



# Dauphin County Flood Insurance Overview

January 24, 2014

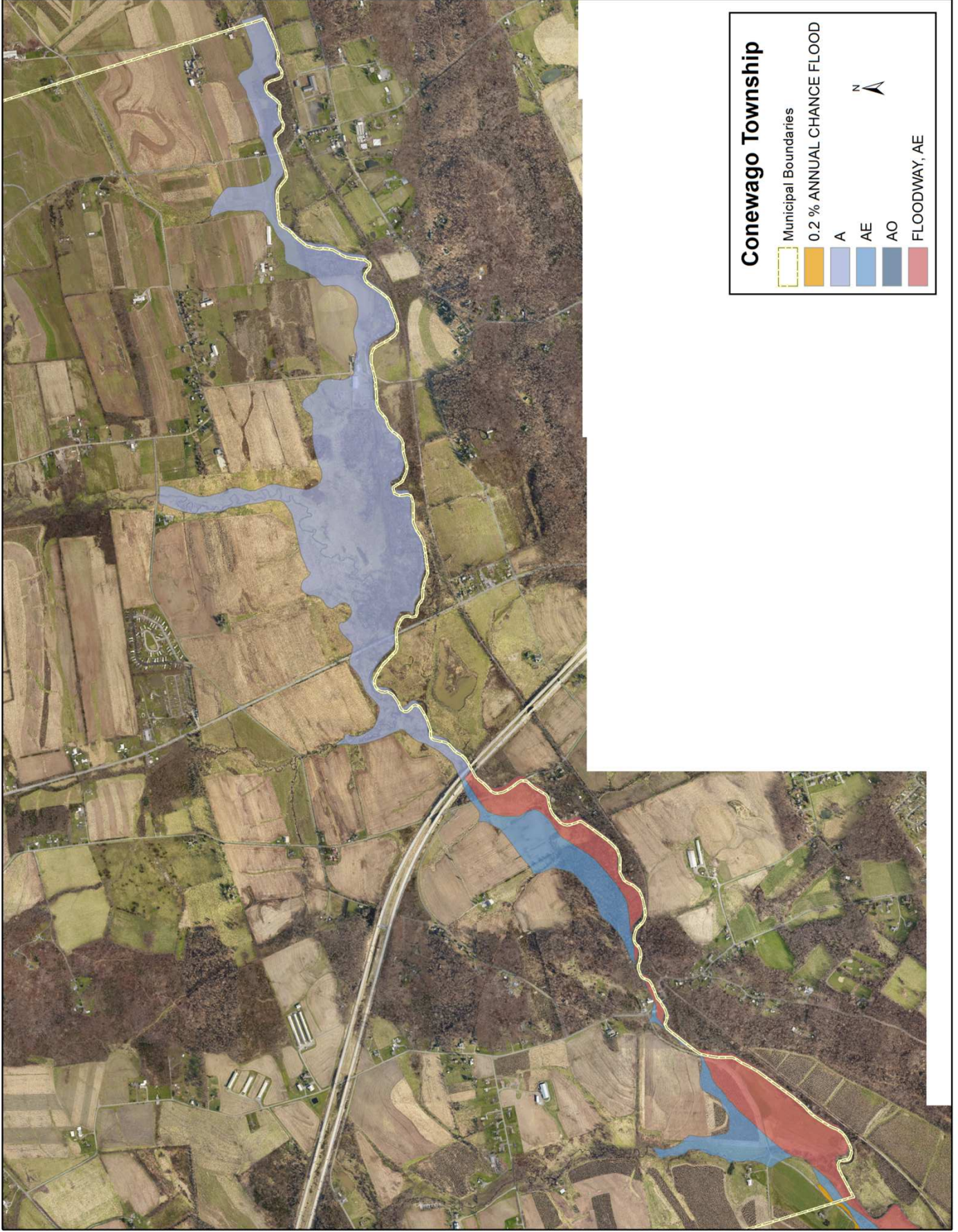
Commissioners Jeff Haste, Mike Pries, George P. Hartwick III

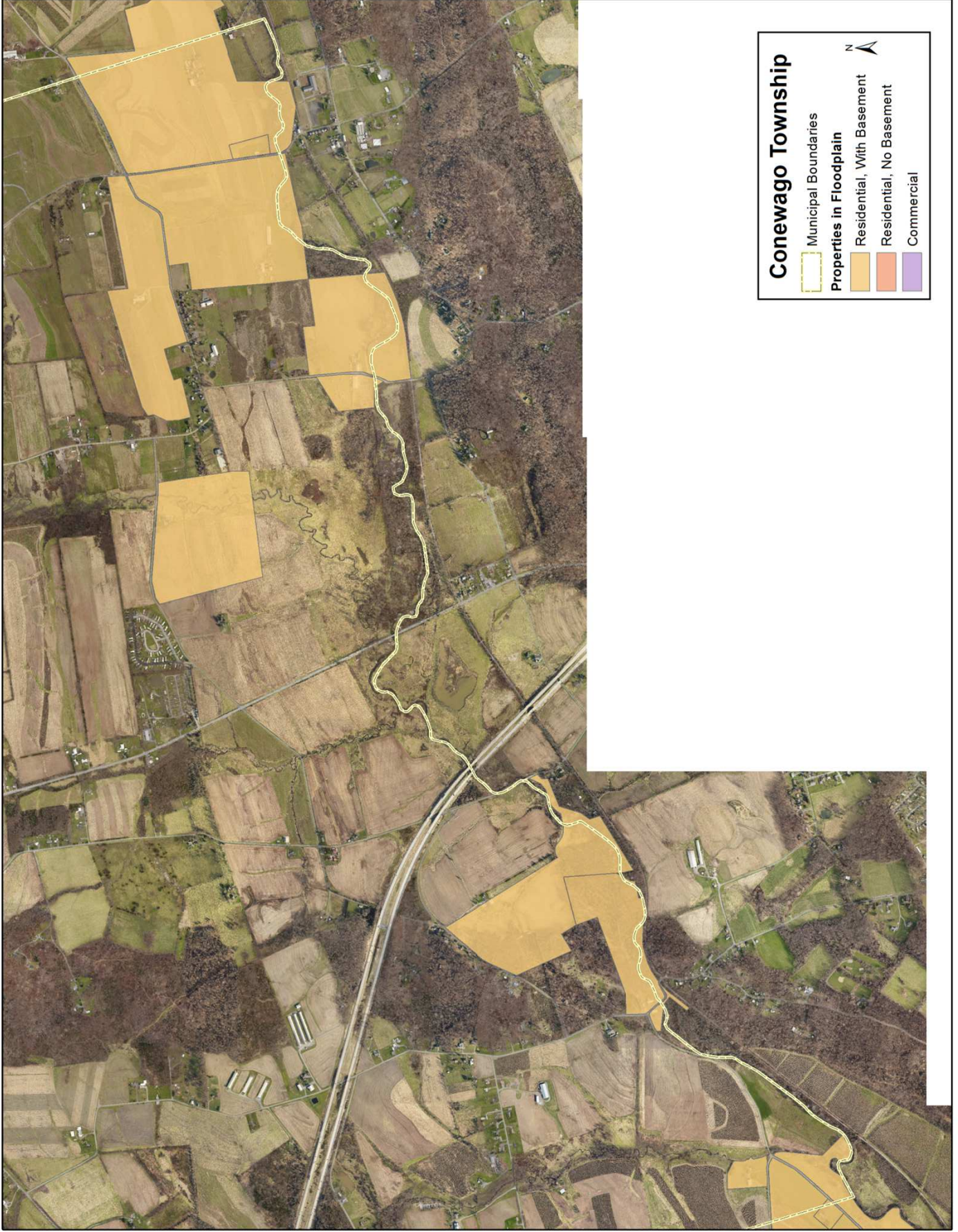
# Definitions

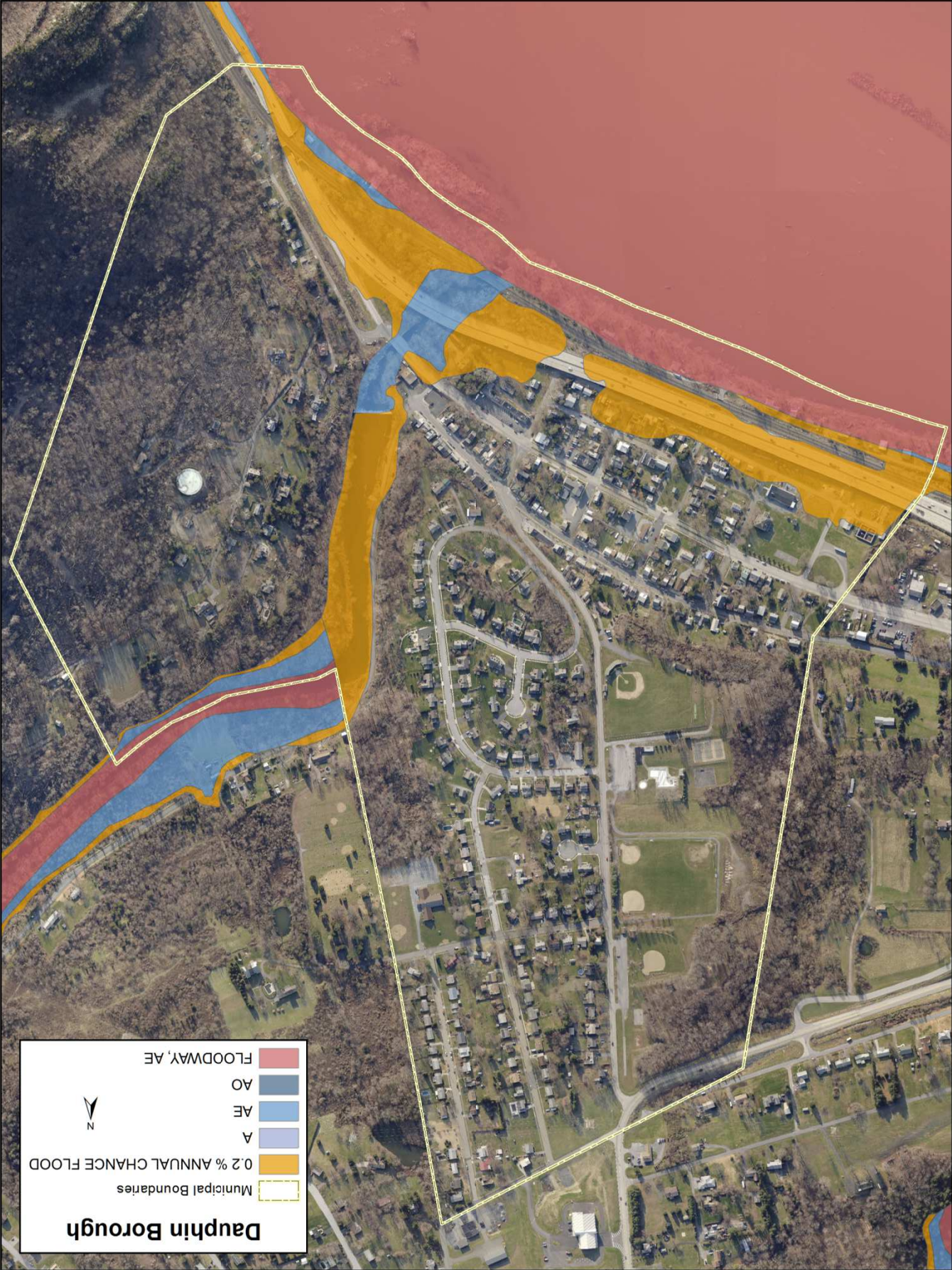
- **FIRM** – Flood Insurance Rate Map
- **Base Flood** – Flood having a 1% chance of being equaled or exceeded in any given year. This is the regulatory standard referred to as the 100 year flood.
- **BFE** – Base Flood Elevation; the elevation to which flood water is anticipated to rise during the base flood. The relationship between the BFE and a structure's elevation determine the flood insurance premium.
- **Pre-Firm** – Structures built before the first FIRMS in 1981
- **Non Primary Residence** – Occupied for less than 80% of the policy year
- **Elevation Certificate** – Determines the BFE and lowest floor
- **Flood Zone A** –Areas subject to inundation by the 1-percent-annual-chance flood event generally determined using approximate methodologies. No BFEs or flood depths are shown.
- **Flood Zone AE** –Areas subject to inundation by the 1-percent-annual-chance flood event determined by detailed methods. Base Flood Elevations (BFEs) are shown. Mandatory flood insurance purchase requirements and floodplain management standards apply.
- **Flood Zone AO** –Areas subject to inundation by 1-percent-annual-chance shallow flooding where average depths are between one and three feet and are derived from detailed hydraulic analyses. Mandatory flood insurance purchase requirements and floodplain management standards apply.
- **0.2% Annual Chance Flood Hazard** – Generally referred to as the 500 year flood.

# Notes on Data

- Analysis includes both the 100 year and 500 year floodplains and was performed at the parcel level. If any portion of the parcel was in the floodplain, the entire parcel was classified as being in the floodplain.
- The floodplains are those that became effective in August 2012.
- Property type maps include parcels with a residential or commercial use codes. Farmland with buildings was included in the residential category.
- Repetitive loss data is from 2010.







**Dauphin Borough**

	FLOODWAY, AE
	AO
	AE
	A
	0.2 % ANNUAL CHANCE FLOOD
	Municipal Boundaries





# Dauphin Borough

- Municipal Boundaries
- Properties in Floodplain
- Residential, With Basement
- Residential, No Basement
- Commercial





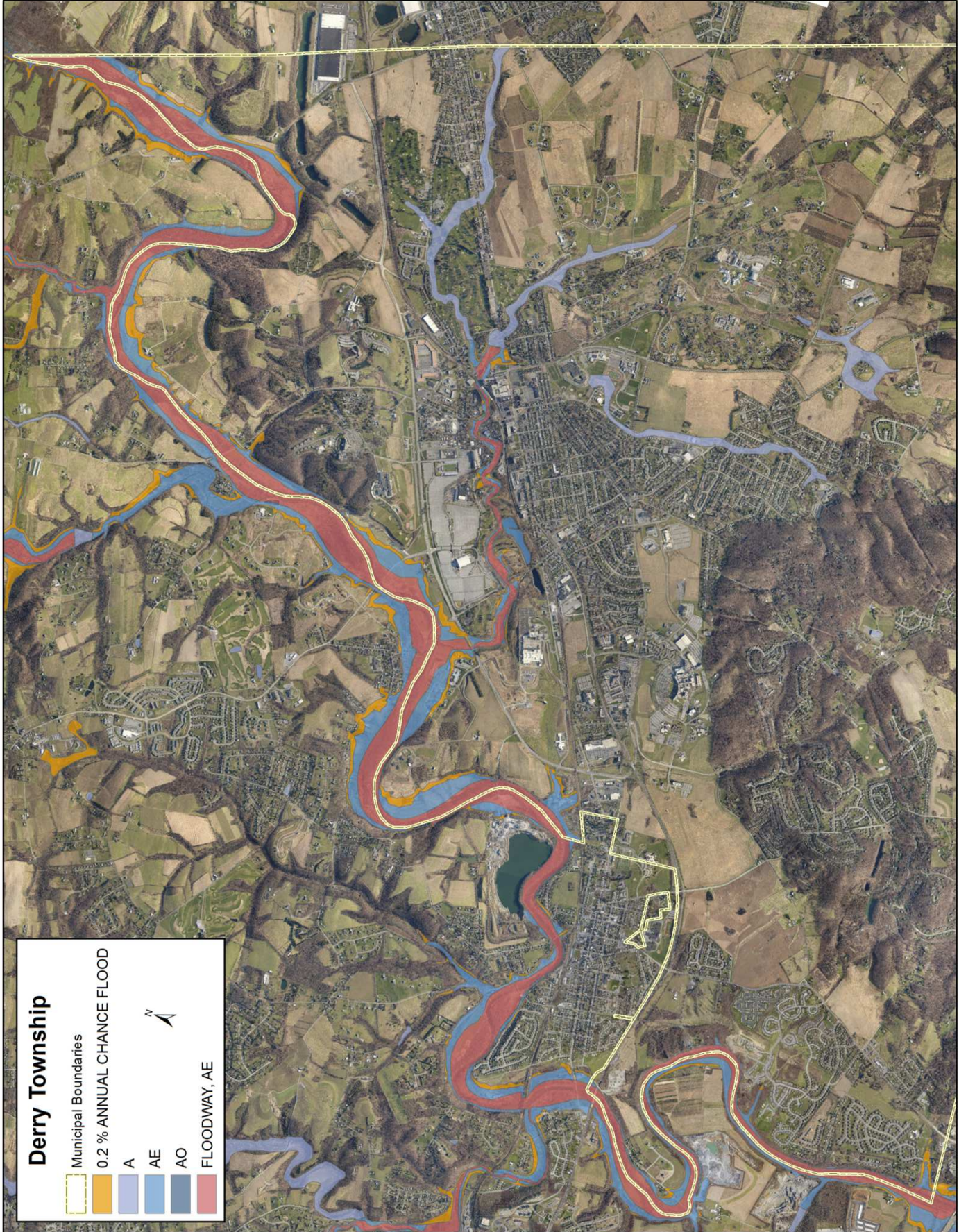
**Dauphin Borough**

Repetitive Loss Area

Municipal Boundaries



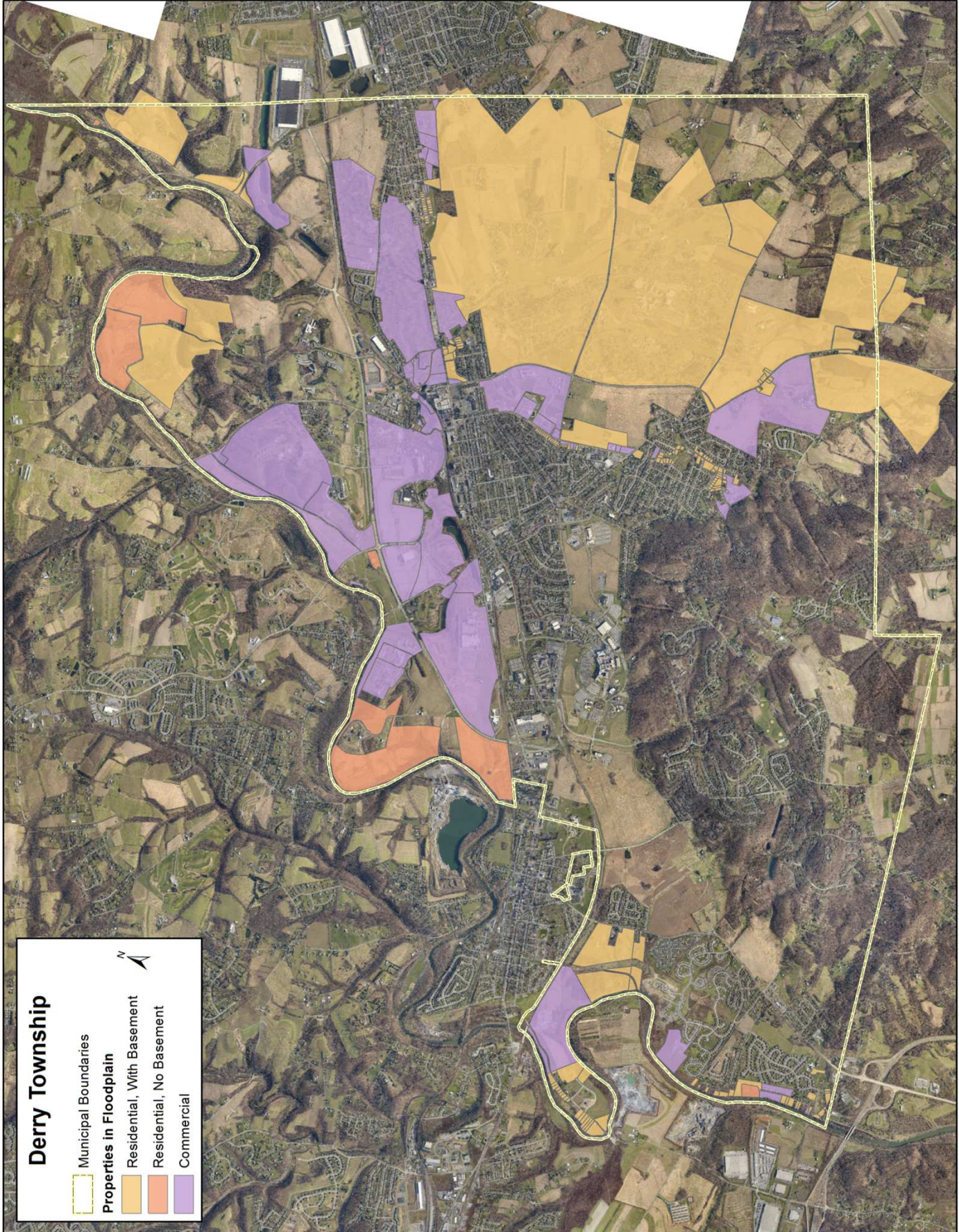




# Derry Township

- Municipal Boundaries
- 0.2 % ANNUAL CHANCE FLOOD
- A
- AE
- AO
- FLOODWAY, AE





# Derry Township

- Municipal Boundaries
- Properties in Floodplain
  - Residential, With Basement
  - Residential, No Basement
  - Commercial

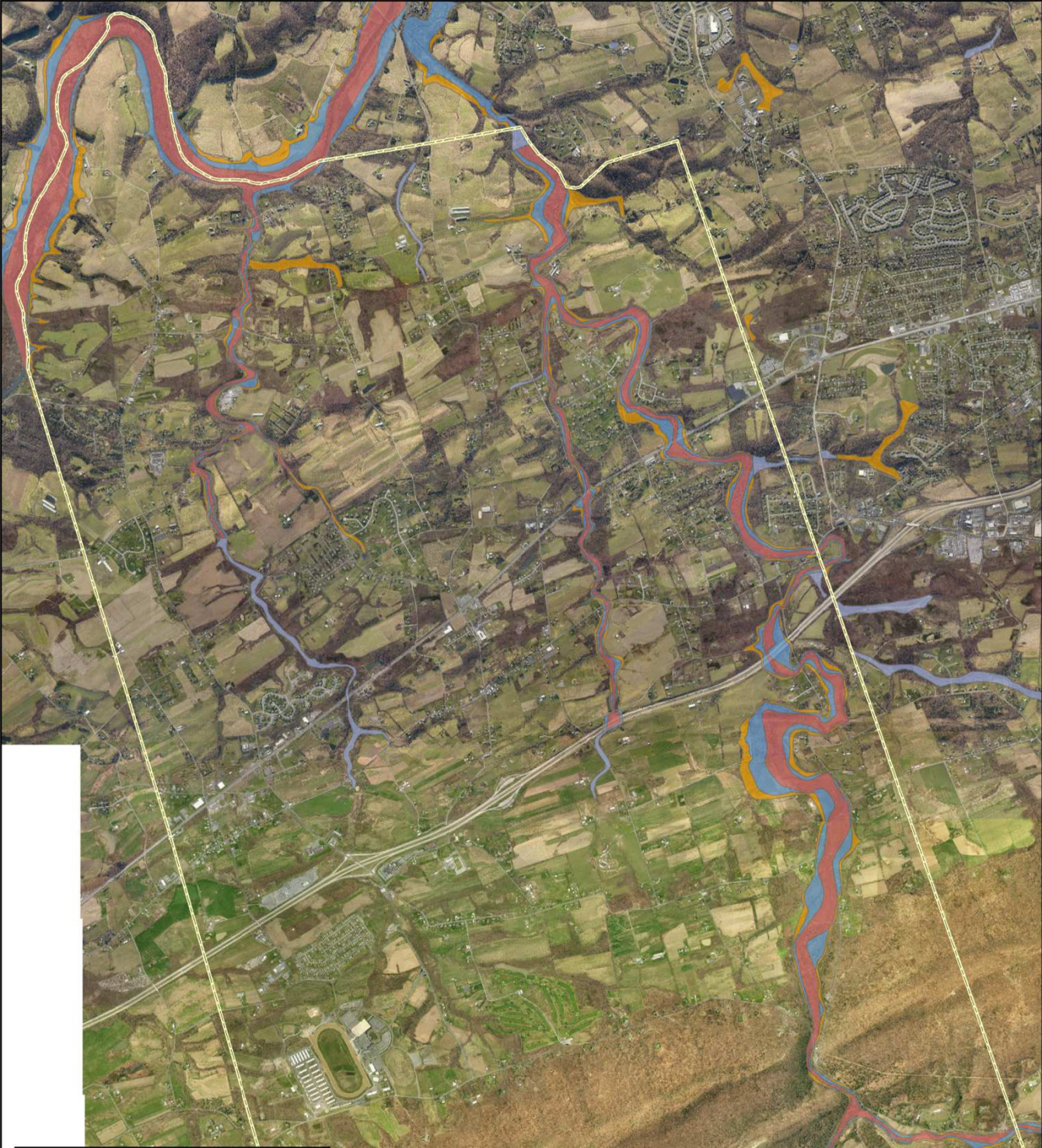










# Derry Township




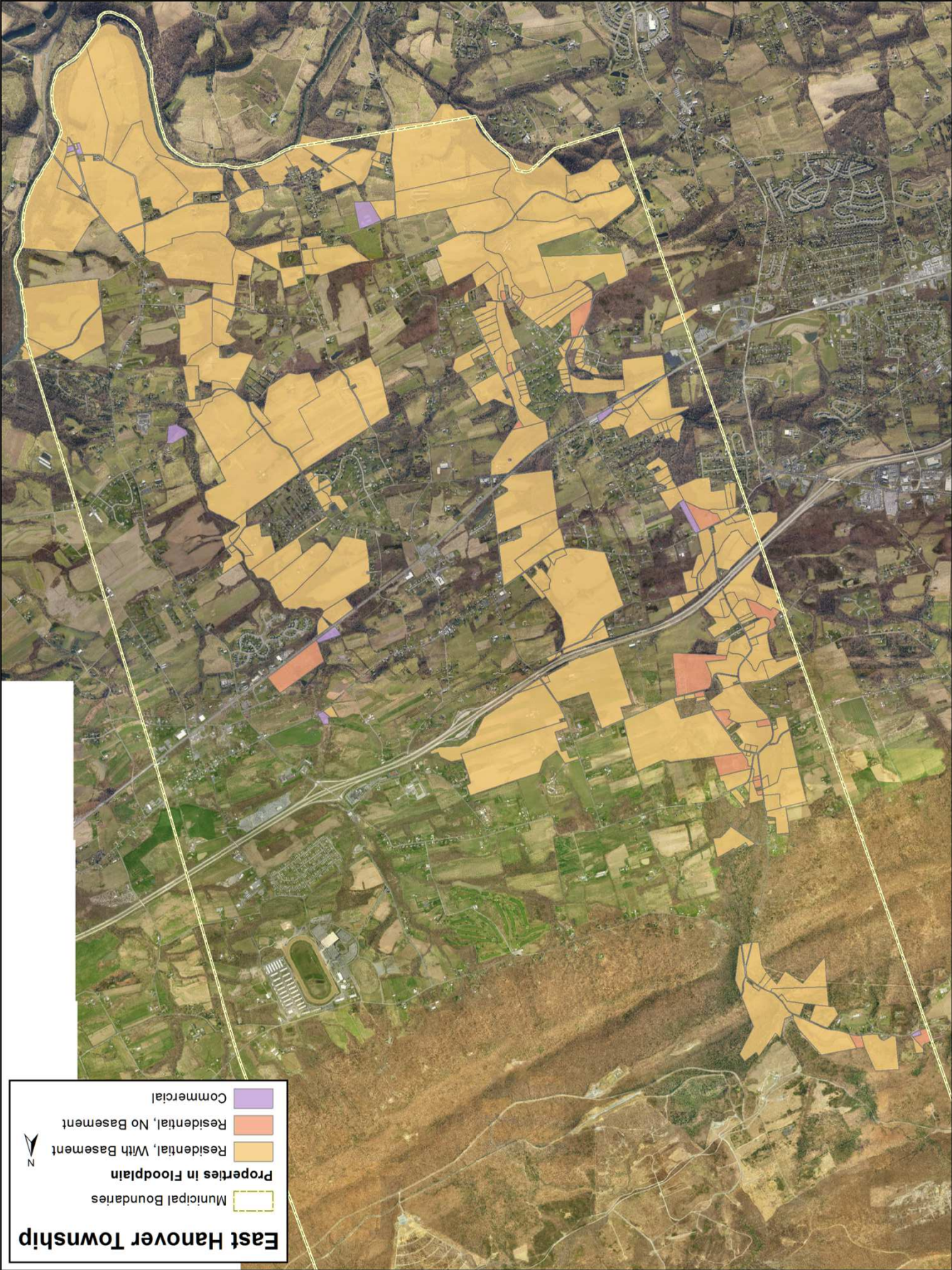
- Repetitive Loss Area
- Municipal Boundaries



**East Hanover Township**

	FLOODWAY, AE
	AO
	AE
	A
	0.2 % ANNUAL CHANCE FLOOD
	Municipal Boundaries

 N





**East Hanover Township**

Repetitive Loss Area

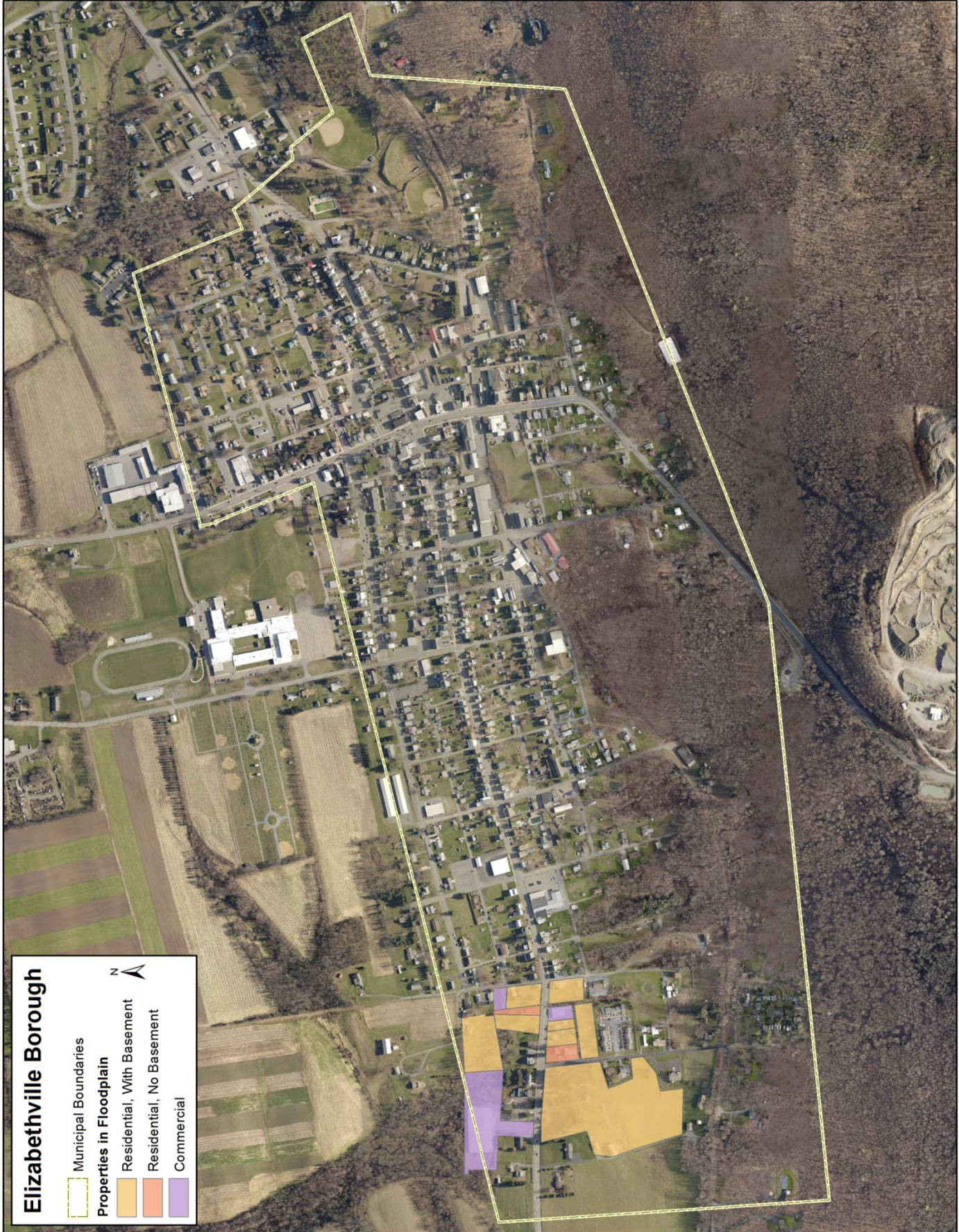
Municipal Boundaries

N

# Elizabethville Borough

- Municipal Boundaries
- 0.2 % ANNUAL CHANCE FLOOD
- A
- AE
- AO
- FLOODWAY, AE





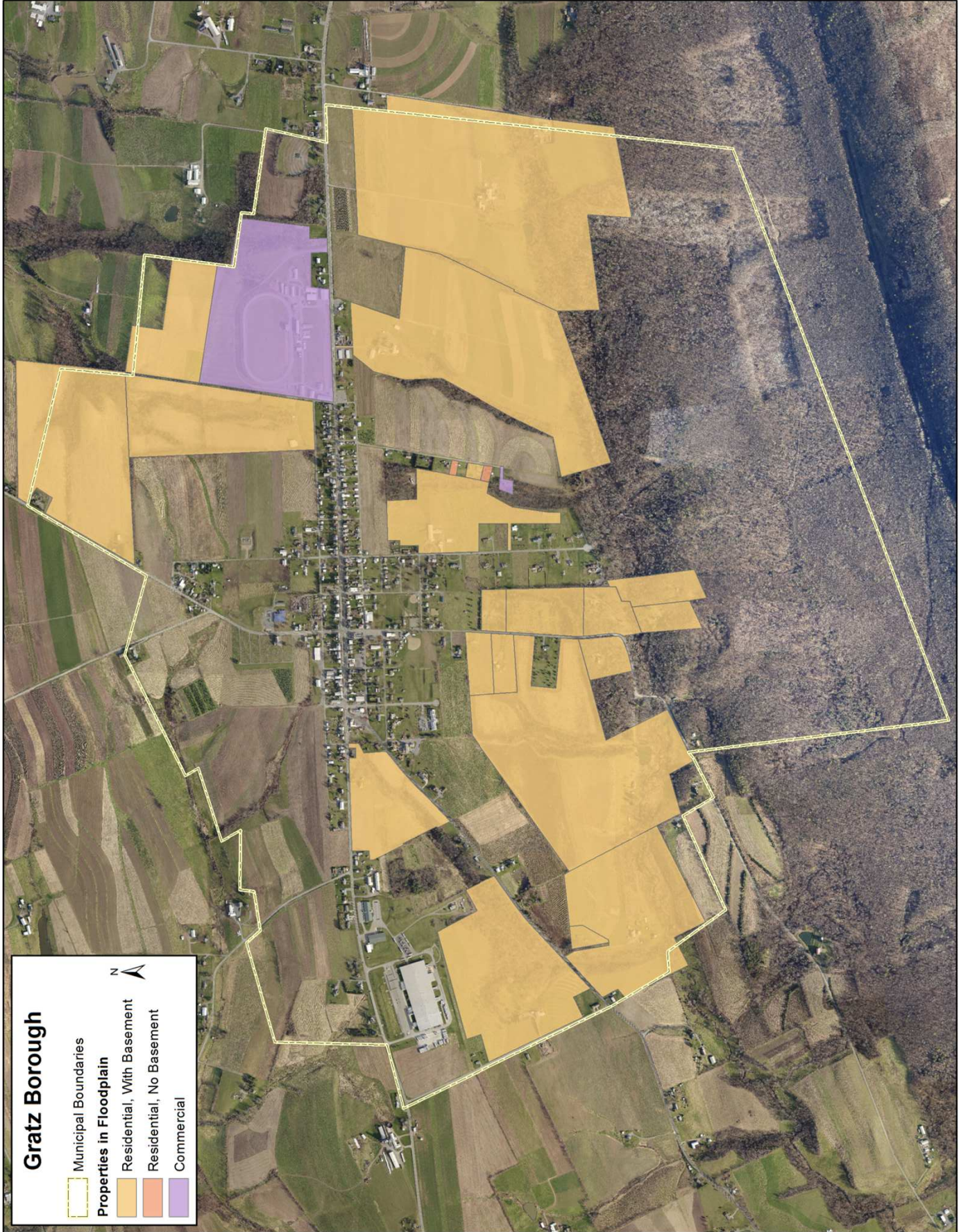
**Elizabethville Borough**

- Municipal Boundaries
- Properties in Floodplain
  - Residential, With Basement
  - Residential, No Basement
  - Commercial

N







**Gratz Borough**

Municipal Boundaries

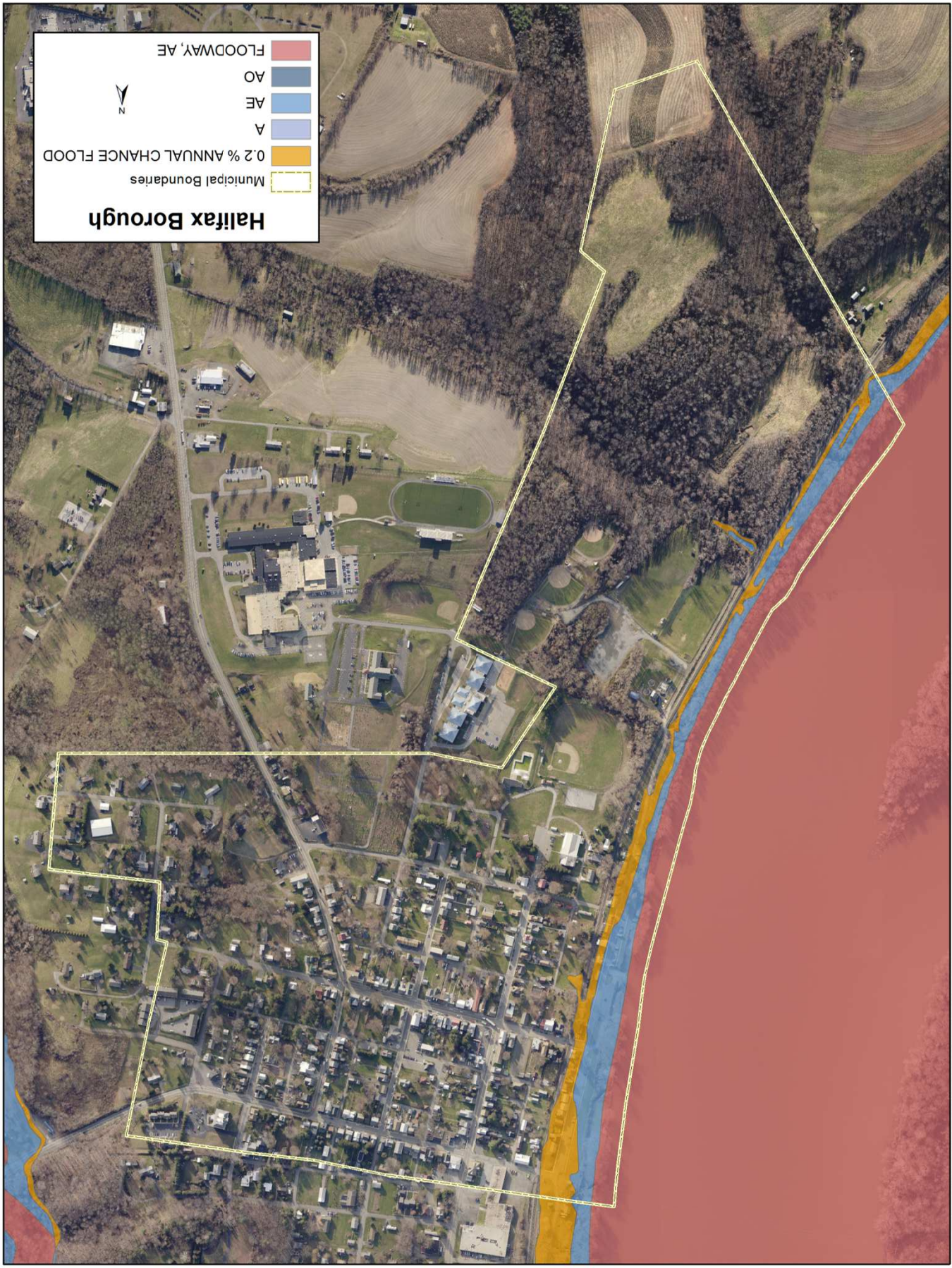
Properties in Floodplain

- Residential, With Basement
- Residential, No Basement
- Commercial





N

**Hallifax Borough**

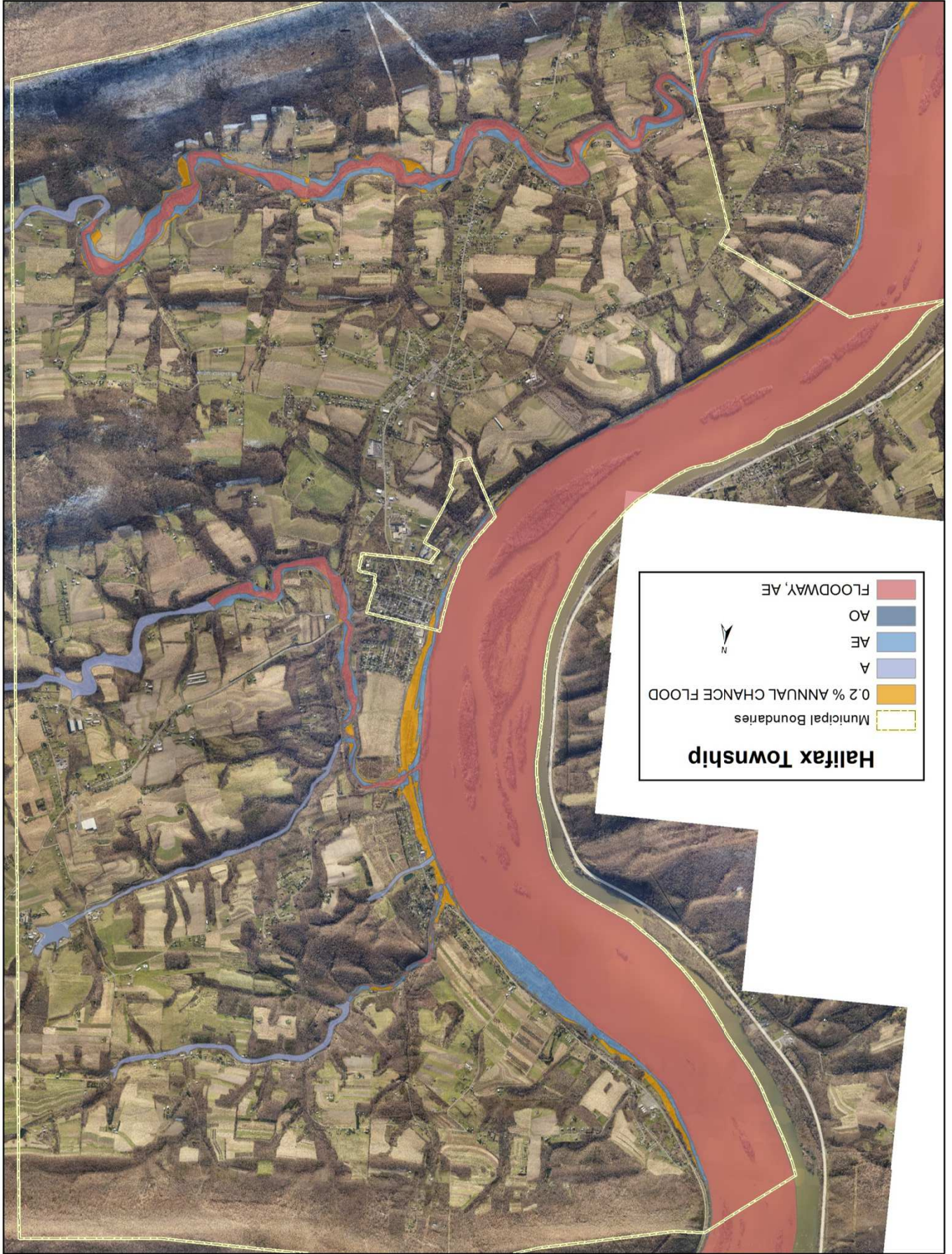
- Municipal Boundaries
- 0.2 % ANNUAL CHANCE FLOOD
- A
- AE
- AO
- FLOODWAY, AE

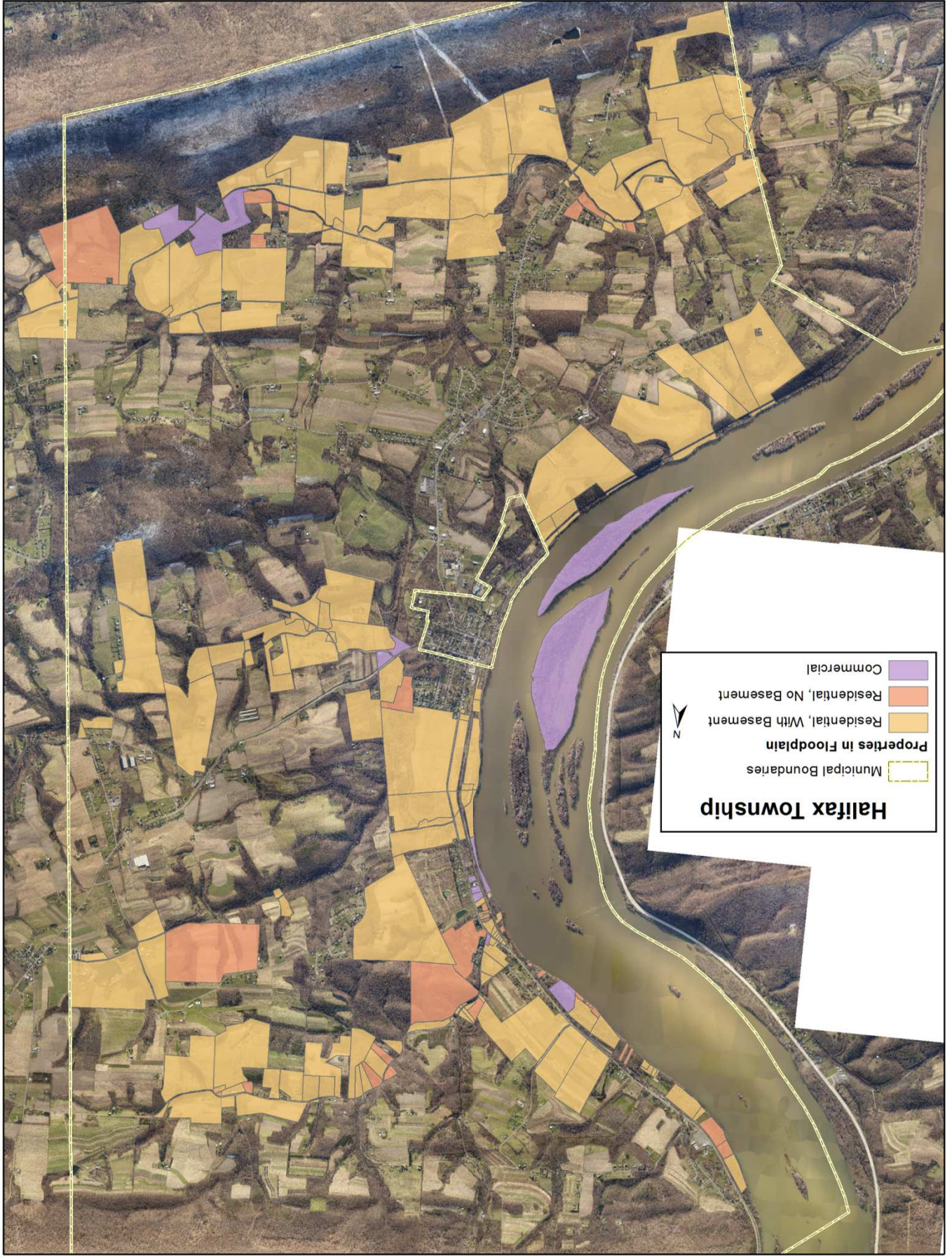


# Halifax Borough

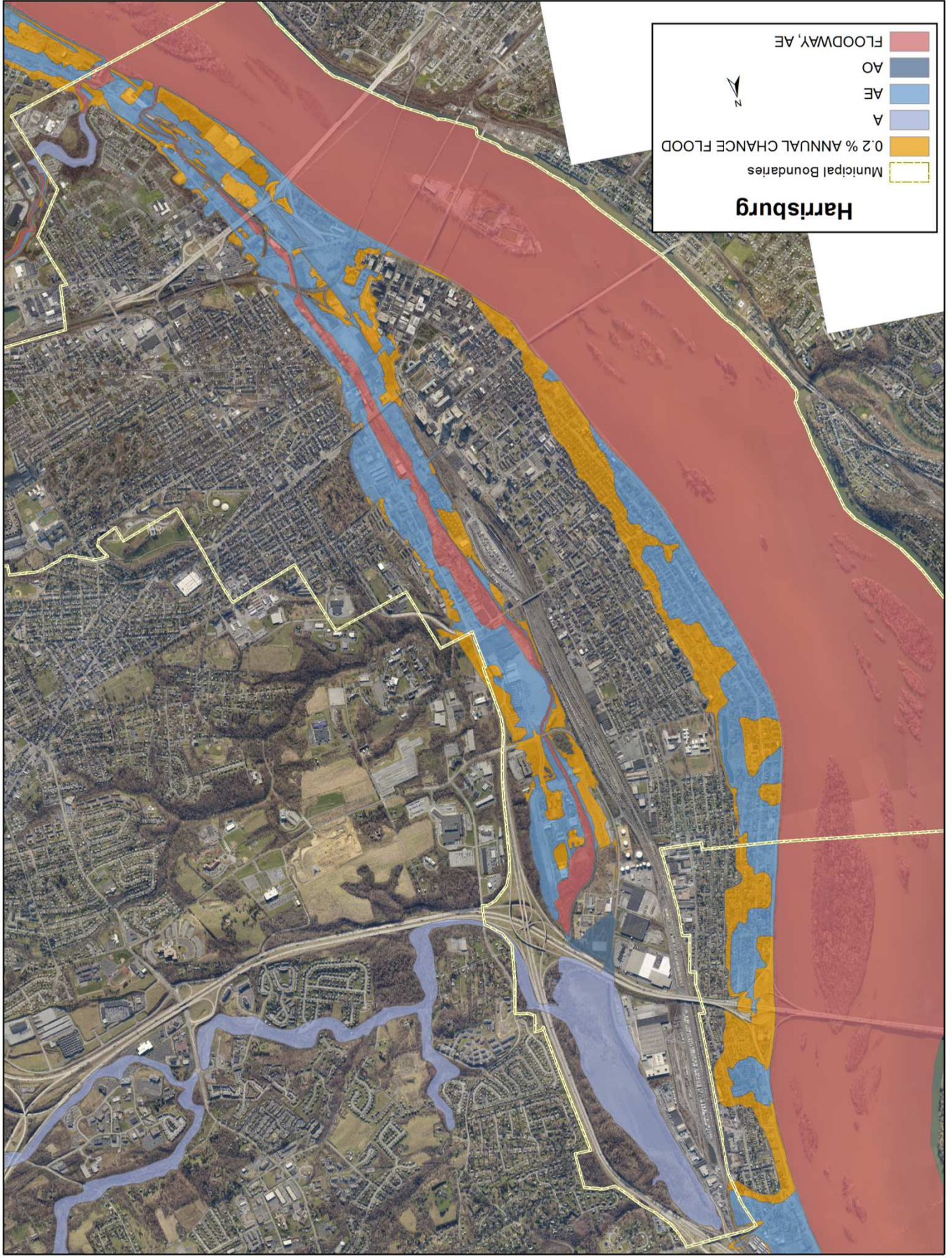
-  Municipal Boundaries
-  Residential, With Basement
-  Residential, No Basement
-  Commercial











**Harrisburg**

Municipal Boundaries


0.2% ANNUAL CHANCE FLOOD

A

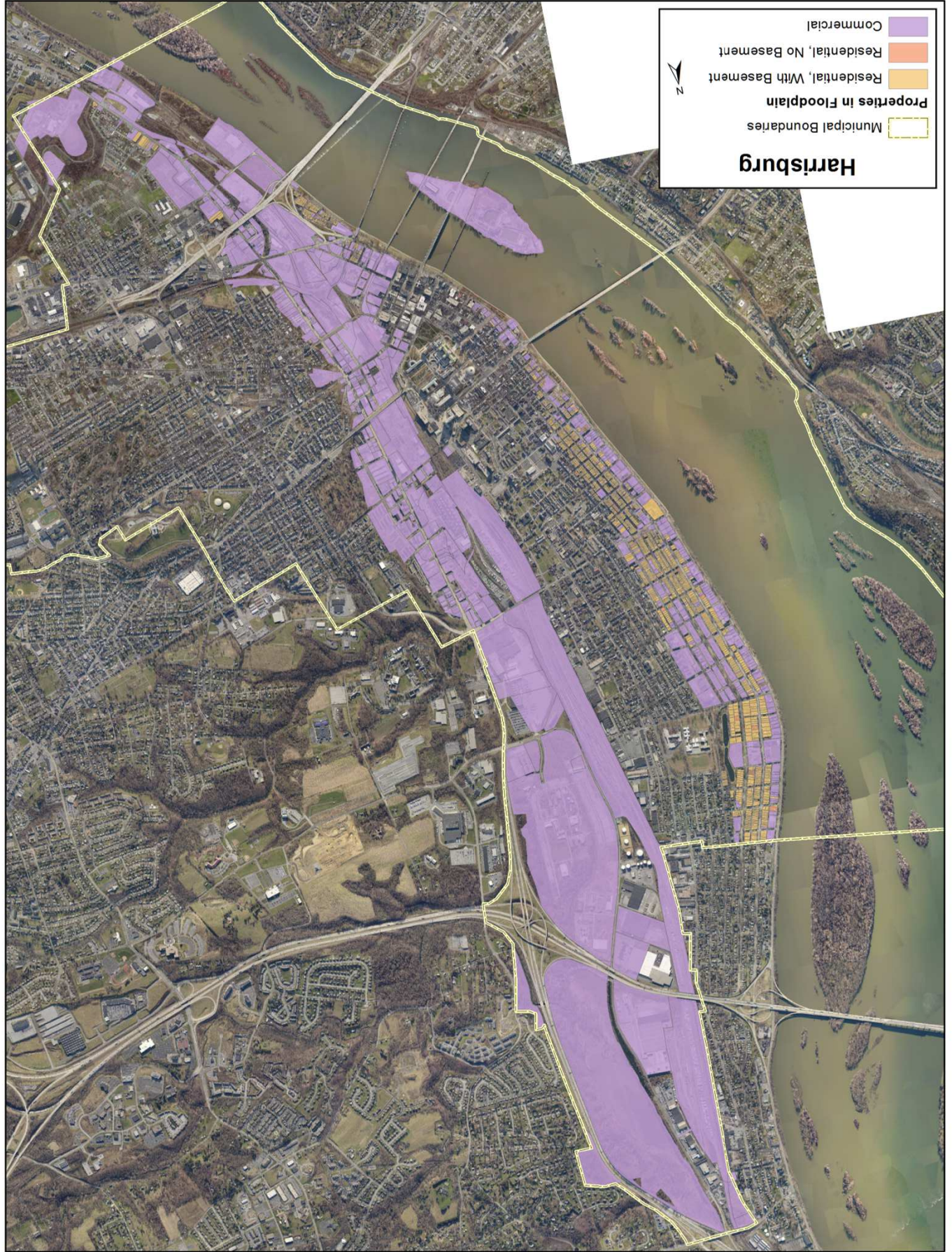
AE

AO

FLOODWAY, AE









Municipal Boundaries

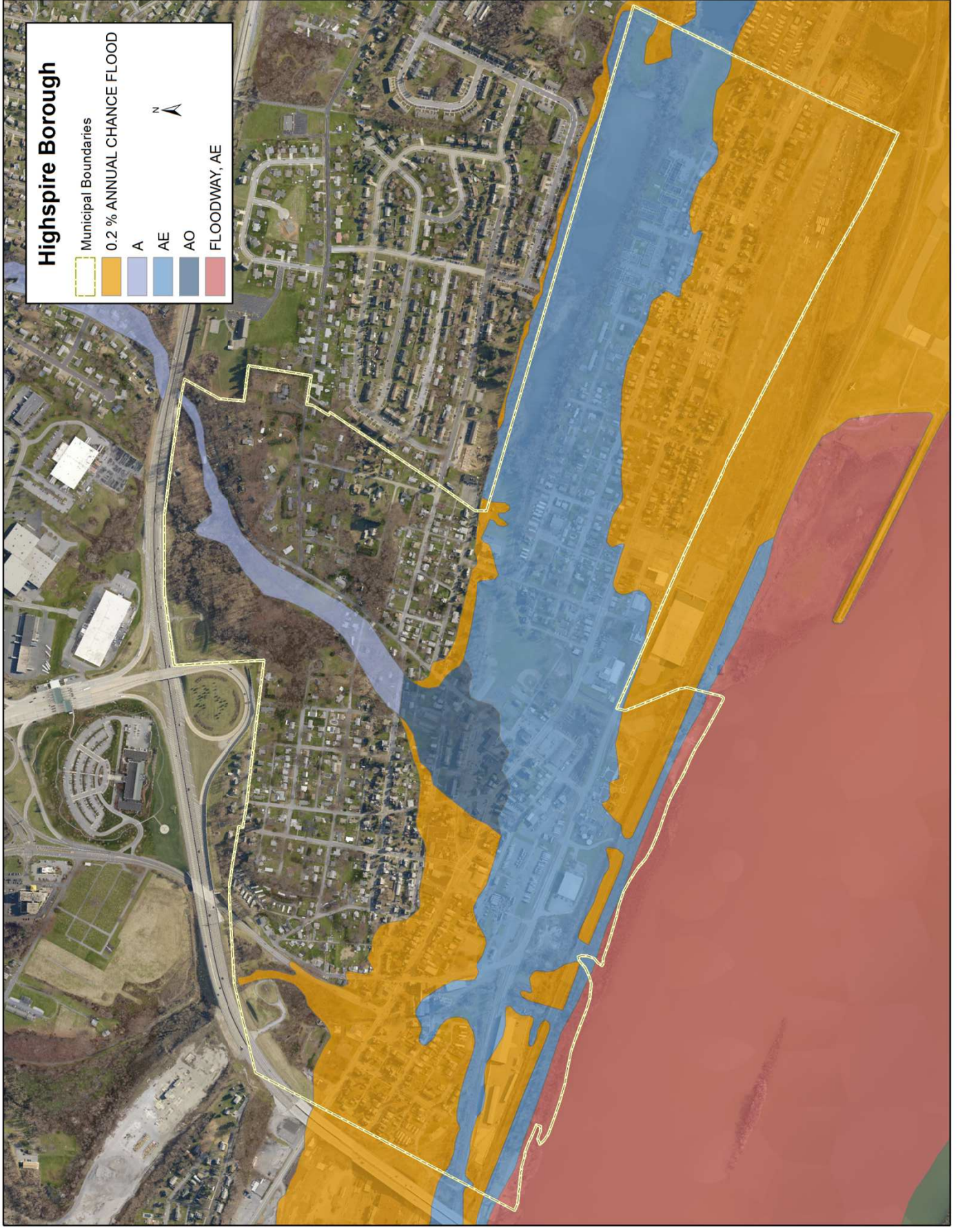
Repetitive Loss Area



# Harrisburg

# Highspire Borough

- Municipal Boundaries
- 0.2 % ANNUAL CHANCE FLOOD
- A
- AE
- AO
- FLOODWAY, AE







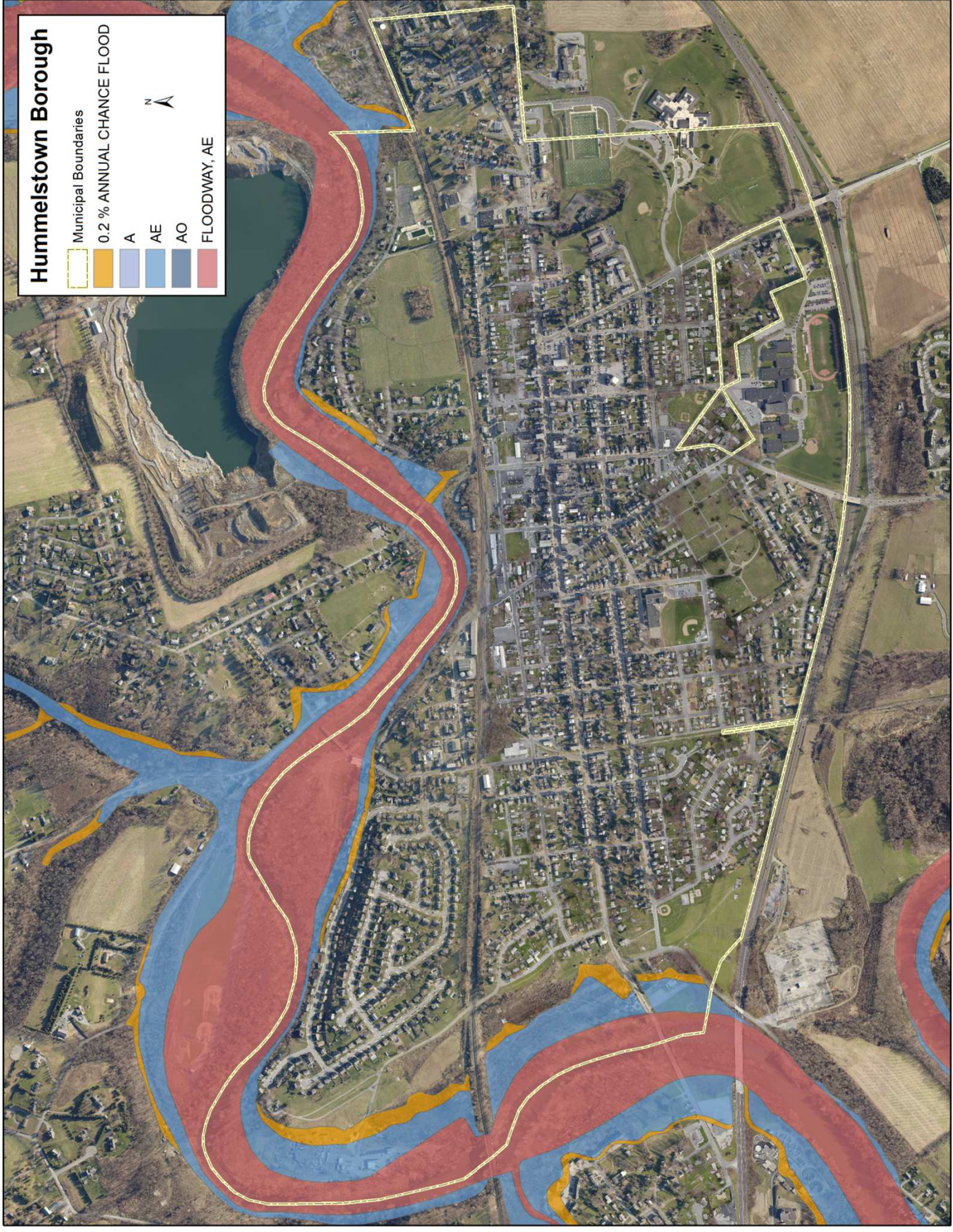
# Highspire Borough

- Repetitive Loss Area
- Municipal Boundaries



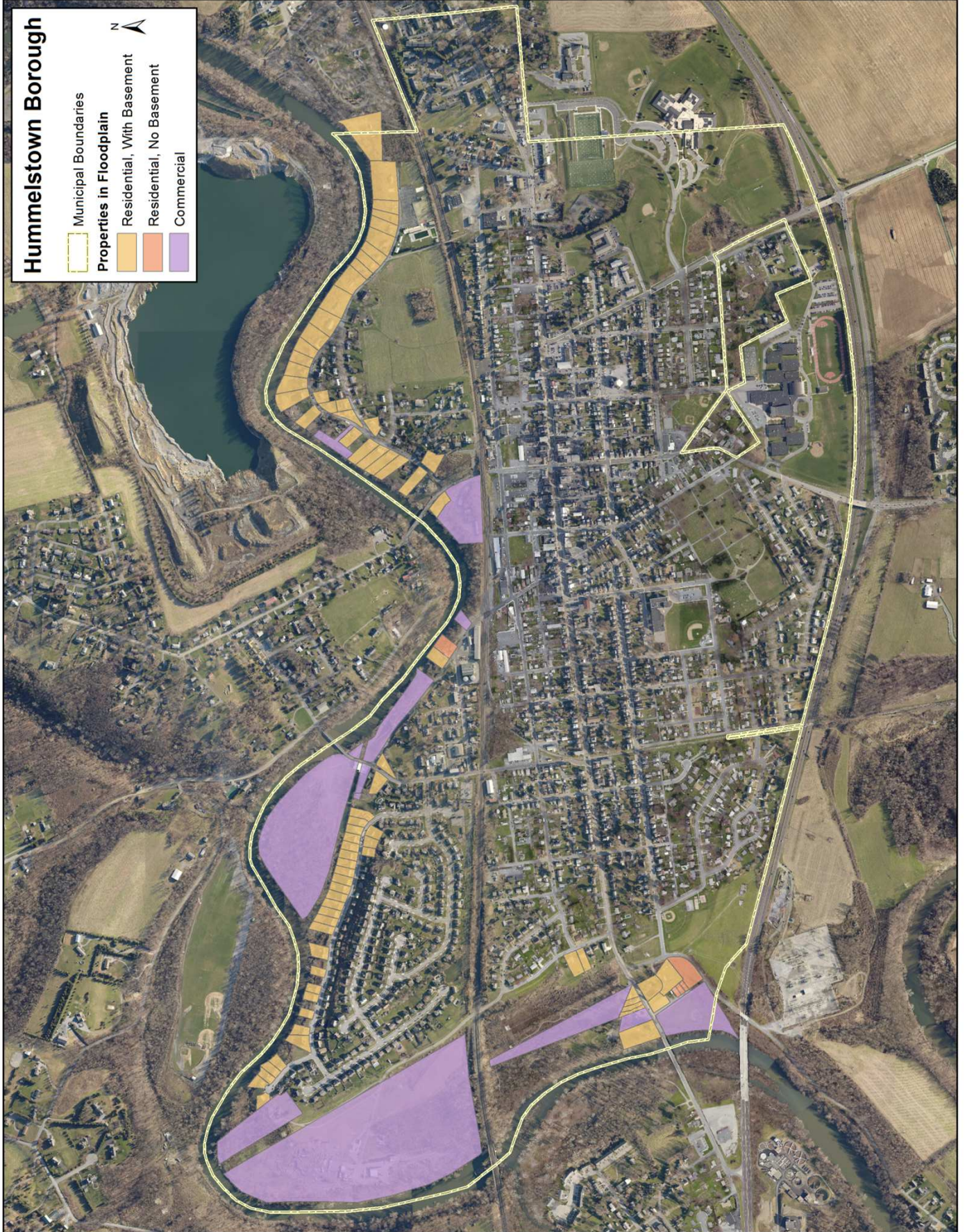
# Hummelstown Borough

- Municipal Boundaries
- 0.2 % ANNUAL CHANCE FLOOD
- A
- AE
- AO
- FLOODWAY, AE



# Hummelstown Borough

- Municipal Boundaries
- Properties in Floodplain
- Residential, With Basement
- Residential, No Basement
- Commercial

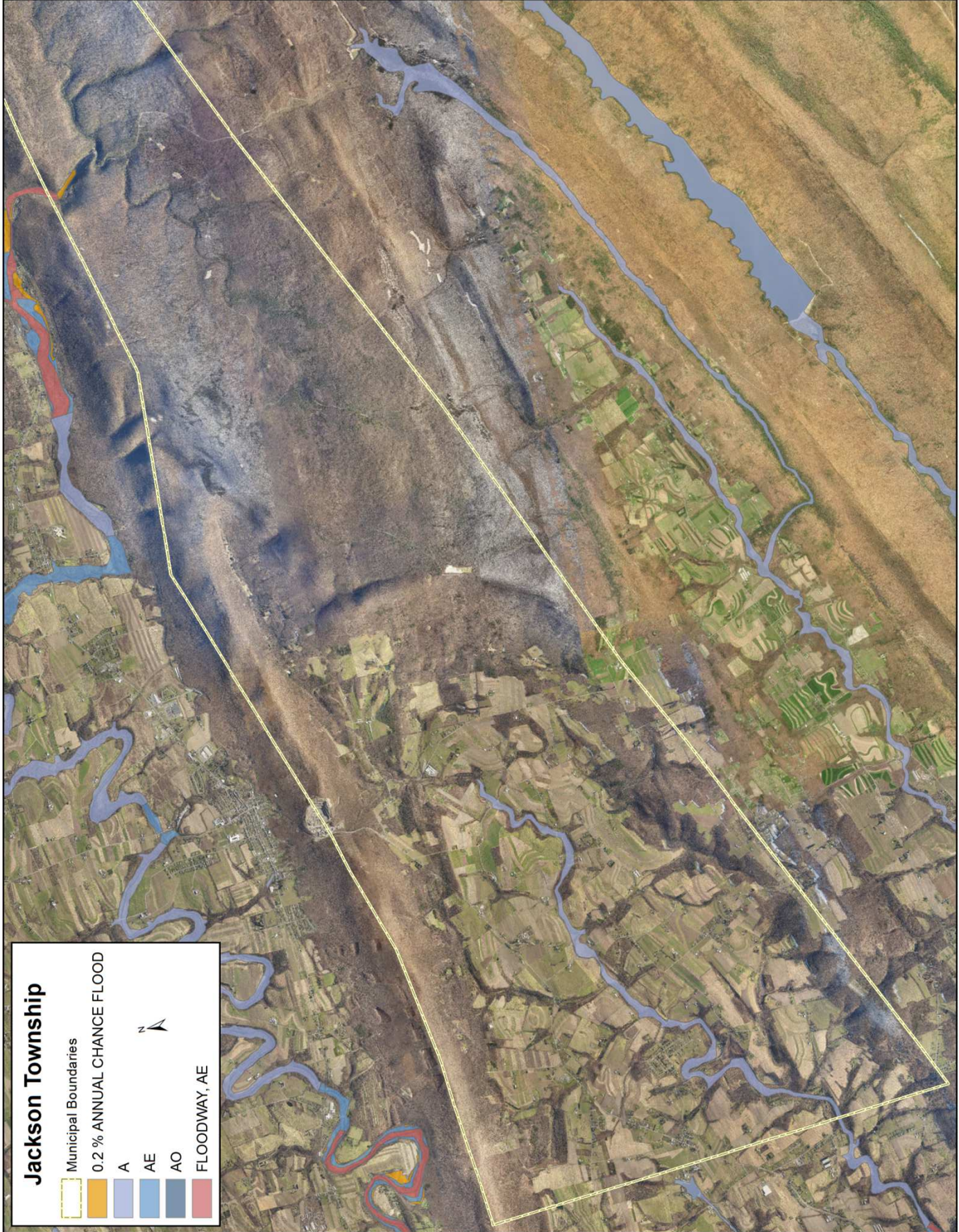


# Hummelstown Borough

- Repetitive Loss Area
- Municipal Boundaries









# Jackson Township

- Municipal Boundaries
- Properties in Floodplain
  - Residential, With Basement
  - Residential, No Basement
  - Commercial



# Jefferson Township

- Municipal Boundaries
- 0.2 % ANNUAL CHANCE FLOOD
- A
- AE
- AO
- FLOODWAY, AE





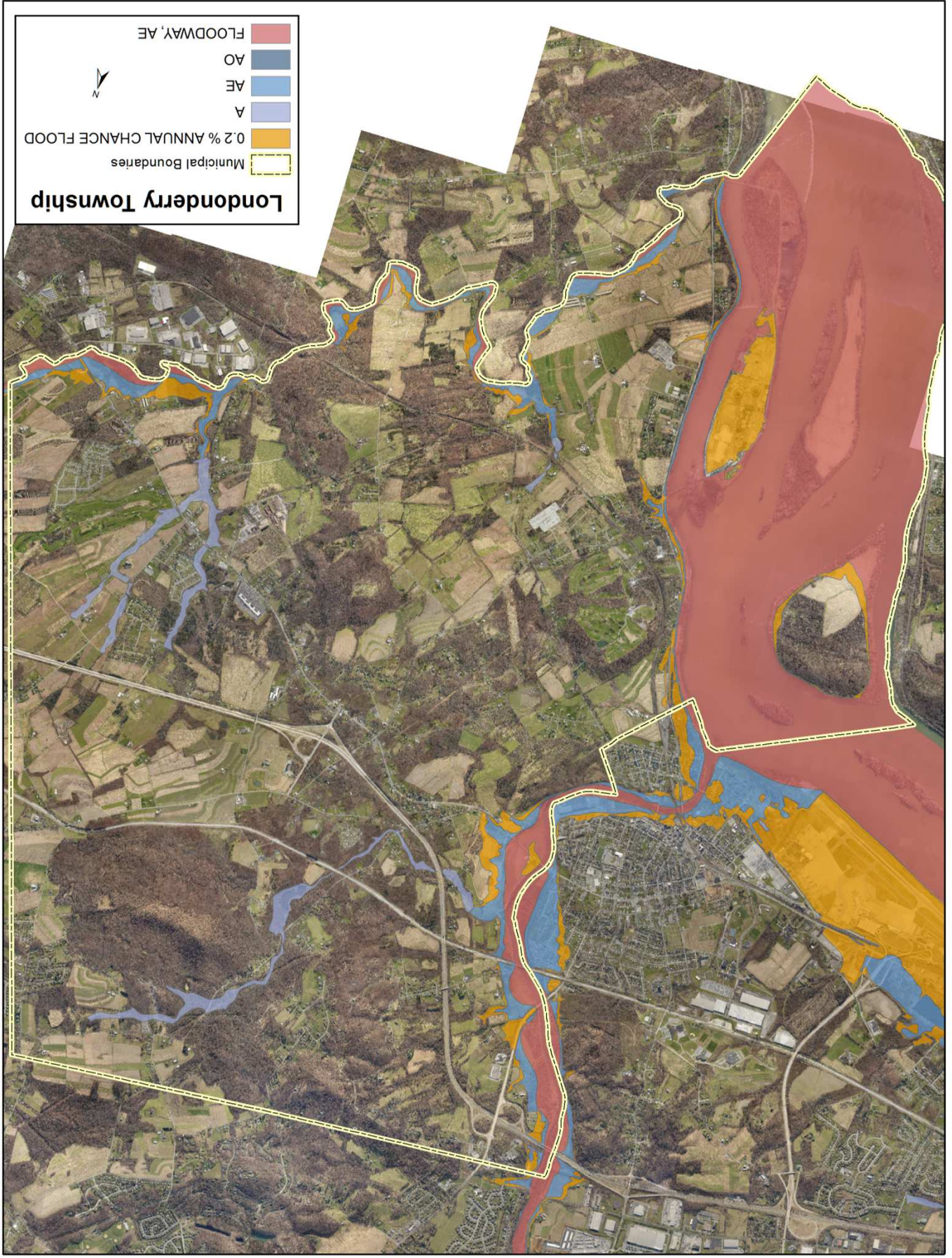
**Jefferson Township**

Municipal Boundaries

Properties in Floodplain

- Residential, With Basement
- Residential, No Basement
- Commercial

N



**Londerry Township**

Municipal Boundaries

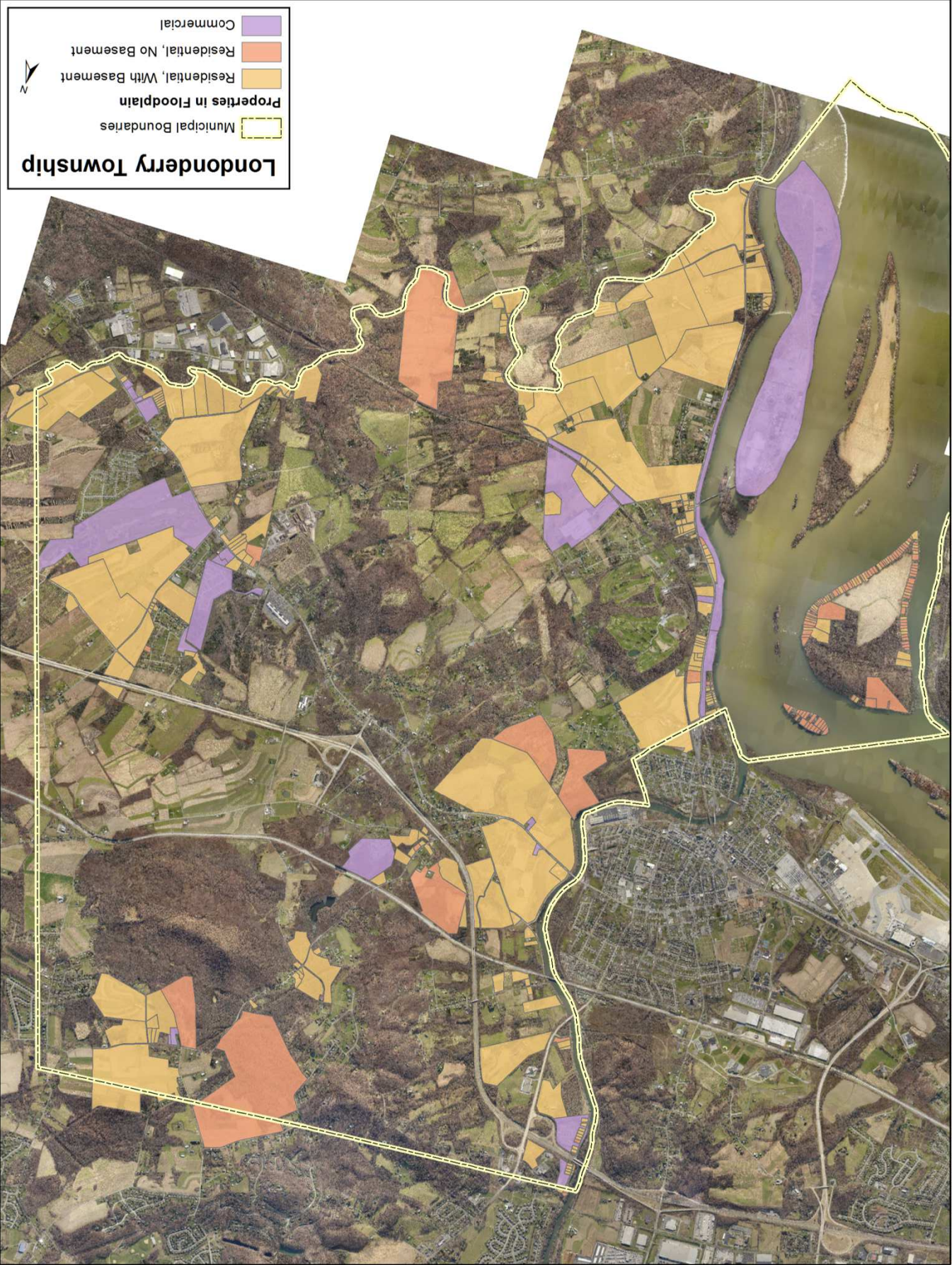
0.2% ANNUAL CHANCE FLOOD

A

AE

AO


FLOODWAY, AE



# Londonderry Township

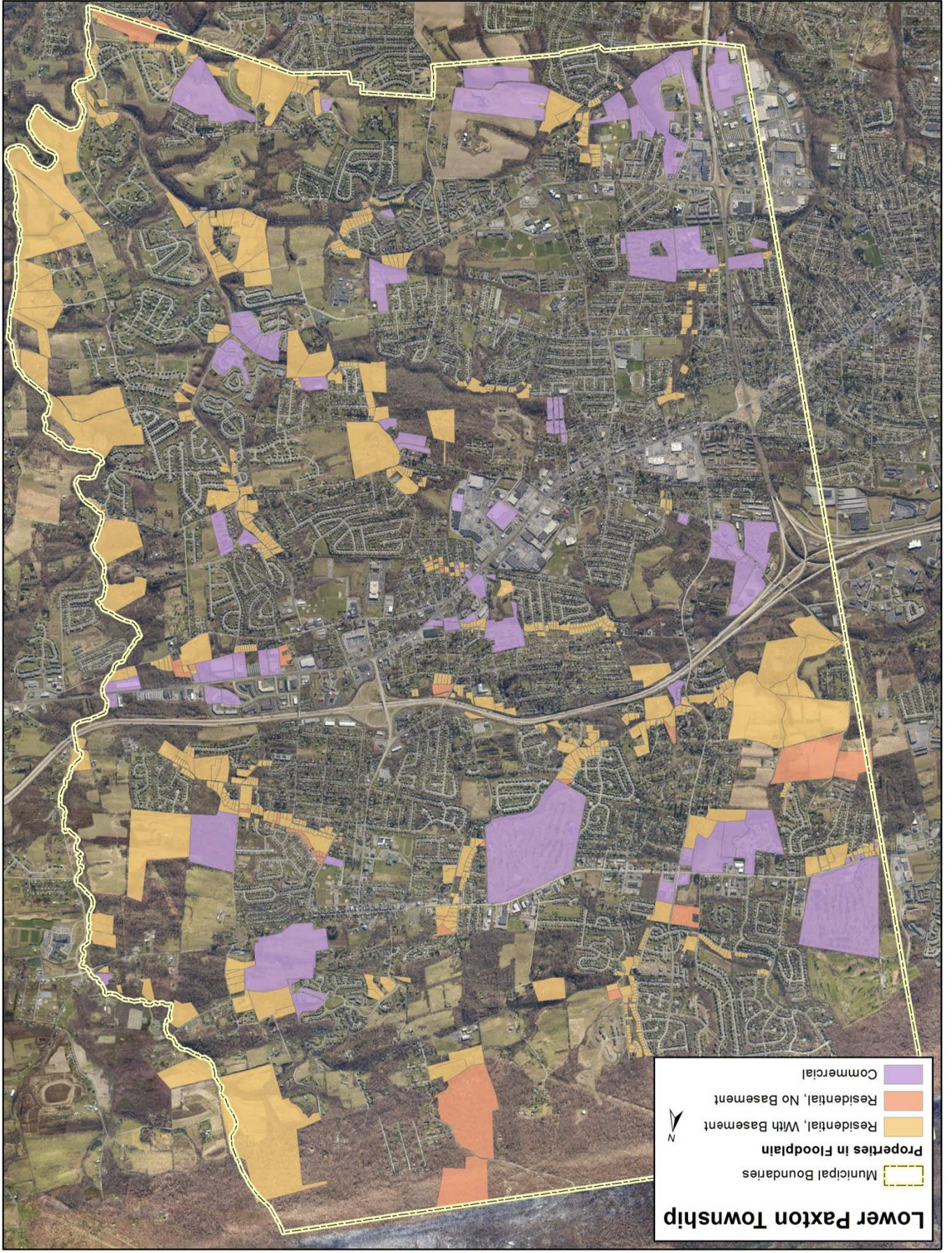
Legend:

- Municipal Boundaries (Yellow dashed line)
- Repetitive Loss Area (Red outline)










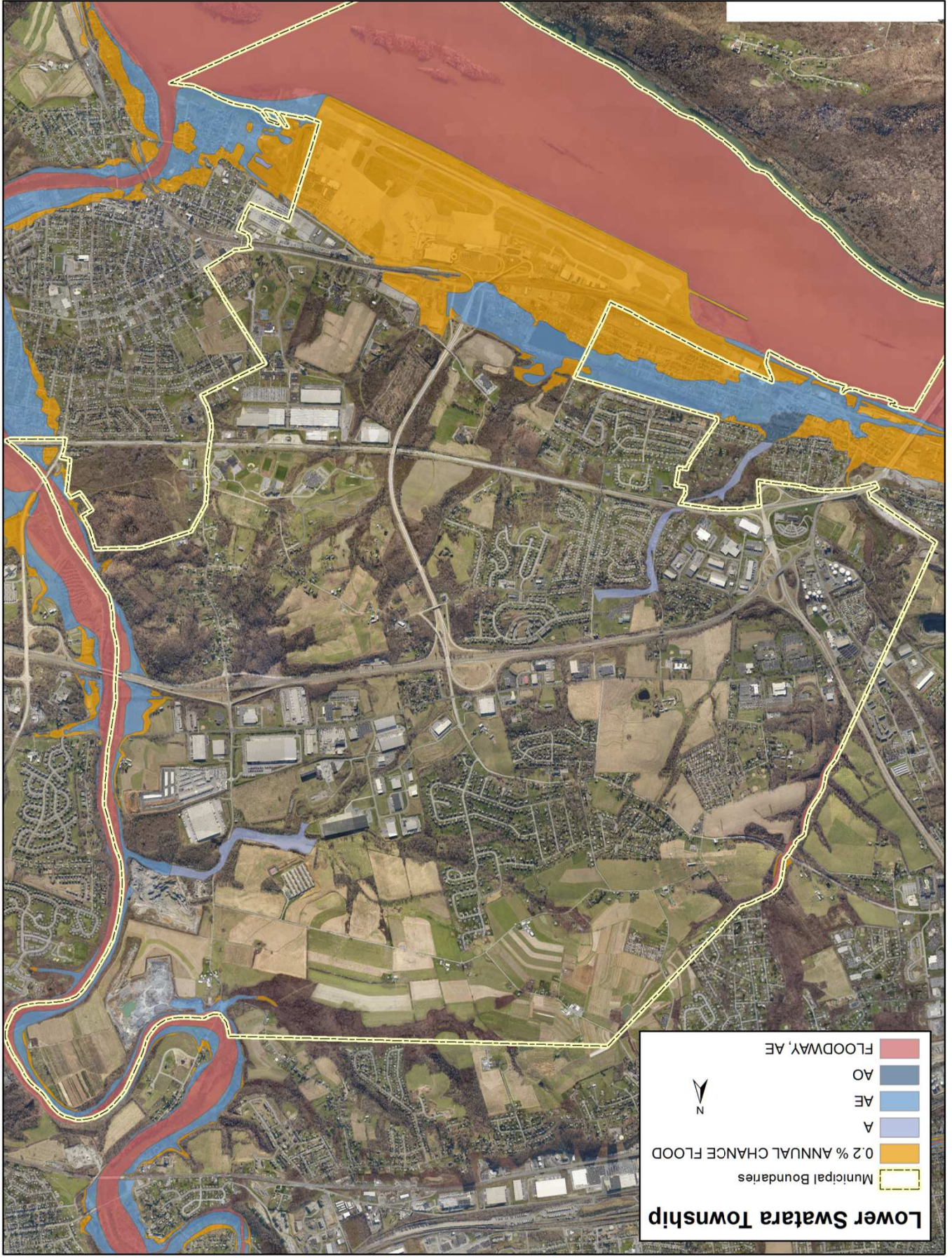




**Lower Paxton Township**

-  Municipal Boundaries
-  Repetitive Loss Area

 N



**Lower Swatara Township**

Municipal Boundaries

0.2% ANNUAL CHANCE FLOOD

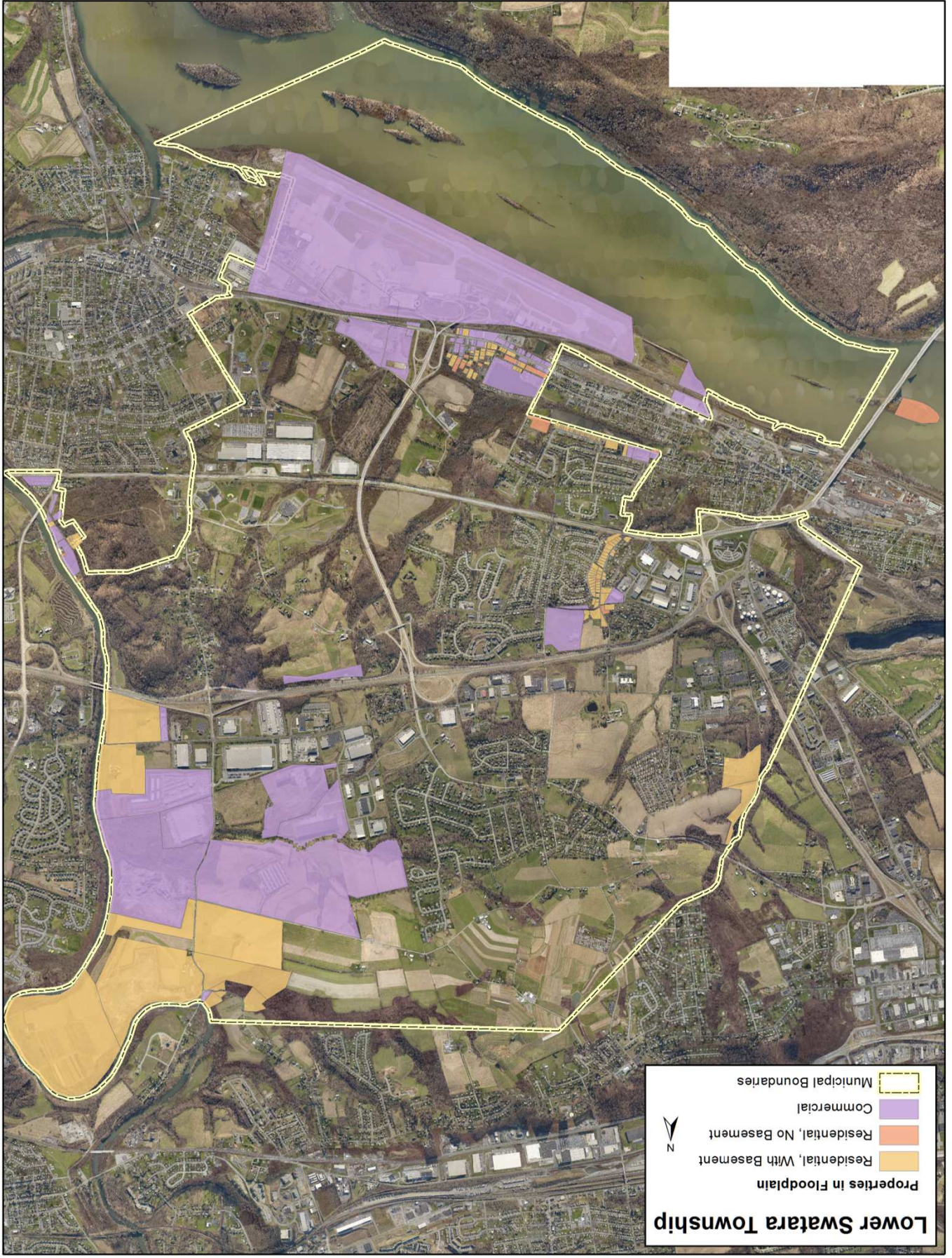
A

AE

AO

FLOODWAY, AE

N



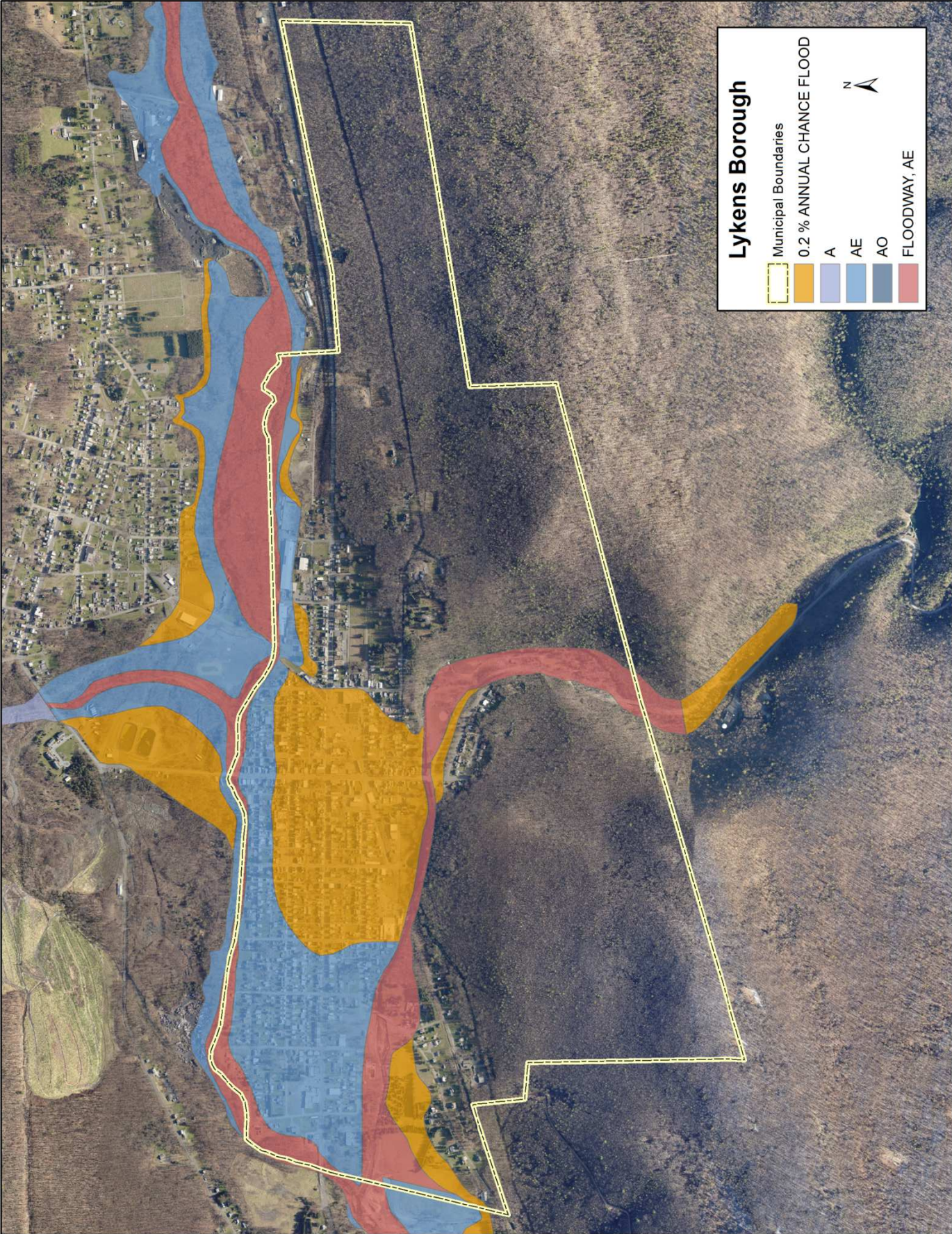


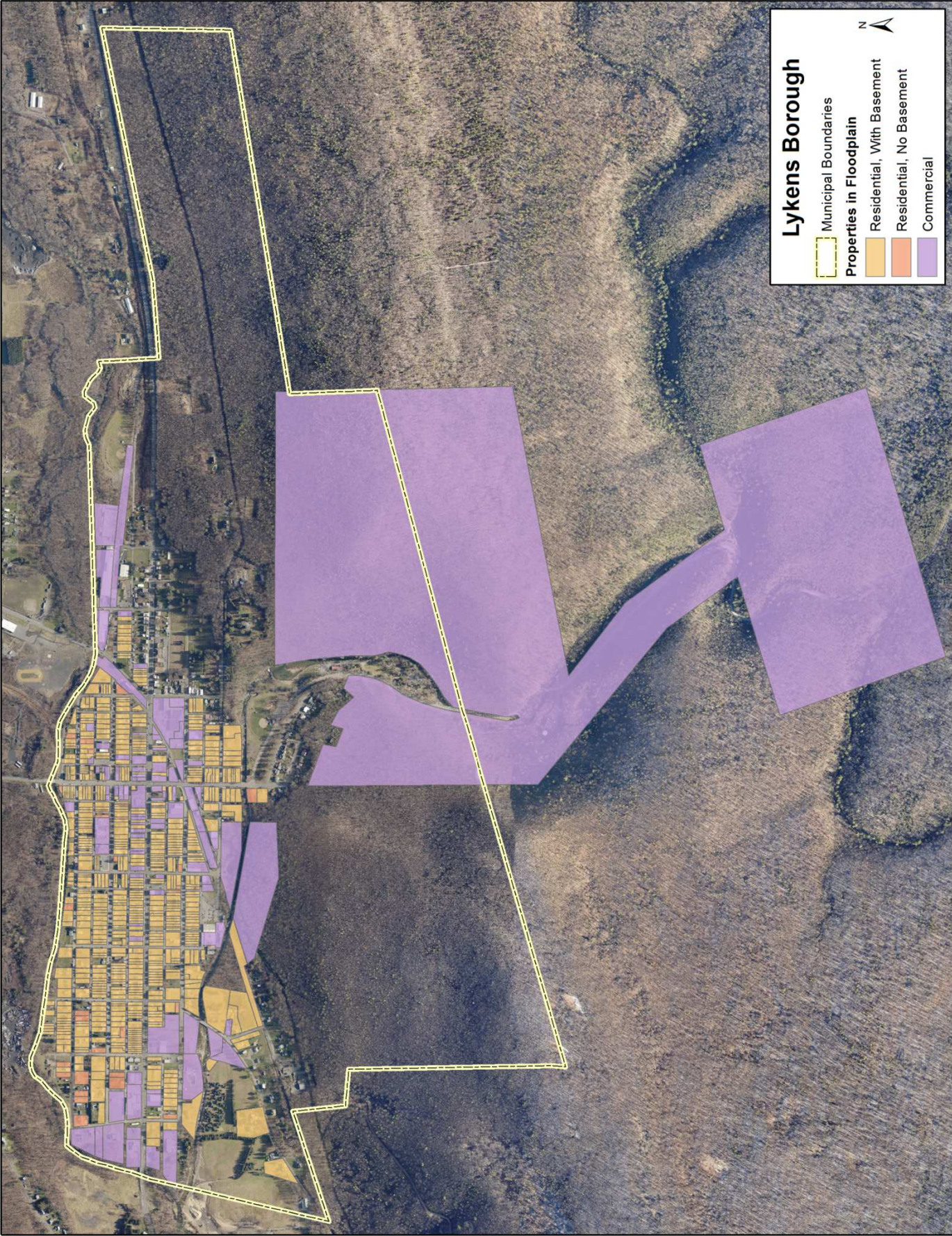
**Lower Swatara Township**

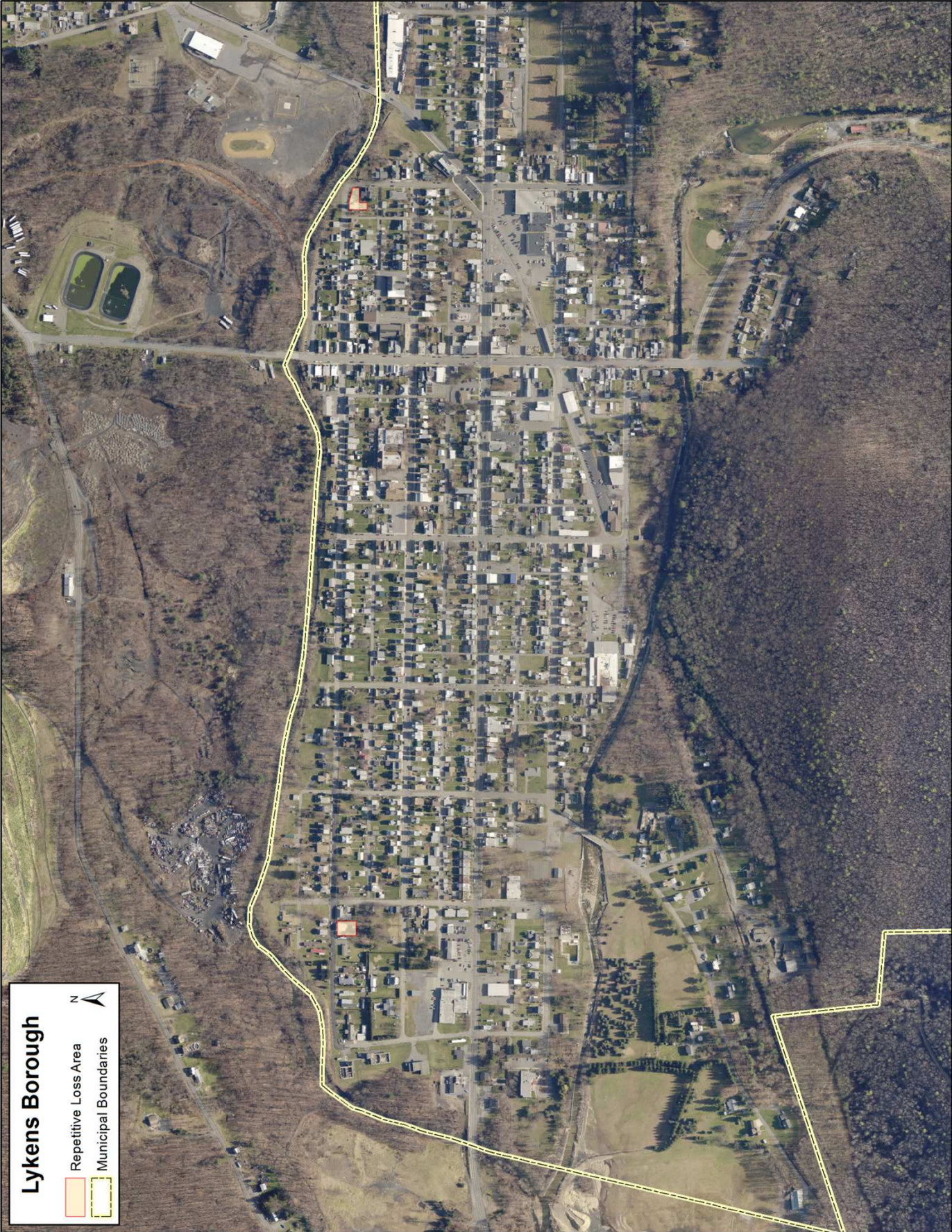
Repetitive Loss Area

Municipal Boundaries

N







**Lykens Borough**

Repetitive Loss Area

Municipal Boundaries

N



# Lykens Township

- Municipal Boundaries
- 0.2 % ANNUAL CHANCE FLOOD
- A
- AE
- AO
- FLOODWAY, AE



# Lykens Township

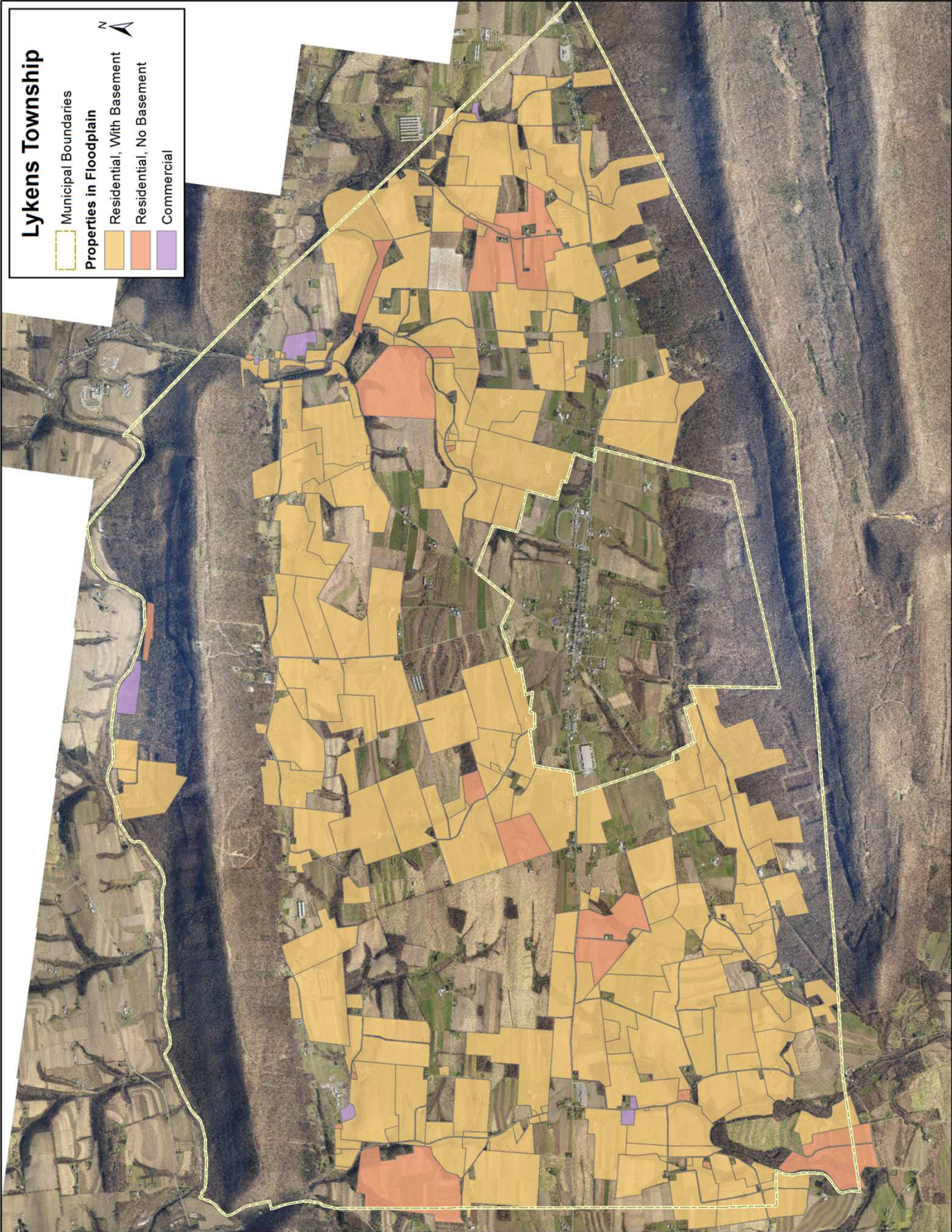
Municipal Boundaries

Properties in Floodplain

Residential, With Basement

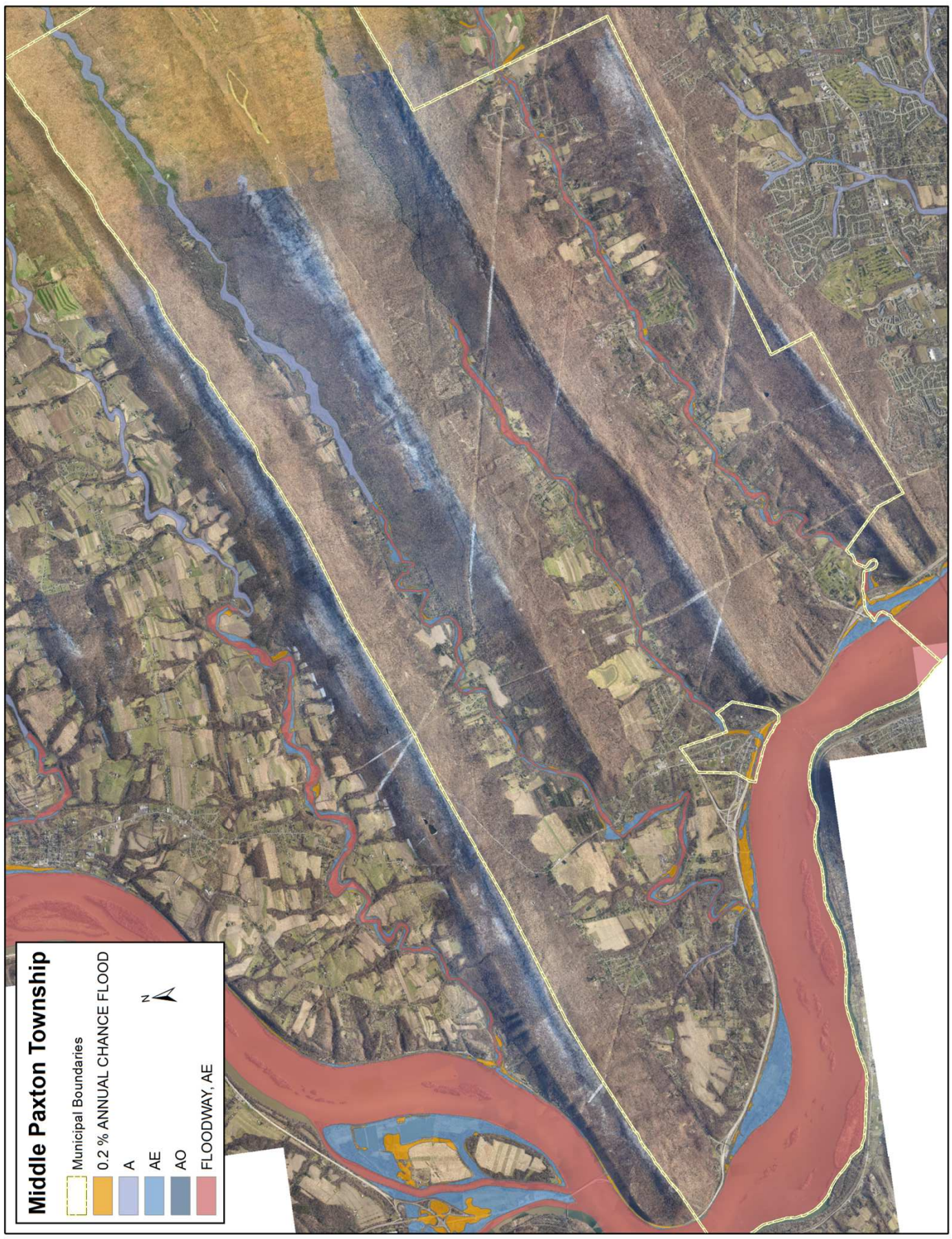
Residential, No Basement

Commercial



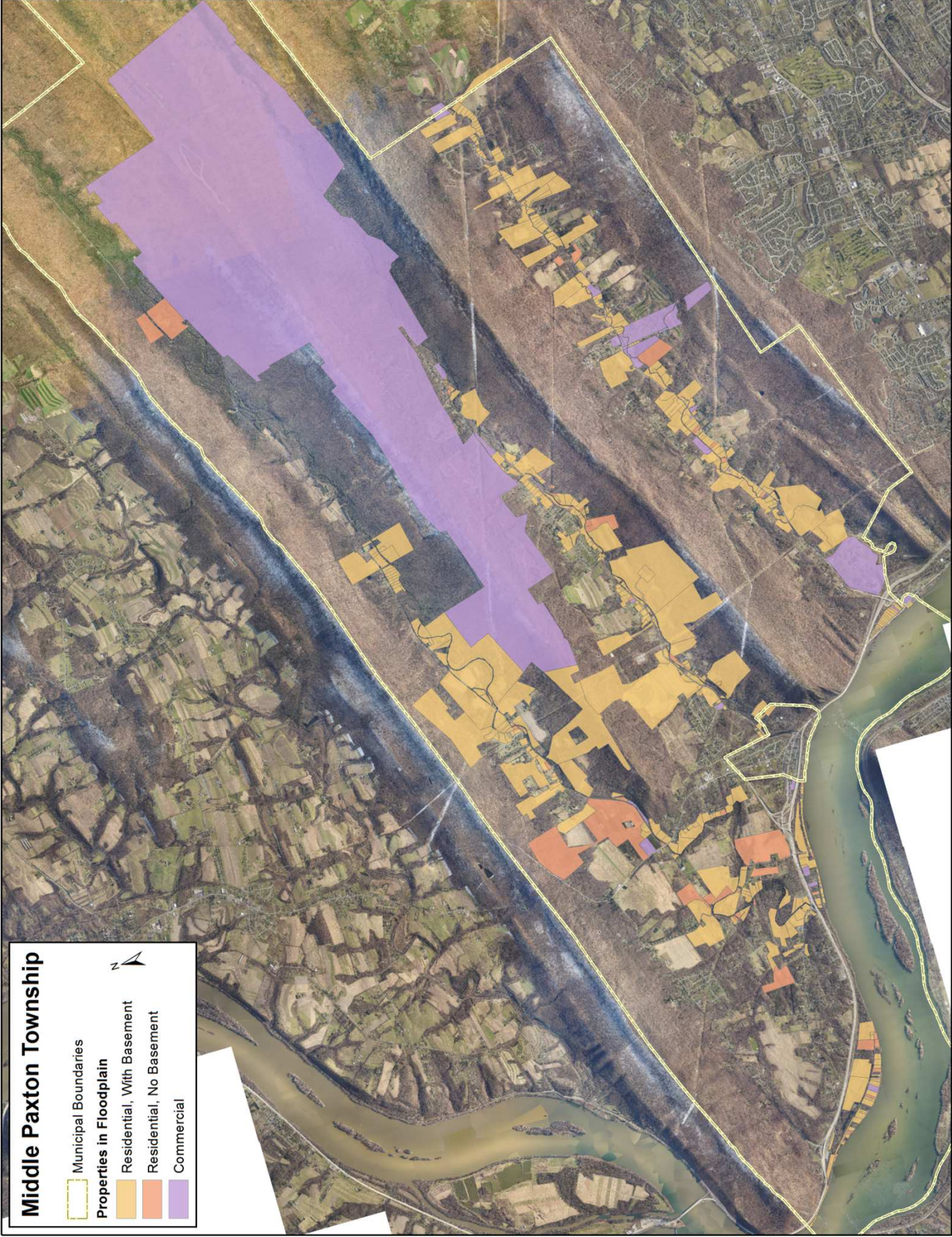
# Middle Paxton Township

- Municipal Boundaries
- 0.2 % ANNUAL CHANCE FLOOD
- A
- AE
- AO
- FLOODWAY, AE



# Middle Paxton Township

- Municipal Boundaries
- Properties in Floodplain
- Residential, With Basement
- Residential, No Basement
- Commercial

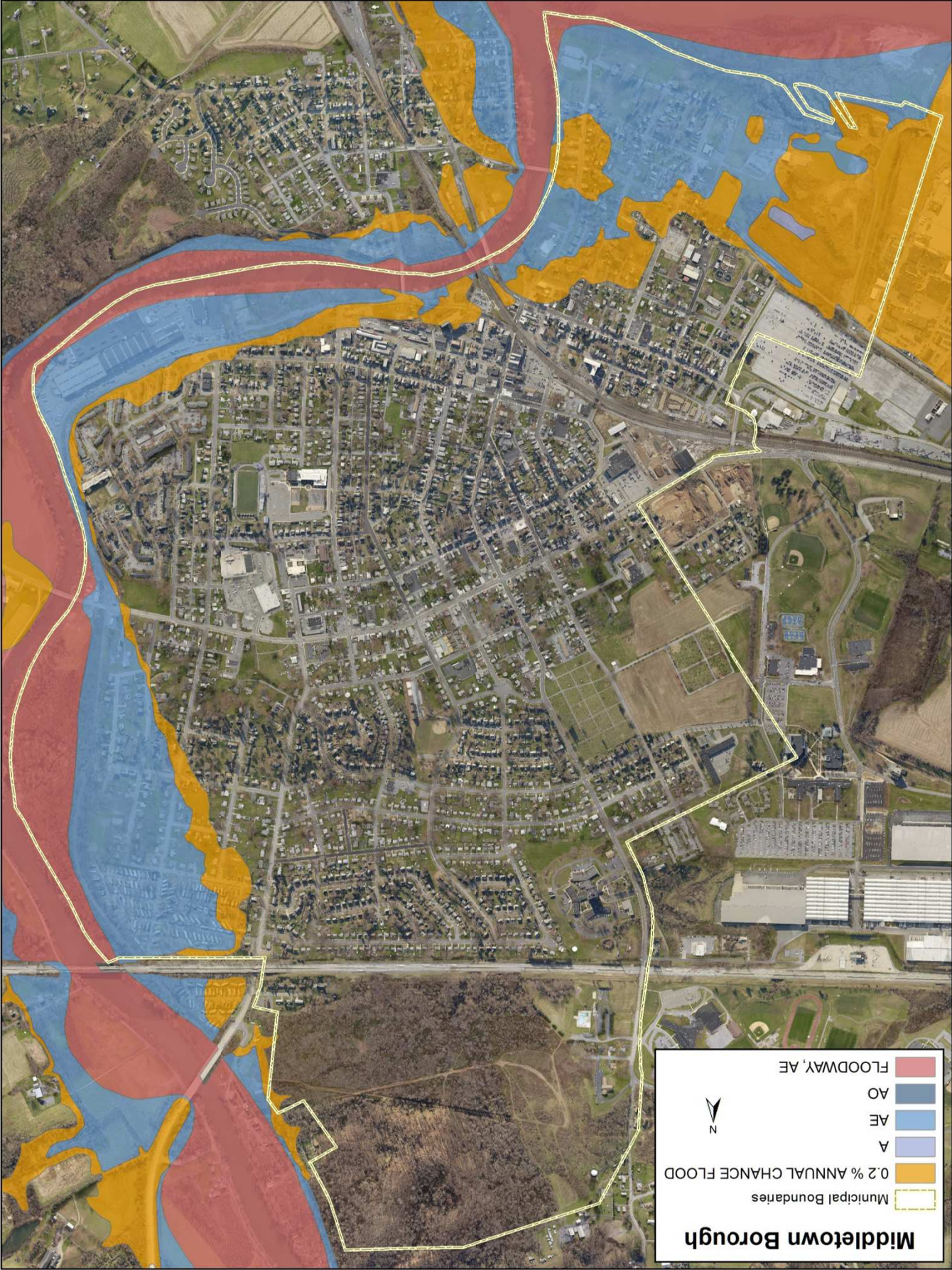




# Middle Paxton Township

- Repetitive Loss Area
- Municipal Boundaries





**Middletown Borough**

- FLOODWAY, AE
- AO
- AE
- A
- 0.2 % ANNUAL CHANCE FLOOD
- Municipal Boundaries

N

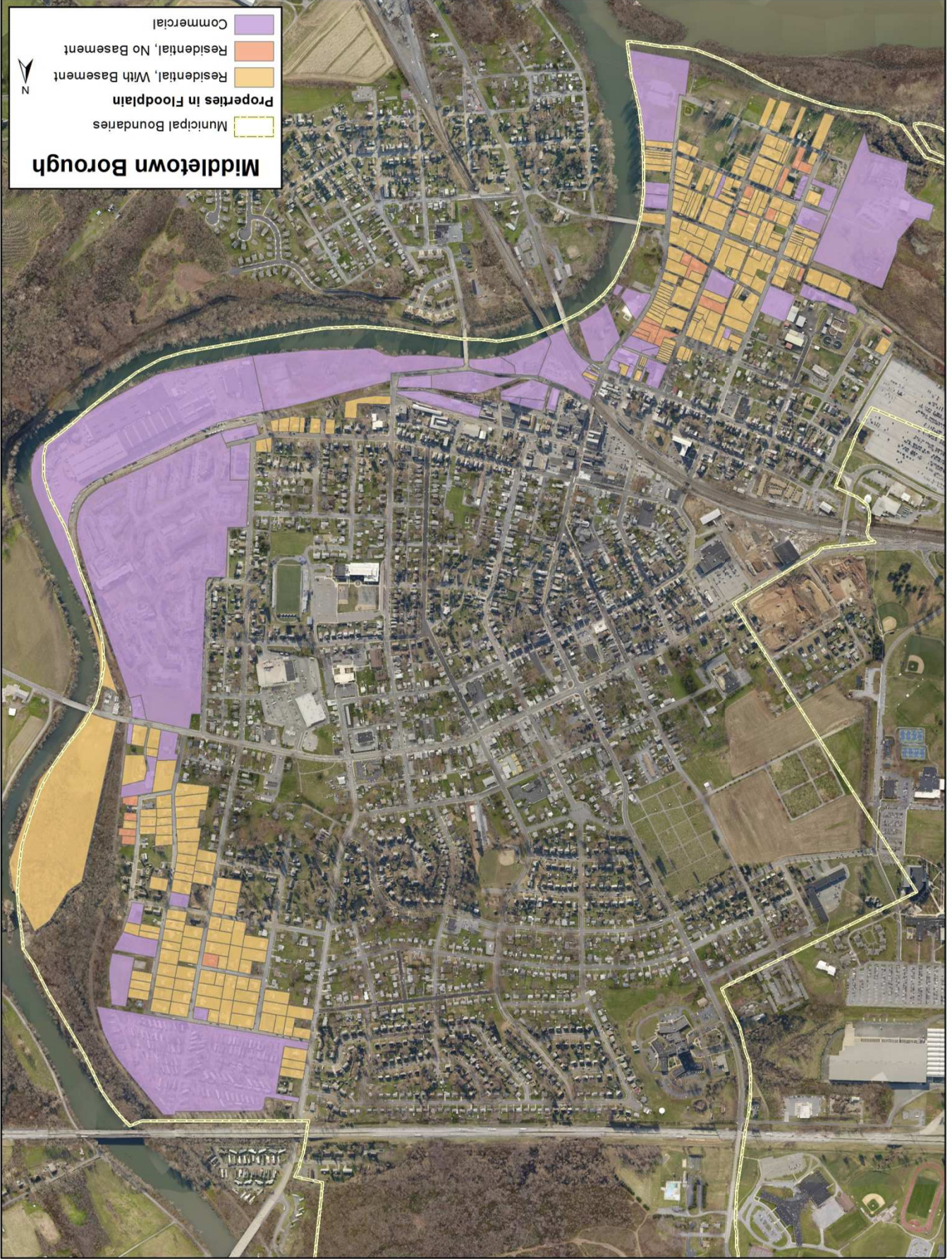
# Middletown Borough

Municipal Boundaries



Properties in Floodplain

- Residential, With Basement
- Residential, No Basement
- Commercial





**Middletown Borough**

Repetitive Loss Area

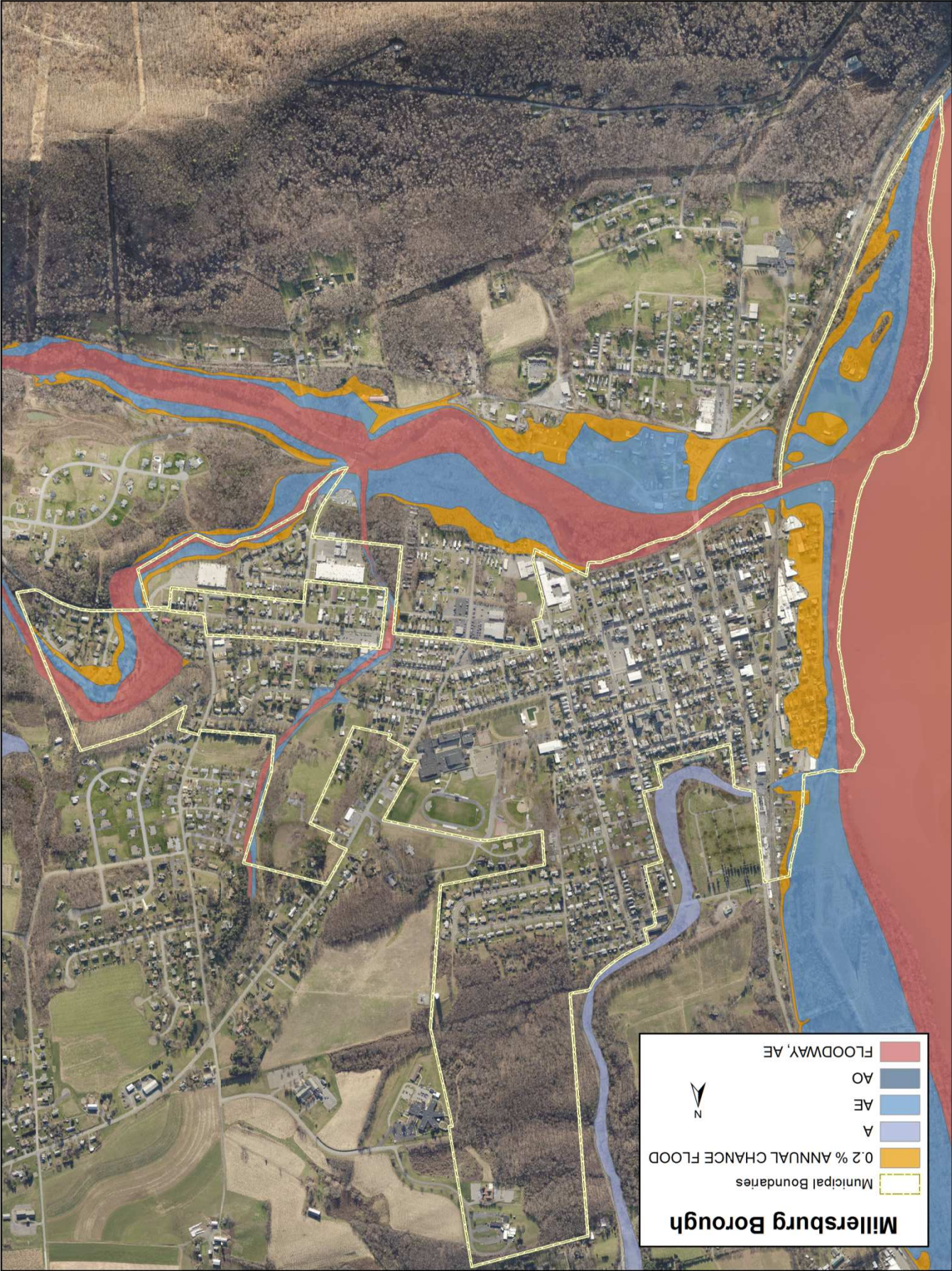
Municipal Boundaries

N







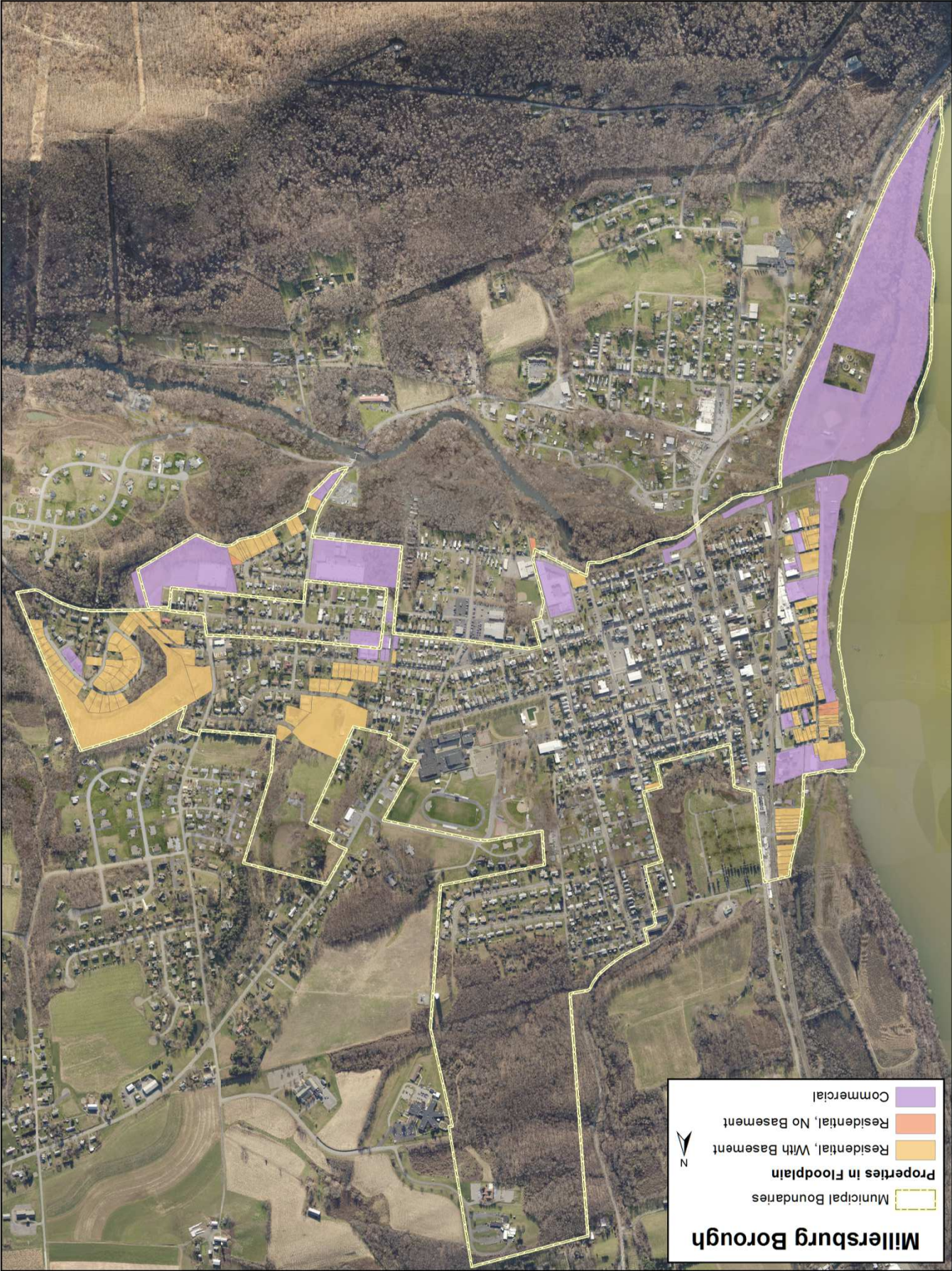


**Millersburg Borough**

- FLOODWAY, AE
- AE
- A
- 0.2% ANNUAL CHANCE FLOOD
- Municipal Boundaries

AO

N





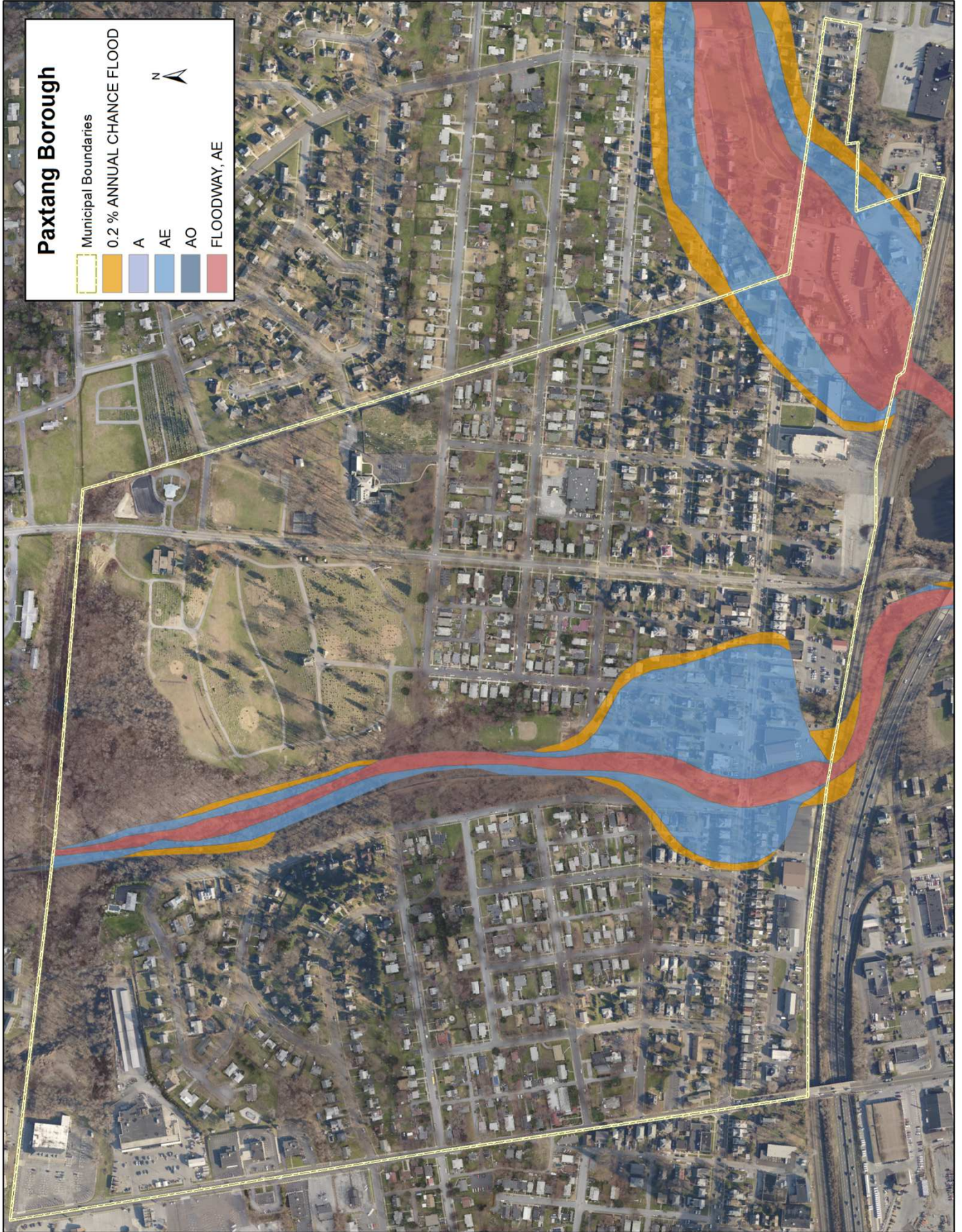
**Millersburg Borough**

North Arrow (N)

- Repetitive Loss Area (Orange box)
- Municipal Boundaries (Yellow dashed line)

# Paxtang Borough

- Municipal Boundaries
- 0.2 % ANNUAL CHANCE FLOOD
- A
- AE
- AO
- FLOODWAY, AE



# Paxtang Borough

Municipal Boundaries



## Properties in Floodplain

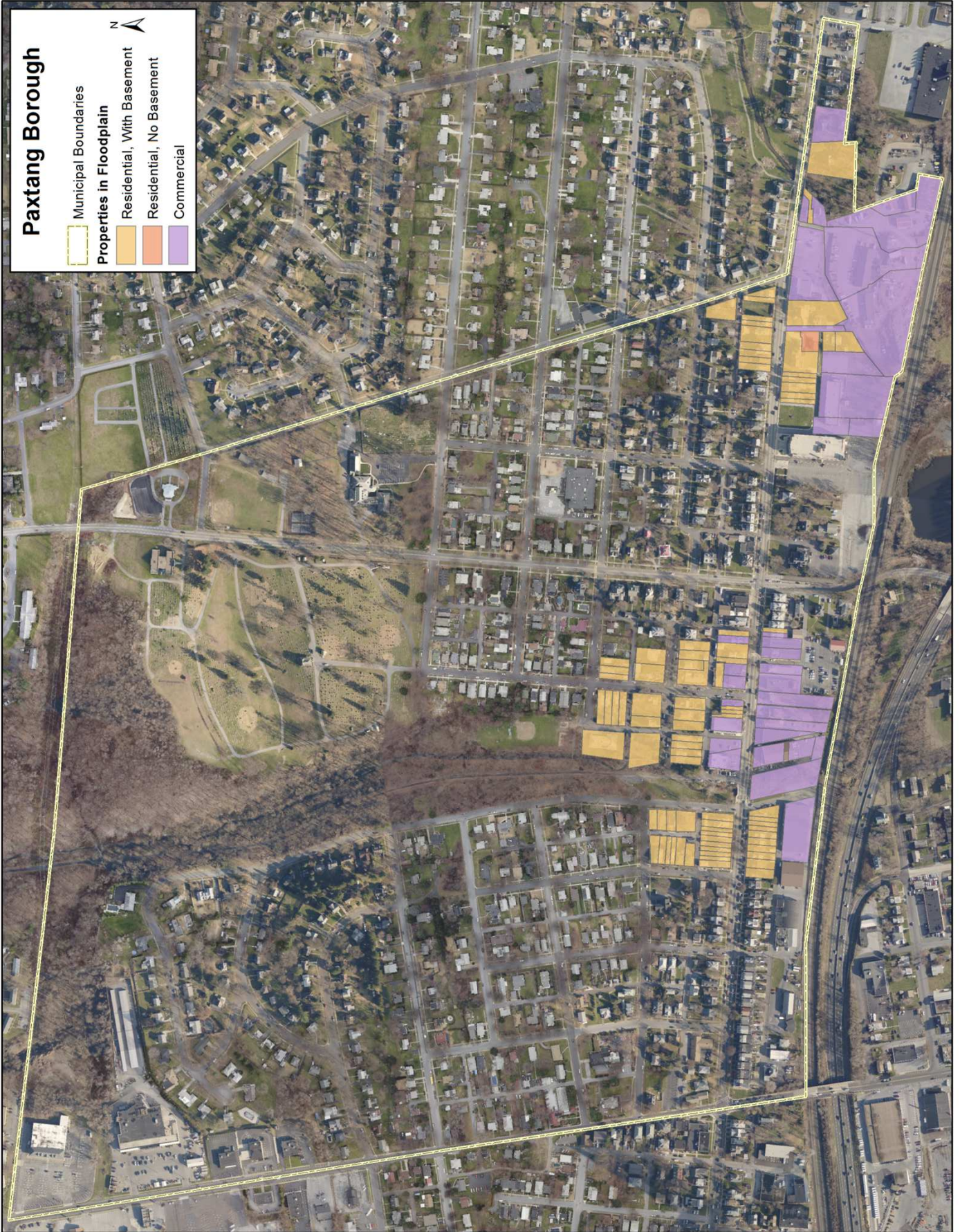
Residential, With Basement

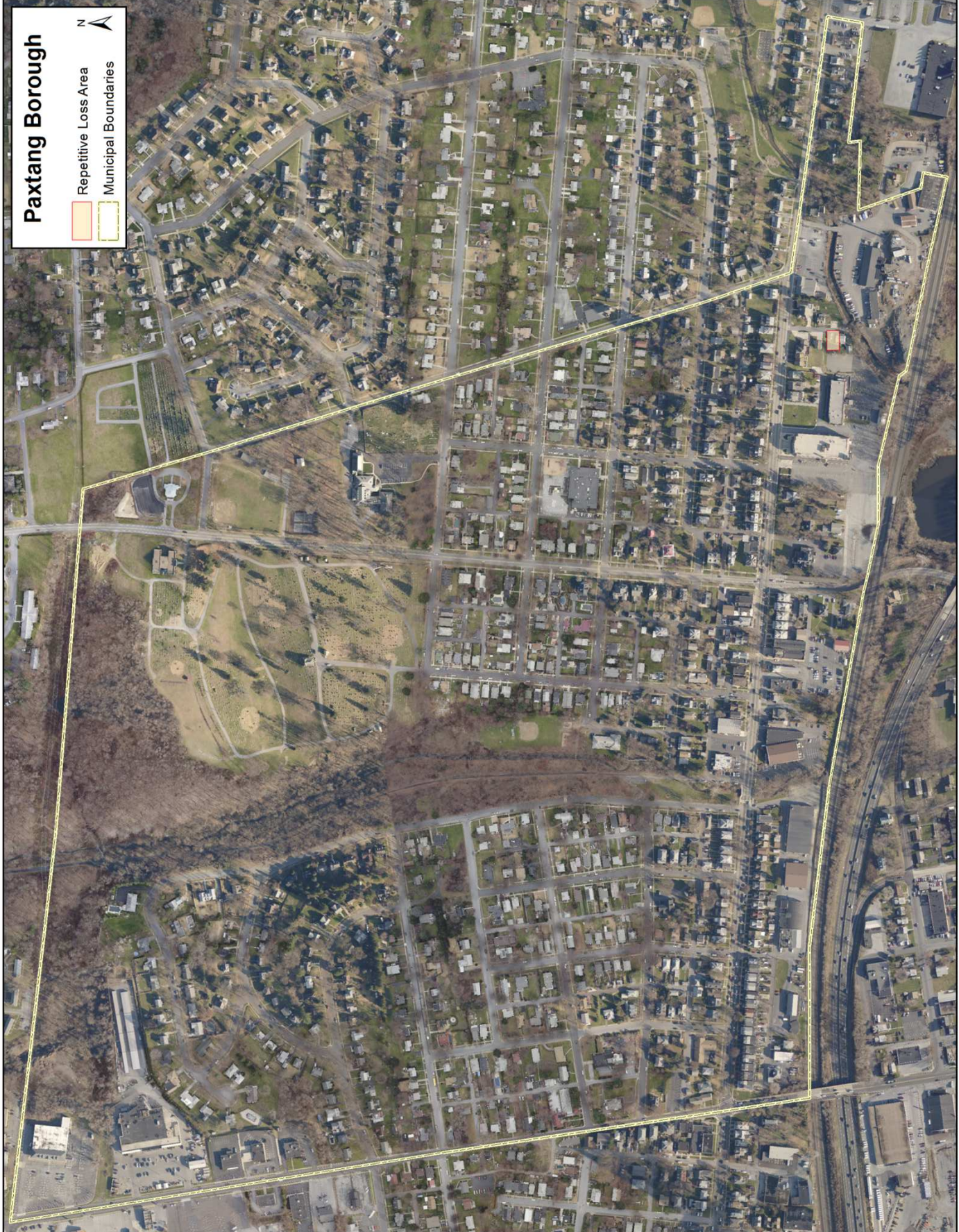


Residential, No Basement



Commercial



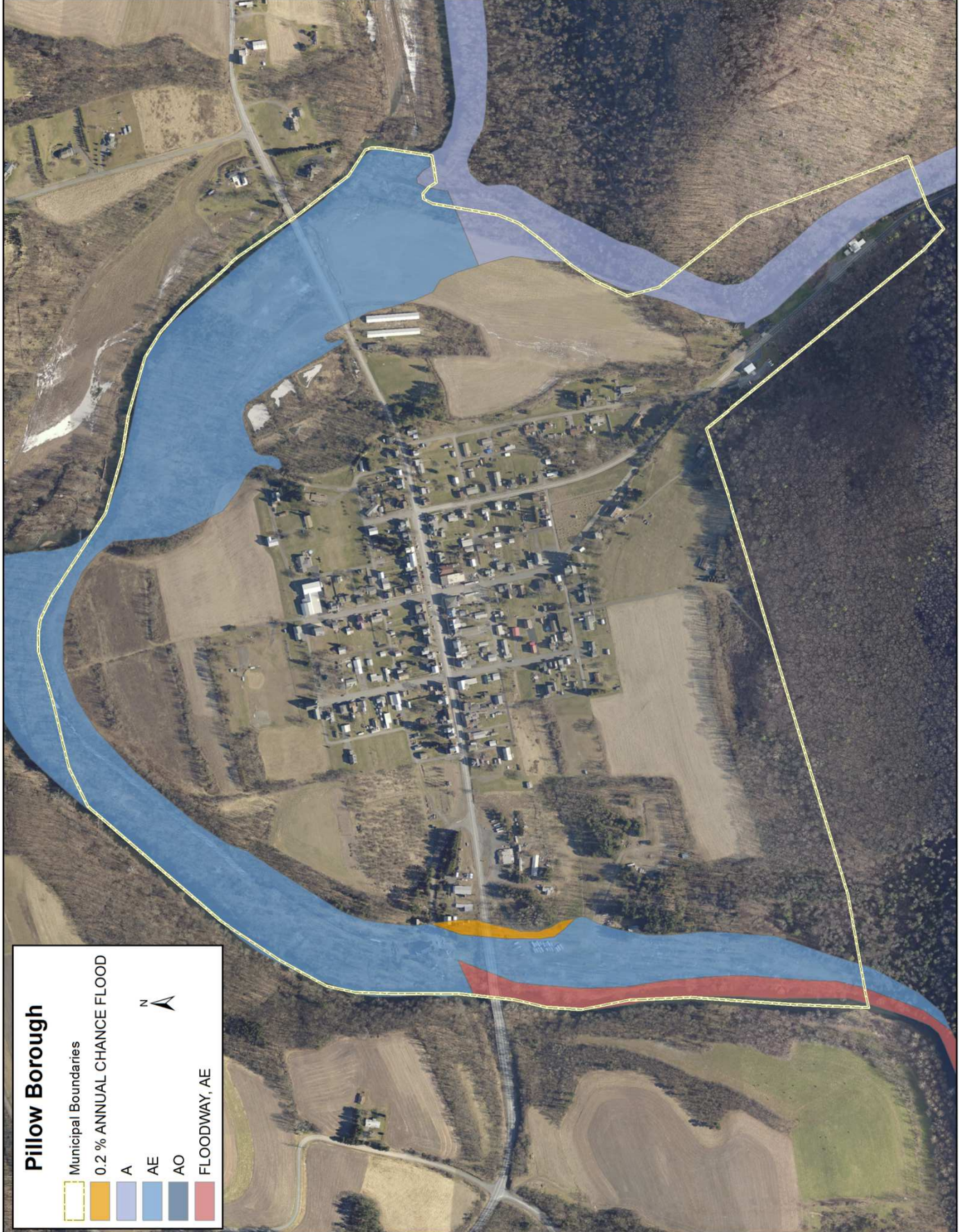


# Paxtang Borough



- Repetitive Loss Area
- Municipal Boundaries





**Pillow Borough**

Municipal Boundaries

0.2 % ANNUAL CHANCE FLOOD

A

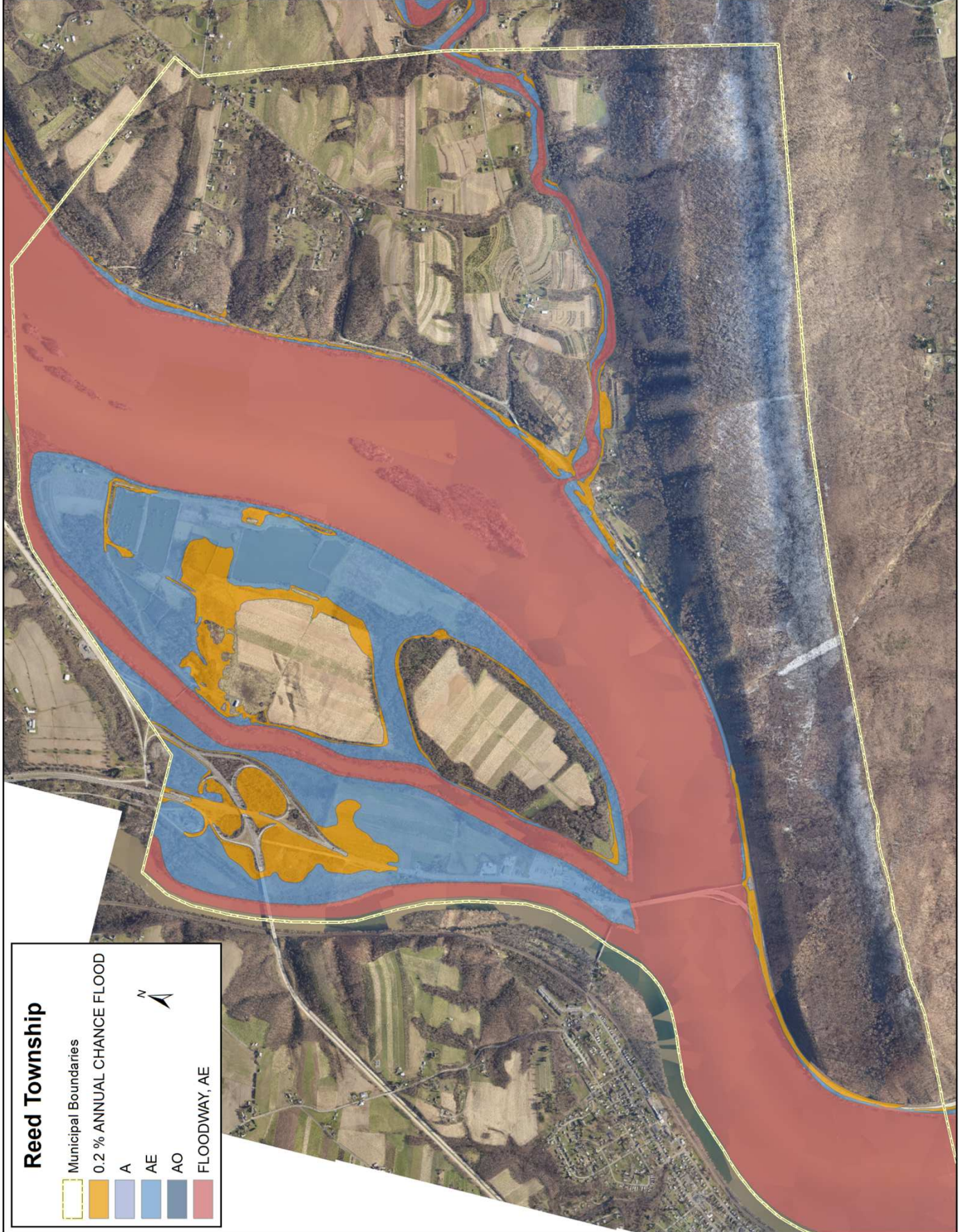
AE

AO

FLOODWAY, AE

N





**Reed Township**

Municipal Boundaries

0.2 % ANNUAL CHANCE FLOOD

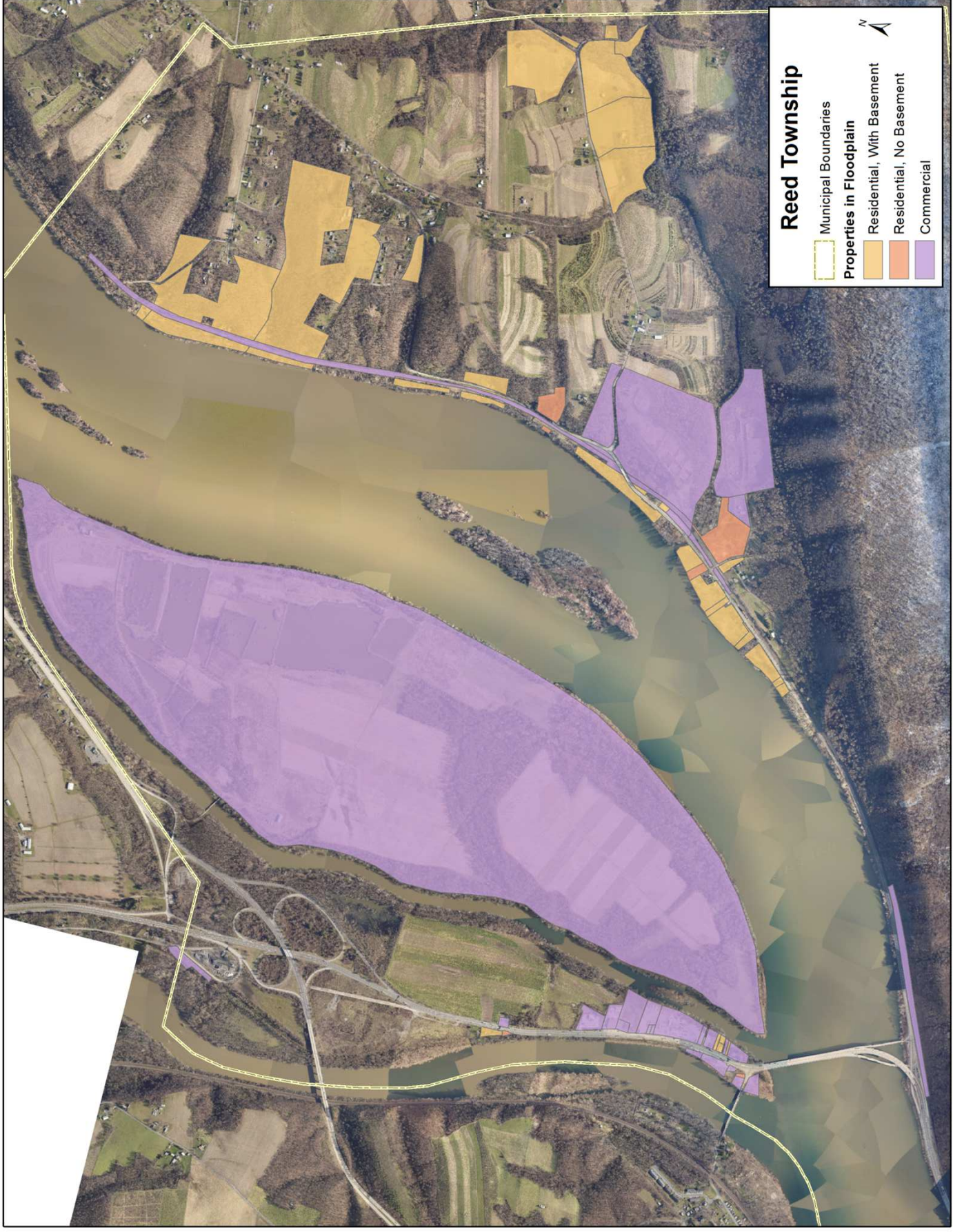
A

AE

AO

FLOODWAY, AE

N

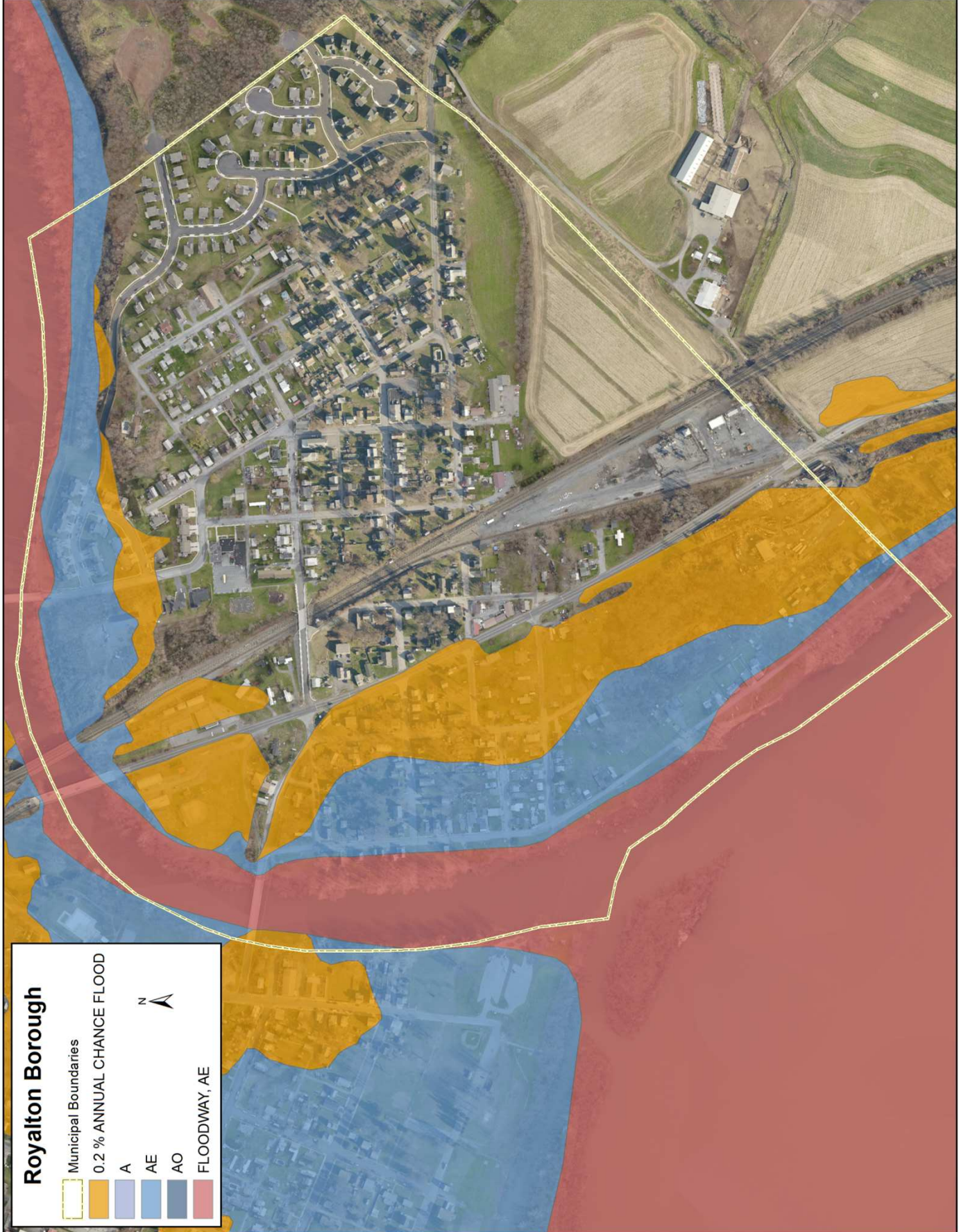




# Reed Township

- Repetitive Loss Area
- Municipal Boundaries







**Royalton Borough**

Municipal Boundaries

Properties in Floodplain

- Residential, With Basement
- Residential, No Basement
- Commercial

N



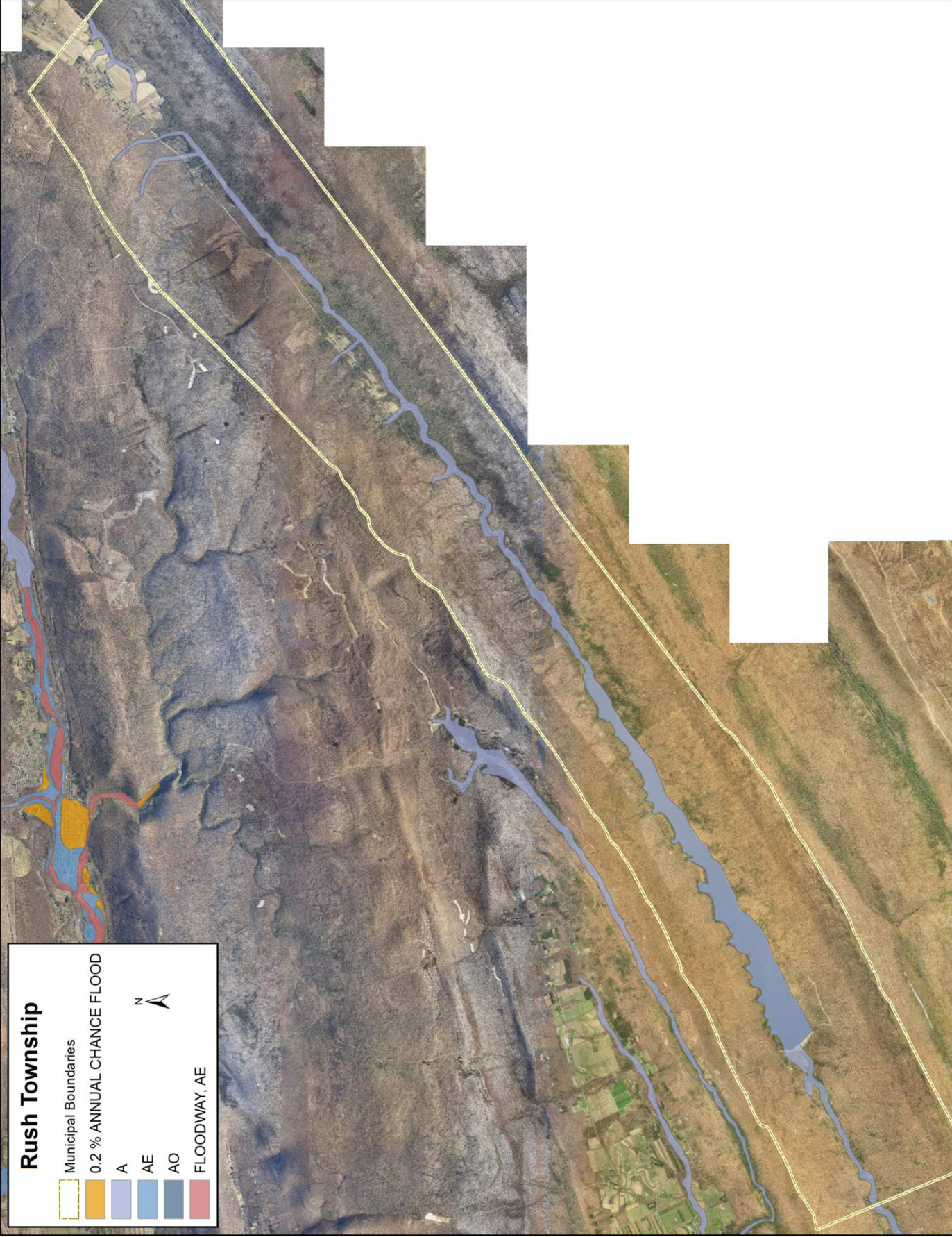
**Royalton Borough**

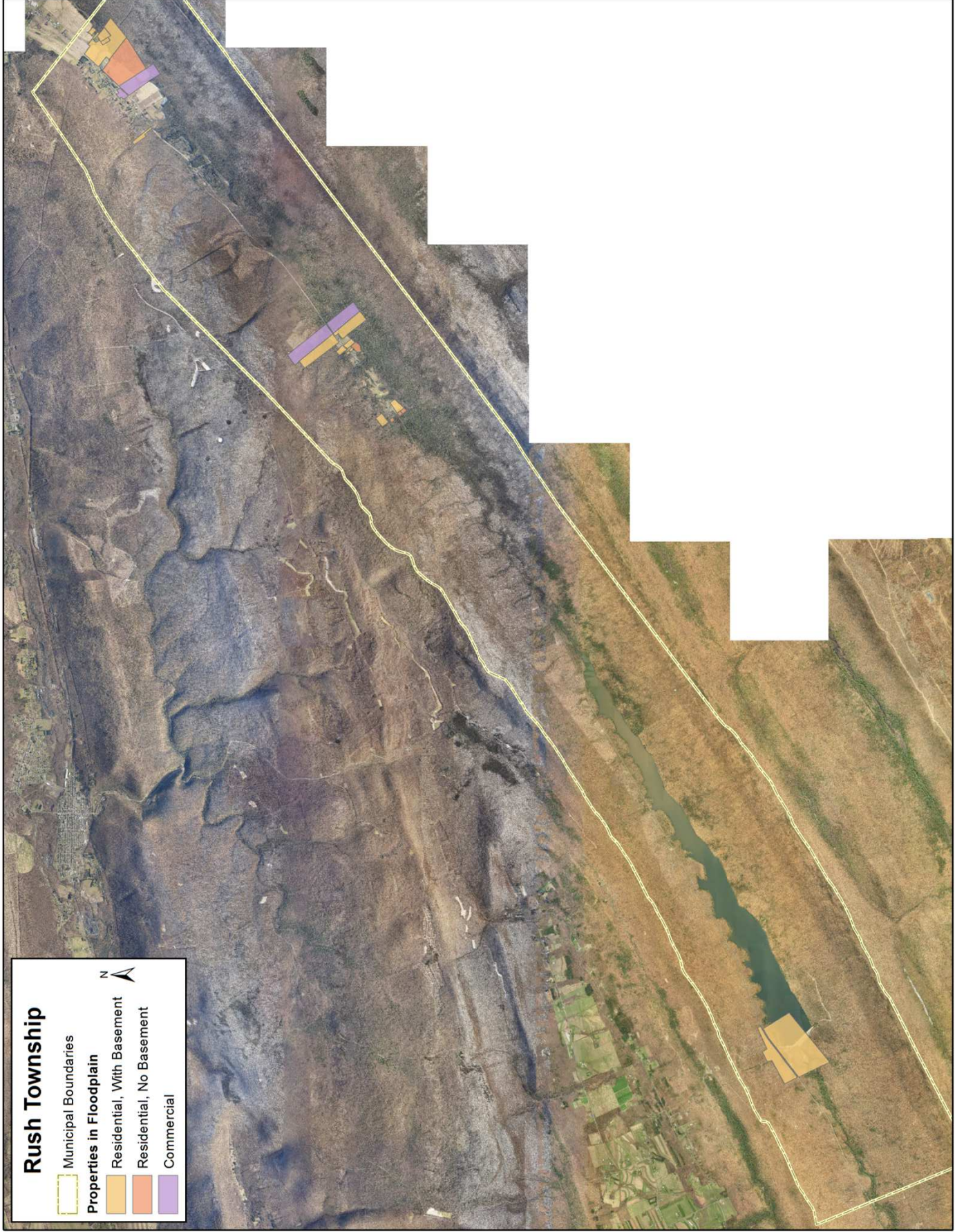
Repetitive Loss Area

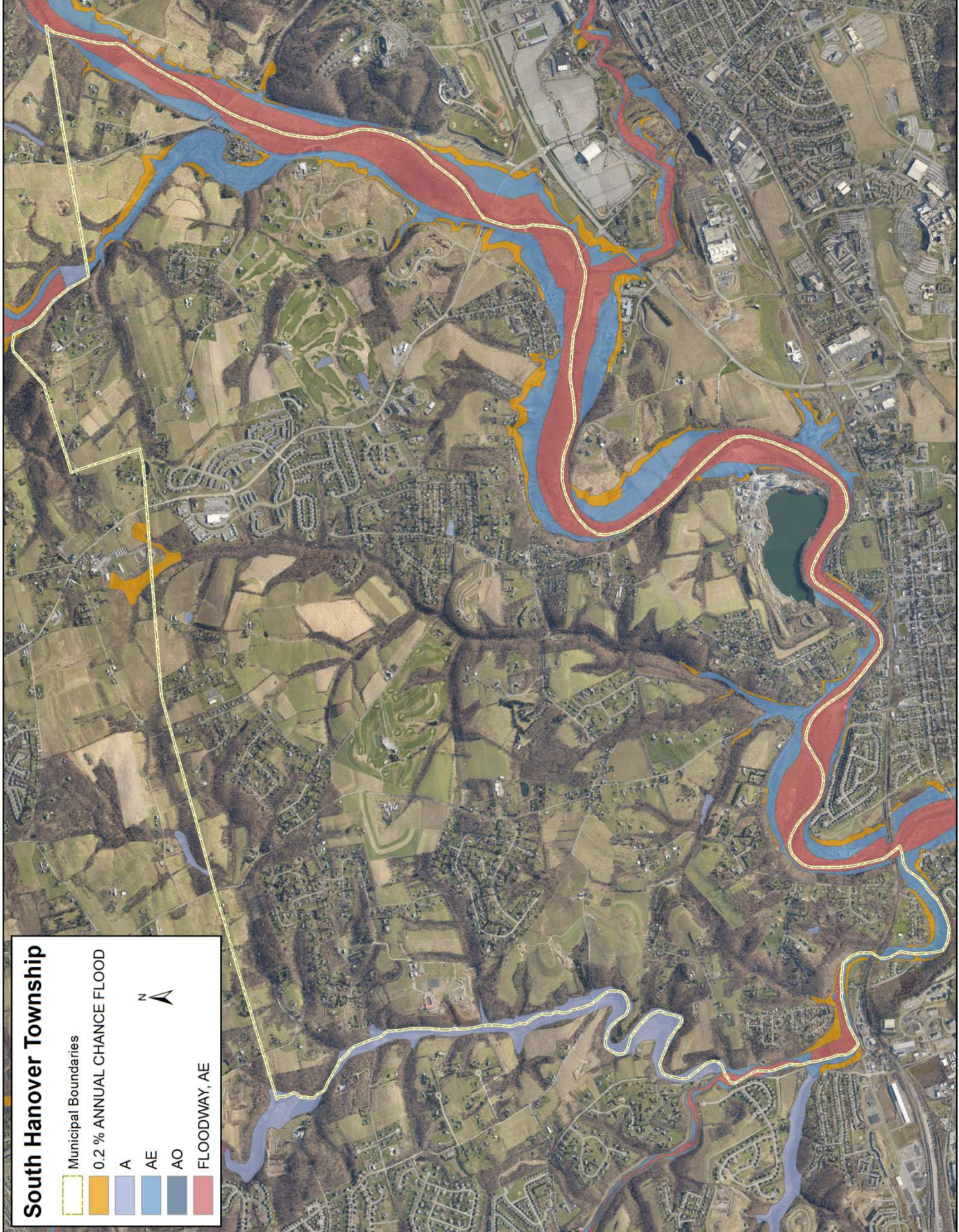
Municipal Boundaries

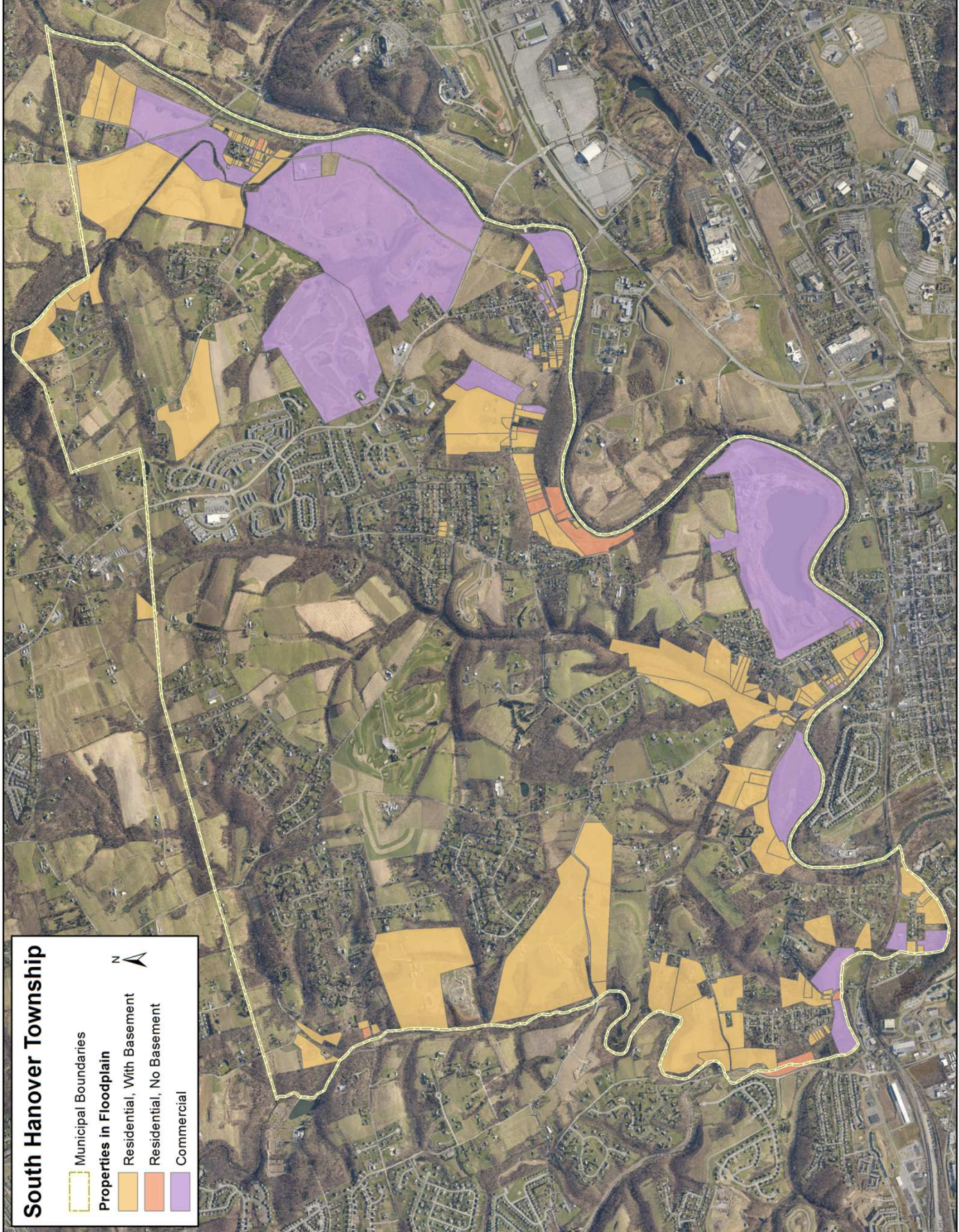
N











**South Hanover Township**

Municipal Boundaries

Properties in Floodplain

- Residential, With Basement
- Residential, No Basement
- Commercial

N

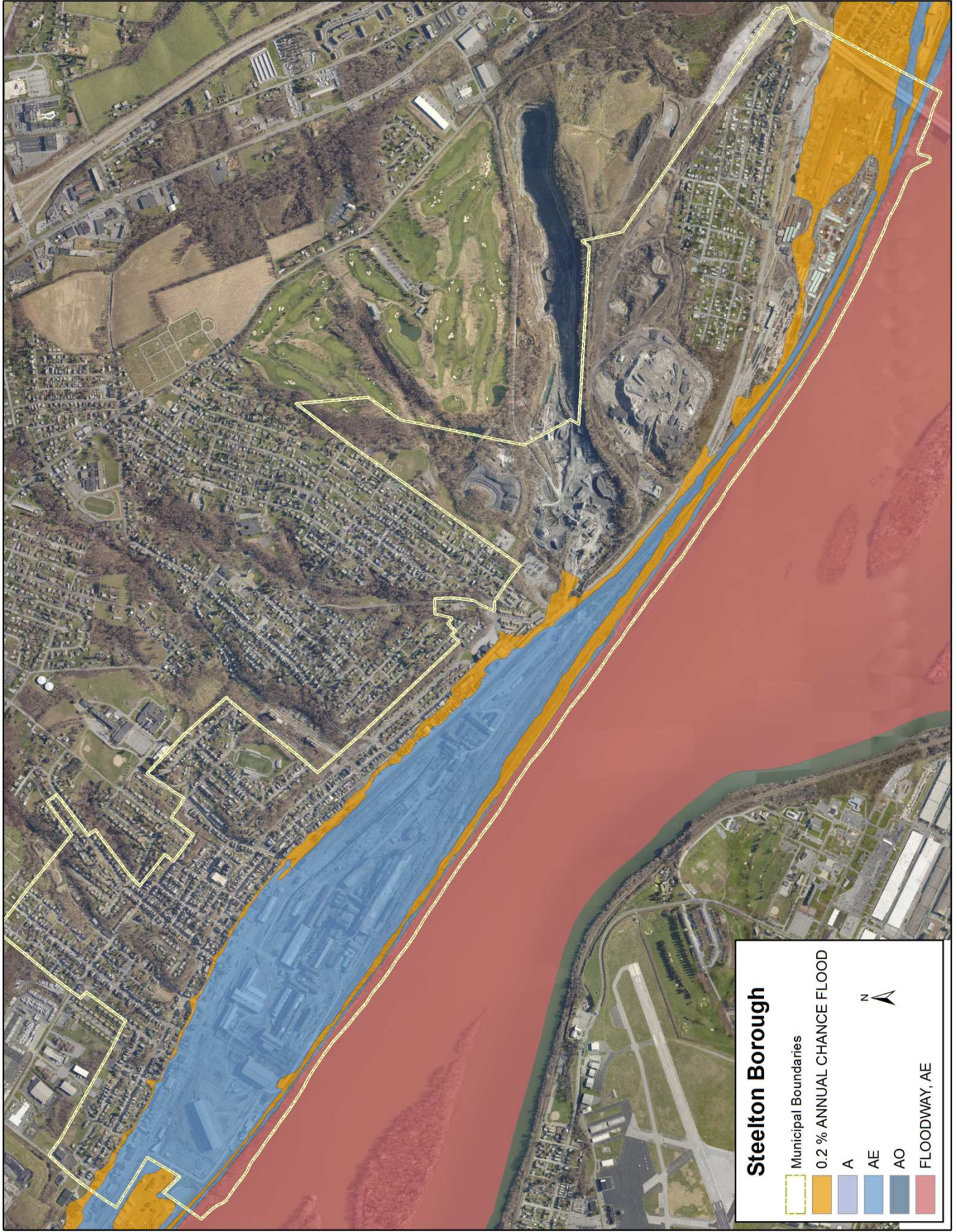


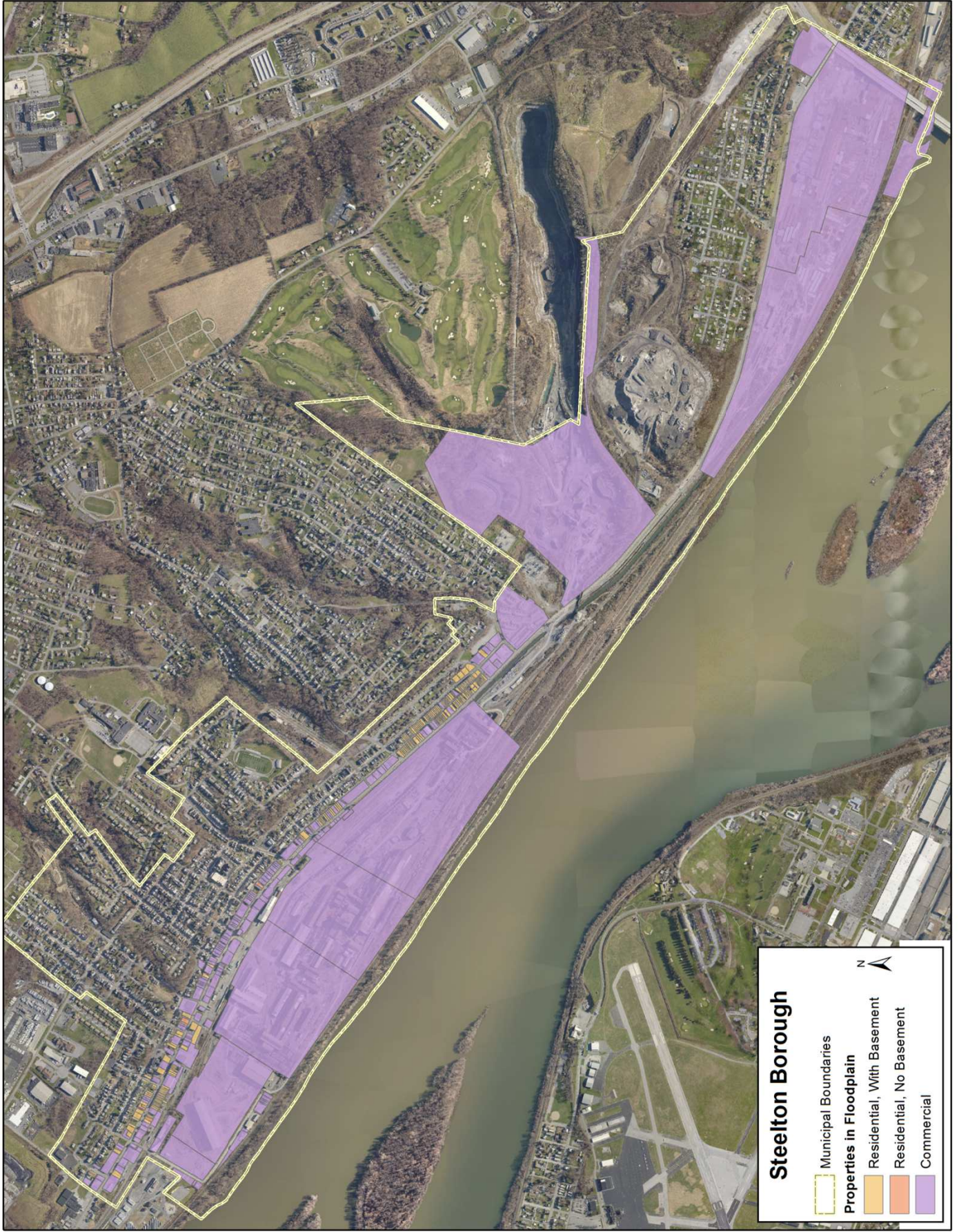
**South Hanover Township**

Repetitive Loss Area

Municipal Boundaries

N







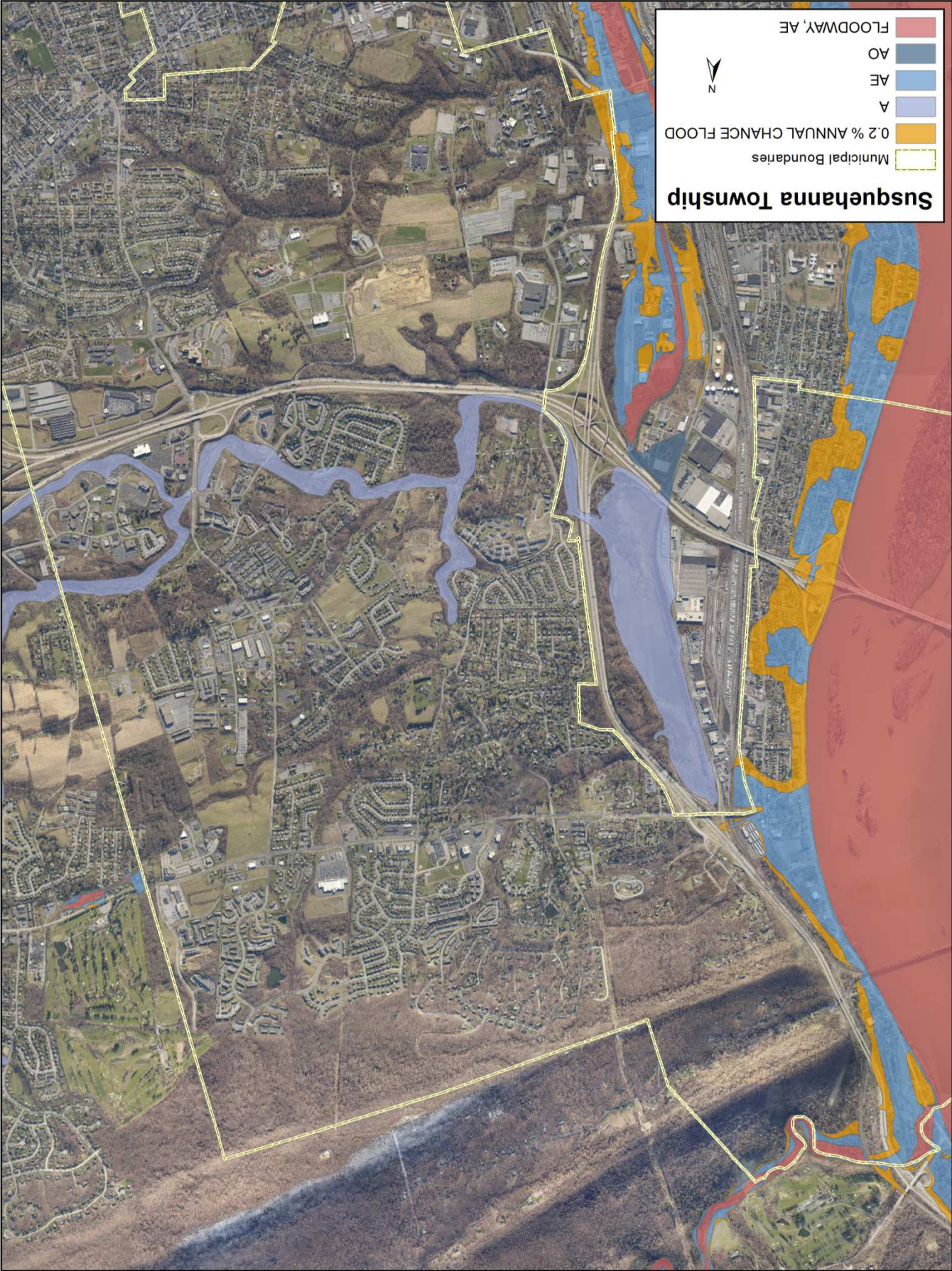
**Steelton Borough**

Repetitive Loss Area

Municipal Boundaries

N



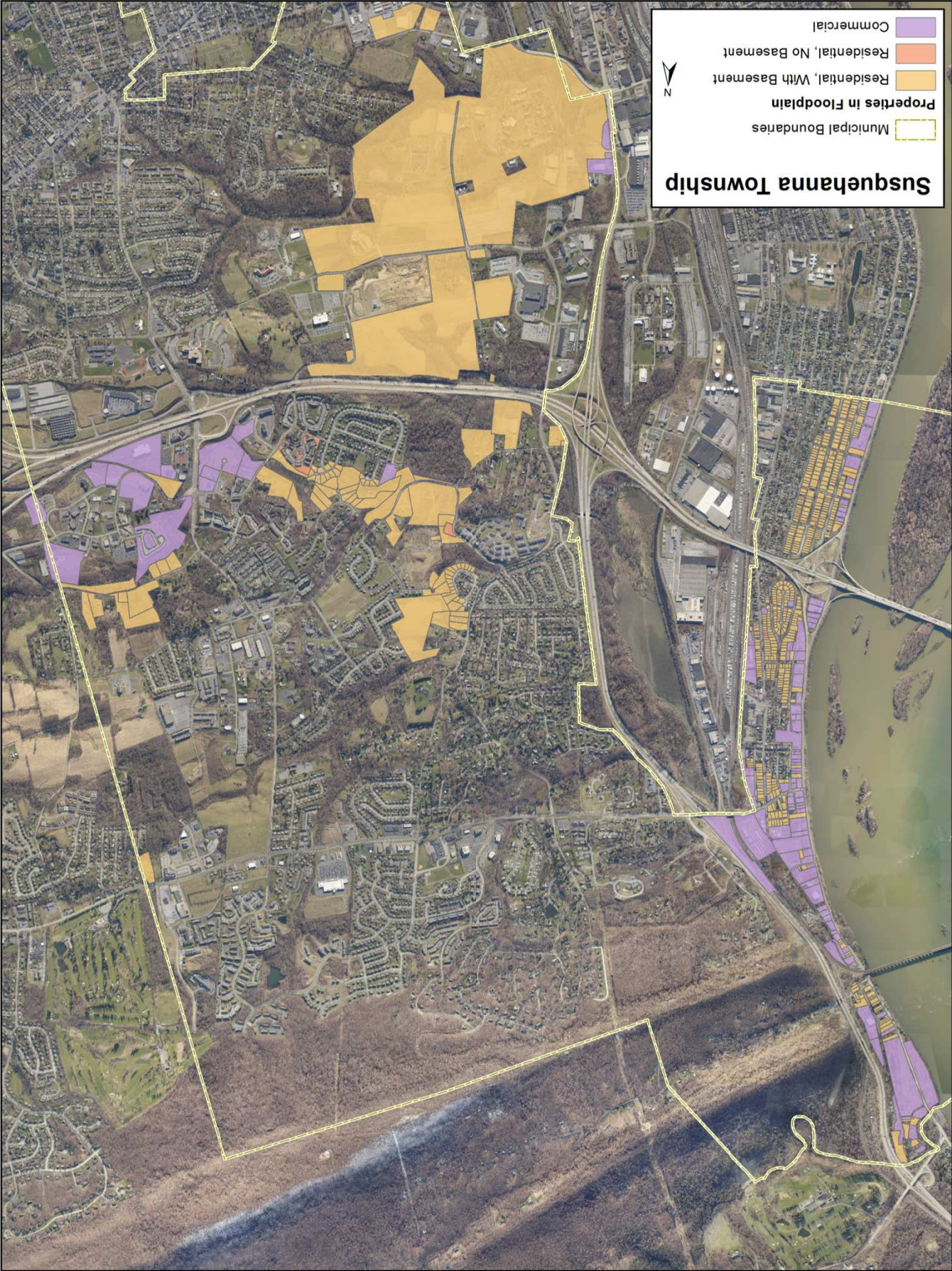


**Susquehanna Township**

Legend:

- FLOODWAY, AE
- AO
- AE
- A
- 0.2% ANNUAL CHANCE FLOOD
- Municipal Boundaries

North Arrow



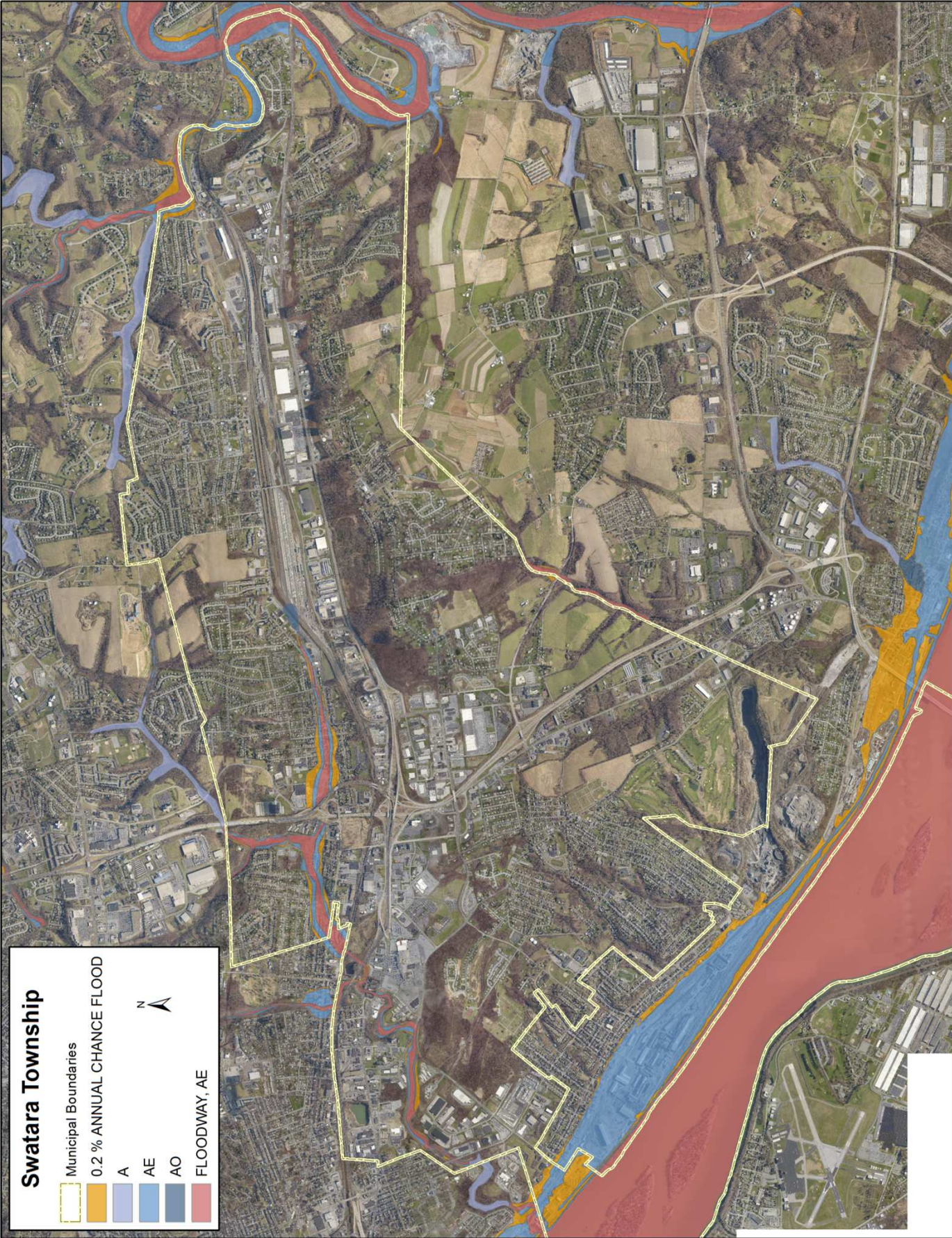


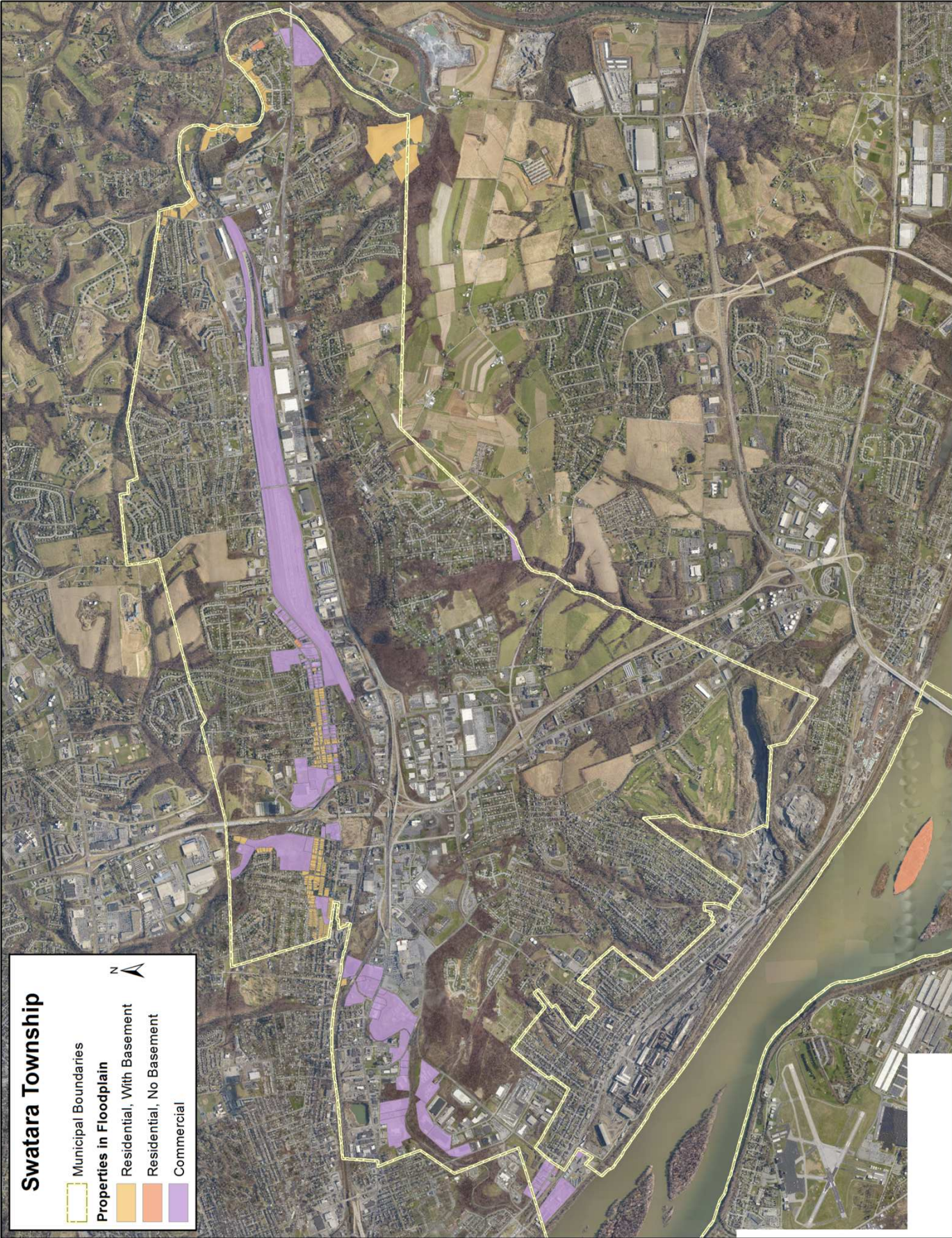
# Susquehanna Township



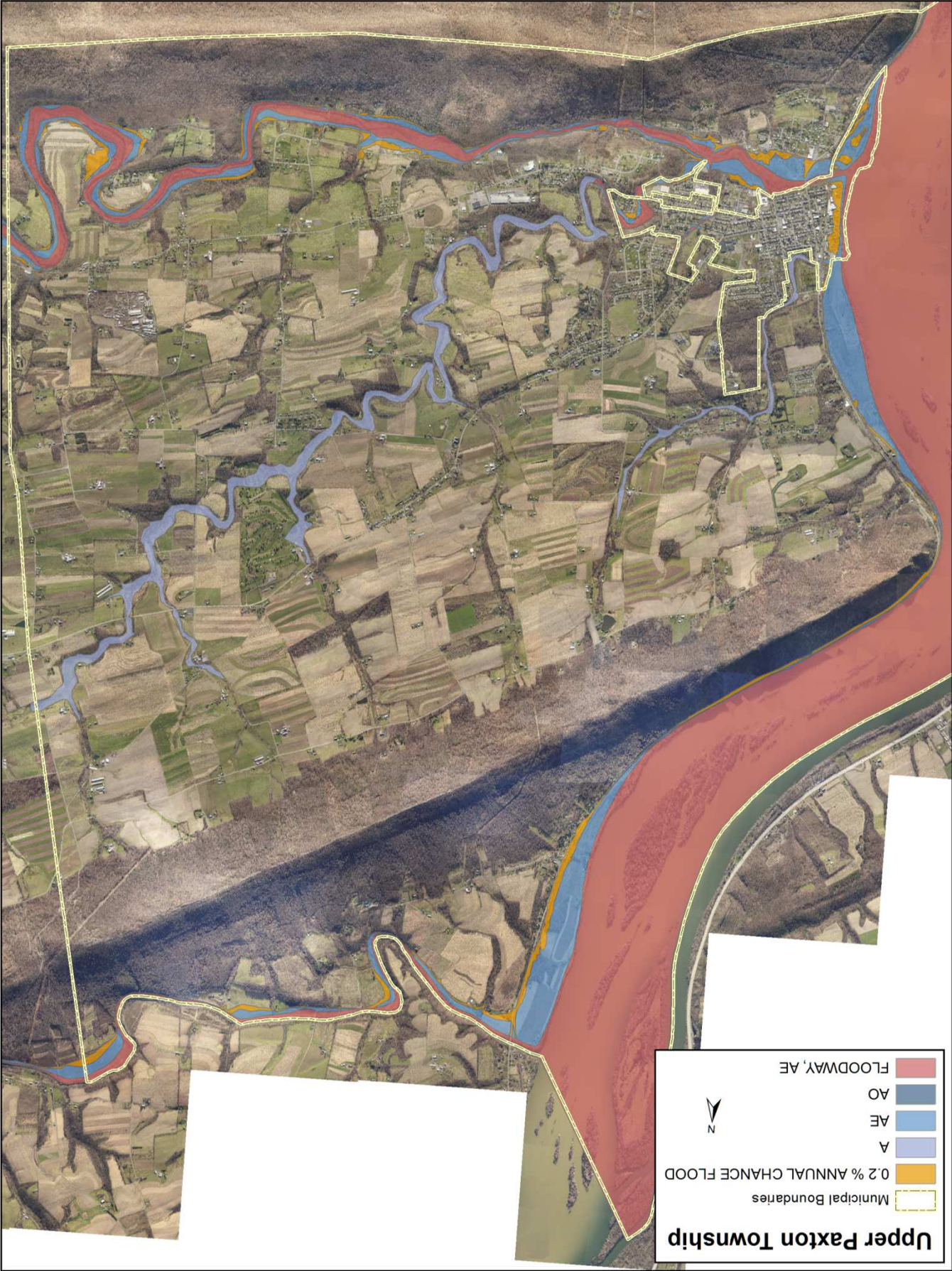
Repetitive Loss Area

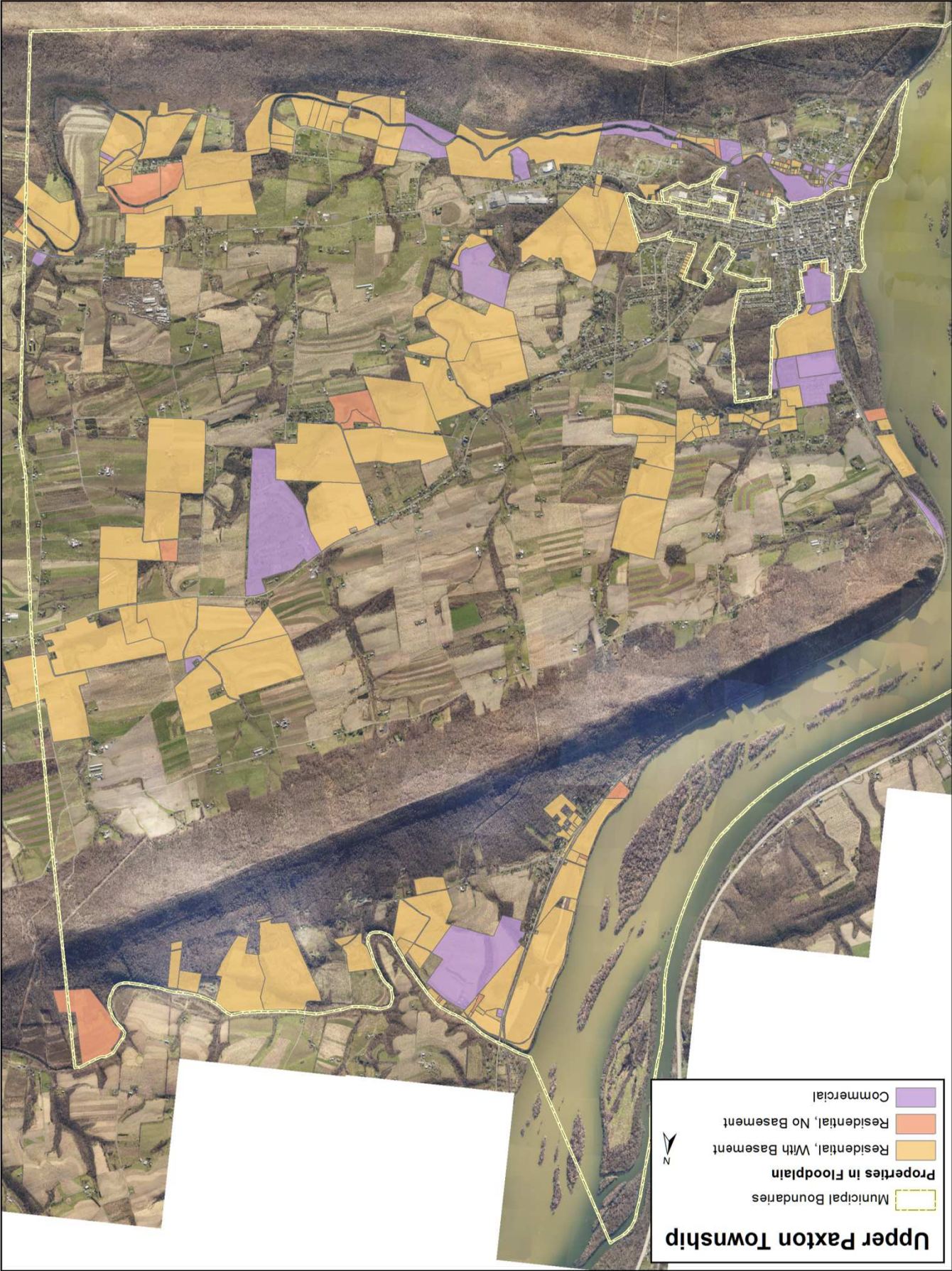
Municipal Boundaries











**Upper Paxton Township**

- Municipal Boundaries
- Properties in Floodplain
- Residential, With Basement
- Residential, No Basement
- Commercial





**Washington Township**

Municipal Boundaries

0.2 % ANNUAL CHANCE FLOOD

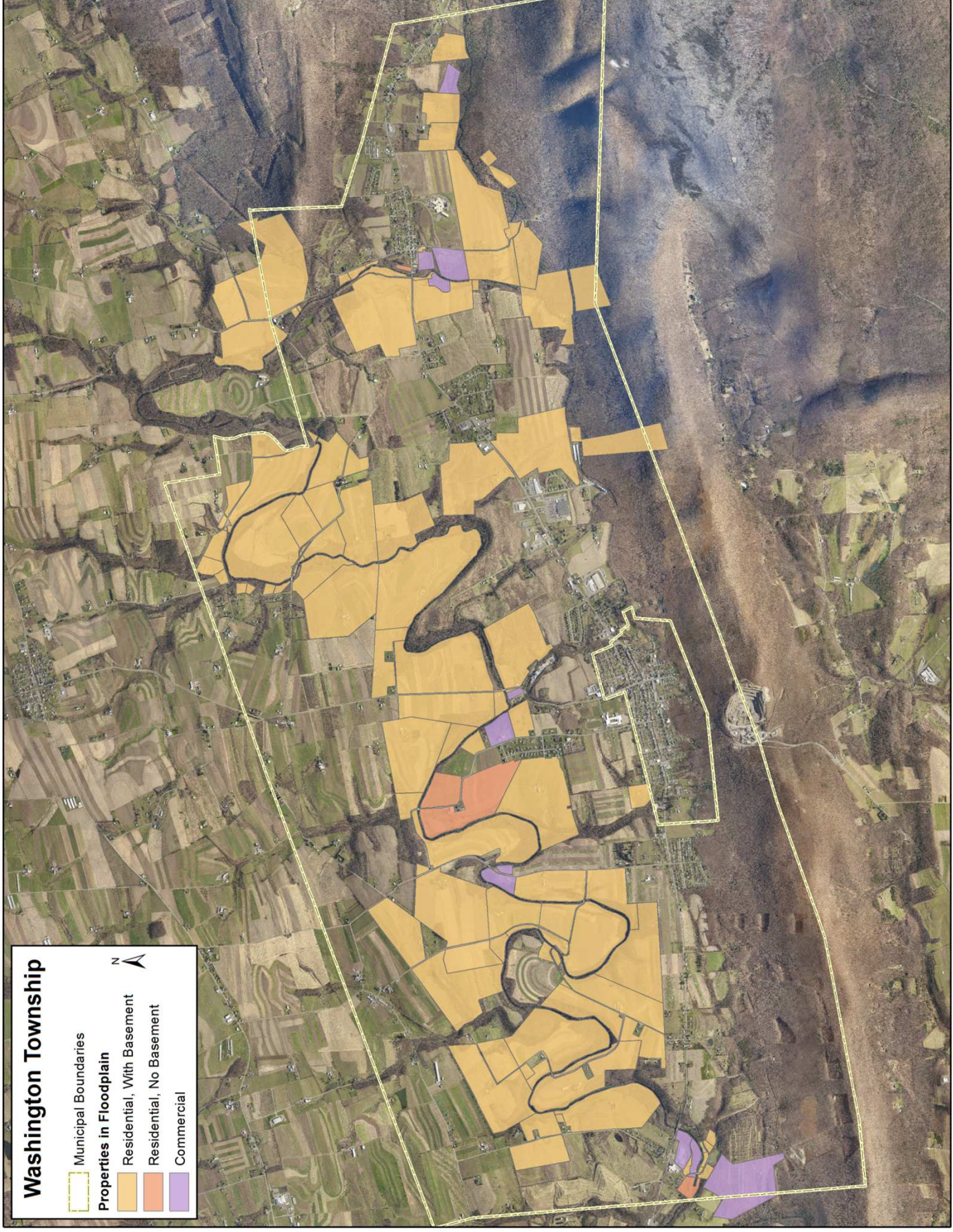
A

AE

AO

FLOODWAY, AE

N



**Washington Township**

Municipal Boundaries

Properties in Floodplain

- Residential, With Basement
- Residential, No Basement
- Commercial



**Washington Township**

Repetitive Loss Area

Municipal Boundaries

N



**Wayne Township**

Municipal Boundaries

0.2 % ANNUAL CHANCE FLOOD

A

AE

AO

FLOODWAY, AE

N



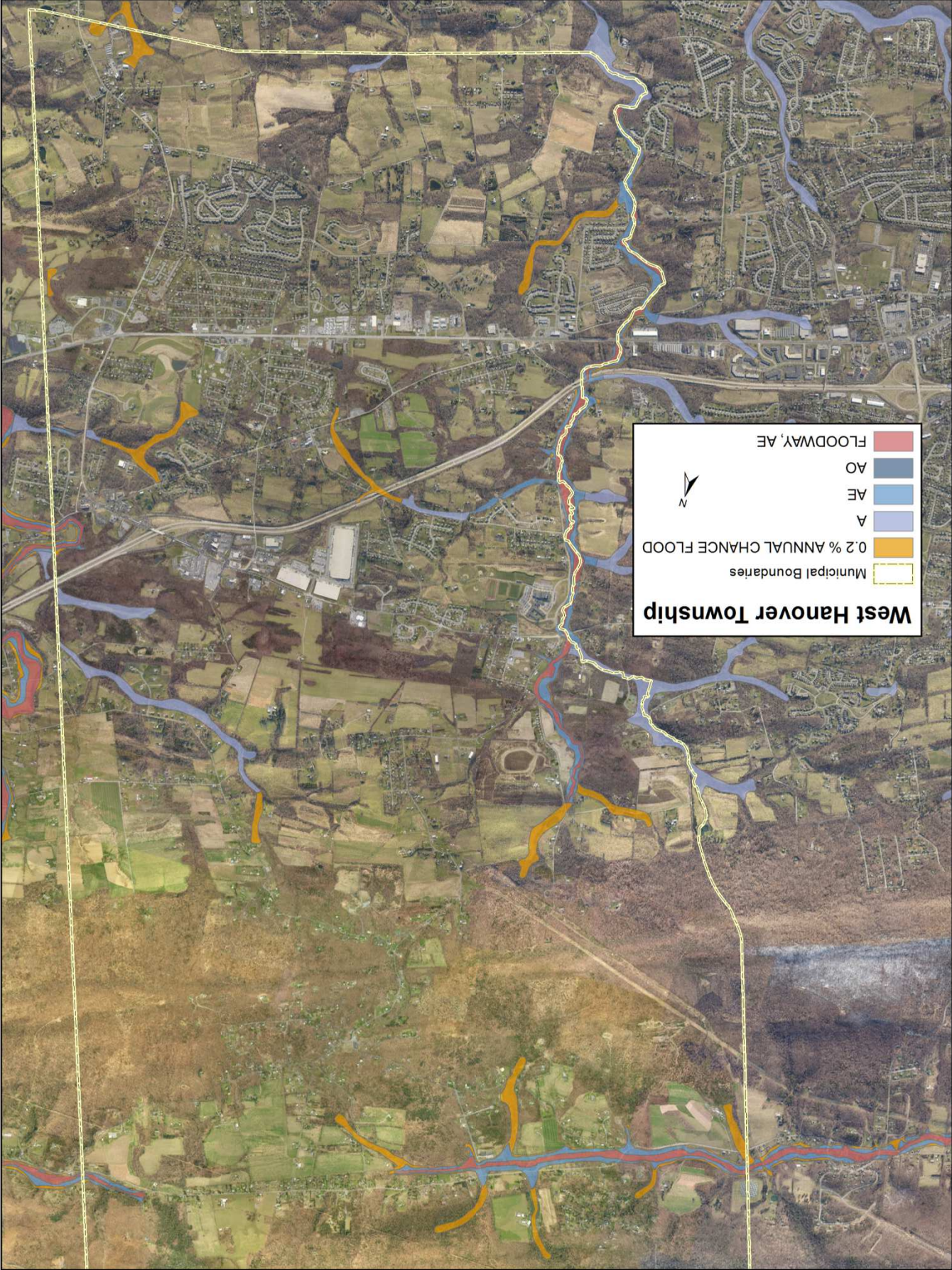
**Wayne Township**

Municipal Boundaries

Properties in Floodplain

- Residential, With Basement
- Residential, No Basement
- Commercial

N



**West Hanover Township**

0.2 % ANNUAL CHANCE FLOOD

A

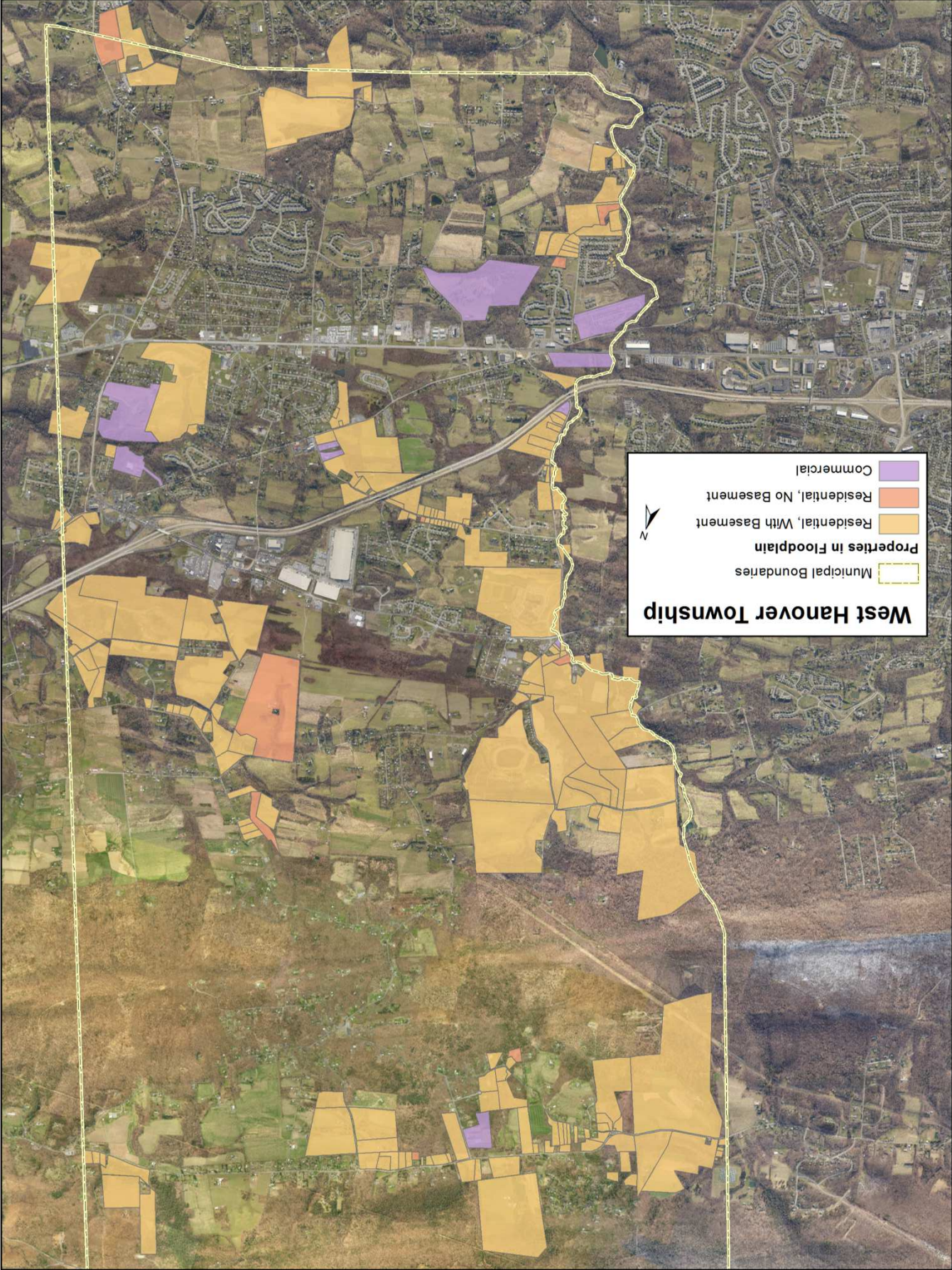
AE

AO

FLOODWAY, AE

Municipal Boundaries





**West Hanover Township**

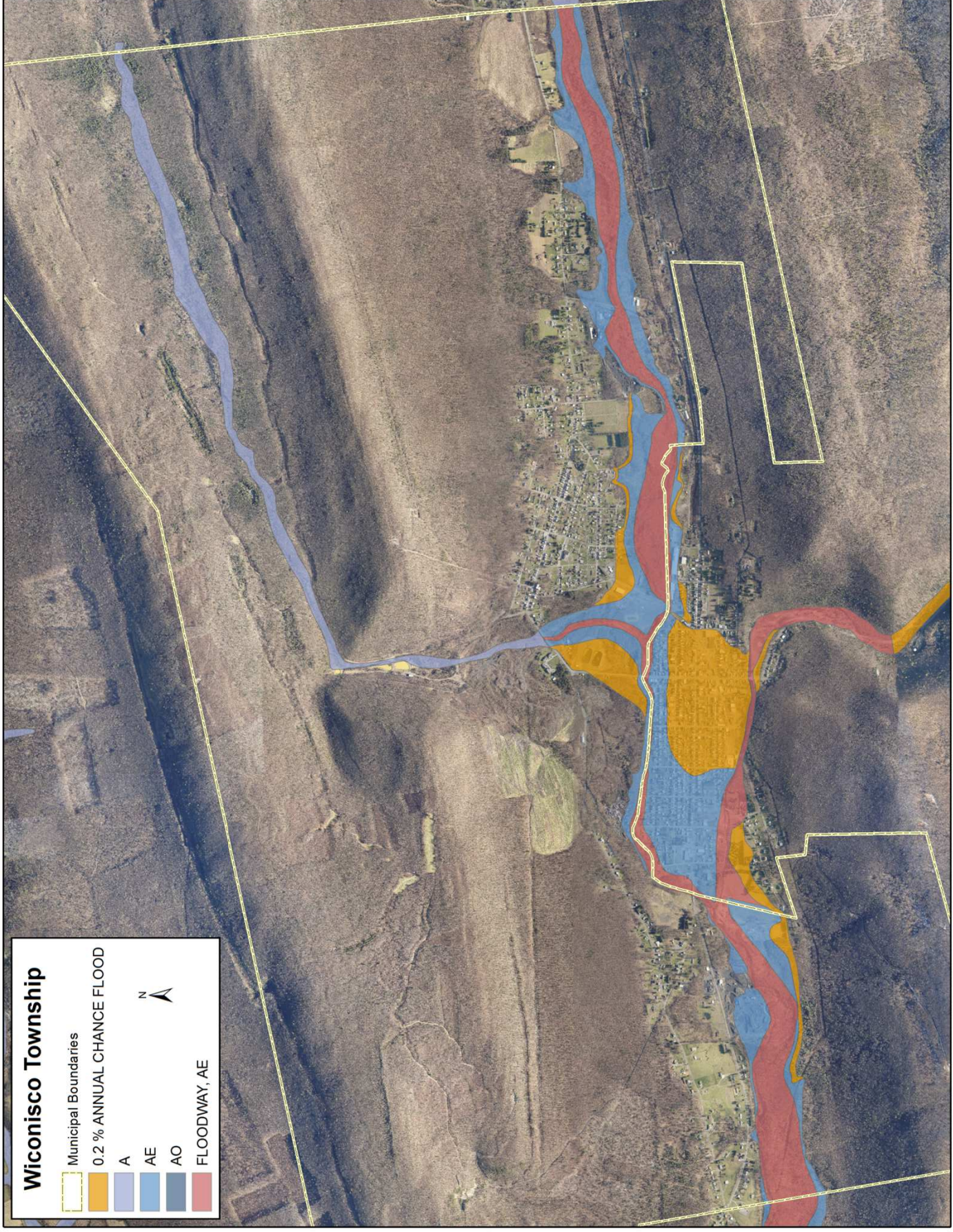
Municipal Boundaries

Repetitive Loss Area

N







**Wiconisco Township**

Municipal Boundaries

0.2 % ANNUAL CHANCE FLOOD

A

AE

AO

FLOODWAY, AE

N

# Wiconisco Township

Municipal Boundaries

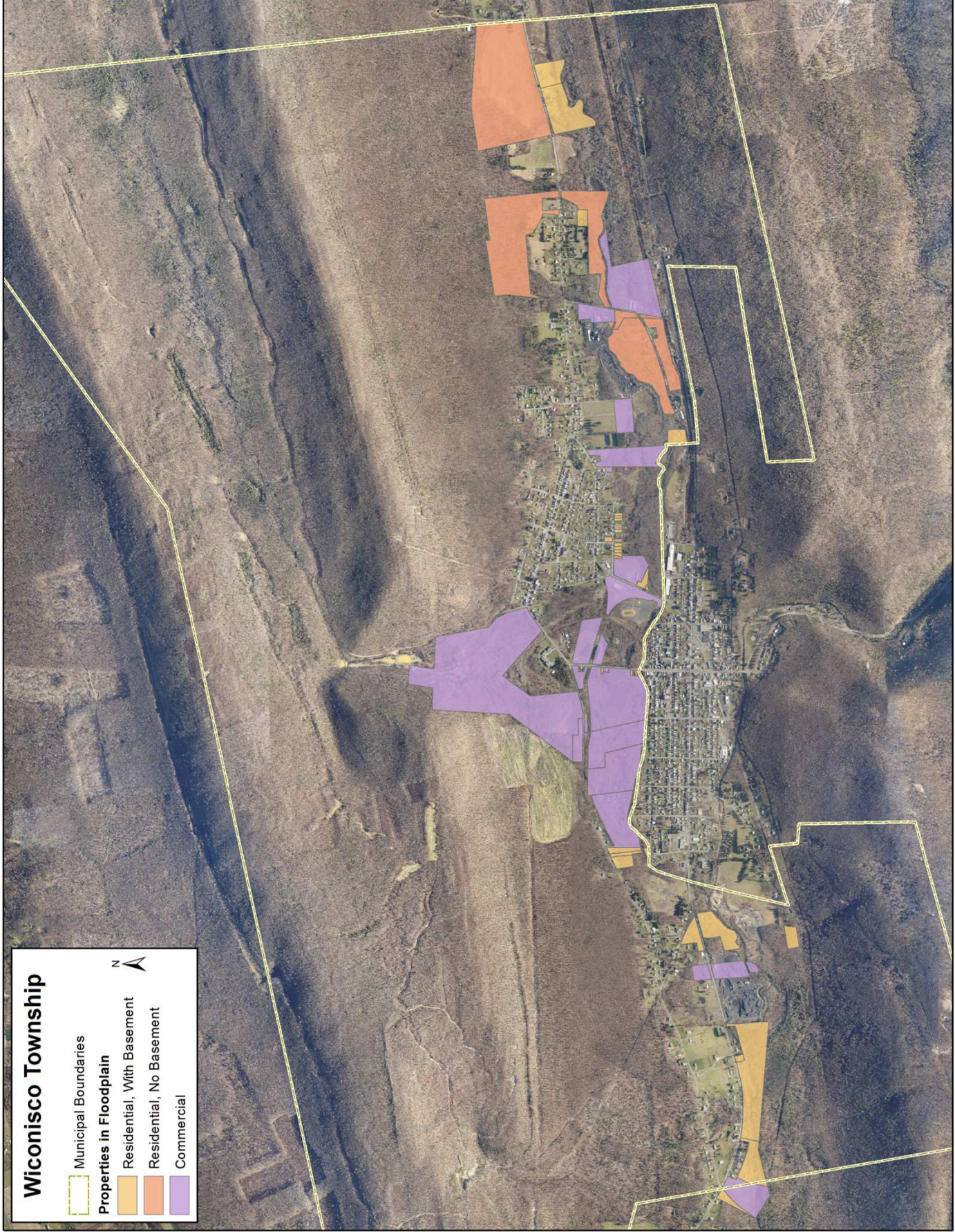


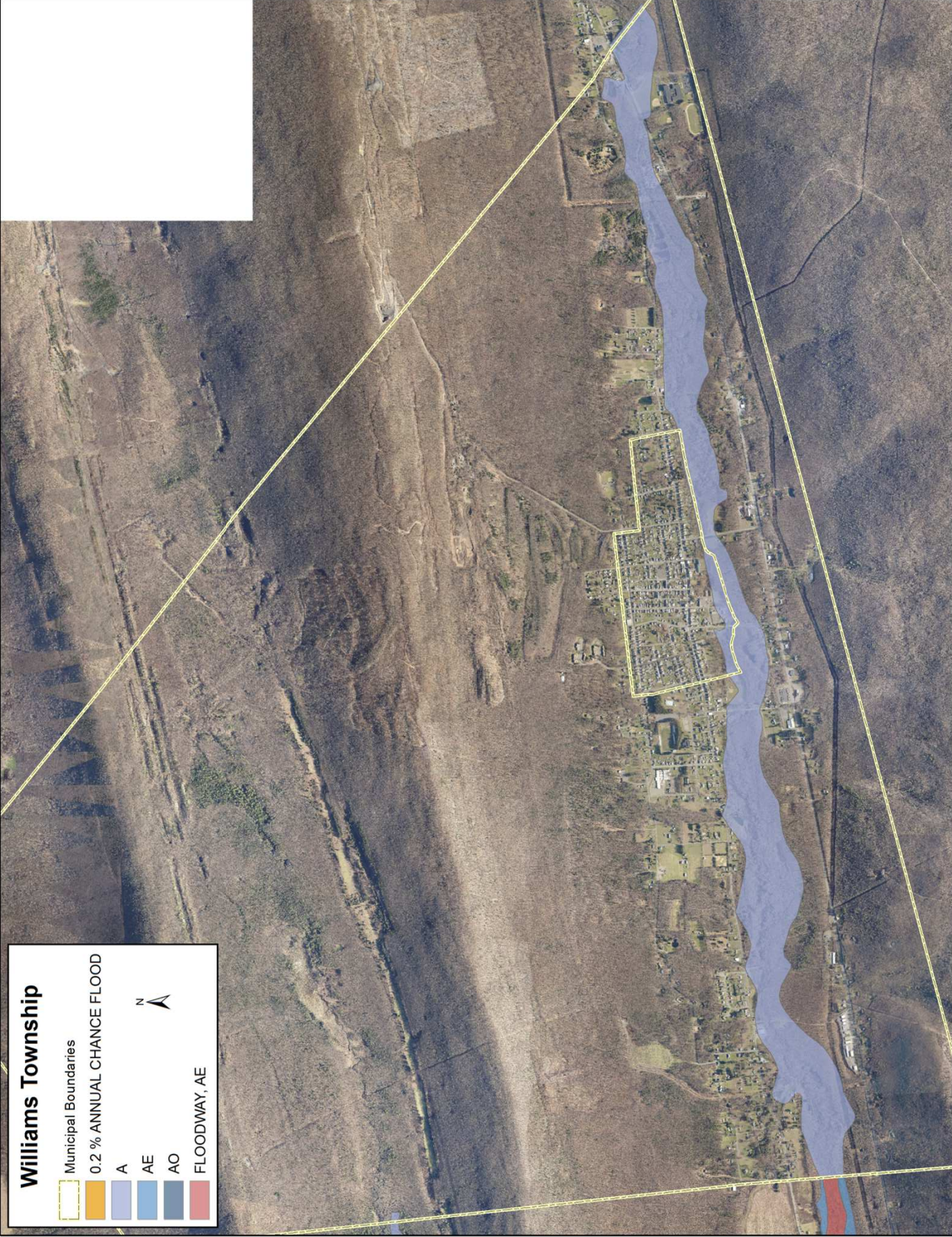
## Properties in Floodplain

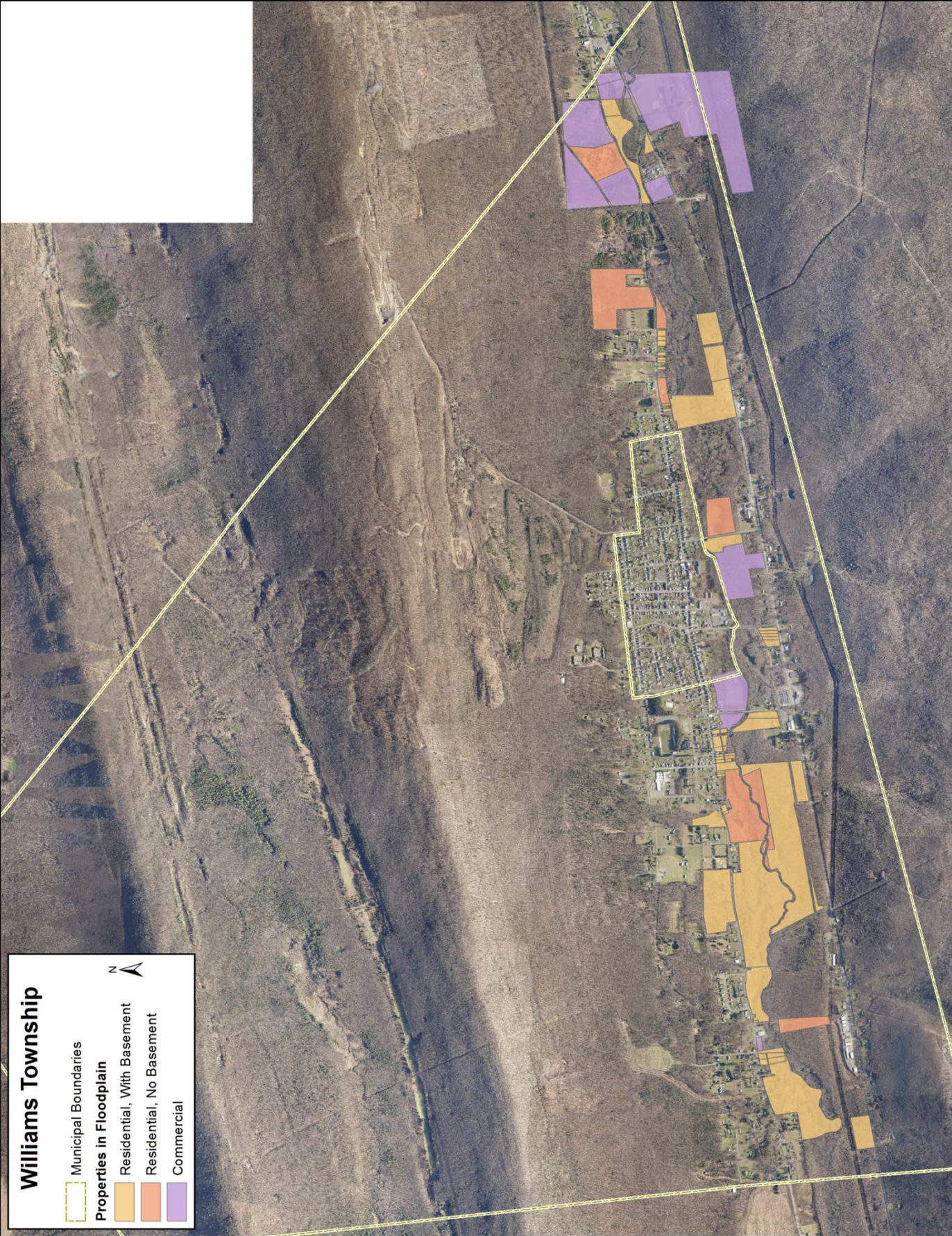
Residential, With Basement

Residential, No Basement

Commercial







**Williams Township**

Municipal Boundaries

Properties in Floodplain

- Residential, With Basement
- Residential, No Basement
- Commercial

N



# Williamstown Borough

- Municipal Boundaries
- 0.2 % ANNUAL CHANCE FLOOD
- A
- AE
- AO
- FLOODWAY, AE





# Williamstown Borough

- Municipal Boundaries
- 0.2 % ANNUAL CHANCE FLOOD
- A
- AE
- AO
- FLOODWAY, AE



# BW-12 QUICK REFERENCE GUIDE



## Subsidized Pre-FIRM Buildings in Special Flood Hazard Areas (SFHAs)

	Pre-FIRM Primary or Non-primary Residence or Business	Pre-FIRM Residence or Business With a Lapsed Policy	Pre-FIRM Primary Residence	Pre-FIRM Non-primary Residence	Pre-FIRM Severe Repetitive Loss or Cumulative Payments Exceeding Fair Market Value	Pre-FIRM Business**
<b>Policy Effective Date</b>	Policy first in effect on or after July 6, 2012*	Policy reinstated on or after October 4, 2012	Policy in effect before July 6, 2012	Policy in effect before July 6, 2012	Policy in effect before July 6, 2012	Policy in effect before July 6, 2012
<b>Premium Change (when and how)</b>	<b>October 1, 2013:</b> <ul style="list-style-type: none"> <li>Immediate shift to full-risk rates</li> <li>Tentative rates available for 1 year</li> <li>Elevation Certificate required</li> </ul> <b>Future:</b> Increases based on actuarial analysis and the Reserve Fund	<b>October 1, 2013:</b> <ul style="list-style-type: none"> <li>Immediate shift to full-risk rate</li> <li>Tentative rates available for 1 year</li> <li>Elevation Certificate required</li> </ul> <b>Future:</b> Increases based on actuarial analysis and the Reserve Fund	<b>October 1, 2013:</b> Average increases of 16-17 percent increases within the 20 percent cap authorized by law	<b>January 1, 2013:</b> <ul style="list-style-type: none"> <li>25 percent premium increase at renewal</li> <li>Elevation Certificate needed to determine full-risk rate</li> </ul> <b>Future:</b> 25 percent annual increases until full-risk rates are reached	<b>October 1, 2013:</b> <ul style="list-style-type: none"> <li>25 percent premium increase at renewal</li> <li>Elevation Certificate needed to determine full-risk rate</li> </ul> <b>Future:</b> 25 percent annual increases until full-risk rates are reached	<b>October 1, 2013:</b> <ul style="list-style-type: none"> <li>25 percent premium increase at renewal</li> <li>Elevation Certificate needed to determine full-risk rate</li> </ul> <b>Future:</b> 25 percent annual increase until full-risk rates are reached
<b>All Pre-FIRM Buildings</b>						
<b>Map Changes</b>	FEMA is still analyzing the impacts section 100207 of BW-12 will have on rates other than pre-FIRM subsidized premiums upon the effective date of a new, revised, or updated FIRM. For now, grandfathering and the Preferred Risk Policy Eligibility Extension remain cost-saving options for policyholders when maps are updated.					

\* Assignment of an NFP policy is allowed. However, the assignment of an NFP policy from a seller to a buyer occurring on or after July 6, 2012, could require re-rating and an Elevation Certificate for the buyer if it is currently rated with a subsidized rate (e.g., not a standard Zone X or PRP rate).

\*\* BW-12 calls for increases to business properties. Businesses are included in a larger group of non-residential properties. Consequently, all subsidized pre-FIRM policies for non-residential properties will see the same increase upon purchase or renewal on or after October 1, 2013.

## TERMS TO KNOW >>

**Biggert-Waters Flood Insurance Reform Act of 2012 (BW-12):** Congress passed this legislation, which was signed into law on July 6, 2012, calling for changes to the National Flood Insurance Program to make it more sustainable. The changes include the elimination of long-standing subsidies previously available to certain pre-FIRM policyholders.

**Elevation Certificate:** An Elevation Certificate is an official FEMA form that is completed by a land surveyor (architects and engineers also are permitted to complete the form in some communities) to show a building's elevation. In high-risk areas, this document must be provided to an insurance agent who will compare it to the Base Flood Elevation and calculate an elevation-based premium. CRS communities might have elevation information on file for some buildings.

**Non-primary Residence:** A building that is lived in for less than 80 percent of the policy year.

**Tentative Rates:** Tentative rates are a rate class used for up to one year on policies where the necessary information to rate a policy is missing such as the absence of an Elevation Certificate. These rates are higher than subsidized pre-FIRM rates but are not elevation-rated.

### AFFECTED PRE-FIRM BUILDINGS ARE:

- Located in Zones V, A (except AR and A99) or D as shown on the Flood Insurance Rate Map (FIRM)
- Built before the community adopted the first FIRM
- Insured using subsidized rates instead of elevation-based rates
- Not likely to have been documented on an Elevation Certificate

**Agents should help policyholders determine if their rate is subsidized.**

## MAP CHANGES >> GRANDFATHERING AND PRP ELIGIBILITY EXTENSION

Currently, the NFIP provides rating options to help reduce the financial impact of map changes: Grandfathering and PRP Eligibility Extension.

**PRP Eligibility Extension:** Policyholders whose properties are changing from a low- or moderate-risk area to a high-risk area on new FIRMs could qualify for the Preferred Risk Policy Eligibility Extension rule that allows policyholders to retain their PRP instead of paying the new high-risk premiums. Premiums for these PRP Eligibility Extension policies will increase 20 percent each year starting October 1, 2013, until they reach the full rates for Zone X.

**Grandfather Rules:** Policyholders whose properties are mapped into a higher-risk area or higher BFE when new FIRMs are adopted by a community can qualify for grandfathering. This process allows policyholders to maintain their previous zone and BFE instead of shifting to the rate they could pay if the premium were calculated using the zone and BFE shown on the new FIRM. Some pre-FIRM properties were grandfathered using Zone X standard rates. These standard rates are not subsidized and thus will not increase because of the subsidy phase-out. Premiums still could increase based on actuarial analysis and the NFIP Reserve Fund.

Further guidance on grandfathered rates and premium changes required by Section 100207 of BW-12 when maps are revised or updated will be released in late 2014 at the earliest. But until then, grandfathering and PRP Eligibility Extension remain cost-saving options for eligible policyholders. According to BW-12, policyholders' whose premiums increase after a map change will see the new rates phased in by 20 percent of the total difference each year for 5 years.

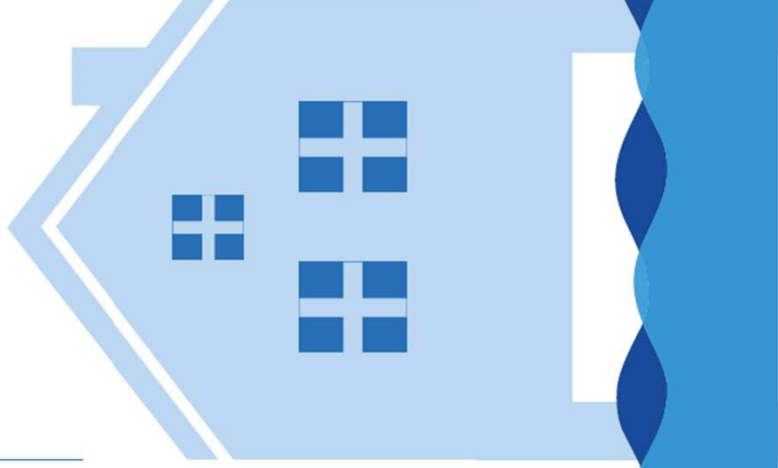
## RESOURCES >>

BW-12 Fact Sheets and Information:  
[www.FEMA.gov/BW12](http://www.FEMA.gov/BW12)

Write Your Own Company Bulletins:  
[www.NFIPService.com](http://www.NFIPService.com)

Flood Insurance Rate Maps:  
[MSC.FEMA.gov](http://MSC.FEMA.gov)

Flood Insurance Information:  
[FloodSmart.gov](http://FloodSmart.gov)





# At Risk Properties

## By Municipality

Community	Number of Parcels with Structures	Number of Parcels with Structures in the Floodplains	Percent of Parcels with Structures in the Floodplains	Number of Parcels in the Floodplains with a Structure Built Prior to 1981	Percent of Parcels in the Floodplains with a Structure Built Prior to 1981
BERRYSBURG BOROUGH	174	0	0.00	0	0.00
CONEWAGO TOWNSHIP	1,071	9	0.84	9	0.84
DAUPHIN BOROUGH	353	41	11.61	33	9.35
DERRY TOWNSHIP	7,720	242	3.13	174	2.25
EAST HANOVER TOWNSHIP	1,943	244	12.56	152	7.82
ELIZABETHVILLE BOROUGH	580	14	2.41	12	2.07
GRATZ BOROUGH	329	23	6.99	14	4.26
HALIFAX BOROUGH	285	22	7.72	20	7.02
HALIFAX TOWNSHIP	1,362	166	12.19	130	9.54
HARRISBURG	17,420	2,833	16.26	2,709	15.55
HIGHSPIRE BOROUGH	922	658	71.37	577	62.58
HUMMELSTOWN BOROUGH	1,631	88	5.40	44	2.70
JACKSON TOWNSHIP	808	30	3.71	21	2.60
JEFFERSON TOWNSHIP	217	38	17.51	32	14.75
LONDONDERRY TOWNSHIP	1,811	324	17.89	285	15.74
LOWER PAXTON TOWNSHIP	15,871	866	5.46	479	3.02
LOWER SWATARA TOWNSHIP	2,843	220	7.74	171	6.01
LYKENS BOROUGH	853	726	85.11	702	82.30
LYKENS TOWNSHIP	539	203	37.66	159	29.50
MIDDLE PAXTON TOWNSHIP	2,165	542	25.03	411	18.98
MIDDLETOWN BOROUGH	2,549	331	12.99	263	10.32
MIFFLIN TOWNSHIP	297	13	4.38	9	3.03
MILLERSBURG BOROUGH	1,097	180	16.41	147	13.40
PAXTANG BOROUGH	672	119	17.71	116	17.26
PENBROOK BOROUGH	1,136	0	0.00	0	0.00
PILLOW BOUROUGH	152	8	5.26	8	5.26
REED TOWNSHIP	135	54	40.00	44	32.59

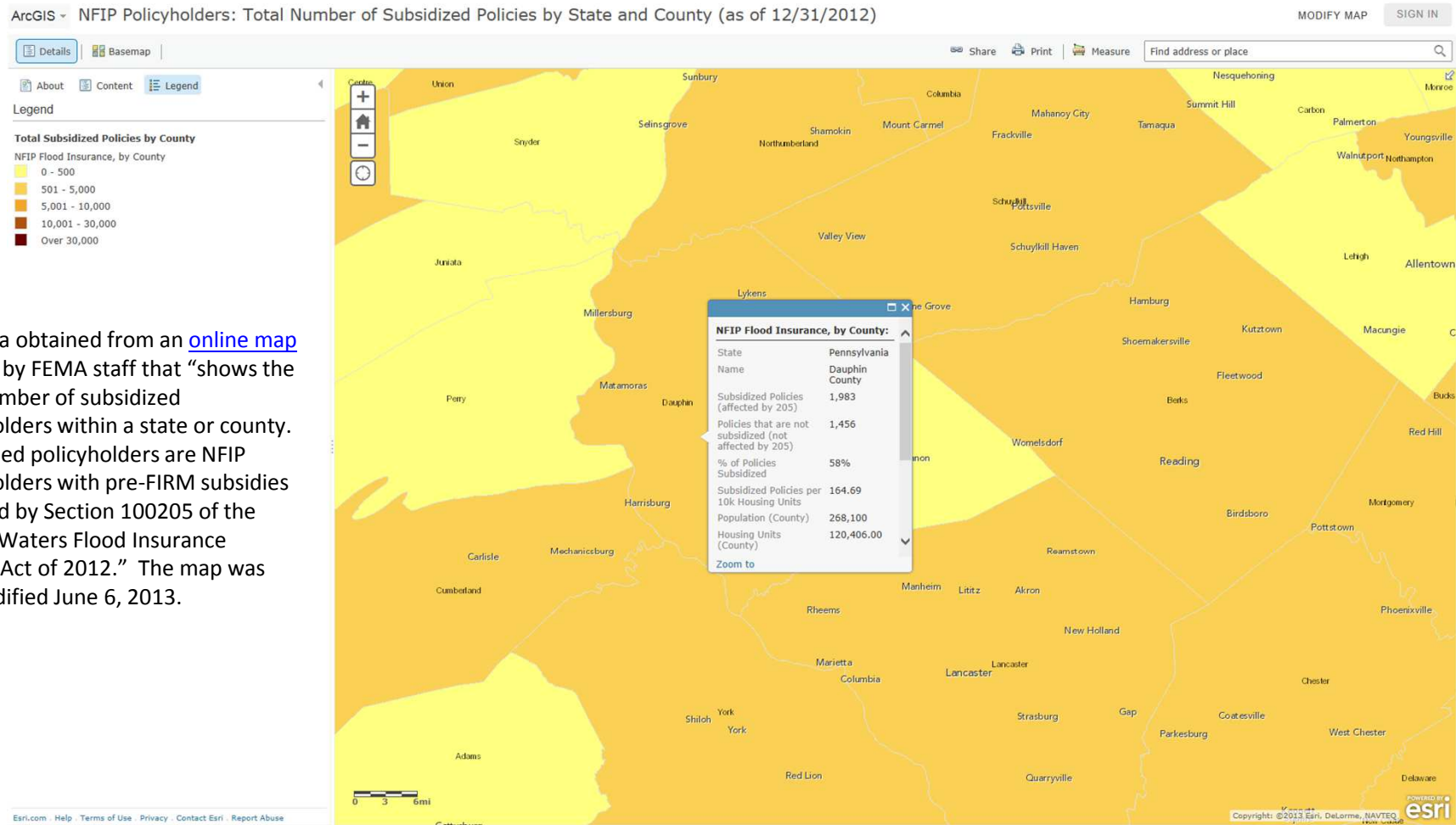
Community	Number of Parcels with Structures	Number of Parcels with Structures in the Floodplains	Percent of Parcels with Structures in the Floodplains	Number of Parcels in the Floodplains with a Structure Built Prior to 1981	Percent of Parcels in the Floodplains with a Structure Built Prior to 1981
ROYALTON BOROUGH	447	138	30.87	89	19.91
RUSH TOWNSHIP	140	22	15.71	17	12.14
SOUTH HANOVER TOWNSHIP	2,347	198	8.44	155	6.60
STEELTON BOROUGH	2,294	378	16.48	346	15.08
SUSQUEHANNA TOWNSHIP	9,351	719	7.69	643	6.88
SWATARA TOWNSHIP	8,645	492	5.69	405	4.68
UPPER PAXTON TOWNSHIP	1,632	228	13.97	170	10.42
WASHINGTON TOWNSHIP	905	85	9.39	72	7.96
WAYNE TOWNSHIP	528	37	7.01	18	3.41
WEST HANOVER TOWNSHIP	3,914	214	5.47	138	3.53
WICONISCO TOWNSHIP	592	51	8.61	38	6.42
WILLIAMS TOWNSHIP	528	61	11.55	49	9.28
WILLIAMSTOWN BOROUGH	627	5	0.80	4	0.64
<b>COUNTY TOTAL</b>	<b>96,885</b>	<b>10,622</b>	<b>10.96</b>	<b>8,865</b>	<b>9.15</b>

# Total Number of NFIP Subsidized Policies in Dauphin County (as of 12/31/2012)

Subsidized Policies (affected by 205) – 1,983

Policies that are not subsidized (unaffected by 205) – 1,456

% of Policies subsidized – 58%



This data obtained from an [online map](#) created by FEMA staff that “shows the total number of subsidized policyholders within a state or county. Subsidized policyholders are NFIP policyholders with pre-FIRM subsidies removed by Section 100205 of the Biggert Waters Flood Insurance Reform Act of 2012.” The map was last modified June 6, 2013.

## Loss Statistics from Jan 1, 1978 through Nov 30, 2013

COUNTY NAME	COMMUNITY NAME	TOTAL LOSSES	CLOSED LOSSES	OPEN LOSSES	CWOP LOSSES	TOTAL PAYMENTS
DAUPHIN COUNTY	CONEWAGO, TOWNSHIP OF	4	2	0	2	29,048.15
	DAUPHIN, BOROUGH OF	75	66	0	9	719,991.94
	DERRY, TOWNSHIP OF	65	53	1	11	1,654,647.06
	EAST HANOVER, TOWNSHIP OF	23	20	0	3	358,847.75
	HALIFAX, BOROUGH OF	19	16	0	3	25,510.02
	HALIFAX, TOWNSHIP OF	24	21	0	3	367,797.95
	HARRISBURG, CITY OF	1,872	1,530	0	342	28,523,800.41
	HIGHSPIRE, BOROUGH OF	235	199	2	34	2,512,331.28
	HUMMELSTOWN, BOROUGH OF	66	58	0	8	1,922,679.96
	JEFFERSON, TOWNSHIP OF	1	1	0	0	1,067.97
	LONDONDERRY, TOWNSHIP OF	577	529	4	44	11,910,082.24
	LOWER PAXTON, TOWNSHIP OF	61	34	0	27	250,215.14
	LOWER SWATARA, TOWNSHIP OF	91	78	2	11	2,283,827.12
	LYKENS, BOROUGH OF	66	53	0	13	533,677.12
	LYKENS, TOWNSHIP OF	7	6	0	1	17,749.14
	MIDDLE PAXTON, TOWNSHIP OF	284	251	1	32	3,853,092.36
	MIDDLETOWN, BOROUGH OF	363	324	10	29	9,738,755.69
	MILLERSBURG, BOROUGH OF	41	33	0	8	259,245.64
	PAXTANG, BOROUGH OF	32	30	0	2	188,922.37
	PILLOW, BOROUGH OF	3	2	0	1	6,459.12
	REED, TOWNSHIP OF	36	26	0	10	456,683.66
	ROYALTON, BOROUGH OF	88	76	0	12	1,266,488.52
	SOUTH HANOVER, TOWNSHIP OF	110	97	1	12	6,339,497.56
	STEELTON, BOROUGH OF	159	138	0	21	1,420,265.96
	SUSQUEHANNA, TOWNSHIP OF	536	434	0	102	5,763,809.61
	SWATARA, TOWNSHIP OF	302	235	4	63	4,483,523.21
	UPPER PAXTON, TOWNSHIP OF	77	60	0	17	611,803.54
	WASHINGTON, TOWNSHIP OF	8	7	0	1	202,503.11
	WAYNE, TOWNSHIP OF	1	1	0	0	3,380.58
	WEST HANOVER, TOWNSHIP OF	22	20	0	2	225,099.72
	WICONISCO, TOWNSHIP OF	1	1	0	0	9,212.21

**Total losses** - All losses submitted regardless of the status.

**Closed losses** - Losses that have been paid.

**Open losses** - Losses that have not been paid in full.

**CWOP losses** - Losses that have been closed without payment.

**Total Payments** - Total amount paid on losses.



# FEMA

## Under the Flood Insurance Reform Act of 2012, You Could Save More than \$90,000 over 10 Years if You Build 3 Feet above Base Flood Elevation\*

PREMIUM AT 4 FEET BELOW  
BASE FLOOD ELEVATION

**\$9,500/year**  
**\$95,000/10 years**



PREMIUM AT  
BASE FLOOD ELEVATION

**\$1,410/year**  
**\$14,100/10 years**



PREMIUM AT 3 FEET ABOVE  
BASE FLOOD ELEVATION

**\$427/year**  
**\$4,270/10 years**



\*\$250,000 building coverage only (does not include contents), AE (high to moderate risk) zone, single-family, one-story structure without a basement at: 4 feet below Base Flood Elevation (BFE); at BFE; and at 3 feet above BFE. (Rating per FEMA flood insurance manual, October 1, 2012). The illustration above is based on a standard National Flood Insurance Program (NFIP) deductible.

# National Flood Insurance Elevation Certificate

## Necessary Structure Information

- a) Square footage of crawlspace or enclosure(s) \_\_\_\_\_ sq ft      a) Square footage of attached garage \_\_\_\_\_ sq ft  
b) Number of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent grade \_\_\_\_\_      b) Number of permanent flood openings in the attached garage within 1.0 foot above adjacent grade \_\_\_\_\_  
c) Total net area of flood openings in A8.b \_\_\_\_\_ sq in      c) Total net area of flood openings in A9.b \_\_\_\_\_ sq in  
d) Engineered flood openings?  Yes  No      d) Engineered flood openings?  Yes  No

### SECTION B – FLOOD INSURANCE RATE MAP (FIRM) INFORMATION

B1. NFIP Community Name & Community Number			B2. County Name		B3. State
B4. Map/Panel Number	B5. Suffix	B6. FIRM Index Date	B7. FIRM Panel Effective/ Revised Date	B8. Flood Zone(s)	B9. Base Flood Elevation(s) (Zone AO, use base flood depth)

B10. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in Item B9:

- FIS Profile    FIRM    Community Determined    Other/Source: \_\_\_\_\_

B11. Indicate elevation datum used for BFE in Item B9:    NGVD 1929    NAVD 1988    Other/Source: \_\_\_\_\_

B12. Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)?    Yes    No

Designation Date: \_\_\_\_/\_\_\_\_/\_\_\_\_    CBRS    OPA

### SECTION C – BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)

C1. Building elevations are based on:    Construction Drawings\*    Building Under Construction\*    Finished Construction

\*A new Elevation Certificate will be required when construction of the building is complete.

C2. Elevations – Zones A1–A30, AE, AH, A (with BFE), VE, V1–V30, V (with BFE), AR, AR/A, AR/AE, AR/A1–A30, AR/AH, AR/AO. Complete Items C2.a–h below according to the building diagram specified in Item A7. In Puerto Rico only, enter meters.

Benchmark Utilized: \_\_\_\_\_      Vertical Datum: \_\_\_\_\_

Indicate elevation datum used for the elevations in items a) through h) below.    NGVD 1929    NAVD 1988    Other/Source: \_\_\_\_\_

Datum used for building elevations must be the same as that used for the BFE.

Check the measurement used.

- a) Top of bottom floor (including basement, crawlspace, or enclosure floor) \_\_\_\_\_       feet    meters  
b) Top of the next higher floor \_\_\_\_\_       feet    meters  
c) Bottom of the lowest horizontal structural member (V Zones only) \_\_\_\_\_       feet    meters  
d) Attached garage (top of slab) \_\_\_\_\_       feet    meters  
e) Lowest elevation of machinery or equipment servicing the building  
(Describe type of equipment and location in Comments) \_\_\_\_\_       feet    meters  
f) Lowest adjacent (finished) grade next to building (LAG) \_\_\_\_\_       feet    meters  
g) Highest adjacent (finished) grade next to building (HAG) \_\_\_\_\_       feet    meters  
h) Lowest adjacent grade at lowest elevation of deck or stairs, including  
structural support \_\_\_\_\_       feet    meters

### SECTION D – SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION

## WAYS TO LOWER YOUR FLOOD INSURANCE PREMIUM

Compare your BFE to the elevation of your First Finished Floor (Both will be listed on your Elevation Certificate)

**OPTION 1:** Your "Next Higher Floor" is ABOVE the BFE

Fill-in your basement. The elimination of your basement/ crawlspace effectively makes your first floor your "Next Higher Floor" - greatly reducing your flood insurance premium.

The tremendous inward and upward water pressure on foundations can be more than the structure can bear - causing the walls or floors to "blow out". The cost of repair can often be greater than the value of the home. Filling in your basement according to a proper engineering plan can save your investment



### FEMA TERMS

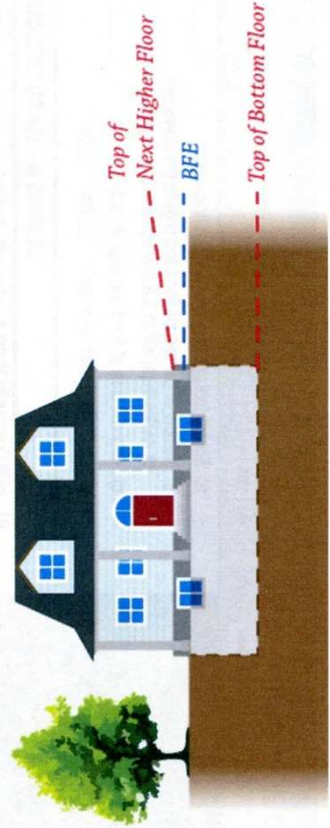
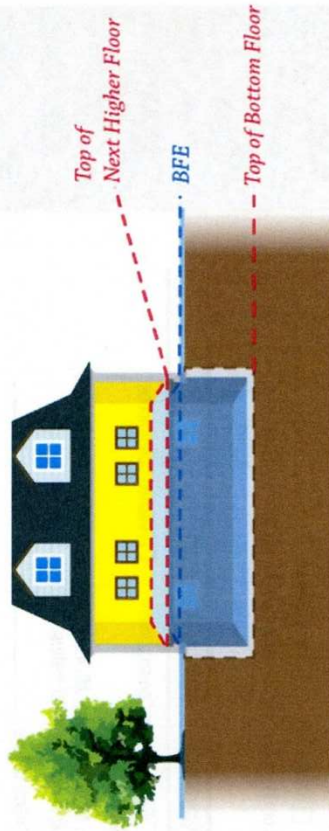
**Top of Bottom Floor** This is the lowest floor of the house, regardless of its habitability. This includes basements, unvented crawl spaces or other enclosed floor space.

**Top of Next Higher Floor** This is the floor above the Lowest Enclosed Floor.

**Base Flood Elevation (BFE)** Height of the 100 Year Flood, officially referred to as the 1% Annual Chance Flood.

**Lowest Adjacent Grade** Lowest finished grade around the structure. This height is compared to the BFE to determine if a structure is actually within or above the expected height of flooding.

**Elevation Certificate** A form completed by a Professionally Licensed Surveyor that documents multiple elevations in and around your home to determine its actual flood risk.





## WAYS TO LOWER YOUR FLOOD INSURANCE PREMIUM

Compare your BFE to the elevation of your First Finished Floor (Both will be listed on your Elevation Certificate)

**OPTION 2:** Your "Next Higher Floor" is **BELOW** the BFE

Elevate your house. Option 1 outlines the benefits of basement removal. This mitigation technique involves building a flood-proof base under your structure effectively raising it above the BFE.

A flood-proof base is engineered to allow water to flow through the structure, thus greatly reducing any chance of "blow-out" due to water pressure. As with Option 1 you must obtain and conform to a plan professionally designed by a licensed engineer or architect.



### FEMA TERMS

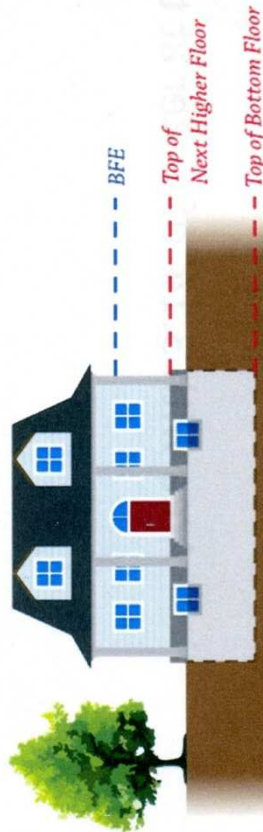
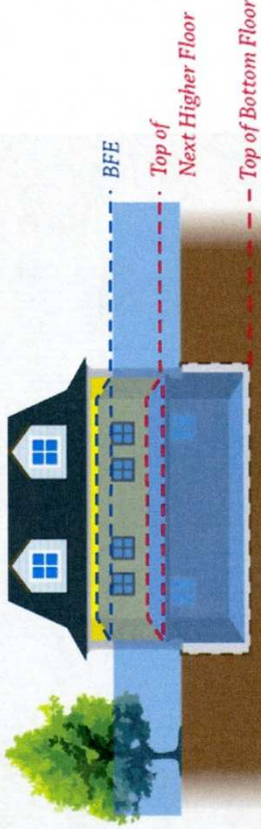
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**Elevation Certificate** A form completed by a Professionally Licensed Surveyor that documents multiple elevations in and around your home to determine its actual flood risk.



flow vents or other mitigation techniques

# Residential Structure Mitigation



Structure prior to mitigation.



Structure after mitigation. The house has been elevated to raise it above the BFE.

# Susquehanna River Basin Commission Building



This commercial structure has been built with a flood-proof base. A flood-proof base is engineered to allow water to flow through the structure.

# Floodplain Management

- Design of structures will impact flood insurance rates. Rates can be lowered by:
  - Relocating utilities & mechanical equipment (electrical, HVAC) above the BFE.
  - Installing proper flood openings
  - Filling in basement or crawlspace areas
  - Elevating the structure above BFE
  - Relocating the structure to a part of the property that is above the BFE.
- Municipal floodplain ordinances may be integrated with building ordinances or standalone. Existing code requirements for foundation vents may not meet the requirements for a flood opening.
- Pre-FIRM homeowners should consider mitigation steps. Grants may be needed to help areas where owner-initiated mitigation is not reasonable.