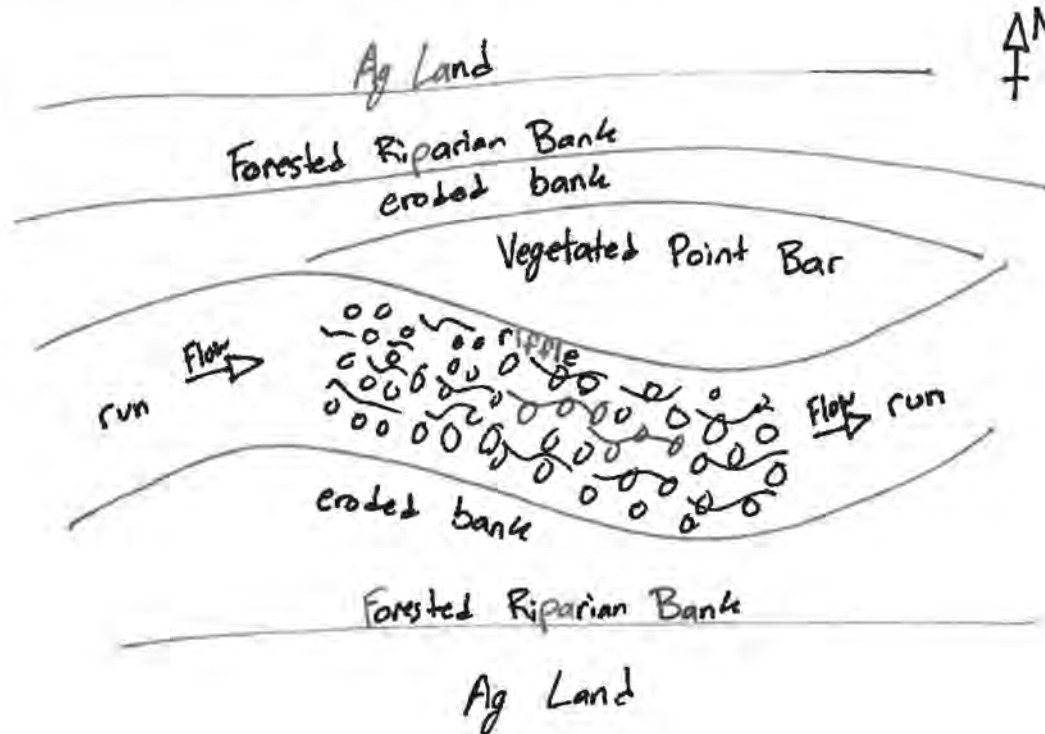
E) ISSUES

- WWTP / CSO / NPDES / INDUSTRY
- HARDENED / URBAN / DIRT&GRIME
- CONTAMINATED / LANDFILL
- BMPs-CONSTRUCTION-SEDIMENT
- LOGGING / IRRIGATION / COOLING
- ~~BANK / EROSION~~ SURFACE
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- WASH H₂O / TILE / H₂O TABLE
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- PARK / GOLF / LAWN / HOME
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F) MEASUREMENTS

- \bar{x} width
- \bar{x} depth
- max. depth
- \bar{x} bankfull width
- bankfull \bar{x} depth
- W/D ratio
- bankfull max. depth
- floodprone x^2 width
- entrench. ratio
- Legacy Tree:

Stream Drawing:



Appendix F FEMA Flood Insurance Rate Maps

NOTES TO USERS

This 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. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations (BFEs)** and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations table in the Flood Insurance Study report. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at <http://www.ngs.noaa.gov/> or contact the National Geodetic Survey at the following address:

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was Ohio State Plane South Zone 5001 (FIPSZONE 3402). The **horizontal datum** was NAD83. Differences in datum, spheroid, projection or state plane zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations table in the Flood Insurance Study report. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at <http://www.ngs.noaa.gov/> or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, NINGS12
National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, Maryland 20910-3282
(301) 713-3242

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at (301) 713-3242, or visit its website at <http://www.ngs.noaa.gov/>.

Base map information on this FIRM was provided in digital format by the Fairfield County, GIS Department. This information was produced from aerial photography dated 2006 or later.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

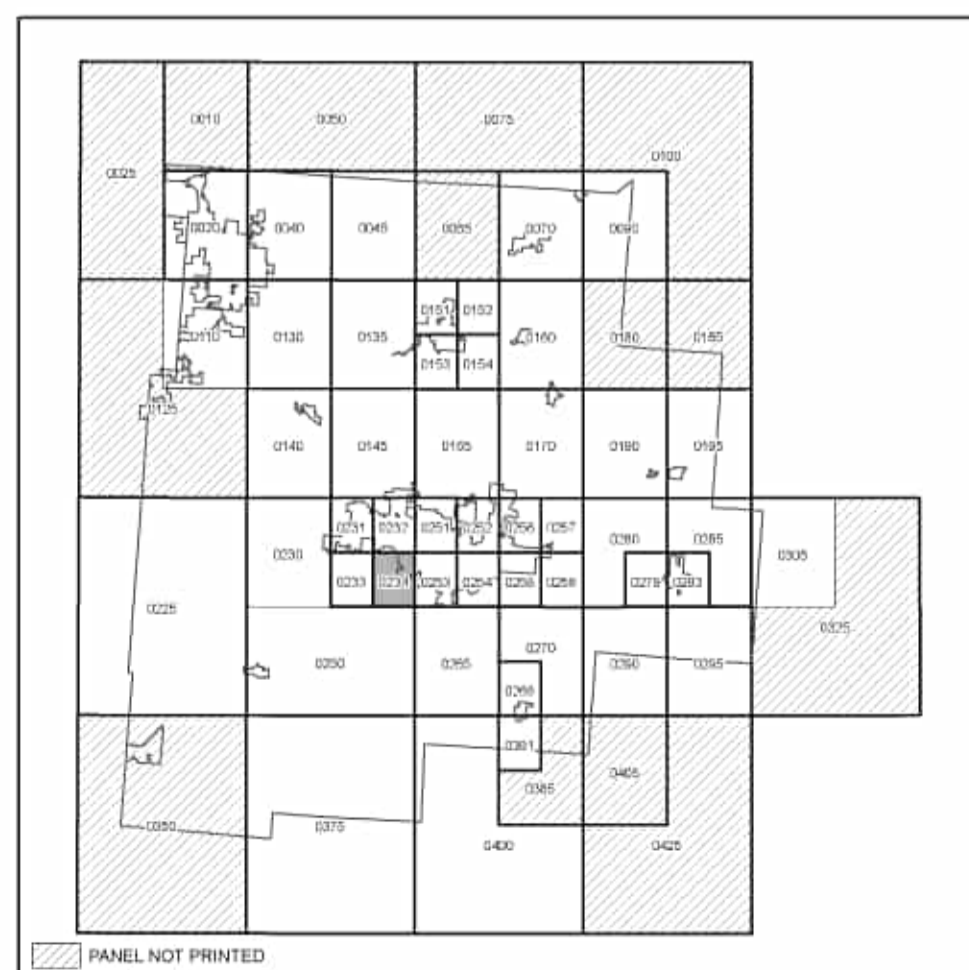
Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels, community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

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If you have **questions about this map** or questions concerning the National Flood Insurance Program in general, please call 1-877-FEMA-MAP (1-877-336-2627) or visit the FEMA website at <http://www.fema.gov/business/nfip/>.

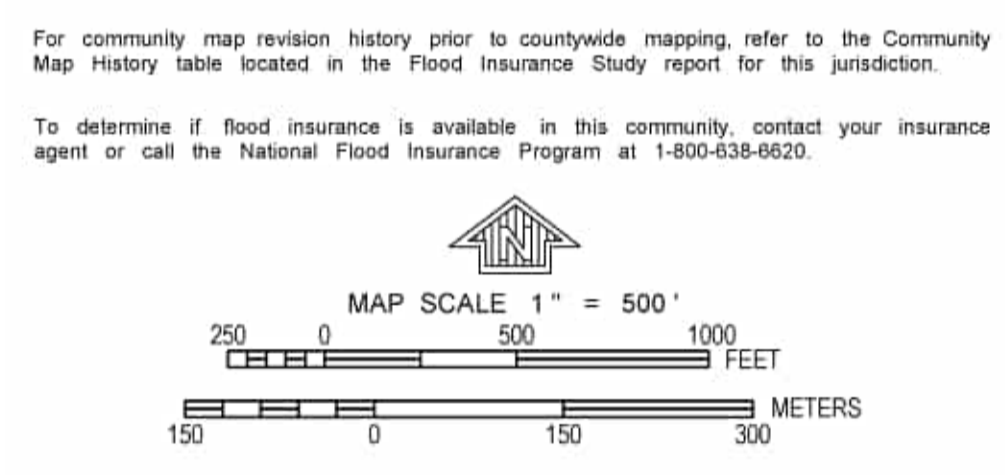
The **profile base lines** depicted on this map represent the hydraulic modeling baselines that match the flood profiles in the FIS report. As a result of improved topographic data, the "profile base line", in some cases, may deviate significantly from the channel centerline or appear outside the SFHA.

PANEL INDEX



LEGEND

- SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD
- The 1% annual chance flood (100 year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard may include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.
- ZONE A** No Base Flood Elevations determined.
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- ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
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- ZONE AR** Area of special flood hazard formerly protected from the 1% annual chance flood event by a flood control system that was subsequently deteriorated. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- ZONE A99** Area to be protected from 1% annual chance flood event by a Federal flood protection system under construction; no Base Flood Elevations determined.
- ZONE V** Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- ZONE VE** Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.
- FLOODWAY AREAS IN ZONE AE
- The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.
- OTHER FLOOD AREAS
- ZONE X** Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.
- OTHER AREAS
- ZONE D** Areas determined to be outside of the 0.2% annual chance floodplain. Areas in which flood hazards are undetermined, but possible.
- COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS
- OTHERWISE PROTECTED AREAS (OPAs)
- CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.
- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- Base Flood Elevation line and value; elevation in feet*
- Base Flood Elevation value where uniform within zone; elevation in feet*
- Cross section line
- Transect line
- Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere
- 1000-meter Universal Transverse Mercator grid values, zone 17
- 5000-foot grid ticks: Ohio State Plane South Coordinate System, 5001 Zone (FIPSZONE 3402) Lambert Conformal Conic
- Bench mark (see explanation in Notes to Users section of this FIRM panel)
- River Mile
- MAP REPOSITORY
- Refer to listing of Map Repositories on Map Index
- EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP
- January 6, 2012
- EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL



NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0234G

FIRM

FLOOD INSURANCE RATE MAP

FAIRFIELD COUNTY, OHIO

AND INCORPORATED AREAS

PANEL 234 OF 425

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
FAIRFIELD COUNTY	390158	0234	G
LANCASTER, CITY OF	390161	0234	G

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.

FEDERAL EMERGENCY MANAGEMENT AGENCY

MAP NUMBER
39045C0234G

EFFECTIVE DATE
JANUARY 6, 2012

NOTES TO USERS

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Boundaries of the floodways were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

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The projection used in the preparation of this map was Ohio State Plane South Zone 5001 (FIPSZONE 3402). The horizontal datum was NAD83. Differences in datum, spheroid, projection or state plane zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

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NGS Information Services
NOAA, NINGS12
National Geodetic Survey
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1315 East-West Highway
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(301) 713-3242

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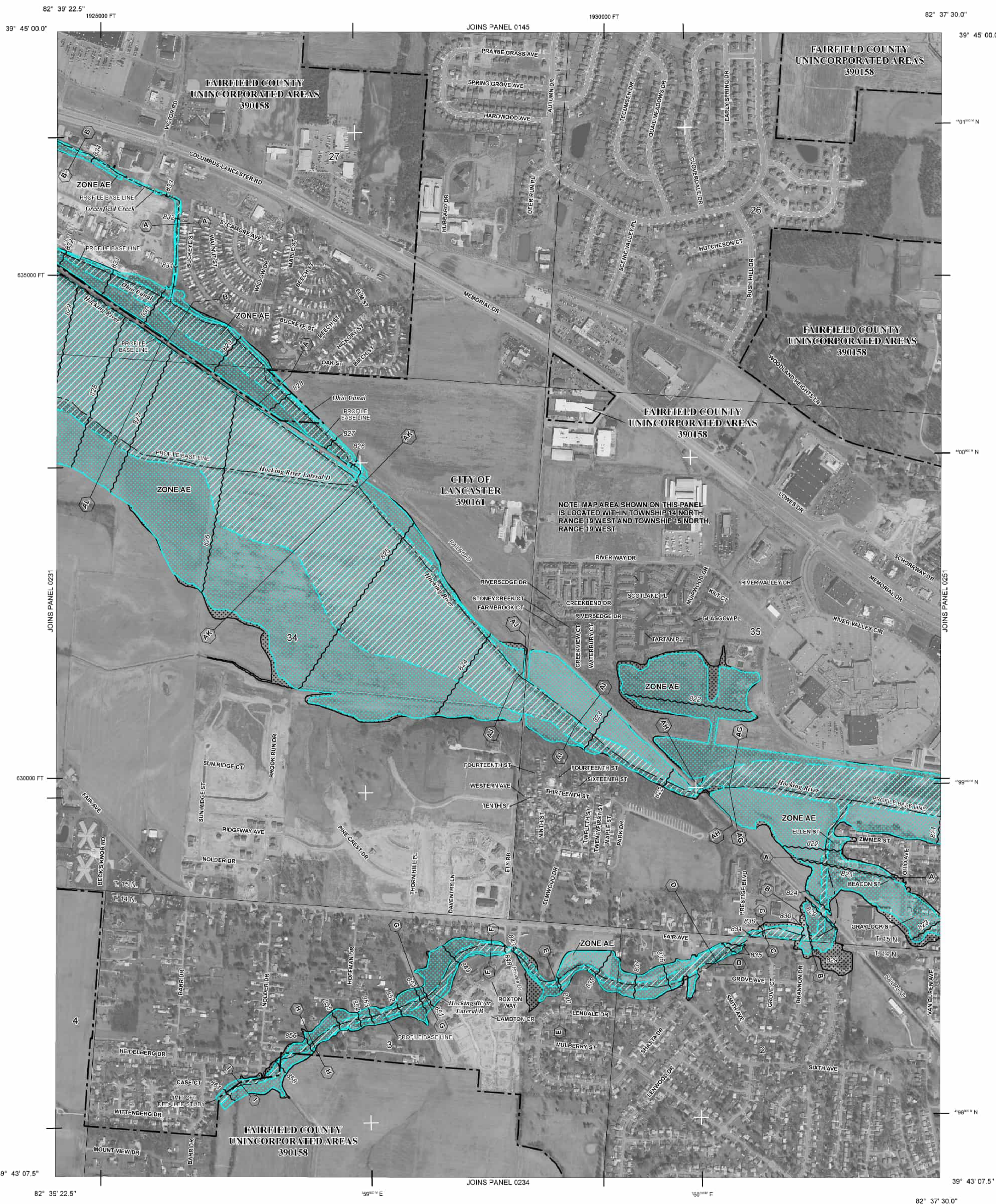
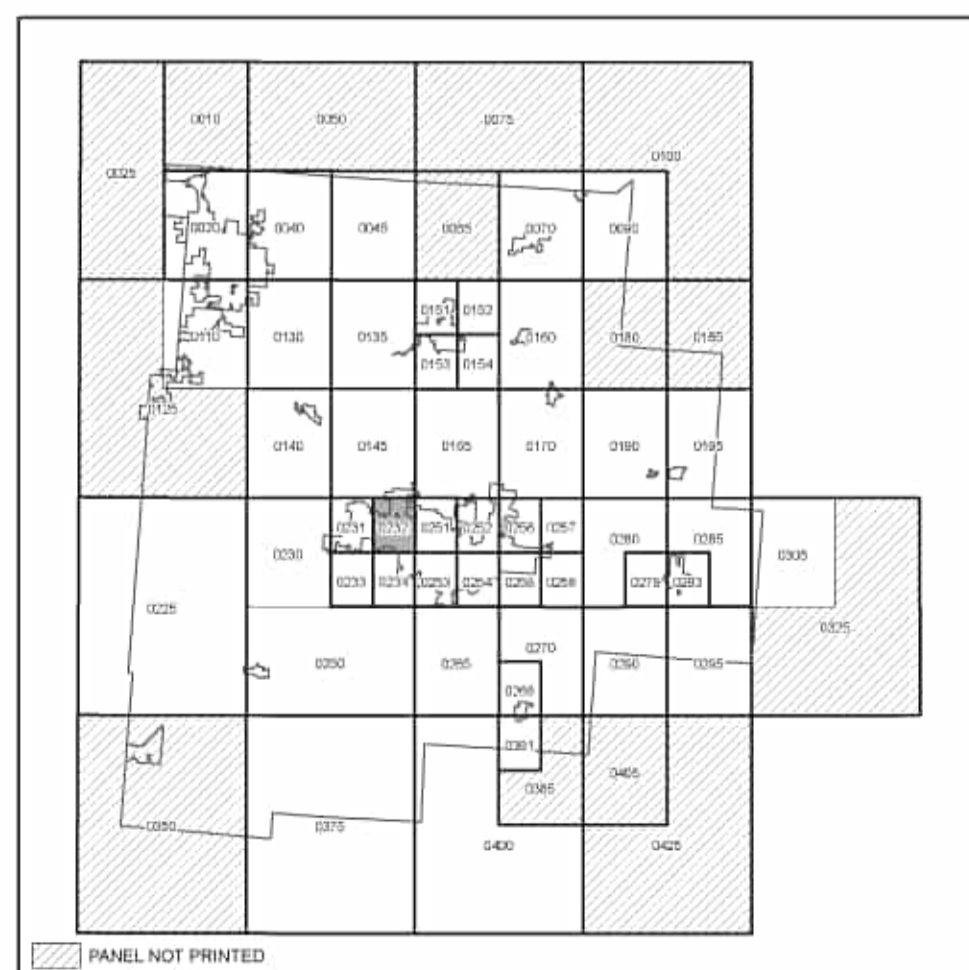
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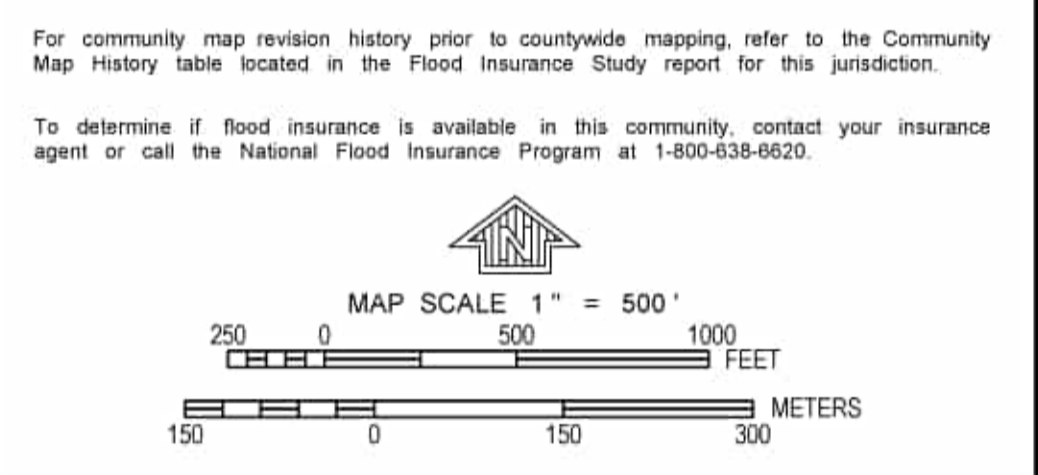
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PANEL INDEX



LEGEND

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- ZONE V** Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- ZONE VE** Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.
- FLOODWAY AREAS IN ZONE AE**
- The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.
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- ZONE X** Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.
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- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- Base Flood Elevation line and value; elevation in feet*
- 513 (EL 10) Base Flood Elevation value where uniform within zone; elevation in feet*
- *Referenced to the North American Vertical Datum of 1988
- A — Cross section line
- (A) — Transect line
- 85° 03' 45.0", 41° 24' 22.5" Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere
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- 2250000 FT 5000-foot grid ticks: Ohio State Plane South Coordinate System, 5001 Zone (FIPSZONE 3402) Lambert Conformal Conic
- KA0015 x Bench mark (see explanation in Notes to Users section of this FIRM panel)
- M1.5 River Mile
- MAP REPOSITORY
- Refer to listing of Map Repositories on Map Index
- EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP
- January 6, 2012
- EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL



NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0232G

FIRM

FLOOD INSURANCE RATE MAP

FAIRFIELD COUNTY, OHIO

AND INCORPORATED AREAS

PANEL 232 OF 425

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER PANEL SUFFIX
FAIRFIELD COUNTY	390158 0232 G
LANCASTER, CITY OF	390161 0232 G

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
39045C0232G

EFFECTIVE DATE
JANUARY 6, 2012

Federal Emergency Management Agency

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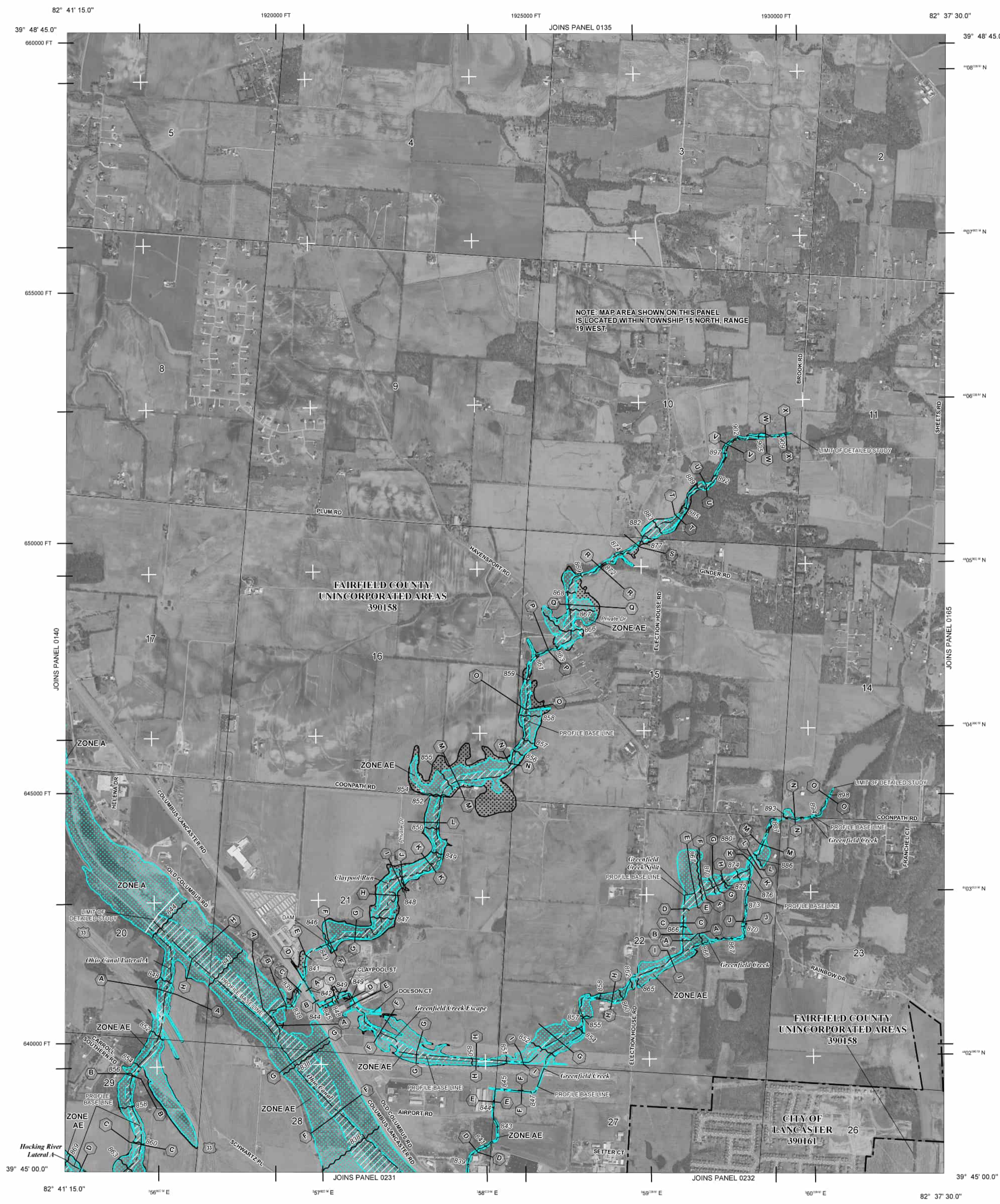
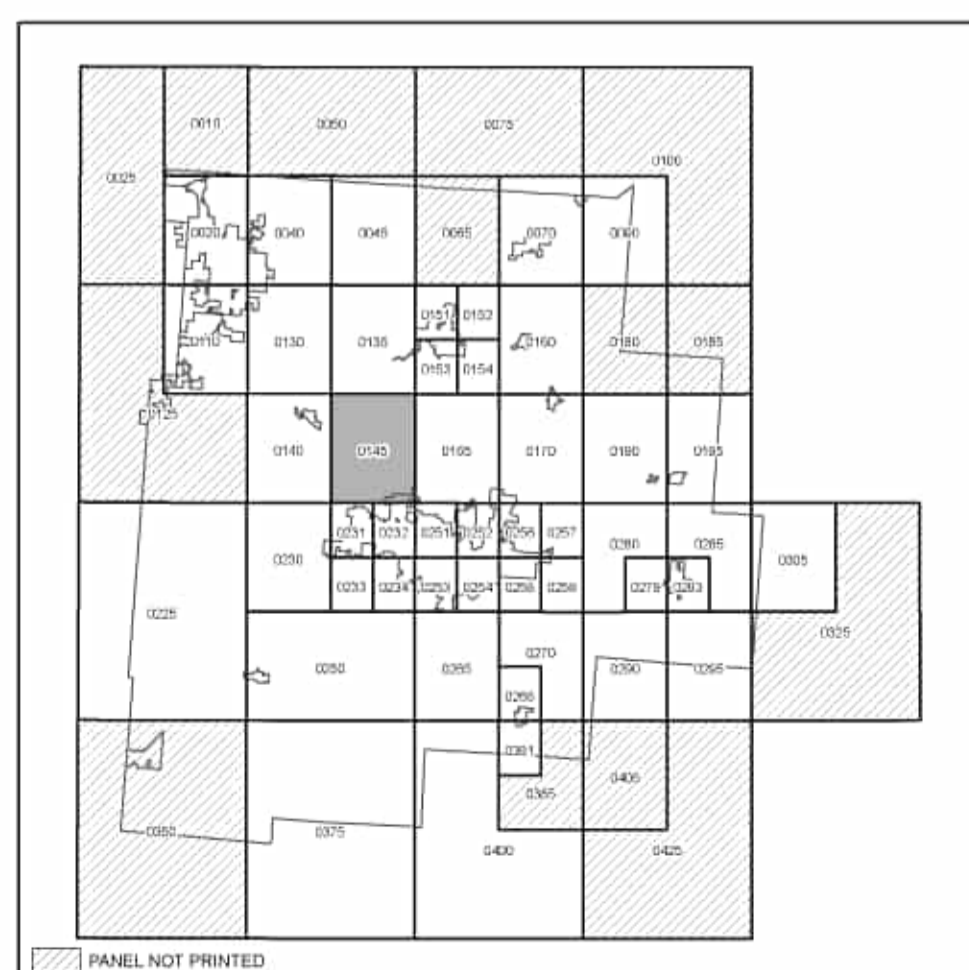
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PANEL INDEX



LEGEND

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100 year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard may include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A No Base Flood Elevations determined.

ZONE AE Base Flood Elevations determined.

ZONE AH Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.

ZONE AO Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.

ZONE AR Area of special flood hazard formerly protected from the 1% annual chance flood event by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.

ZONE A99 Area to be protected from 1% annual chance flood event by a Federal flood protection system under construction; no Base Flood Elevations determined.

ZONE V Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.

ZONE VE Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X Areas determined to be outside of the 0.2% annual chance floodplain.

ZONE D Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

1% annual chance floodplain boundary
0.2% annual chance floodplain boundary
Floodway boundary
Zone D boundary
CBRS and OPA boundary
Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
Base Flood Elevation line and value; elevation in feet*
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*Referenced to the North American Vertical Datum of 1988

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● M1.5 River Mile

MAP REPOSITORY
Refer to listing of Map Repositories on Map Index
EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP
January 6, 2012
EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 1000'
500 1000 2000 FEET
300 0 300 600 METERS

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0145G

FIRM
FLOOD INSURANCE RATE MAP
FAIRFIELD COUNTY, OHIO
AND INCORPORATED AREAS

PANEL 145 OF 425

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
FAIRFIELD COUNTY	390158	0145	G
LANCASTER, CITY OF	390161	0145	G

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MAP NUMBER
39045C0145G
EFFECTIVE DATE
JANUARY 6, 2012

Federal Emergency Management Agency

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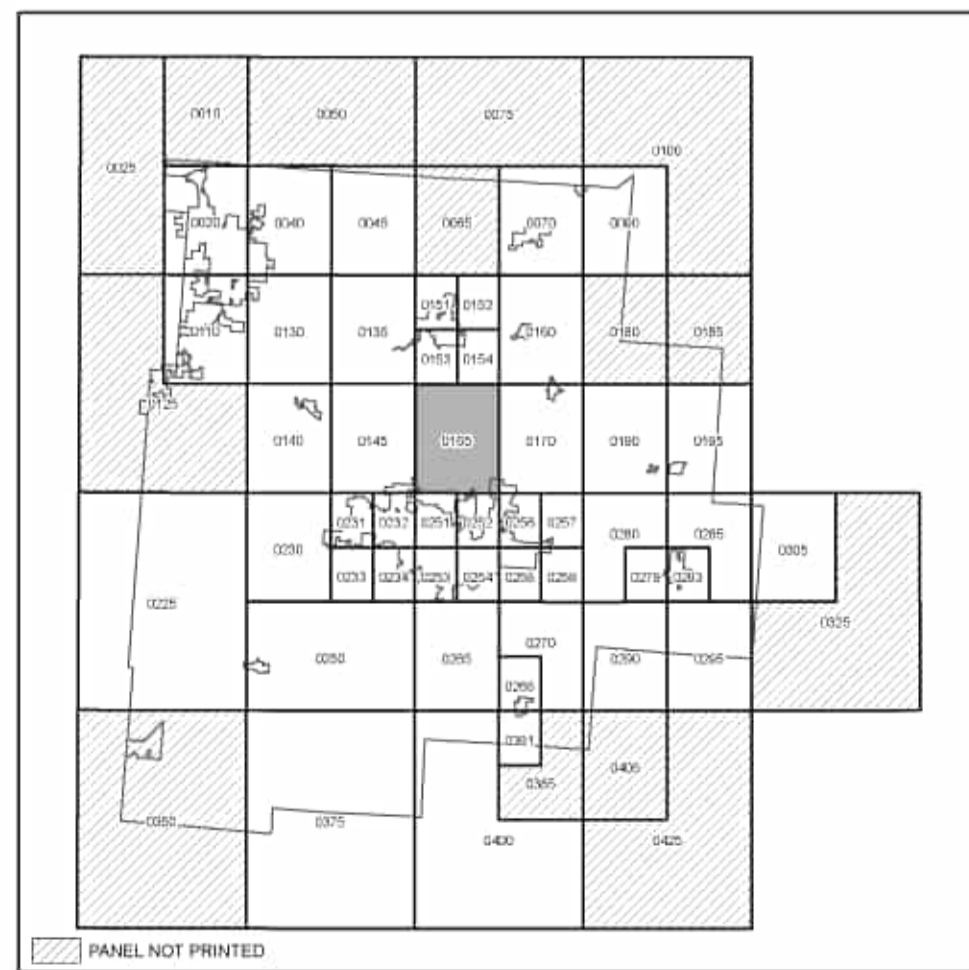
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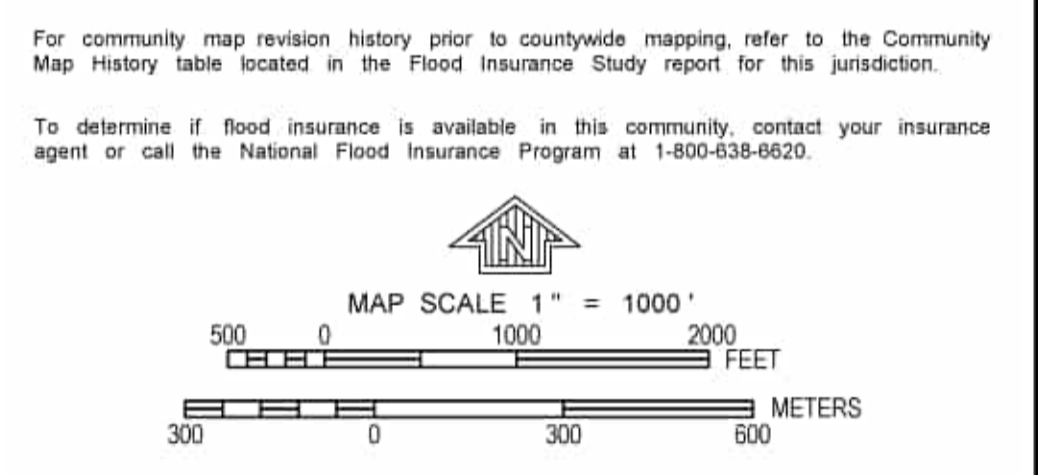
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PANEL INDEX



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- ZONE AR** Area of special flood hazard formerly protected from the 1% annual chance flood event by a flood control system that was subsequently deteriorated. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- ZONE A99** Area to be protected from 1% annual chance flood event by a Federal flood protection system under construction; no Base Flood Elevations determined.
- ZONE V** Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- ZONE VE** Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.
- FLOODWAY AREAS IN ZONE AE
- The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.
- OTHER FLOOD AREAS
- ZONE X** Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.
- OTHER AREAS
- ZONE D** Areas determined to be outside of the 0.2% annual chance floodplain.
- ZONE D** Areas in which flood hazards are undetermined, but possible.
- COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS
- OTHERWISE PROTECTED AREAS (OPAs)
- CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.
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- 0.2% annual chance floodplain boundary
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- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- Base Flood Elevation line and value; elevation in feet*
- Base Flood Elevation value where uniform within zone; elevation in feet*
- *Referenced to the North American Vertical Datum of 1988
- Cross section line
- Transect line
- Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere
- 1000-meter Universal Transverse Mercator grid values, zone 17
- 5000-foot grid ticks: Ohio State Plane South Coordinate System, 5001 Zone (FIPSZONE 3402) Lambert Conformal Conic
- Bench mark (see explanation in Notes to Users section of this FIRM panel)
- KA0015
- M1.5
- River Mile
- MAP REPOSITORY
- Refer to listing Map Repositories on Map Index
- EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP
- January 6, 2012
- EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL



NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0165G

FIRM

FLOOD INSURANCE RATE MAP

FAIRFIELD COUNTY, OHIO

AND INCORPORATED AREAS

PANEL 165 OF 425

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	FAIRFIELD COUNTY	NUMBER PANEL SUFFIX	390158 0165 G
COMMUNITY	LANCASTER, CITY OF	NUMBER PANEL SUFFIX	390161 0165 G

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.

FEDERAL EMERGENCY MANAGEMENT AGENCY

MAP NUMBER
39045C0165G

EFFECTIVE DATE
JANUARY 6, 2012

NOTES TO USERS

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Coastal Base Flood Elevations shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations table in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations table in the Flood Insurance Study report for information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at <http://www.ngs.noaa.gov/> or contact the National Geodetic Survey at the following address:

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NGS Information Services
NOAA, NINGS12
National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, Maryland 20910-3282
(301) 713-3242

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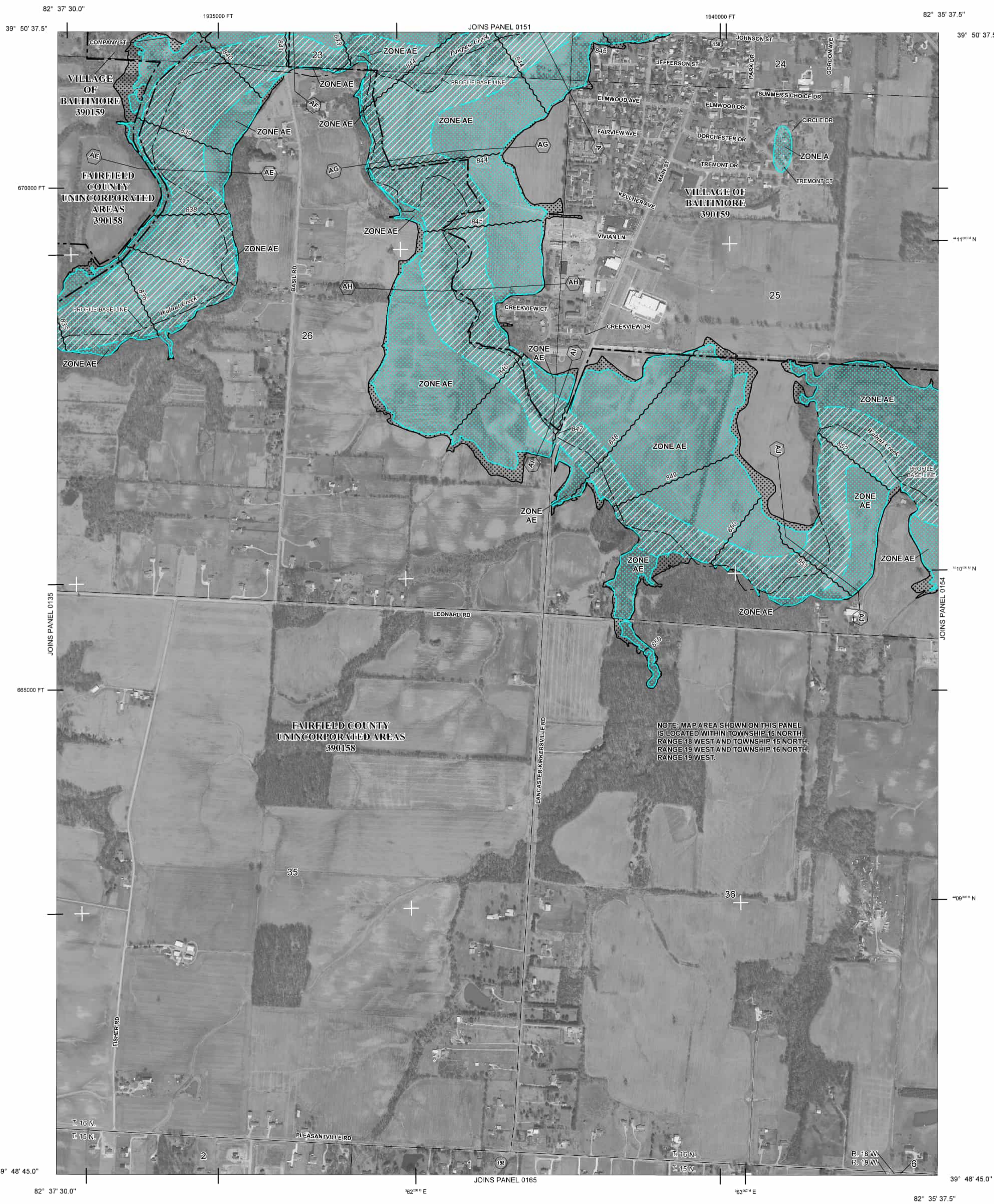
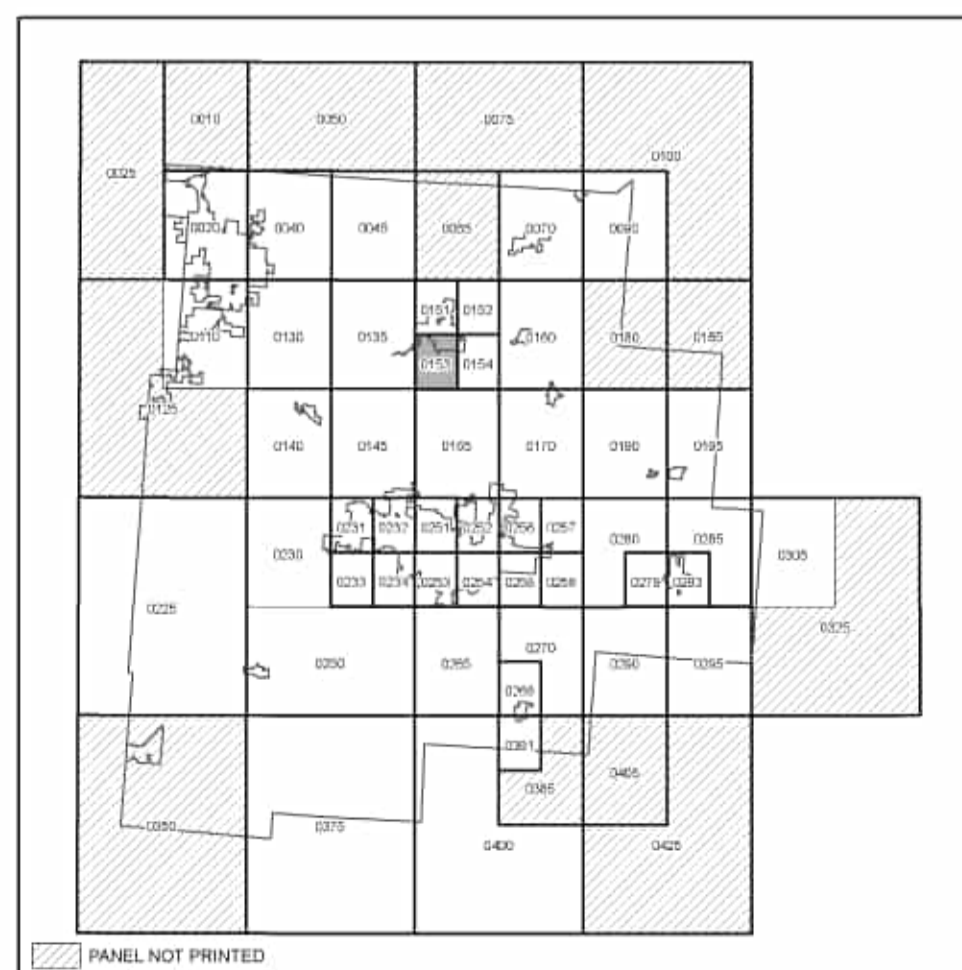
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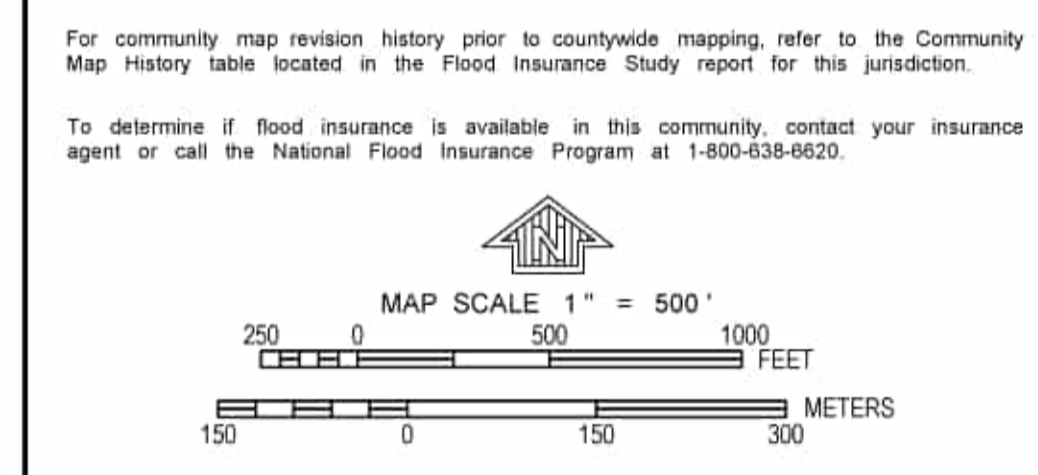
The **profile base lines** depicted on this map represent the hydraulic modeling baselines that match the flood profiles in the FIS report. As a result of improved topographic data, the "profile base line", in some cases, may deviate significantly from the channel centerline or appear outside the SFHA.

PANEL INDEX



LEGEND

- SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD
- The 1% annual chance flood (100 year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard may include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.
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- 5000-foot grid ticks: Ohio State Plane South Coordinate System, 5001 Zone (FIPSZONE 3402) Lambert Conformal Conic
- Bench mark (see explanation in Notes to Users section of this FIRM panel)
- River Mile
- MAP REPOSITORY
- Refer to listing of Map Repositories on Map Index
- EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP
- January 6, 2012
- EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL



NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0153G

FIRM

FLOOD INSURANCE RATE MAP

FAIRFIELD COUNTY, OHIO

AND INCORPORATED AREAS

PANEL 153 OF 425

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
BALTIMORE VILLAGE OF	390159	0153	G
FAIRFIELD COUNTY	390158	0153	G

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
39045C0153G

EFFECTIVE DATE
JANUARY 6, 2012

Federal Emergency Management Agency

NOTES TO USERS

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NGS Information Services
NOAA, N/NGS12
National Geodetic Survey
SSMC-3, #9202
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Silver Spring, Maryland 20910-3282
(301) 713-3242

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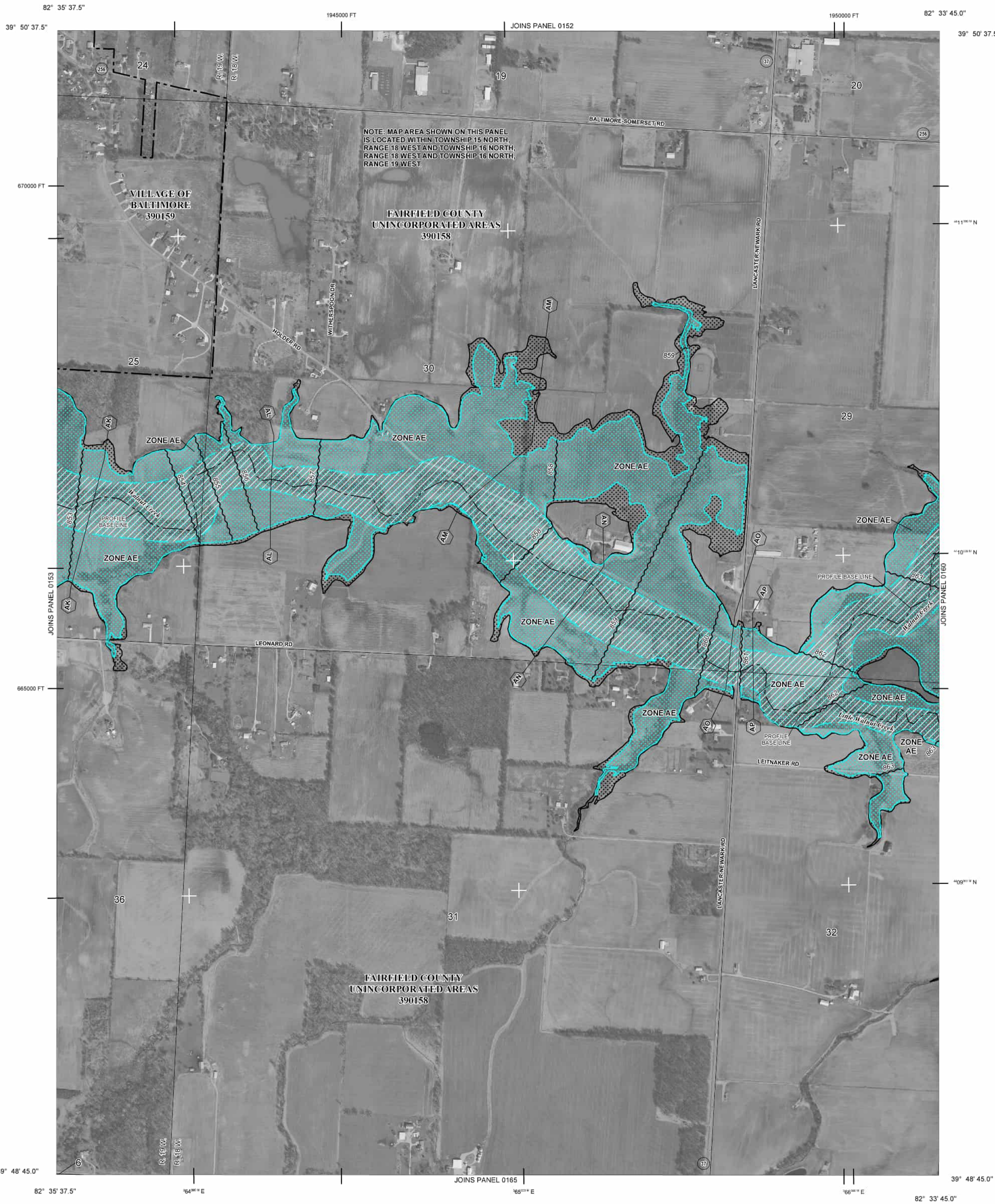
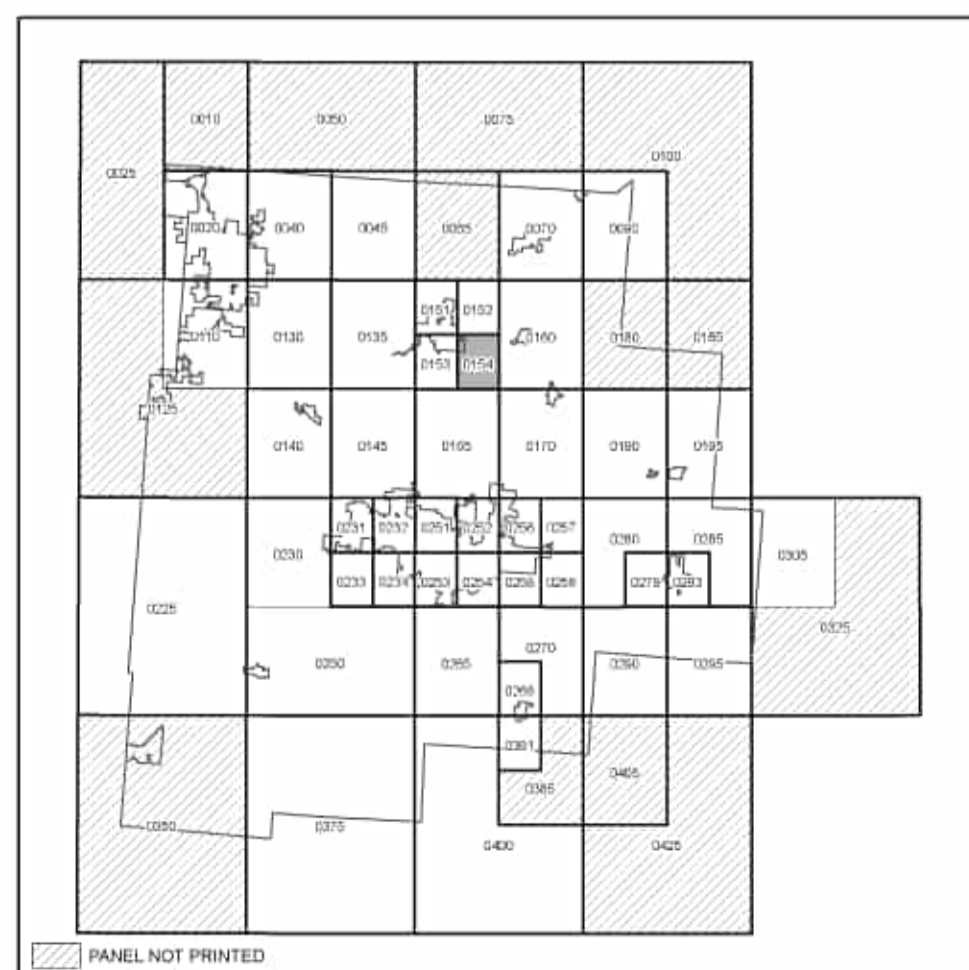
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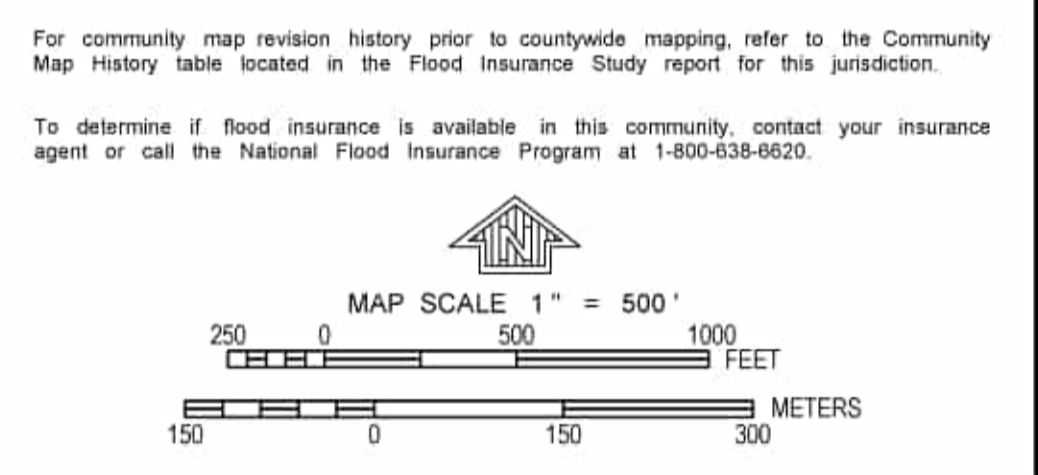
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PANEL INDEX



LEGEND

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- Bench mark (see explanation in Notes to Users section of this FIRM panel)
- River Mile
- MAP REPOSITORY
- Refer to listing of Map Repositories on Map Index
- EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP
- January 6, 2012
- EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL



NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0154G

FIRM

FLOOD INSURANCE RATE MAP

FAIRFIELD COUNTY, OHIO

AND INCORPORATED AREAS

PANEL 154 OF 425

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
BALTIMORE VILLAGE OF	390159	0154	G
FAIRFIELD COUNTY	390158	0154	G

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MAP NUMBER
39045C0154G

EFFECTIVE DATE
JANUARY 6, 2012

Federal Emergency Management Agency

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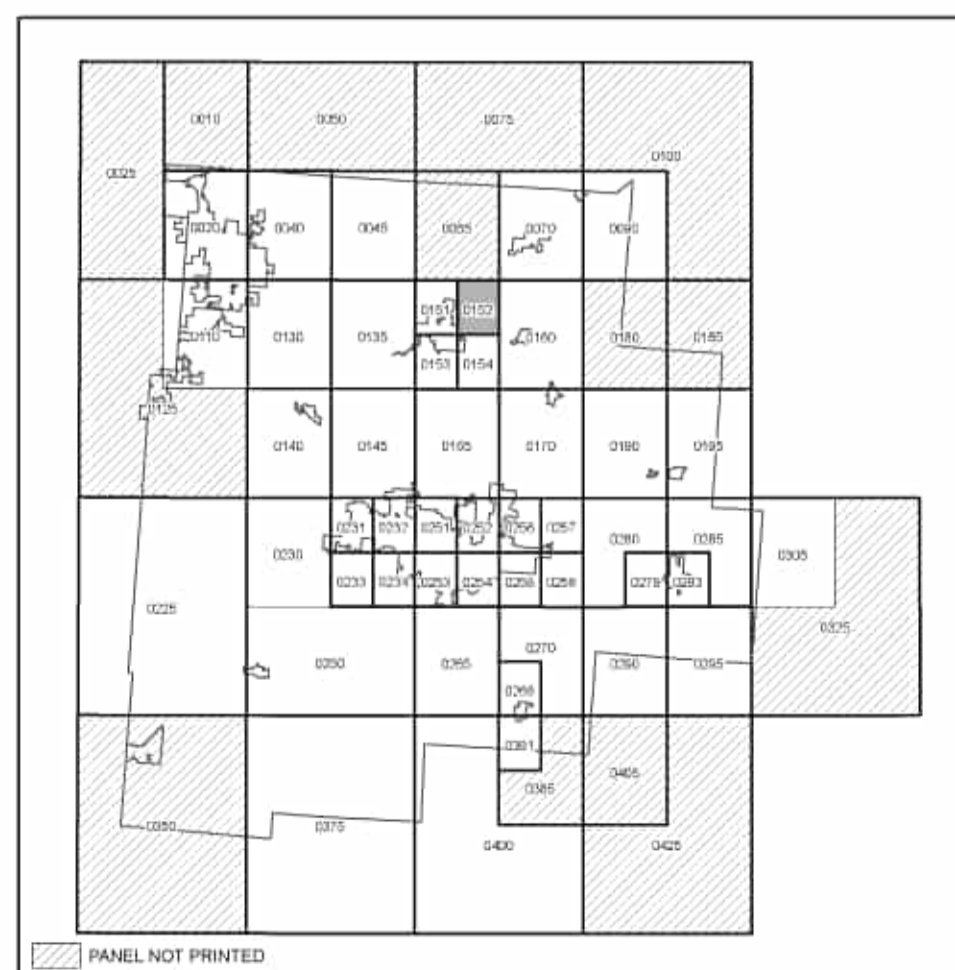
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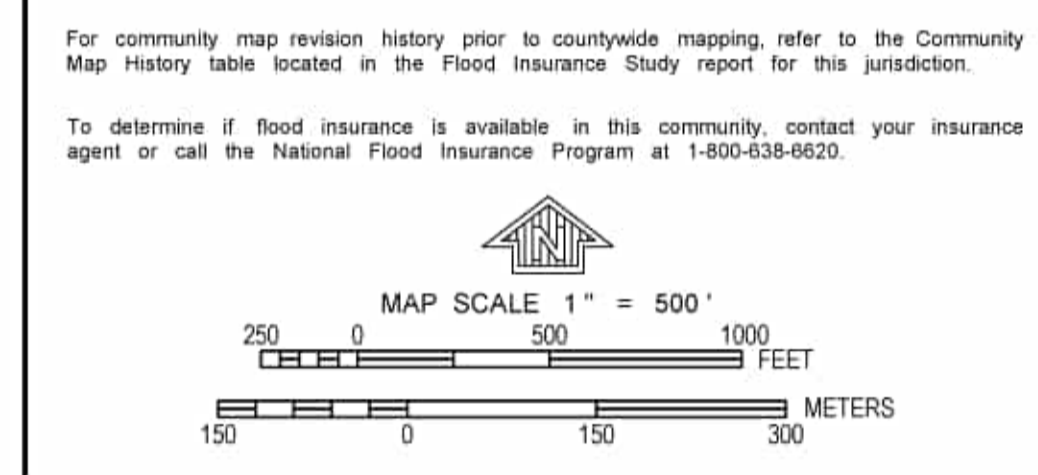
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 - KA0015 x Bench mark (see explanation in Notes to Users section of this FIRM panel)
 - M1.5 River Mile
- MAP REPOSITORY**
- Refer to listing of Map Repositories on Map Index
- EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP**
- January 6, 2012
- EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL**



NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0152G

FIRM

FLOOD INSURANCE RATE MAP

FAIRFIELD COUNTY, OHIO

AND INCORPORATED AREAS

PANEL 152 OF 425

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
BALTIMORE VILLAGE OF	390159	0152	G
FAIRFIELD COUNTY	390158	0152	G

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
39045C0152G

EFFECTIVE DATE
JANUARY 6, 2012

Federal Emergency Management Agency