



Conowingo BMP Opportunity Web Viewer

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All Parcels with Opportunities

Annual Cropland Practices

Prescribed Grazing

Barnyard Runoff Control

Wetland Restoration

Vegetated Buffer Opportunity

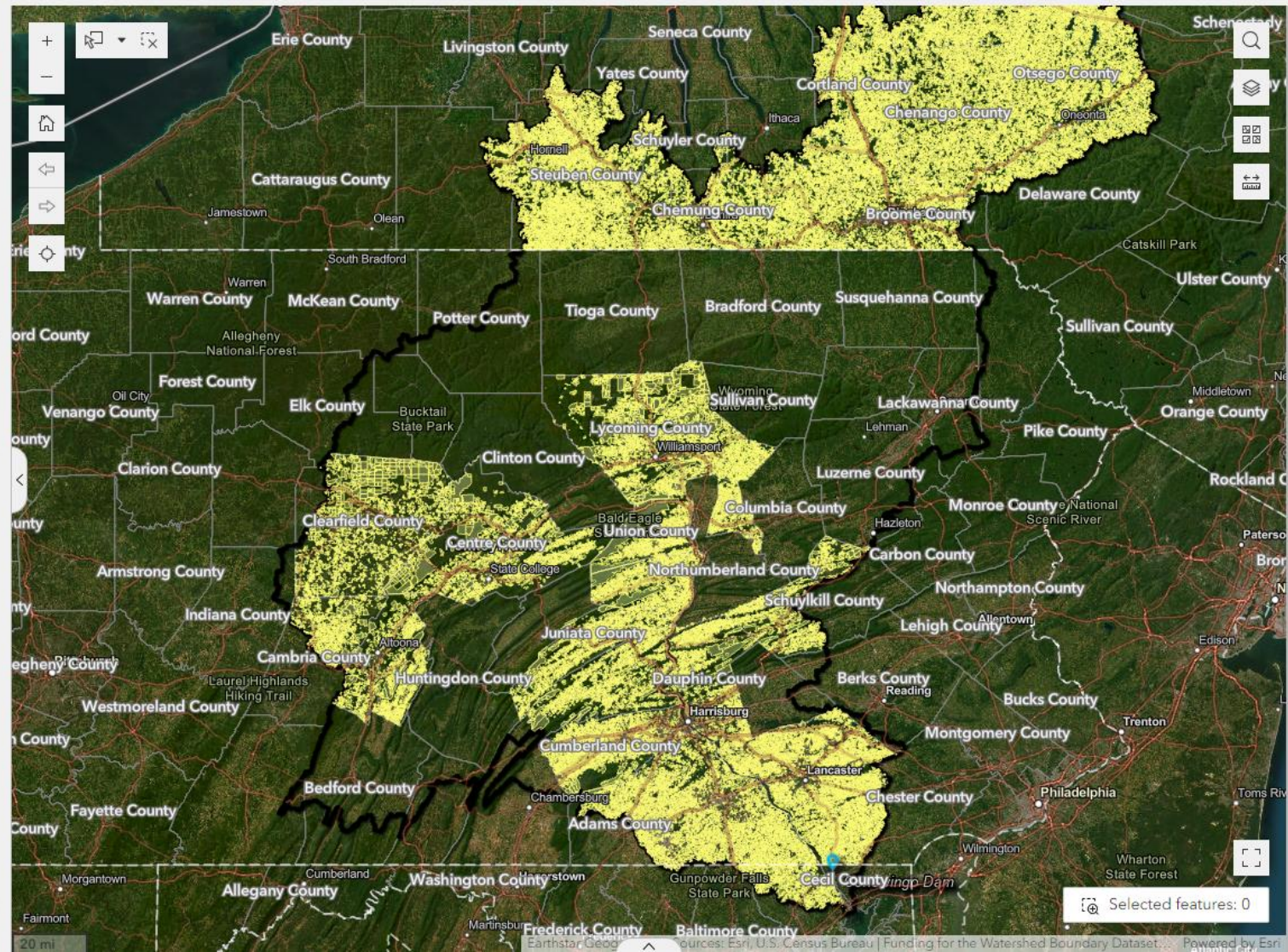
BMP Definitions provided by the Bay Program:

Annual Cropland Practices:

1) *Manure Incorporation*: "Manure Incorporation is defined as the mixing of dry, semi-dry, or liquid organic nutrient sources (including manures, biosolids, and compost) into the soil profile within a specified time period from application by a range of field operations (≤ 24 hr for full ammonia loss reduction credit and 3 days for P reduction credit(s))."

2) *Conservation Tillage*: "A conservation tillage routine that involves the planting, growing and harvesting of crops with minimal disturbance to the soil in an effort to maintain 30 to 59 percent crop residue coverage immediately after planting each crop."

3) *Cover Crop*: "Cover crops are short-term crops grown after the main cropping season to reduce nutrient and sediment losses from the farm field. The selected crop species and management of cover crops vary based on



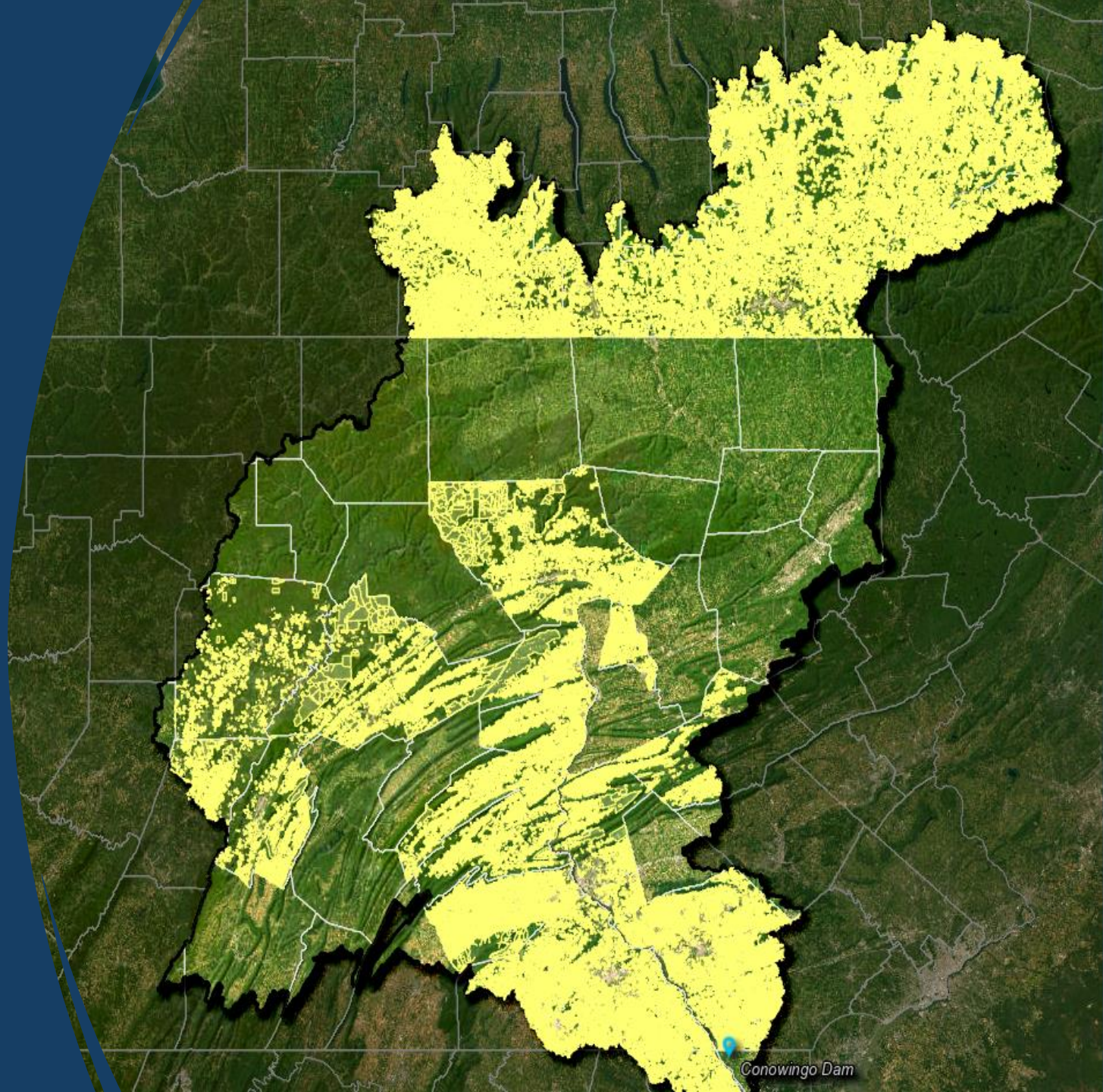
Selected features: 0

Tool Update to the CWIP
Steering Committee

March 4, 2024

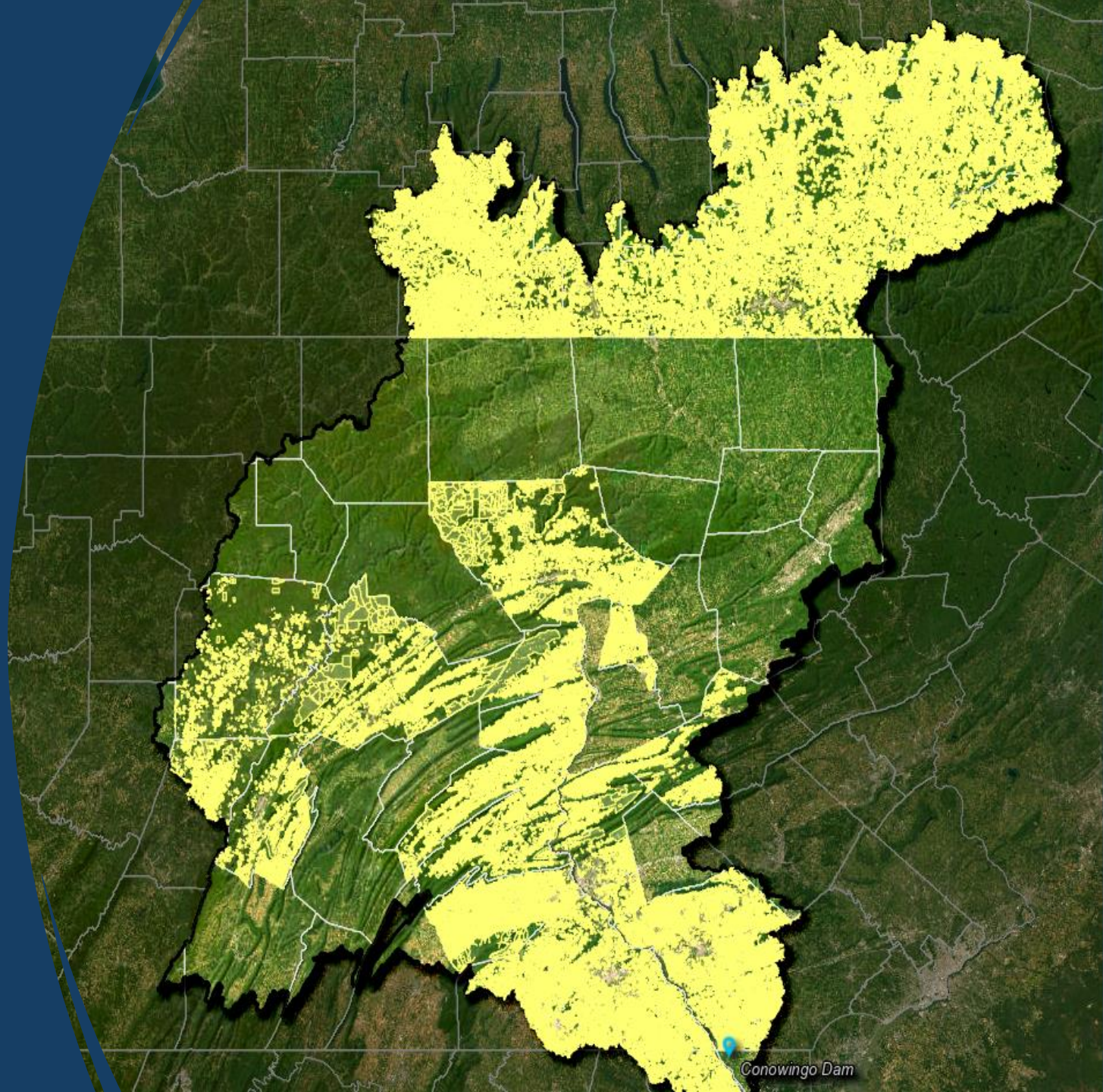
Intended Use

- To support the CWIP, this tool was created to help local practitioners identify opportunities for restoration activities and collect information to include in proposals for CWIP funding available through SRBC.
- County and watershed level planning



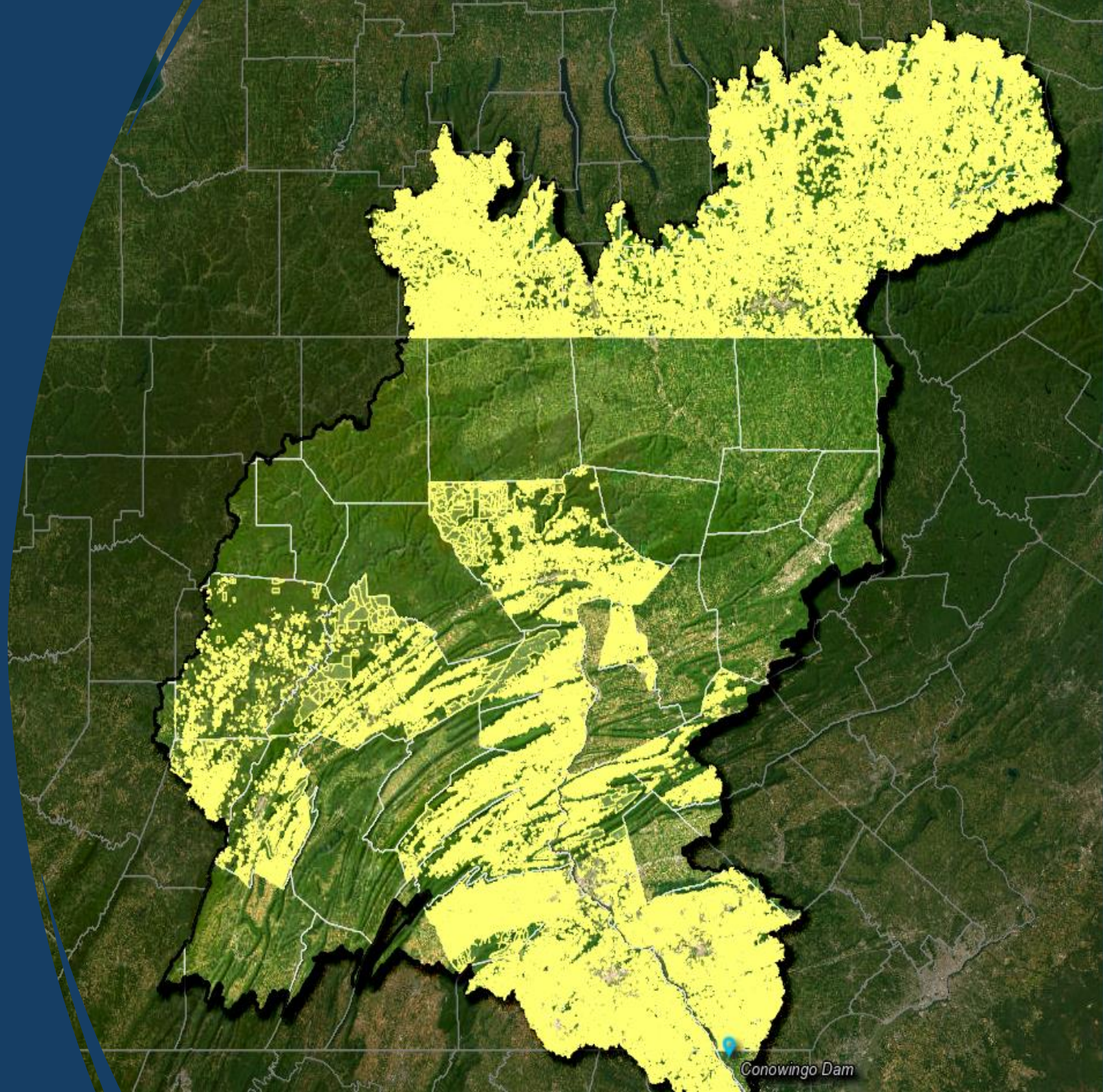
Intended Users

- Local practitioners
 - Primarily local watershed groups but is not limited to them
 - This could be used by groups that are interested in implementing pay-for-performance contracts
- County and watershed level statistics for higher level users



Limitations to Note

- High resolution land use vintage (2017/2018) and error
- Does not account for existing BMP locations
- Parcel data vintage and availability
- Not intended to be prescriptive layers



Successful transition from
Esri WebApp Builder to
Experience Builder

BMP layers: additional QC

- Barnyard runoff control
- Urban forest planting (pending)

Additional context layers

PDF map

Summary tables and
acreages (in progress)

Downloadable data layers (in
progress)

File

Home

Insert

Page Layout

Formulas

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View

Automate

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Format Painter

Paste

Clipboard

Aptos Narrow

11

A

A

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Wrap Text

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Number

Conditional Formatting

Format as Table

Normal

Bad

Good

Neutral

Calculation

Check Cell

Styles

Insert

Delete

Format

AutoSum

Fill

Clear

Sort & Filter

Find & Select

Cells

Editing

A1

OBJECTID

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	
1	OBJECTID	Tax ID	County	Fir	Owner Na	Parcel Adr	County	State	PGA Acres	ACPA Acres	BRC_YN	UFPA Acres	PGA_YN	ACPA_YN	UFPA_YN	WR_YN	VBOA_35ft	VBOA_35ft	VBOA_100	VBOA_100f	Parcel Acr	central_x	central_y	Total BMP	Shape_Len	Shape_Area
2	1	00ADM-AC	adam_420			Adams Cc	PA				NO	NO	NO	NO	YES	2.35	YES	2.38	21	-76.99	39.94	1	5,280.97	141,771.6		
3	2	00ADM-RC	adam_420			Adams Cc	PA				NO	NO	NO	NO	NO	0.06	YES	0.63	1	-77.13	39.98	1	1,766.37	9,141.3		
4	3	00ADM-RC	adam_420			Adams Cc	PA			1	NO	NO	YES	NO	NO	0	NO	0	3	-77.12	39.99	1	1,849.04	18,609.4		
5	4	00ADM-YC	adam_420			Adams Cc	PA			53	NO	NO	YES	NO	NO	YES	2.9	YES	11.93	76	-76.97	39.92	2	6,260.09	524,752.9	
6	5	00ADM-YC	adam_420			Adams Cc	PA			0	NO	NO	NO	NO	NO	YES	2.05	YES	6.22	55	-76.98	39.9	1	2,715.35	377,396.7	
7	6	00ADM-YC	adam_420			Adams Cc	PA	14		YES		YES	NO	NO	NO	YES	0.69	YES	3.15	84	-76.96	39.87	3	5,499.64	576,911.5	
8	7	00ADM-YC	adam_420			Adams Cc	PA			5	NO	NO	YES	NO	NO	NO	0	NO	0	6	-77.05	40.02	1	904.97	40,246.4	
9	8	00ADM-YC	adam_420			Adams Cc	PA			23	NO	NO	YES	NO	NO	NO	0	NO	0	24	-77	39.75	1	1,810.35	164,182.1	
10	9	00ADM-YC	adam_420			Adams Cc	PA	24		NO		YES	NO	NO	NO	NO	0.28	YES	1.36	32	-77.02	40.01	2	3,646.62	219,053.9	
11	10	00ADM-YC	adam_420			Adams Cc	PA	8		YES		YES	NO	NO	NO	YES	0.47	YES	1.89	18	-76.98	39.95	3	1,588.60	121,926.0	
12	11	00ADM-YC	adam_420			Adams Cc	PA			NO		NO	NO	NO	NO	NO	0.31	YES	1.03	19	-76.98	39.84	1	1,579.93	128,582.3	
13	12	00ADM-YC	adam_420			Adams Cc	PA			NO		NO	NO	NO	NO	NO	0.2	YES	0.86	4	-76.98	39.88	1	733.49	25,651.3	
14	13	00ADM-YC	adam_420			Adams Cc	PA	15		YES		YES	NO	NO	NO	YES	0.79	YES	4.13	72	-77	39.79	3	3,264.89	492,107.0	

Annual Cropland Practices

- Applicable for Conservation Tillage, Manure Incorporation, and Cover Crop
- Extract all cropland land use and filter cropland to contiguous areas of at least 1 acre
- Summarize cropland area within each parcel



Prescribed Grazing

- Pasture land use filtered to contiguous pasture of at least 1 acre
- Identify filtered pasture areas that fall within 300 ft of a waterway, to identify pasture that is likely used for grazing
- Identify all parcels with pasture meeting this criteria



Barnyard Runoff Control

- Extract structures from land use and estimate the number of structures per parcel
- Extract all agricultural land use (cropland and pasture/hay) for area of interest. Filter agricultural lands to contiguous areas of at least 1 acre
- Extract barren land cover and filter to contiguous areas of at least 4,000 ft² within 300 ft of a waterway
- Identify parcels that satisfy the following requirements:
 - Contain at least two structures
 - Contain any agricultural land use from filtered layer
 - Contain any barren land use from filtered layer



Wetland Restoration

- Follows slightly modified USDA Agricultural Conservation Planning Framework (ACPF) methodology:
 - Identify depression areas through a subtraction of a filled DEM from an unfilled DEM (preprocessed for noise)
 - Filter depressions by agricultural land use (cropland and pasture/hay)
 - Remaining polygons must have a minimum surface area of 0.25 acres
 - The mean percent hydric soils within each polygon must be greater than 50%
 - Depressions must have a minimum depth of 30 cm
 - Identify parcels that intersect with opportunities that meet the above criteria



Vegetative Buffer Opportunity

- Areas within 35ft and 100ft of waterways
- Forest buffers or grassed waterways
- Identify all areas of low vegetation or barren land cover within 35 ft and 100 ft of an enhanced flowpath waterway
- Remove opportunities that are less than 25 m² in size
- Identify parcels that intersect with remaining opportunities



Urban Forest Planting

- Extract all turf grass from land use data and filter to contiguous areas of at least 1 acre that are farther than 30 ft from non-road impervious surfaces
- Identify parcels that contain turf grass meeting the above criteria.

