

### Legend

**Position**

- Above drainage
- Near drainage
- Below drainage

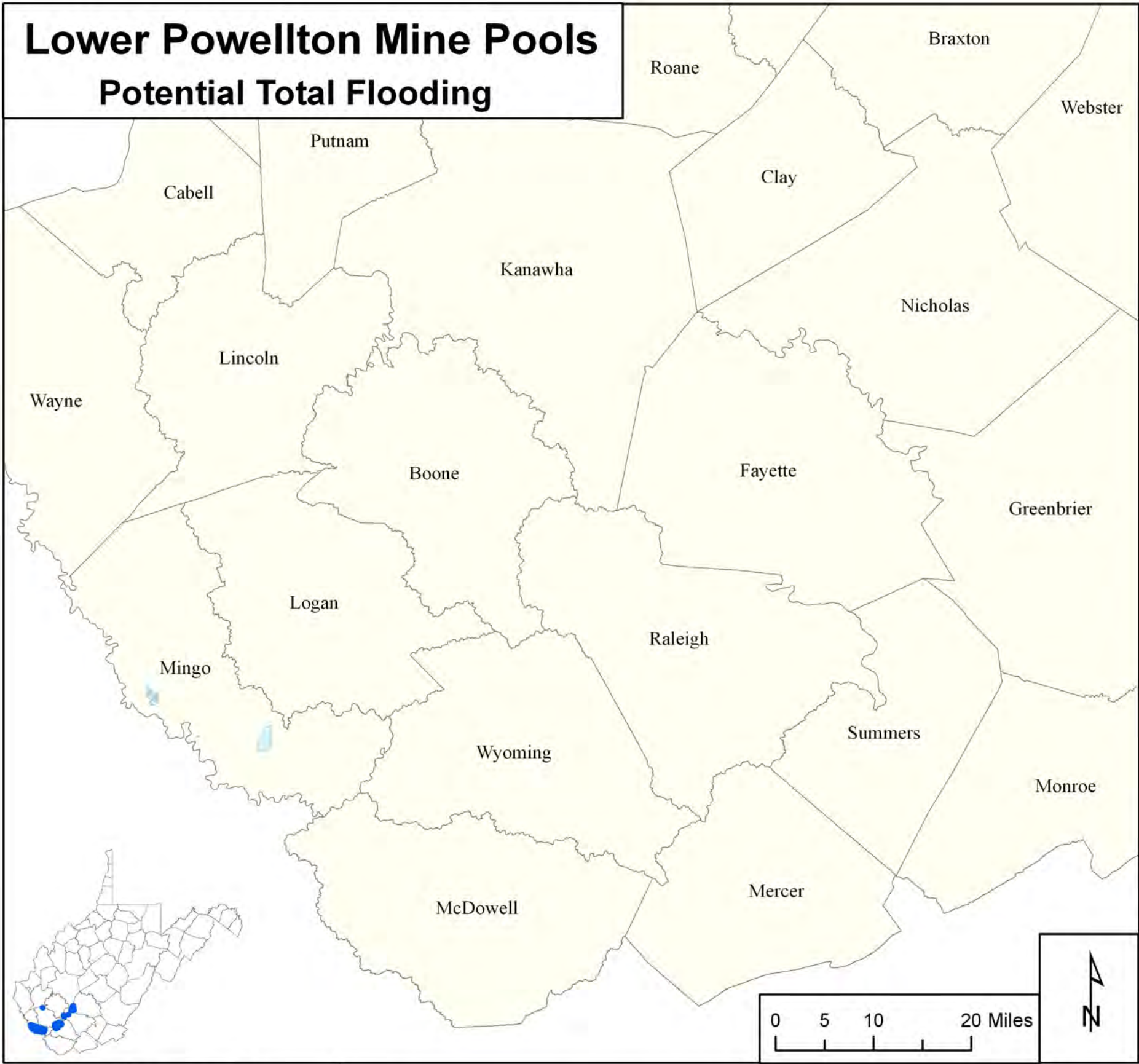
**Potential Extent of Flooding**

- Undetermined
- Flooded areas unlikely
- Partially flooded
- Totally flooded

### Lower Powellton Mine Pool Statistics

	Undetermined	Potentially flooded areas unlikely	Potentially partially flooded	Potentially totally flooded
No. of Mines	0	13.00	103.00	3.00
Mean coal bed thickness (feet)	0.00	3.11	3.13	2.71
Min. footprint area (acres)	0.00	0.07	0.04	26.80
Max. footprint area (acres)	0.00	28.90	2,256.73	1,695.89
Mean footprint area (acres)	0.00	4.25	146.07	788.70
Median footprint area (acres)	0.00	0.79	26.44	662.74
Total footprint area (acres)	0.00	55.30	15,045.33	2,366.11
Estimated void volume (acre feet)	0.00	100.49	27,080.13	3,794.42
Max. potential storage (million gallons)	0.00	32.75	8,825.41	1,236.60

Figure 20c



**Legend**

**Position**

- Above drainage
- Near drainage
- Below drainage

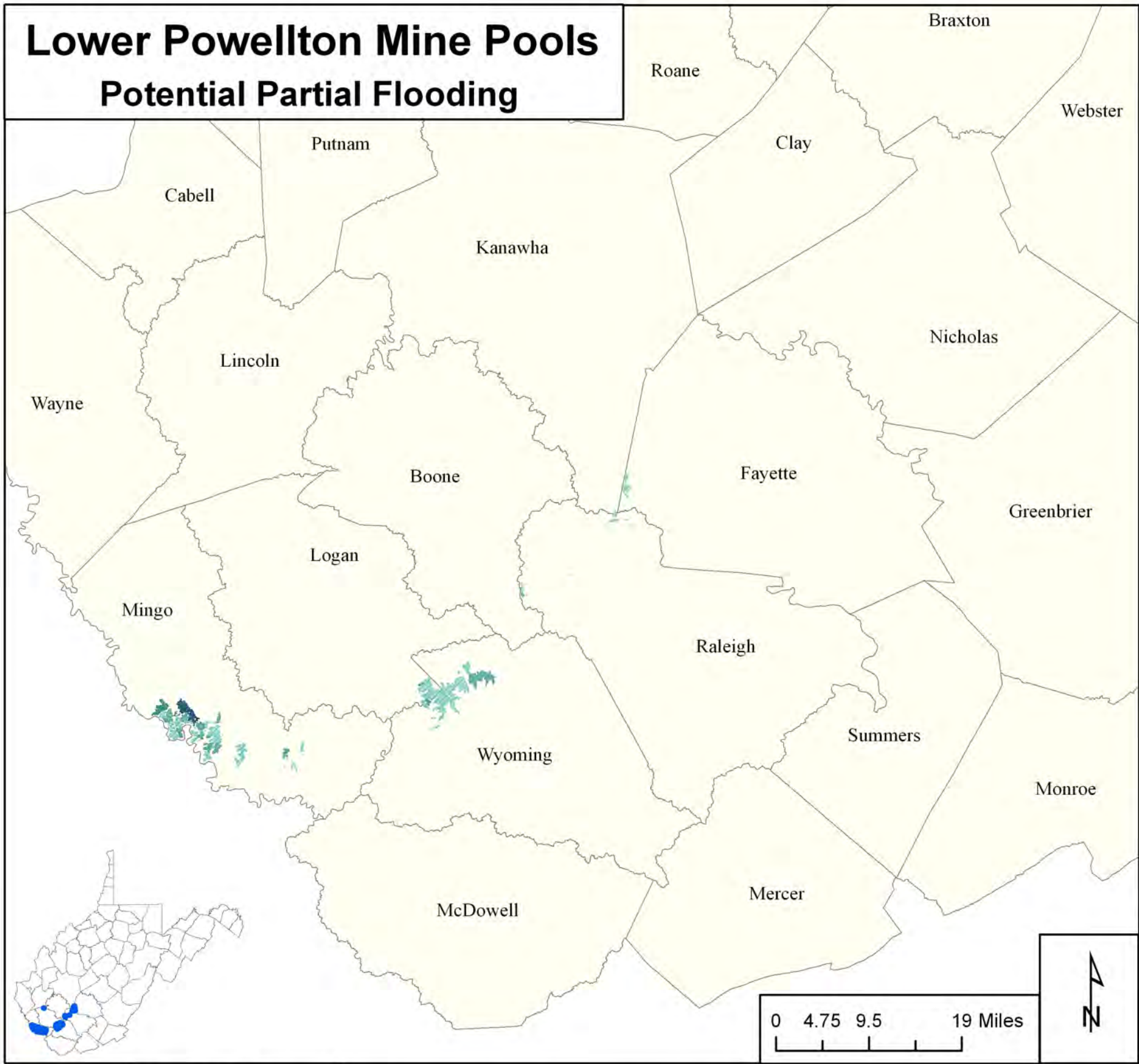
**Storage in Million Gallons**

- 0.000 - 5,000
- 5,001 - 10,000
- 10,001 - 15,000
- 15,001 - 20,000
- 20,001 - 25,000
- 25,001 - 30,000

**Lower Powellton Mine Pool Statistics**

	Potentially totally flooded above drainage mines	Potentially totally flooded near drainage mines	Potentially totally flooded below drainage mines
No. of Mines	1	0	2
Mean coal bed thickness (feet)	2.23	0.00	2.95
Min. foot print area (acres)	7.48	0.00	662.74
Max. foot print area (acres)	7.48	0.00	3,021.37
Mean foot print area (acres)	7.48	0.00	1,179.32
Median foot print area (acres)	7.48	0.00	1,179.32
Total foot print area (acres)	7.48	0.00	2,358.63
Estimated void volume (acre feet)	8.47	0.00	3,785.95
Max. potential storage (million gallons)	2.76	0.00	1,233.84

Figure 20d



<b>Legend</b>		<b>Lower Powellton Mine Pool Statistics</b>		
<b>Position</b>		Potentially partially flooded above drainage mines		Potentially partially flooded near drainage mines
Above drainage				
Near drainage				
<b>Potential Partial Flooding</b>				
Very small area(s)				
Small area(s)				
Intermediate area(s)				
Large area(s)				
Very large area(s)				
		No. of Mines	98	5
		Mean coal bed thickness (feet)	3.11	3.38
		Min. footprint area (acres)	0.04	144.23
		Max. footprint area (acres)	2,256.73	1,126.98
		Mean footprint area (acres)	127.65	507.04
		Median foot print area (acres)	21.41	380.52
		Total footprint area (acres)	12,510.12	2,535.21
		Estimated void volume (acre feet)	22,884.69	4,195.44
		Max. potential storage (million gallons)	7,458.12	1,367.29

Figure 20e

# Eagle Mine Pools Structure Contour

## Legend

- Coalbed Elevation (200 ft Intervals)
- Underground Mine Footprints

0 5 10 20 Miles

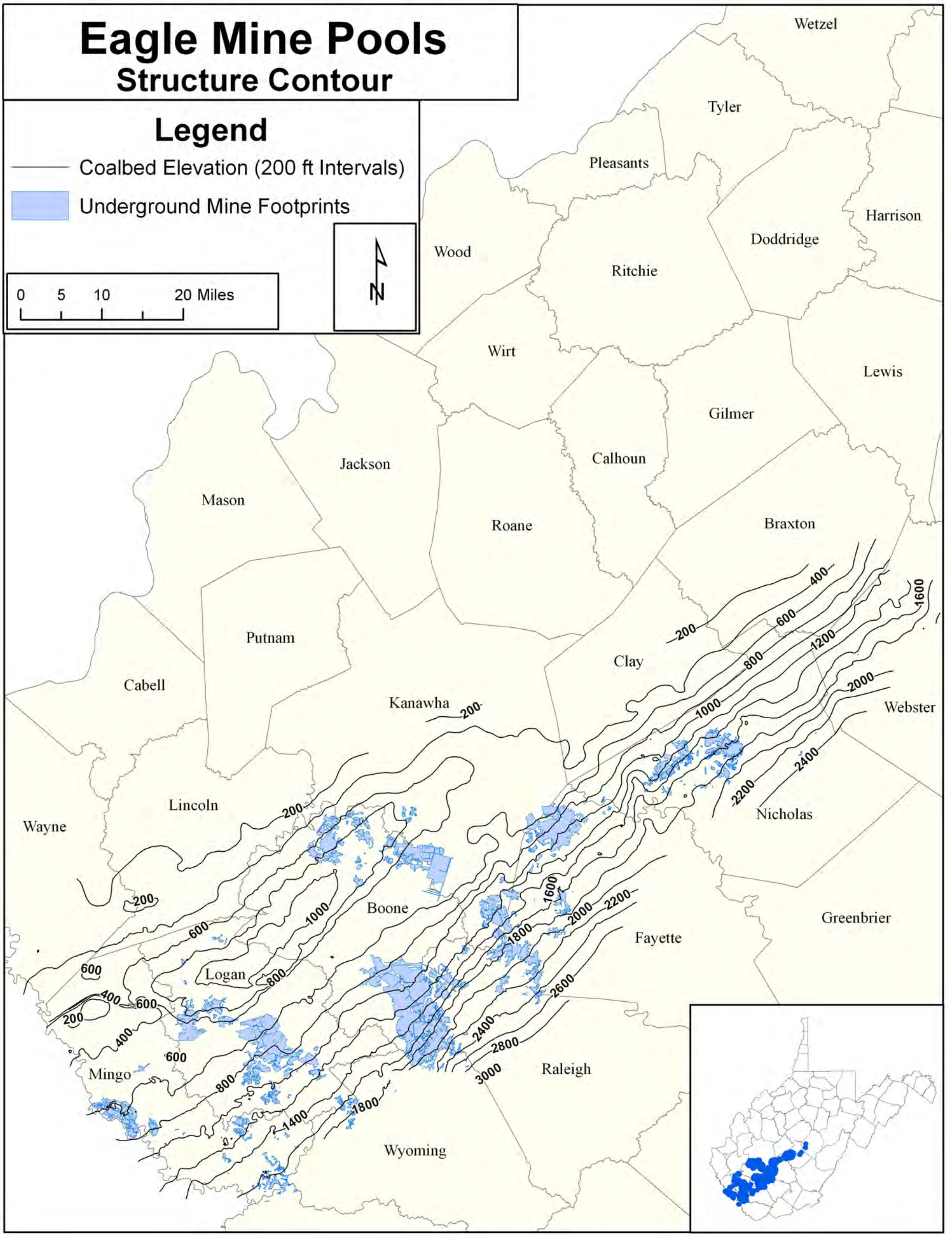



Figure 21a





# Eagle Mine Pools Coal Isopach

## Legend

 Underground Mine Footprints

### Total Bed Thickness

In Inches

-  0 - 12"
-  12 - 24"
-  24 - 36"
-  36 - 48"
-  48 - 60"
-  60 - 72"
-  72 - 84"
-  84 - 96"
-  96 - 108"
-  108 - 120"
-  120 - 132"
-  132 - 180"



0 5 10 20 Miles

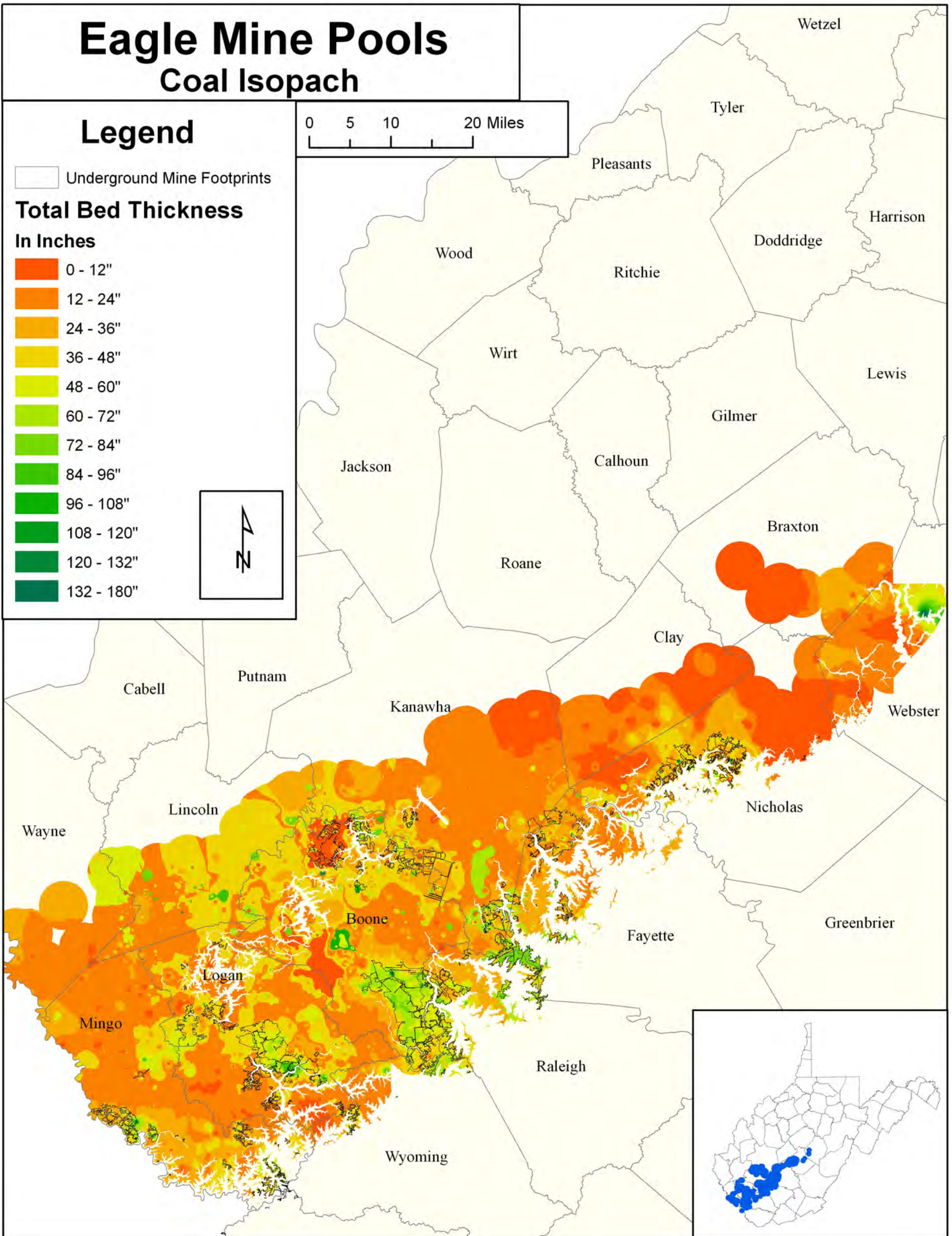
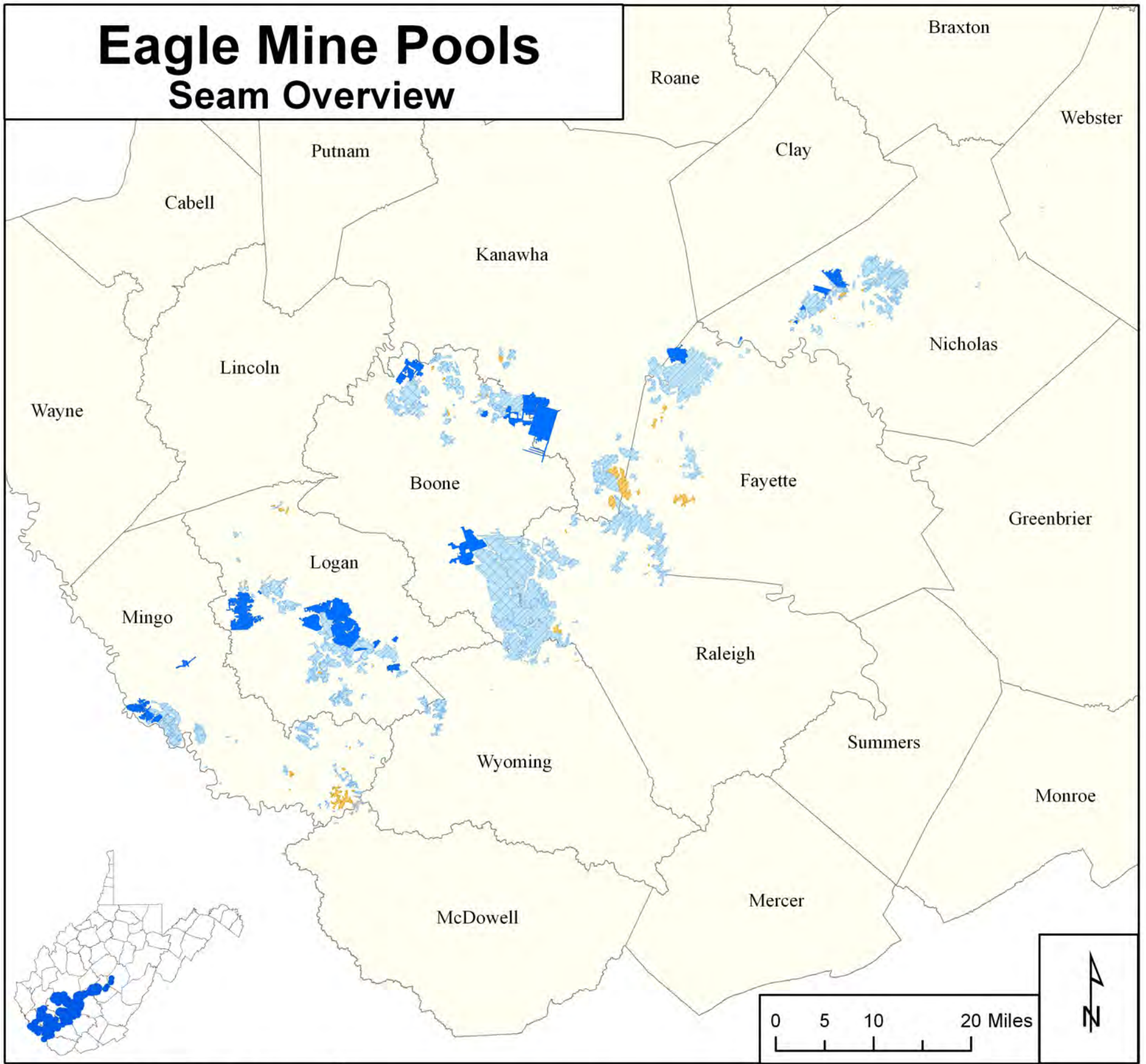


Figure 21b

# Eagle Mine Pools Seam Overview



## Legend

### Position

- Above drainage
- Near drainage
- Below drainage

### Potential Extent of Flooding

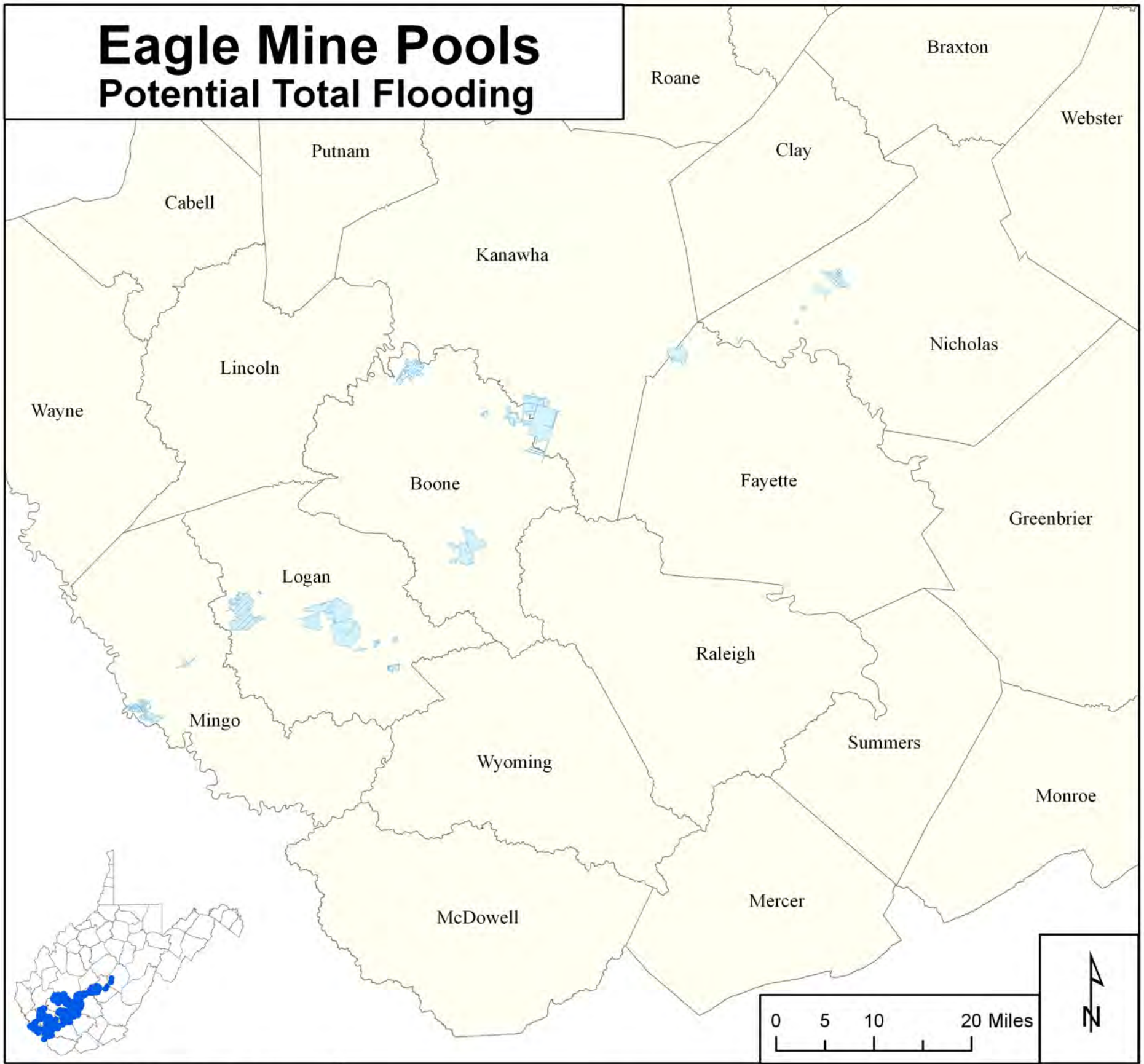
- Undetermined
- Flooded areas unlikely
- Partially flooded
- Totally flooded

## Eagle Mine Pool Statistics

	Undetermined	Potentially flooded areas unlikely	Potentially partially flooded	Potentially totally flooded
No. of Mines	18	88	363	25
Mean coal bed thickness (feet)	3.70	3.63	3.64	3.94
Min. footprint area (acres)	0.14	0.01	0.01	0.99
Max. footprint area (acres)	290.31	1,313.06	10,804.17	4,857.58
Mean footprint area (acres)	27.19	60.60	319.44	1,366.10
Median footprint area (acres)	5.43	5.30	41.67	1,210.73
Total footprint area (acres)	489.50	5,332.65	115,955.57	34,152.40
Estimated void volume (acre feet)	840.94	11,167.81	250,439.00	72,132.80
Max. potential storage (million gallons)	274.06	3,639.59	81,618.07	23,508.08

Figure 21c

# Eagle Mine Pools Potential Total Flooding



## Legend

- Position**
- Above drainage
  - Near drainage
  - Below drainage

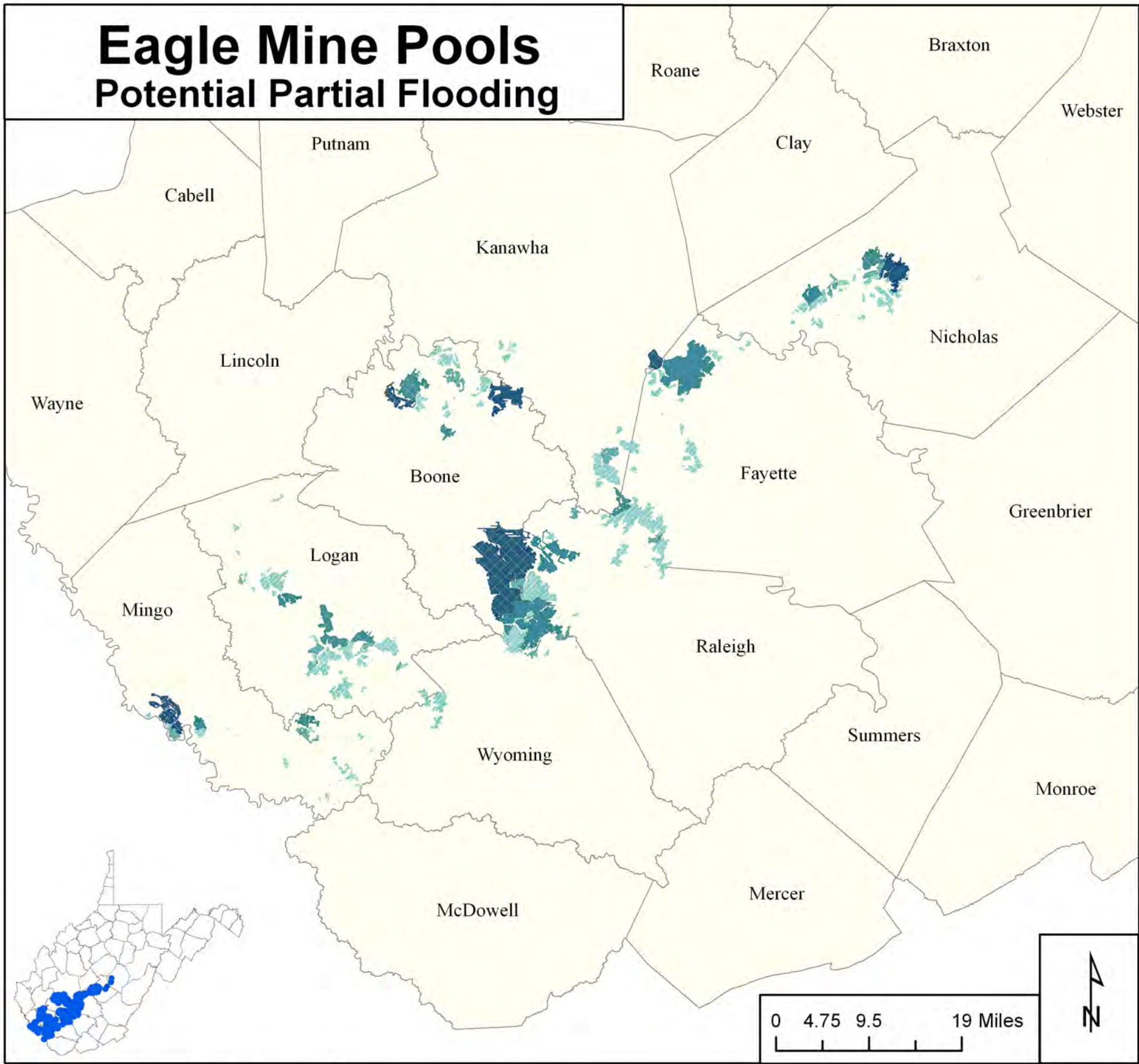
## Storage in Million Gallons

- 0.000 - 5,000
- 5,001 - 10,000
- 10,001 - 15,000
- 15,001 - 20,000
- 20,001 - 25,000
- 25,001 - 30,000

## Eagle Mine Pool Statistics

	Potentially totally flooded above drainage mines	Potentially totally flooded near drainage mines	Potentially totally flooded below drainage mines
No. of Mines	4	5	16
Mean coal bed thickness (feet)	3.64	3.66	4.10
Min. foot print area (acres)	39.79	108.31	0.99
Max. foot print area (acres)	4,397.68	1,935.34	4,857.58
Mean foot print area (acres)	1,224.99	757.43	1,591.58
Median foot print area (acres)	231.24	179.93	1,496.20
Total foot print area (acres)	4,899.96	3,787.14	25,465.29
Estimated void volume (acre feet)	9,777.27	6,331.76	56,023.77
Max. potential storage (million gallons)	3,186.41	2,063.52	18,258.15

Figure 21d



<b>Legend</b>		<b>Eagle Mine Pool Statistics</b>		
<b>Position</b>		Potentially partially flooded above drainage mines		Potentially partially flooded near drainage mines
Above drainage				
Near drainage				
<b>Potential Partial Flooding</b>				
Very small area(s)				
Small area(s)				
Intermediate area(s)				
Large area(s)				
Very large area(s)				
		No. of Mines	322	41
		Mean coal bed thickness (feet)	3.62	3.81
		Min. footprint area (acres)	0.01	1.20
		Max. footprint area (acres)	9,964.83	10,804.17
		Mean footprint area (acres)	237.20	965.31
		Median footprint area (acres)	29.99	133.91
		Total footprint area (acres)	76,377.66	39,577.91
		Estimated void volume (acre feet)	157,767.97	92,671.03
		Max. potential storage (million gallons)	51,416.58	30,201.49

Figure 21e



# Sewell Mine Pools Structure Contour

## Legend

- Coalbed Elevation (200 ft Intervals)
- Underground Mine Footprints

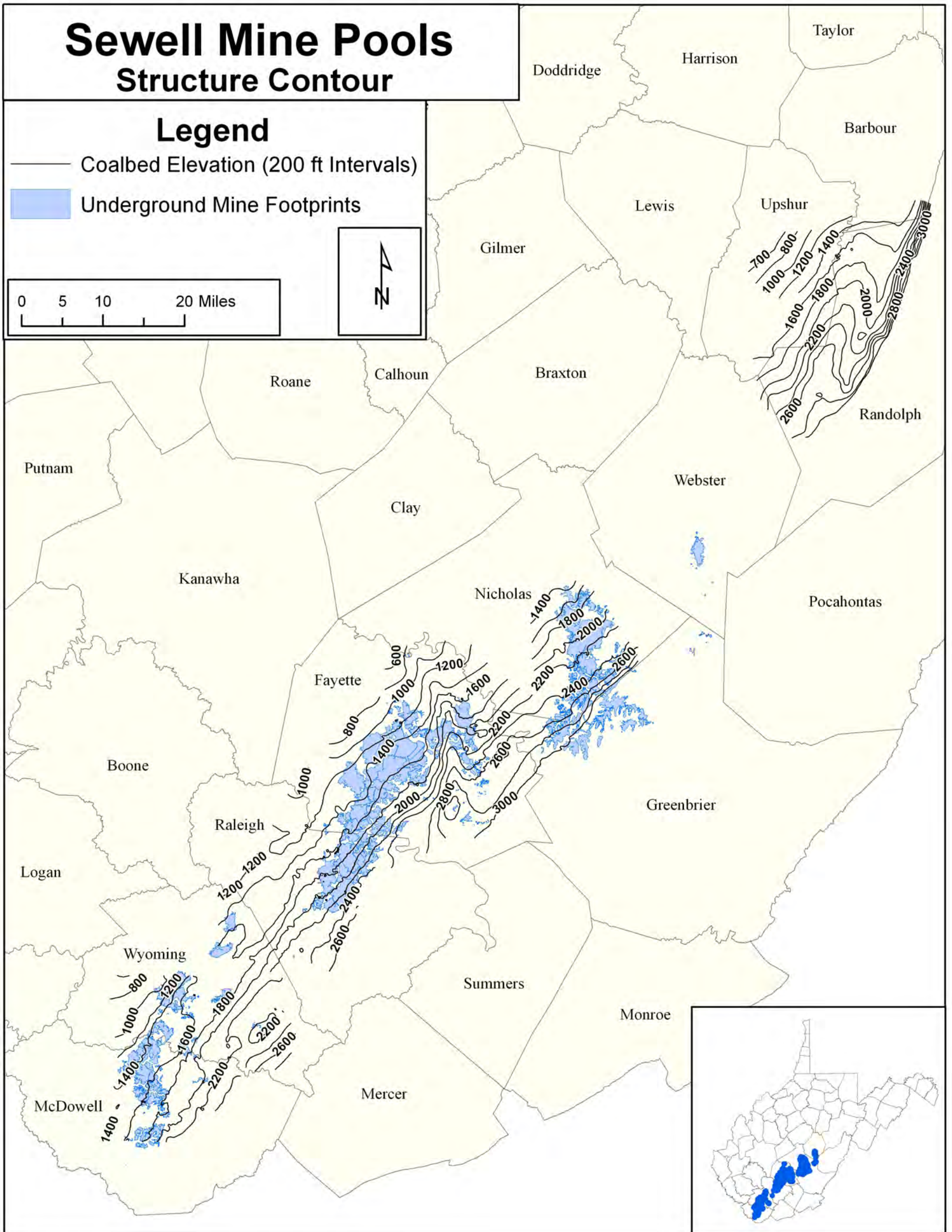
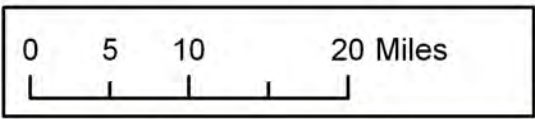


Figure 22a

# Sewell Mine Pools Coal Isopach

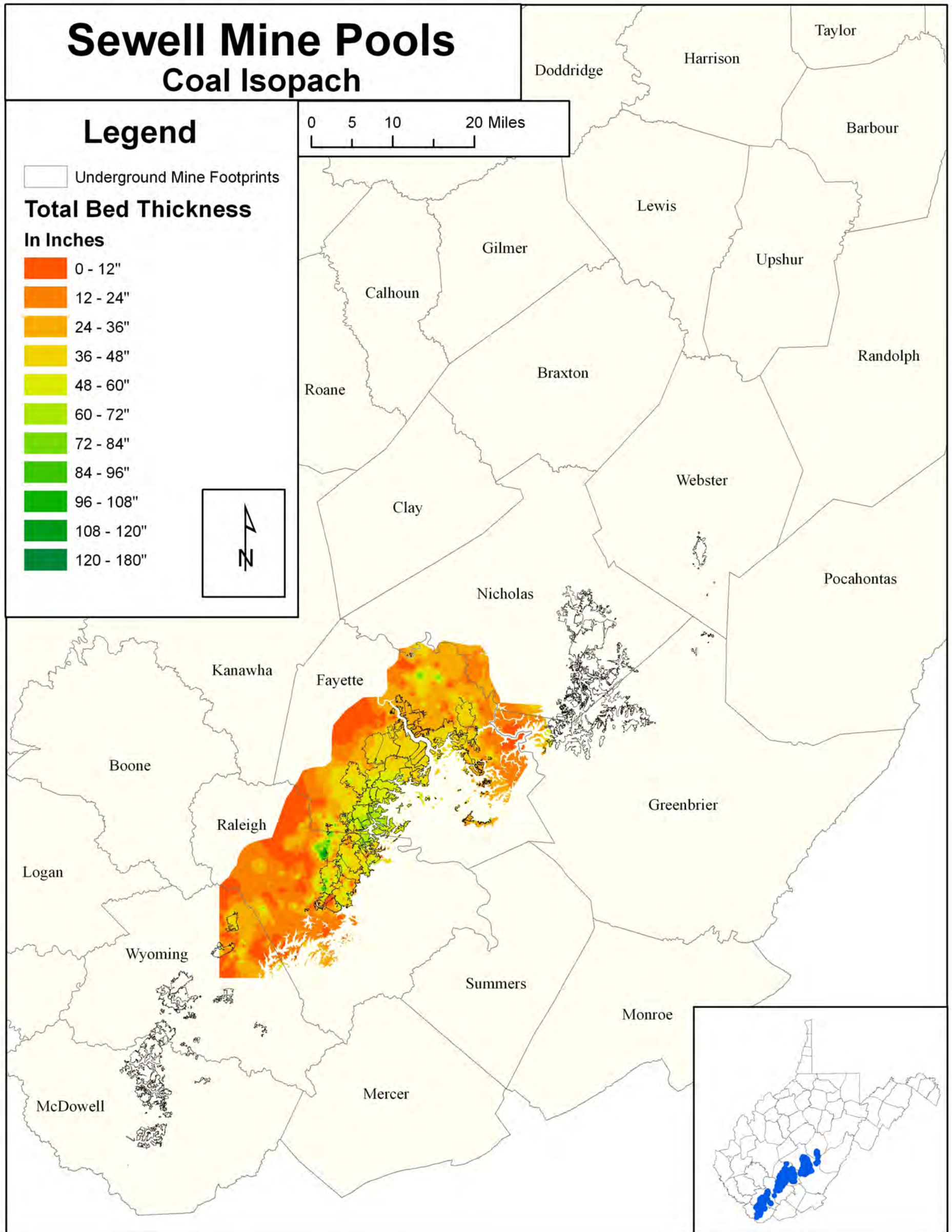
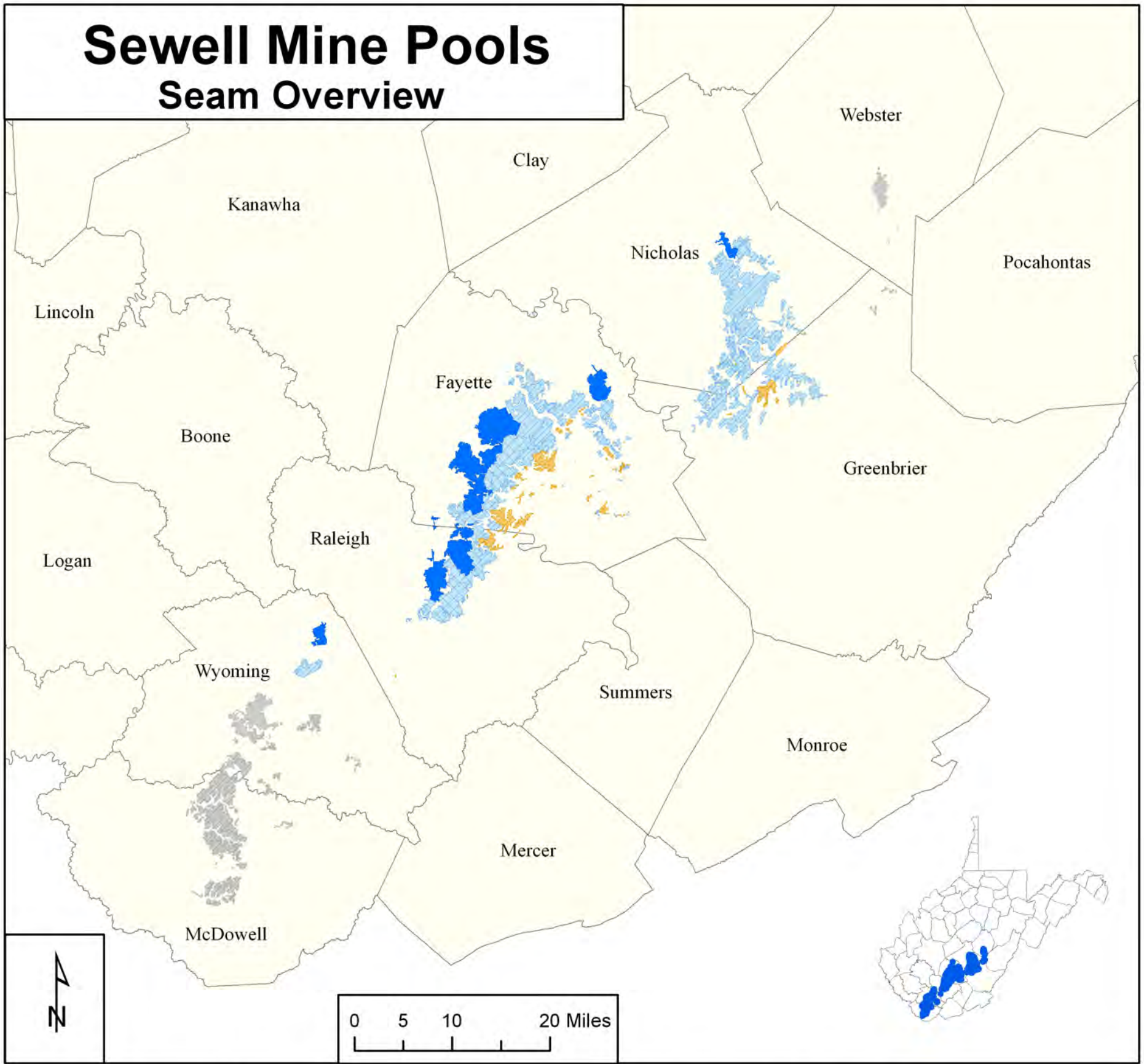


Figure 22b

# Sewell Mine Pools Seam Overview



## Legend

### Position

- Above drainage
- Near drainage
- Below drainage

### Potential Extent of Flooding

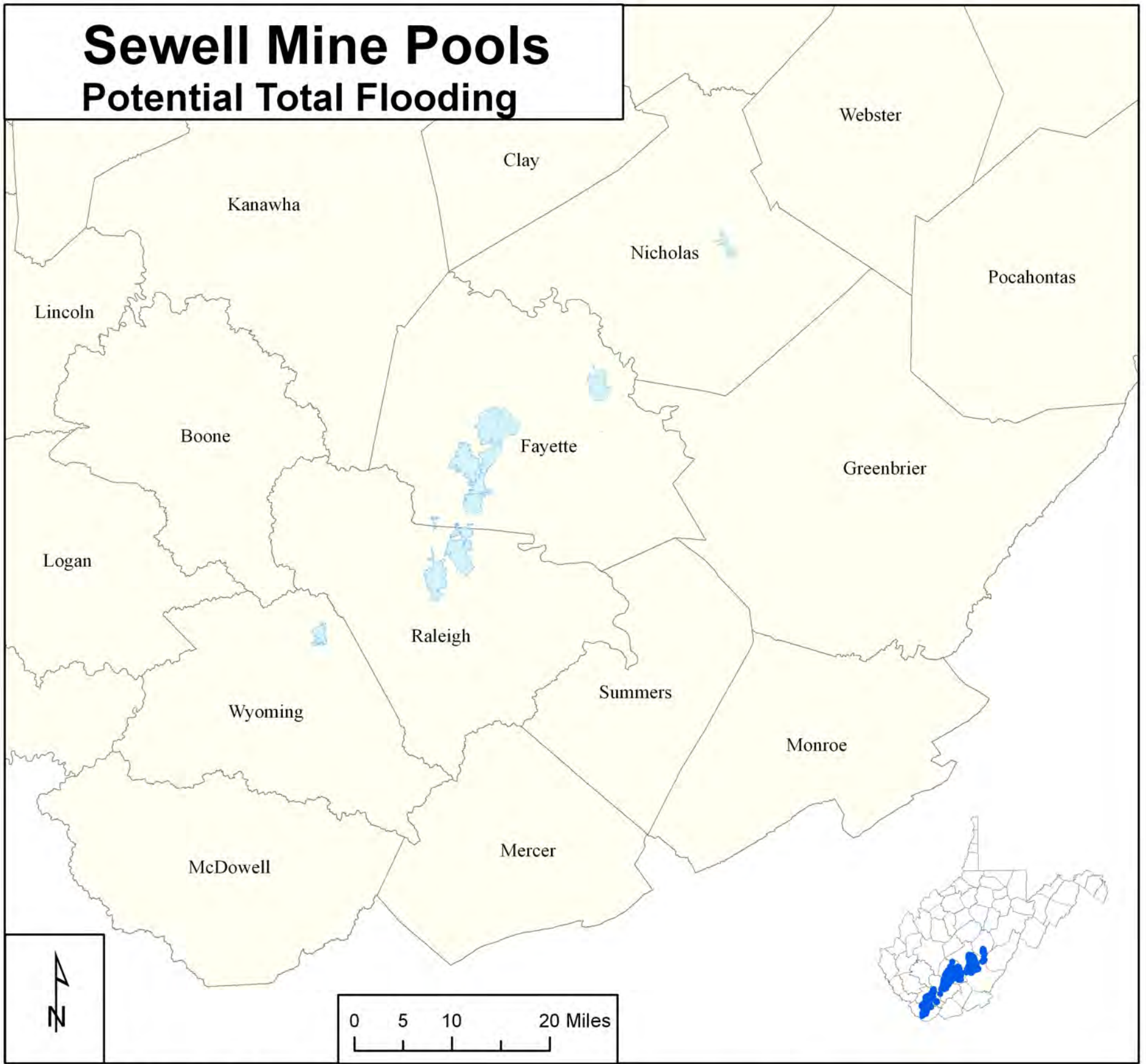
- Undetermined
- Flooded areas unlikely
- Partially flooded
- Totally flooded

## Sewell Mine Pool Statistics

	Undetermined	Potentially flooded areas unlikely	Potentially partially flooded	Potentially totally flooded
No. of Mines	184	130	268	17
Mean coal bed thickness (feet)	3.09	2.61	2.85	3.76
Min. footprint area (acres)	9.49	0.02	0.02	4.58
Max. footprint area (acres)	2,545.93	1,832.97	15,697.79	4,587.45
Mean footprint area (acres)	156.26	68.71	341.56	1,960.08
Median footprint area (acres)	14.88	3.59	15.23	1,380.26
Total footprint area (acres)	28,751.08	8,932.04	91,536.86	33,321.34
Estimated void volume (acre feet)	43,896.53	14,686.32	155,666.76	61,339.45
Max. potential storage (million gallons)	14,305.88	4,786.27	50,731.80	19,990.53

Figure 22c

# Sewell Mine Pools Potential Total Flooding



## Position Legend

- Above drainage
- Near drainage
- Below drainage

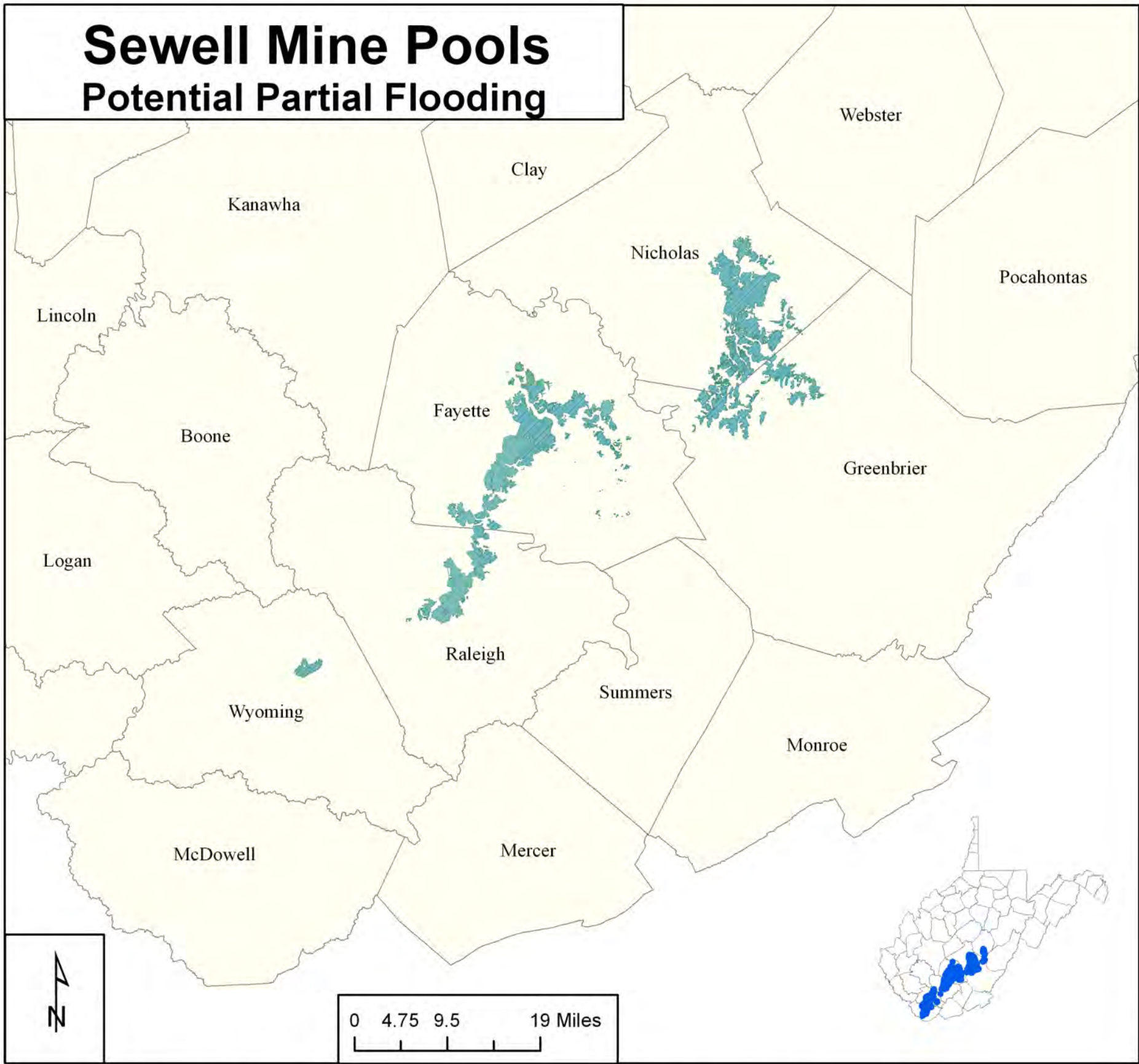
## Storage in Million Gallons

- 0.000 - 5,000
- 5,001 - 10,000
- 10,001 - 15,000
- 15,001 - 20,000
- 20,001 - 25,000
- 25,001 - 30,000

## Sewell Mine Pool Statistics

	Potentially totally flooded above drainage mines	Potentially totally flooded near drainage mines	Potentially totally flooded below drainage mines
No. of Mines	0	1	16
Mean coal bed thickness (feet)	0.00	5.10	3.67
Min. foot print area (acres)	0.00	106.78	4.58
Max. foot print area (acres)	0.00	106.78	4,587.45
Mean foot print area (acres)	0.00	106.78	2,075.91
Median foot print area (acres)	0.00	106.78	1,759.66
Total foot print area (acres)	0.00	106.78	33,214.57
Estimated void volume (acre feet)	0.00	272.77	61,066.67
Max. potential storage (million gallons)	0.00	88.90	19,901.63

Figure 22d










<b>Legend</b>		<b>Sewell Mine Pool Statistics</b>		
<b>Position</b>		Potentially partially flooded above drainage mines		Potentially partially flooded near drainage mines
	Above drainage			
	Near drainage			
<b>Potential Partial Flooding</b>				
	Very small area(s)			
	Small area(s)			
	Intermediate area(s)			
	Large area(s)			
	Very large area(s)			
		No. of Mines	240	28
		Mean coal bed thickness (feet)	2.80	3.26
		Min. footprint area (acres)	0.02	0.19
		Max. footprint area (acres)	15,697.79	4,168.97
		Mean footprint area (acres)	277.74	888.59
		Median footprint area (acres)	13.13	210.29
		Total footprint area (acres)	66,656.43	24,880.43
		Estimated void volume (acre feet)	110,543.83	45,122.93
		Max. potential storage (million gallons)	36,026.24	14,705.56

Figure 22e

# Beckley Mine Pools Structure Contour

## Legend

— Coalbed Elevation (200 ft Intervals)

■ Underground Mine Footprints

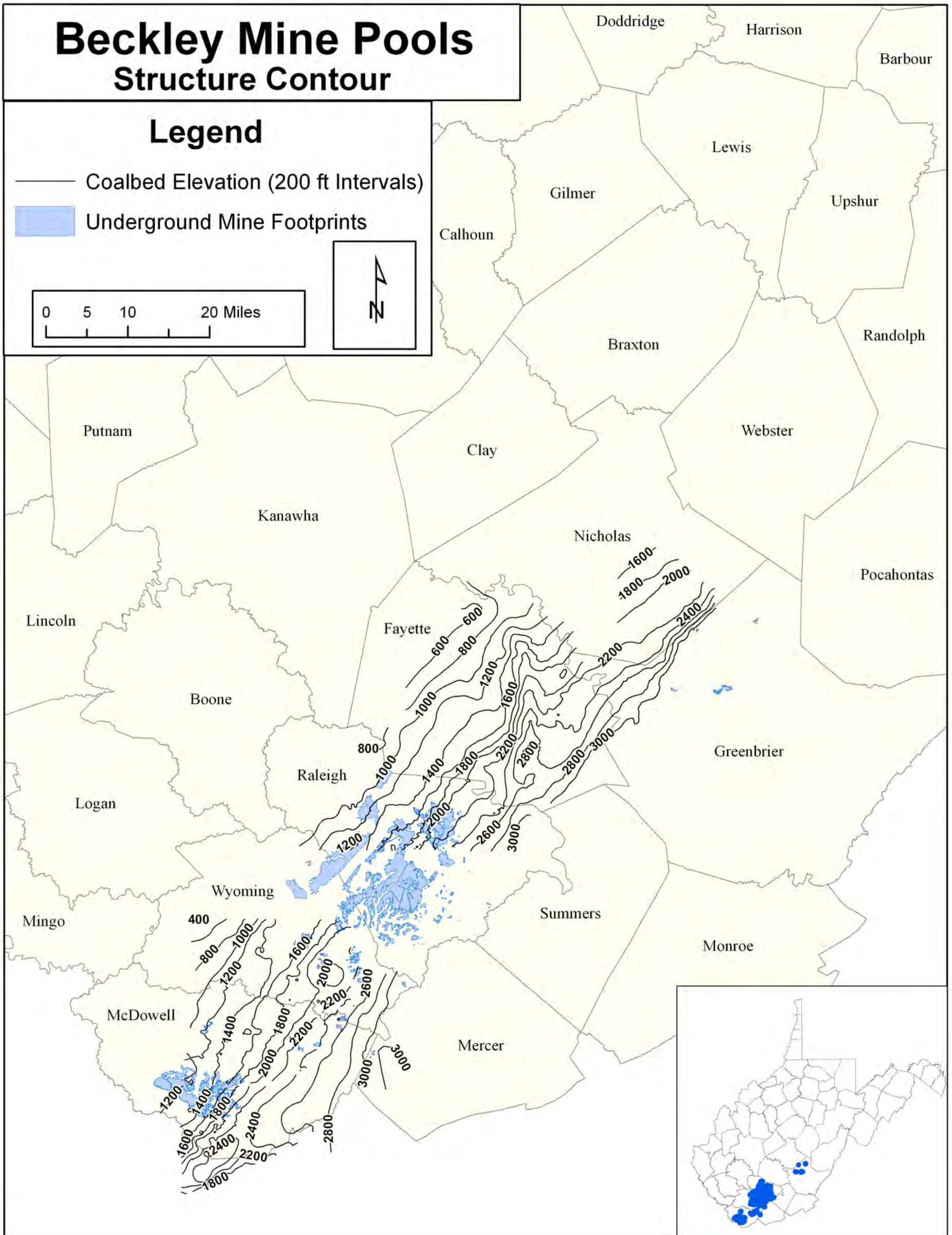
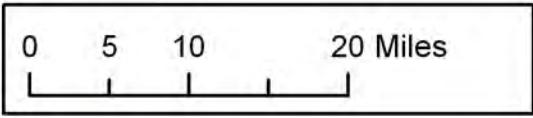



Figure 23a














# Beckley Mine Pools Coal Isopach

## Legend

 Underground Mine Footprints

### Total Bed Thickness

In Inches

-  0 - 12"
-  12 - 24"
-  24 - 36"
-  36 - 48"
-  48 - 60"
-  60 - 72"
-  72 - 84"
-  84 - 96"
-  96 - 108"
-  108 - 120"
-  120 - 132"
-  132 - 144"
-  144 - 192"

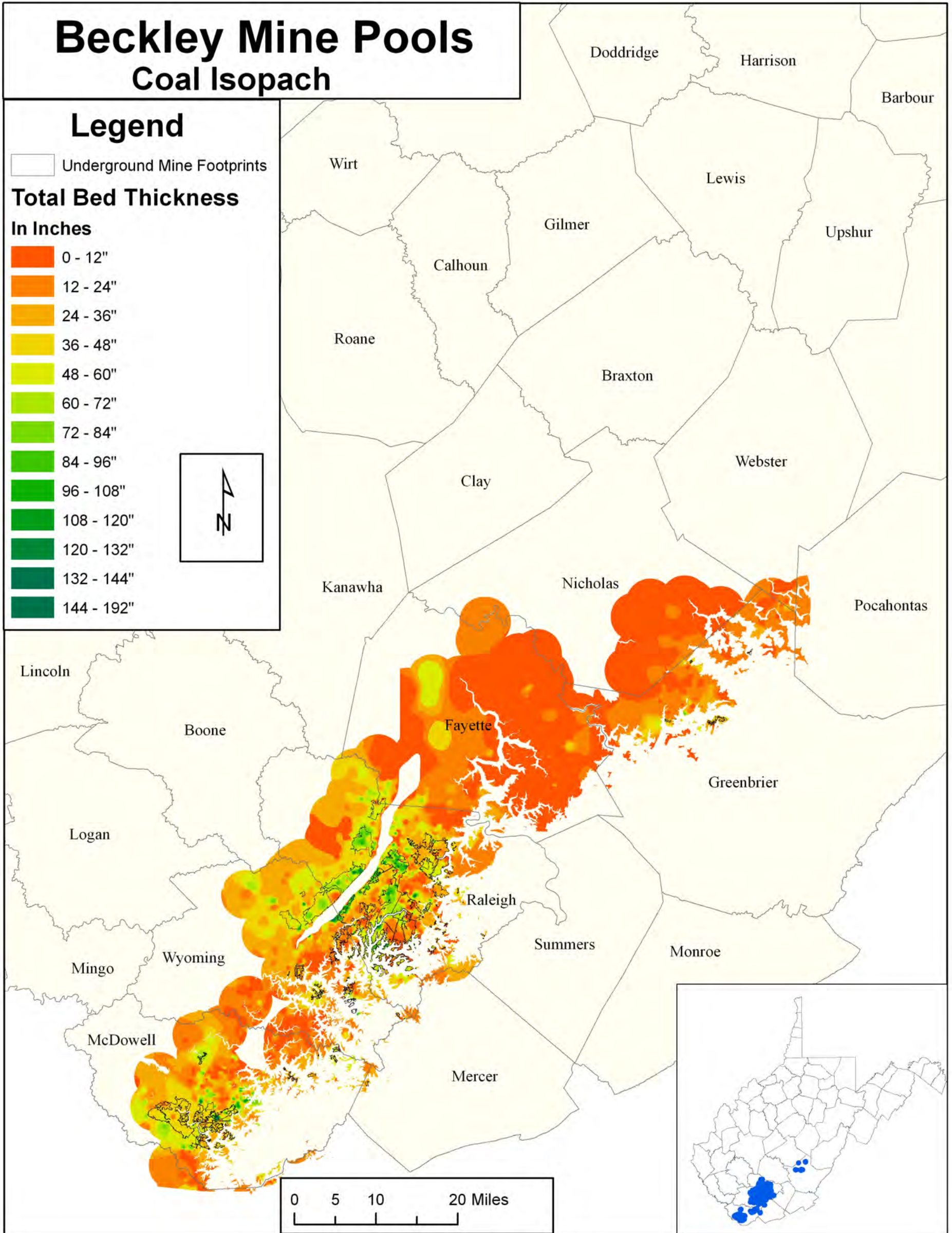
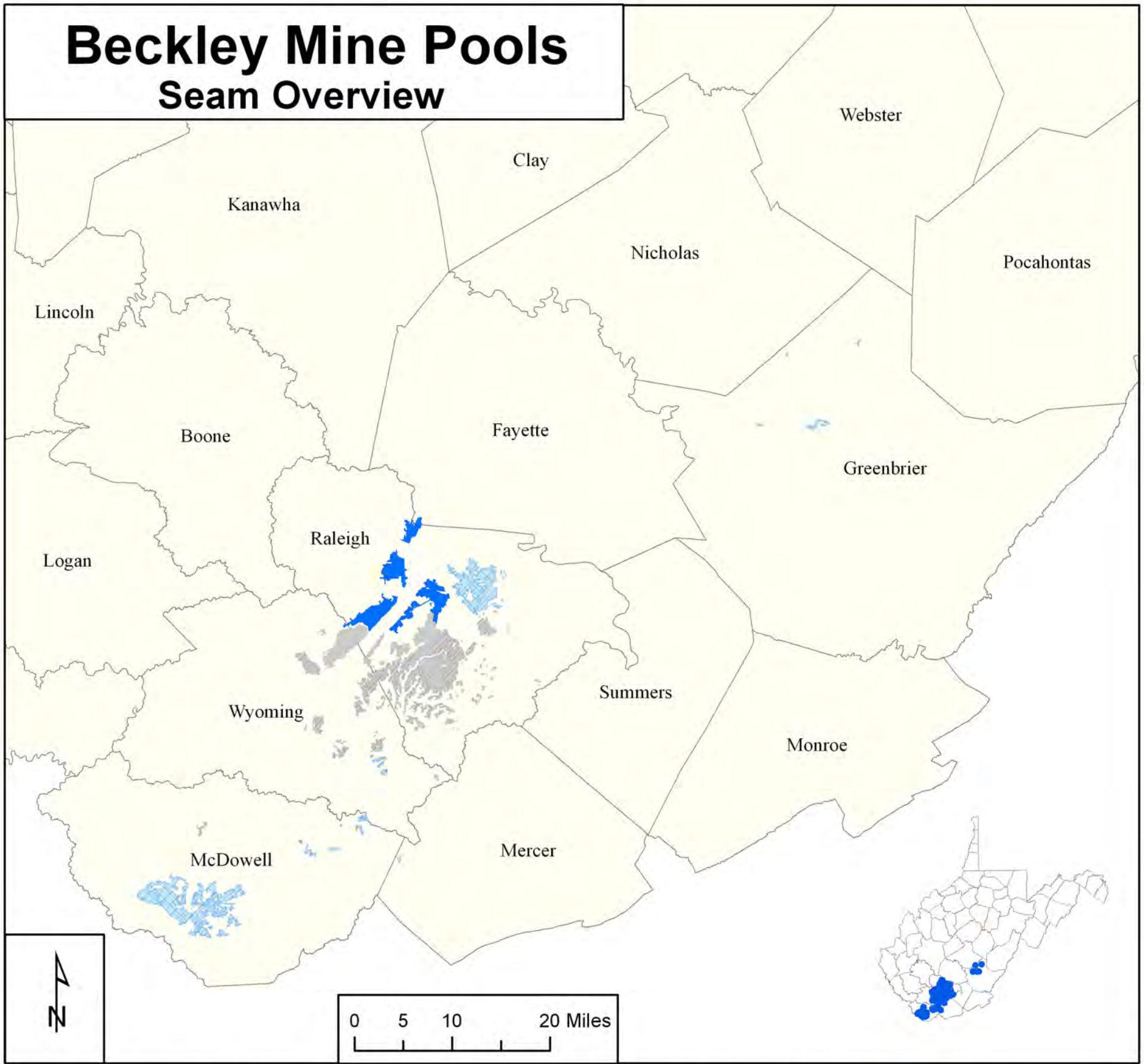


Figure 23b

# Beckley Mine Pools Seam Overview



## Legend

### Position

- Above drainage
- Near drainage
- Below drainage

### Potential Extent of Flooding

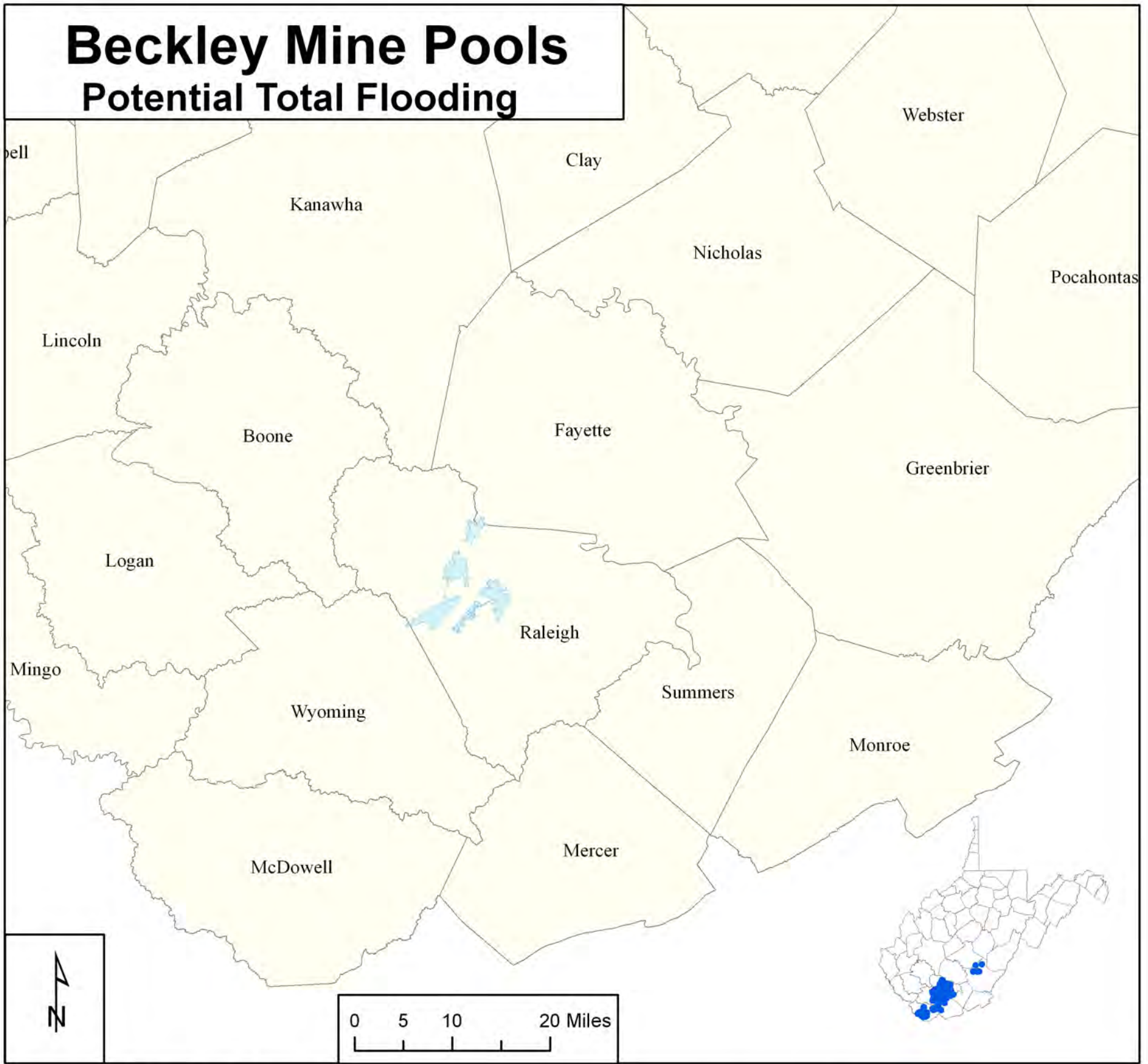
- Undetermined
- Flooded areas unlikely
- Partially flooded
- Totally flooded

## Beckley Mine Pool Statistics

	Undetermined	Potentially flooded areas unlikely	Potentially partially flooded	Potentially totally flooded
No. of Mines	159	19	87	6
Mean coal bed thickness (feet)	2.85	3.43	3.43	5.05
Min. footprint area (acres)	0.08	0.15	0.02	9.73
Max. footprint area (acres)	5,314.48	13.78	6,383.02	4,133.41
Mean footprint area (acres)	238.38	2.94	272.03	2,302.42
Median footprint area (acres)	15.55	1.10	61.32	2,396.15
Total footprint area (acres)	37,901.90	55.87	23,666.68	13,814.54
Estimated void volume (acre feet)	63,074.25	95.73	41,346.11	38,356.68
Max. potential storage (million gallons)	20,555.90	31.20	13,474.70	12,500.44

Figure 23c

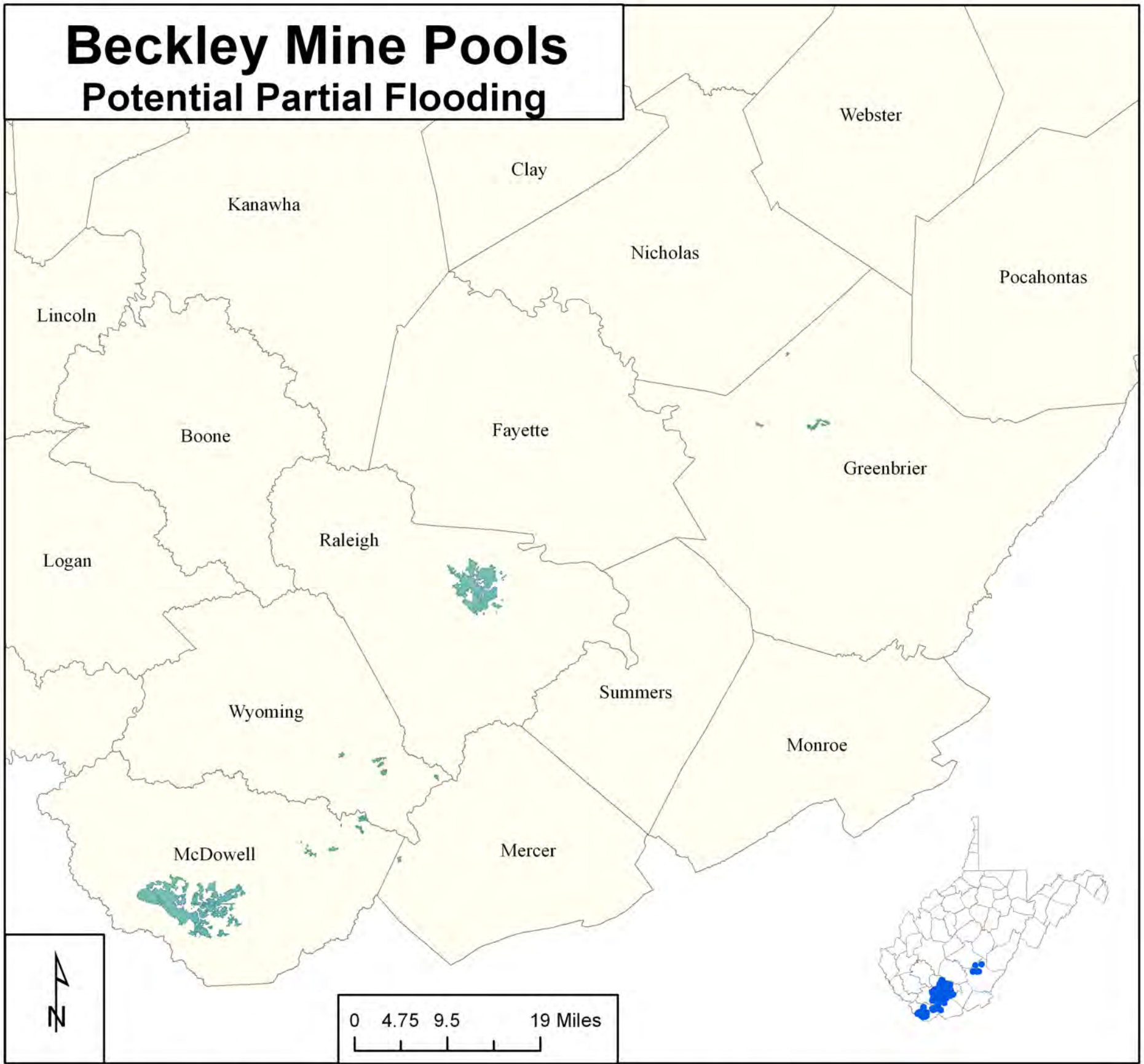




Position Legend		Beckley Mine Pool Statistics			
	Above drainage		Potentially totally flooded above drainage mines	Potentially totally flooded near drainage mines	Potentially totally flooded below drainage mines
	Near drainage				
	Below drainage				
Storage in Million Gallons					
	0.000 - 5,000	No. of Mines	0	0	6
	5,001 - 10,000	Mean coal bed thickness (feet)	0.00	0.00	5.05
	10,001 - 15,000	Min. foot print area (acres)	0.00	0.00	9.73
	15,001 - 20,000	Max. foot print area (acres)	0.00	0.00	4,133.41
	20,001 - 25,000	Mean foot print area (acres)	0.00	0.00	2,302.42
	25,001 - 30,000	Median foot print area (acres)	0.00	0.00	2,396.15
		Total foot print area (acres)	0.00	0.00	13,814.54
		Estimated void volume (acre feet)	0.00	0.00	38,356.68
		Max. potential storage (million gallons)	0.00	0.00	12,500.44

Figure23d

# Beckley Mine Pools Potential Partial Flooding



## Legend

### Position

- Above drainage
- Near drainage

### Potential Partial Flooding

- Very small area(s)
- Small area(s)
- Intermediate area(s)
- Large area(s)
- Very large area(s)

## Beckley Mine Pool Statistics

	Potentially partially flooded above drainage mines	Potentially partially flooded near drainage mines
No. of Mines	77	10
Mean coal bed thickness (feet)	3.37	3.89
Min. footprint area (acres)	0.02	1.35
Max. footprint area (acres)	1,633.38	6,383.02
Mean footprint area (acres)	125.71	1,398.70
Median foot print area (acres)	56.70	290.39
Total footprint area (acres)	9,679.69	13,986.99
Estimated void volume (acre feet)	18,240.54	23,105.57
Max. potential storage (million gallons)	5,944.59	7,530.11

Figure 23e

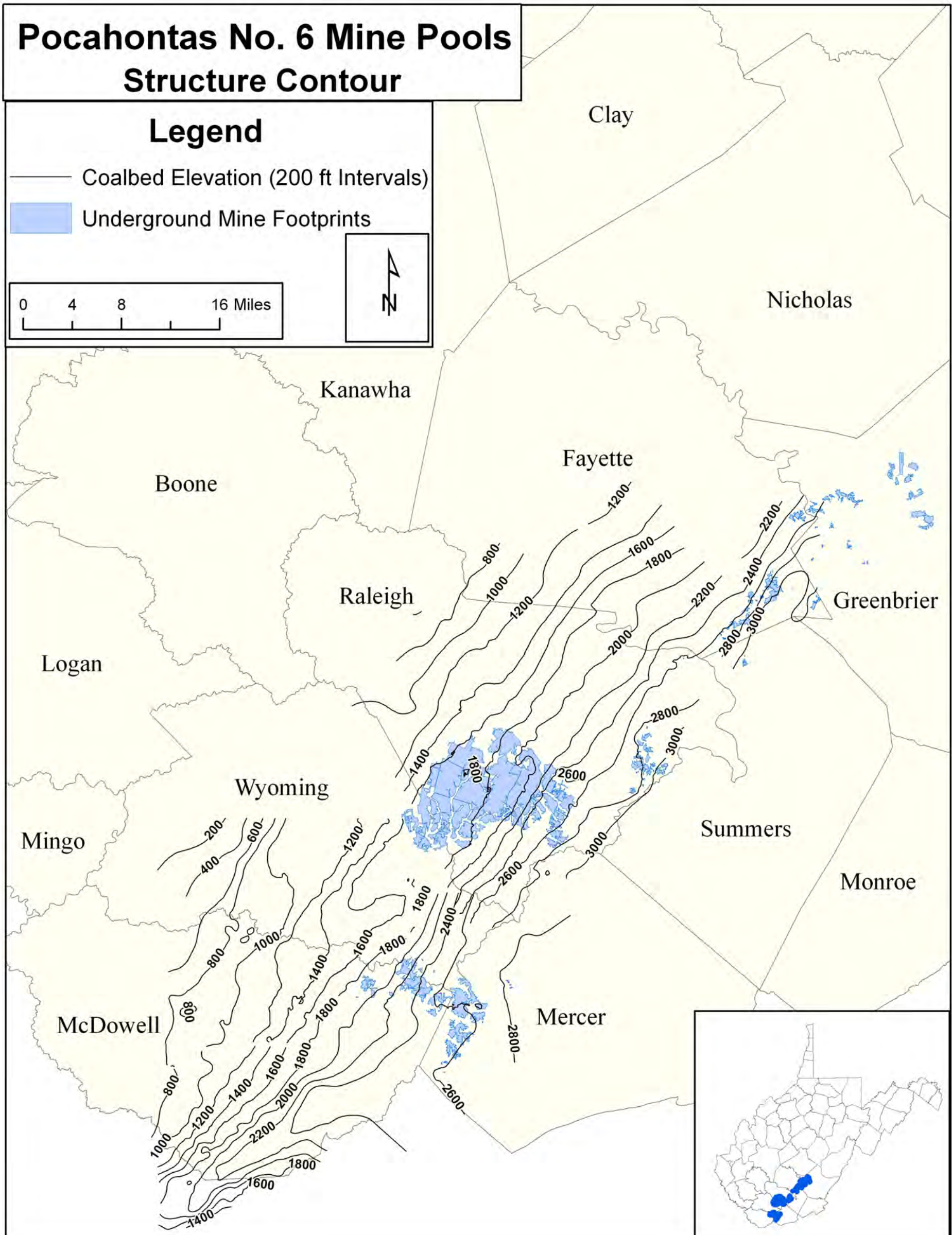


Figure 24a

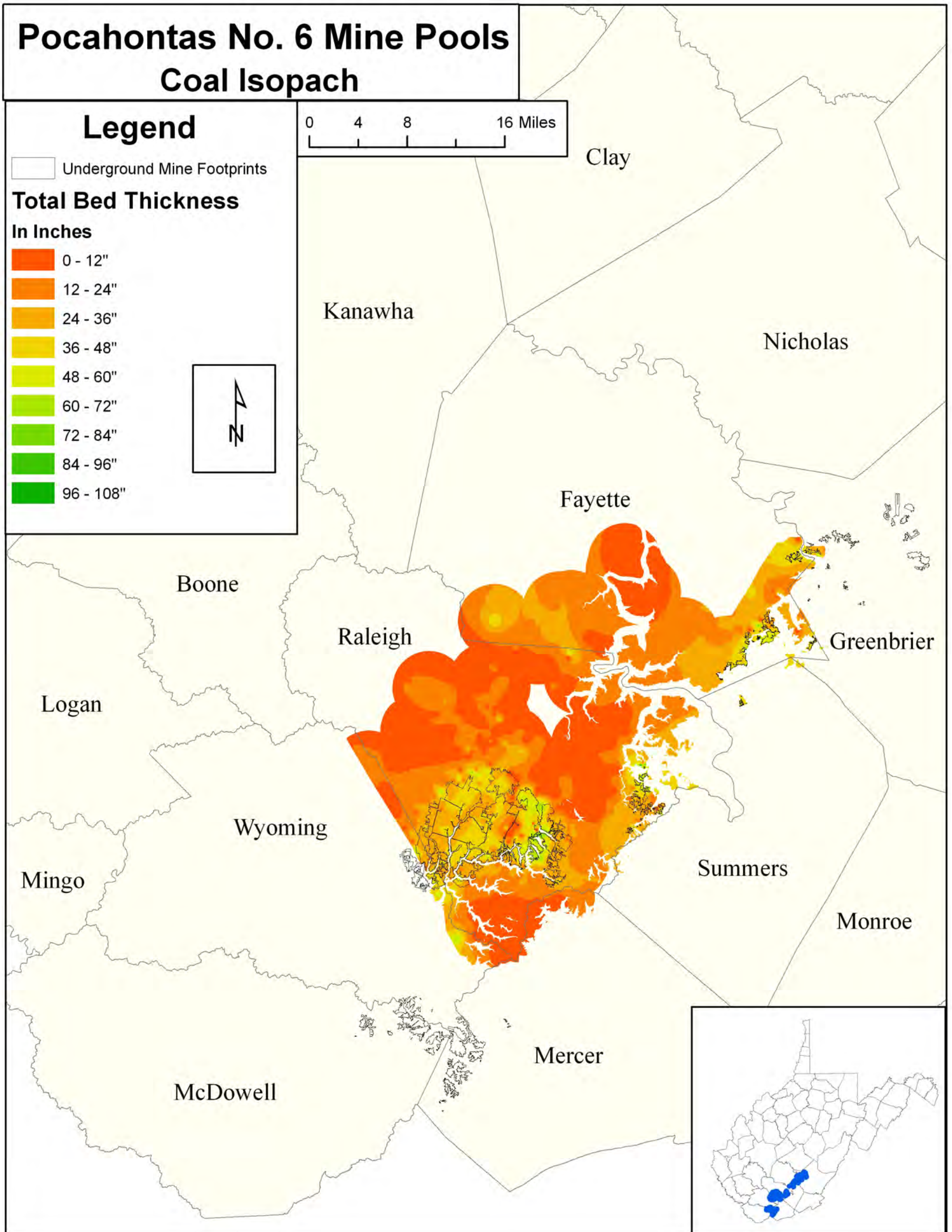


Figure 24b

# Pocahontas No. 6 Mine Pools Seam Overview



## Legend

### Position

- Above drainage
- Near drainage
- Below drainage

### Potential Extent of Flooding

- Undetermined
- Flooded areas unlikely
- Partially flooded
- Totally flooded

## Pocahontas No. 6 Mine Pool Statistics

	Undetermined	Potentially flooded areas unlikely	Potentially partially flooded	Potentially totally flooded
No. of Mines	41	87	128	6
Mean coal bed thickness (feet)	3.32	3.24	2.84	2.99
Min. footprint area (acres)	0.06	0.01	0.03	14.23
Max. footprint area (acres)	518.18	746.95	8,426.85	2,186.21
Mean footprint area (acres)	97.58	46.34	323.26	437.76
Median footprint area (acres)	17.38	1.74	9.88	48.01
Total footprint area (acres)	4,000.80	4,031.70	41,377.25	2,626.56
Estimated void volume (acre feet)	6,716.97	5,240.61	57,546.18	3,465.45
Max. potential storage (million gallons)	2,189.06	1,707.92	18,754.30	1,129.39

Figure 24c



**Position Legend**

- Above drainage
- Near drainage
- Below drainage

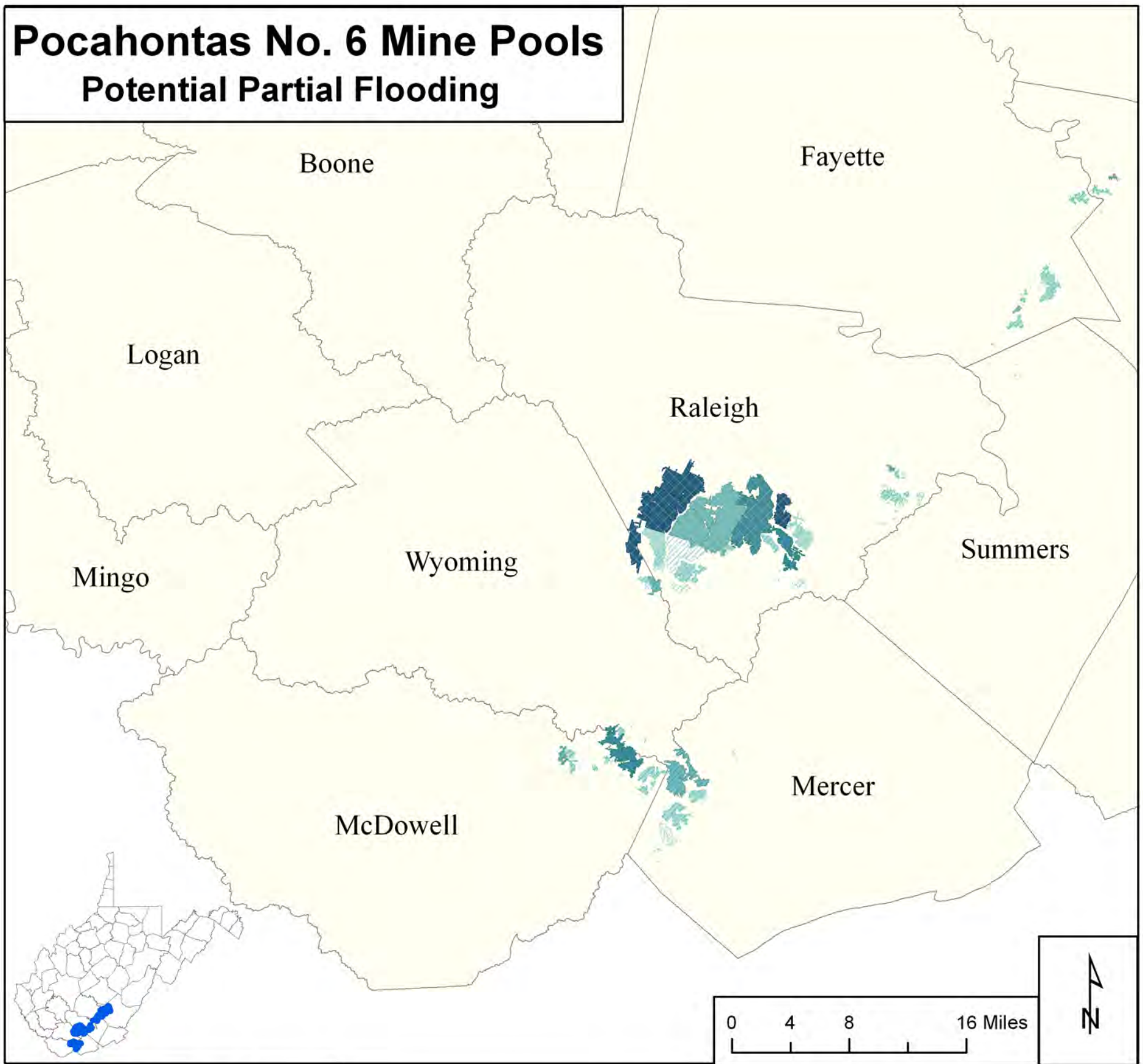
**Storage in Million Gallons**

- 0.000 - 5,000
- 5,001 - 10,000
- 10,001 - 15,000
- 15,001 - 20,000
- 20,001 - 25,000
- 25,001 - 30,000

<b>Pocahontas No. 6 Mine Pool Statistics</b>			
	Potentially totally flooded above drainage mines	Potentially totally flooded near drainage mines	Potentially totally flooded below drainage mines
No. of Mines	2	0	4
Mean coal bed thickness (feet)	2.88	0.00	3.05
Min. foot print area (acres)	14.23	0.00	16.46
Max. foot print area (acres)	53.55	0.00	2,186.21
Mean foot print area (acres)	33.89	0.00	639.70
Median foot print area (acres)	33.89	0.00	178.06
Total foot print area (acres)	67.77	0.00	2,558.79
Estimated void volume (acre feet)	95.95	0.00	3,369.50
Max. potential storage (million gallons)	31.27	0.00	1,098.12



Figure 24d

# Pocahontas No. 6 Mine Pools Potential Partial Flooding



## Legend

### Position

-  Above drainage
-  Near drainage

### Potential Partial Flooding

-  Very small area(s)
-  Small area(s)
-  Intermediate area(s)
-  Large area(s)
-  Very large area(s)

## Pocahontas No. 6 Mine Pool Statistics

	Potentially partially flooded above drainage mines	Potentially partially flooded near drainage mines
No. of Mines	112	16
Mean coal bed thickness (feet)	2.84	2.80
Min. footprint area (acres)	0.03	1.72
Max. footprint area (acres)	2,224.17	8,426.85
Mean footprint area (acres)	140.74	1,600.89
Median footprint area (acres)	6.71	504.81
Total footprint area (acres)	15,762.95	25,614.30
Estimated void volume (acre feet)	22,164.77	35,381.41
Max. potential storage (million gallons)	7,223.50	11,530.80

Figure 24e

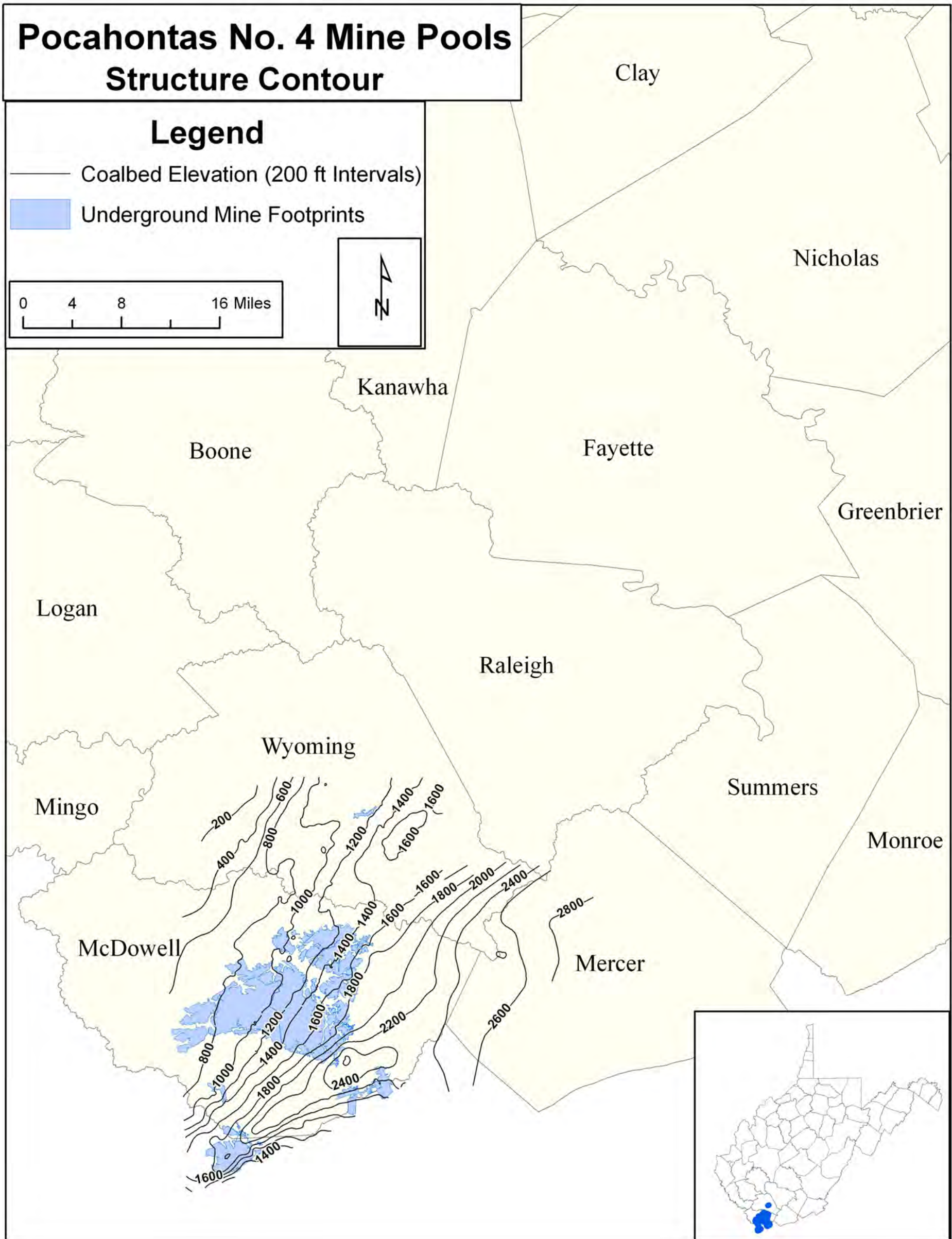


Figure 25a



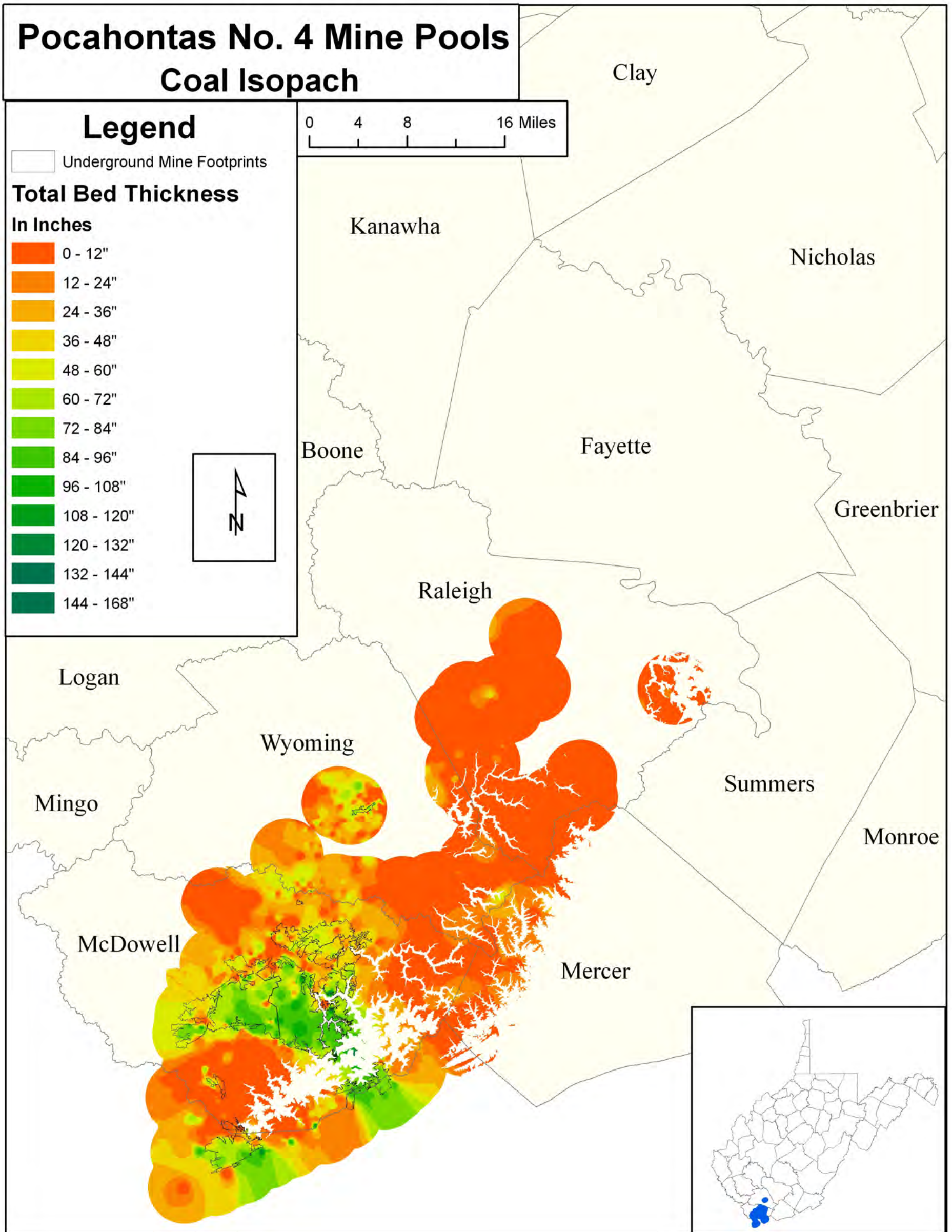
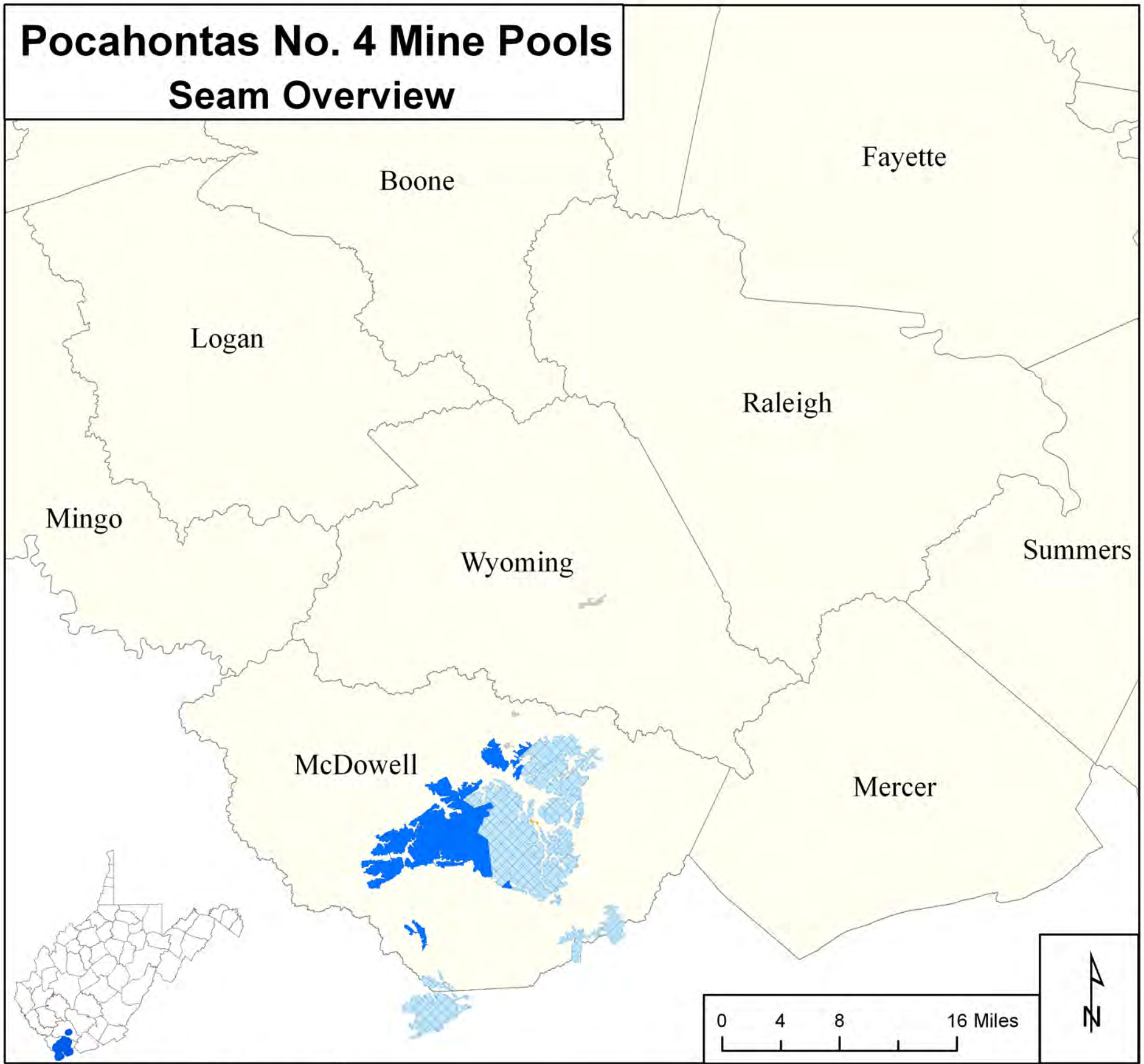


Figure 25b



<b>Legend</b>		<b>Pocahontas No. 4 Mine Pool Statistics</b>			
<b>Position</b>					
	Above drainage				
	Near drainage				
	Below drainage				
<b>Potential Extent of Flooding</b>					
	Undetermined				
	Flooded areas unlikely				
	Partially flooded				
	Totally flooded				
		Undetermined	Potentially flooded areas unlikely	Potentially partially flooded	Potentially totally flooded
No. of Mines		3	8	40	7
Mean coal bed thickness (feet)		3.28	3.84	3.95	4.29
Min. footprint area (acres)		68.79	0.07	0.07	129.16
Max. footprint area (acres)		322.61	24.19	16,614.66	14,555.01
Mean footprint area (acres)		158.02	4.11	912.26	3,078.85
Median footprint area (acres)		82.65	0.58	23.13	1,330.92
Total footprint area (acres)		474.05	32.85	36,490.52	21,551.98
Estimated void volume (acre feet)		980.04	59.05	99,688.05	55,060.54
Max. potential storage (million gallons)		319.40	19.25	32,488.33	17,944.23

Figure 25c



**Position Legend**

- Above drainage
- Near drainage
- Below drainage

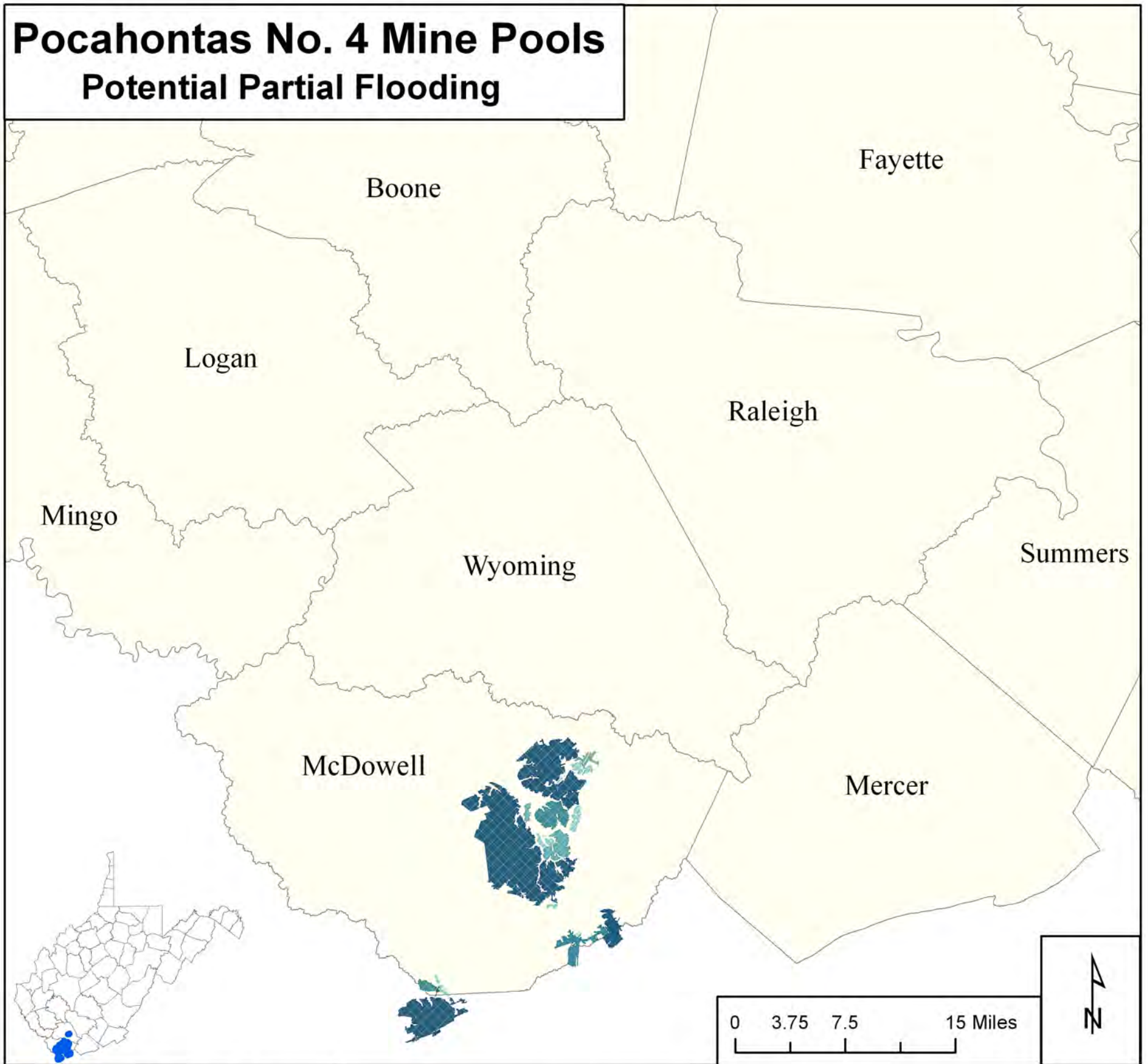
**Storage in Million Gallons**

- 0.000 - 5,000
- 5,001 - 10,000
- 10,001 - 15,000
- 15,001 - 20,000
- 20,001 - 25,000
- 25,001 - 30,000

<b>Pocahontas No. 4 Mine Pool Statistics</b>			
	Potentially totally flooded above drainage mines	Potentially totally flooded near drainage mines	Potentially totally flooded below drainage mines
No. of Mines	0	0	7
Mean coal bed thickness (feet)	0.00	0.00	4.29
Min. foot print area (acres)	0.00	0.00	129.16
Max. foot print area (acres)	0.00	0.00	14,555.01
Mean foot print area (acres)	0.00	0.00	3,078.85
Median foot print area (acres)	0.00	0.00	1,330.92
Total foot print area (acres)	0.00	0.00	21,551.98
Estimated void volume (acre feet)	0.00	0.00	55,060.54
Max. potential storage (million gallons)	0.00	0.00	17,944.23



Figure 25d

# Pocahontas No. 4 Mine Pools Potential Partial Flooding



## Legend

### Position

-  Above drainage
-  Near drainage

### Potential Partial Flooding

-  Very small area(s)
-  Small area(s)
-  Intermediate area(s)
-  Large area(s)
-  Very large area(s)

## Pocahontas No. 4 Mine Pool Statistics

	Potentially partially flooded above drainage mines	Potentially partially flooded near drainage mines
No. of Mines	31	9
Mean coal bed thickness (feet)	3.95	3.94
Min. footprint area (acres)	0.07	3.25
Max. footprint area (acres)	1,370.04	16,614.66
Mean footprint area (acres)	166.71	3,480.29
Median foot print area (acres)	9.58	387.78
Total footprint area (acres)	5,167.95	31,322.57
Estimated void volume (acre feet)	14,351.90	85,336.15
Max. potential storage (million gallons)	4,677.28	27,811.05

Figure 25e

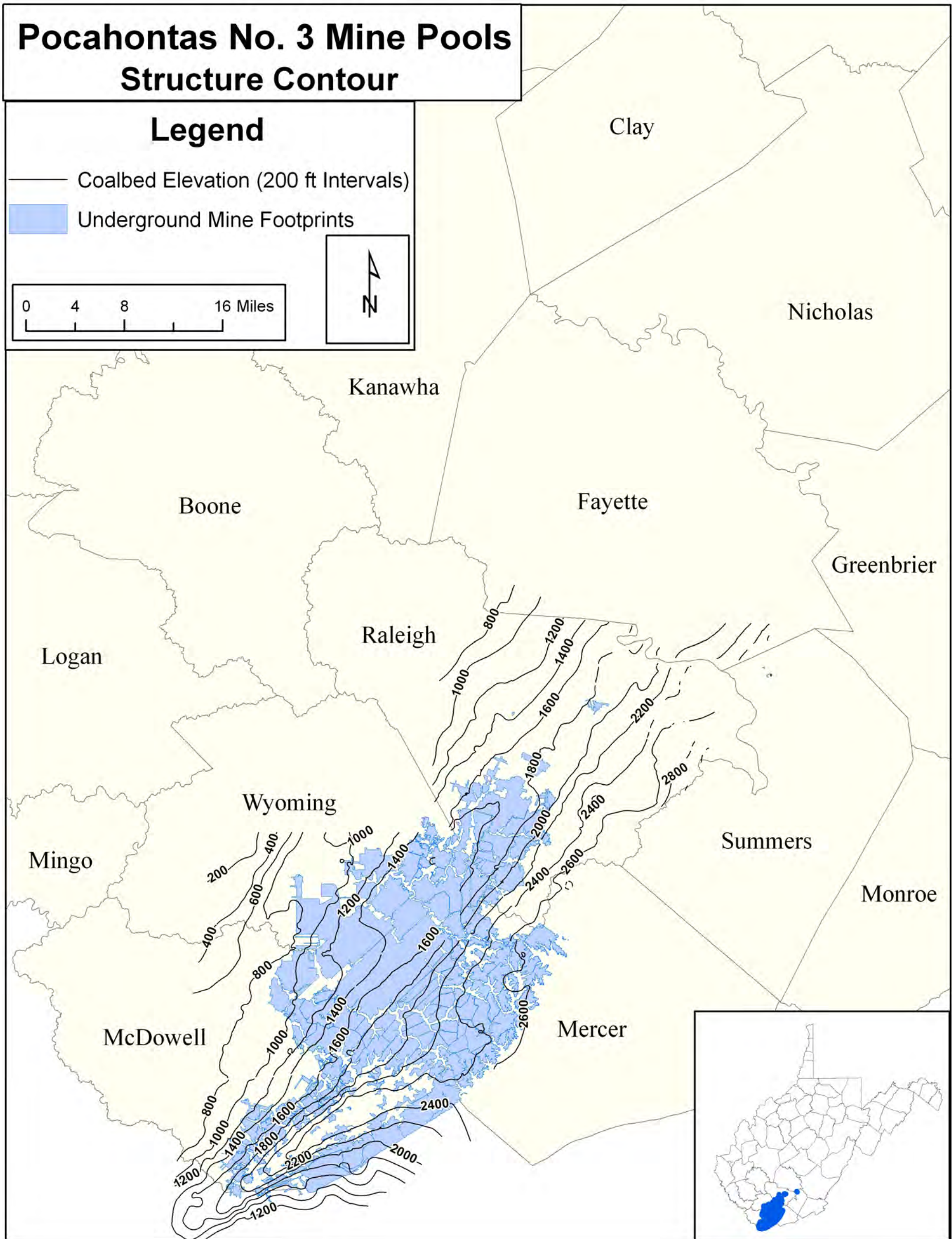


Figure 26a

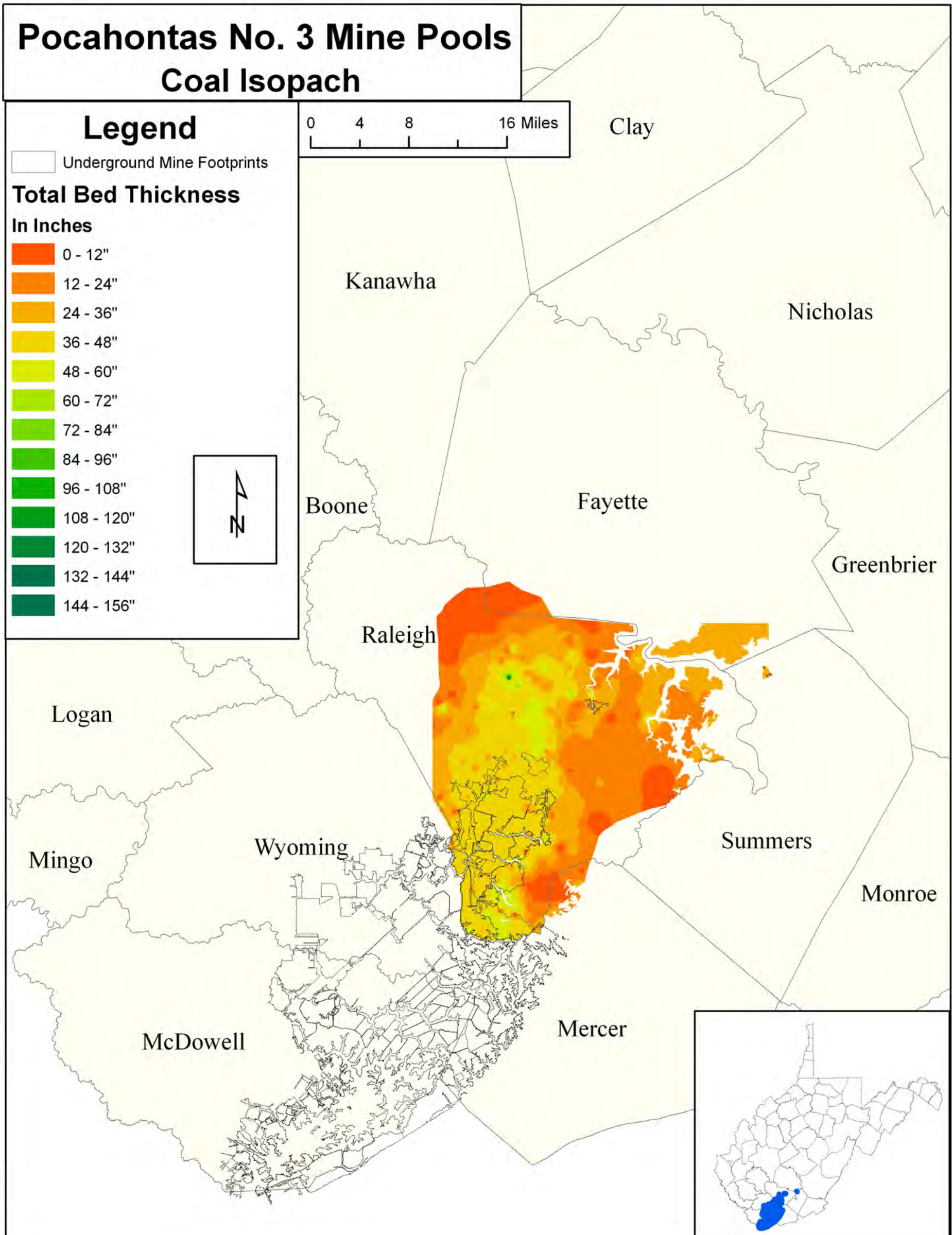
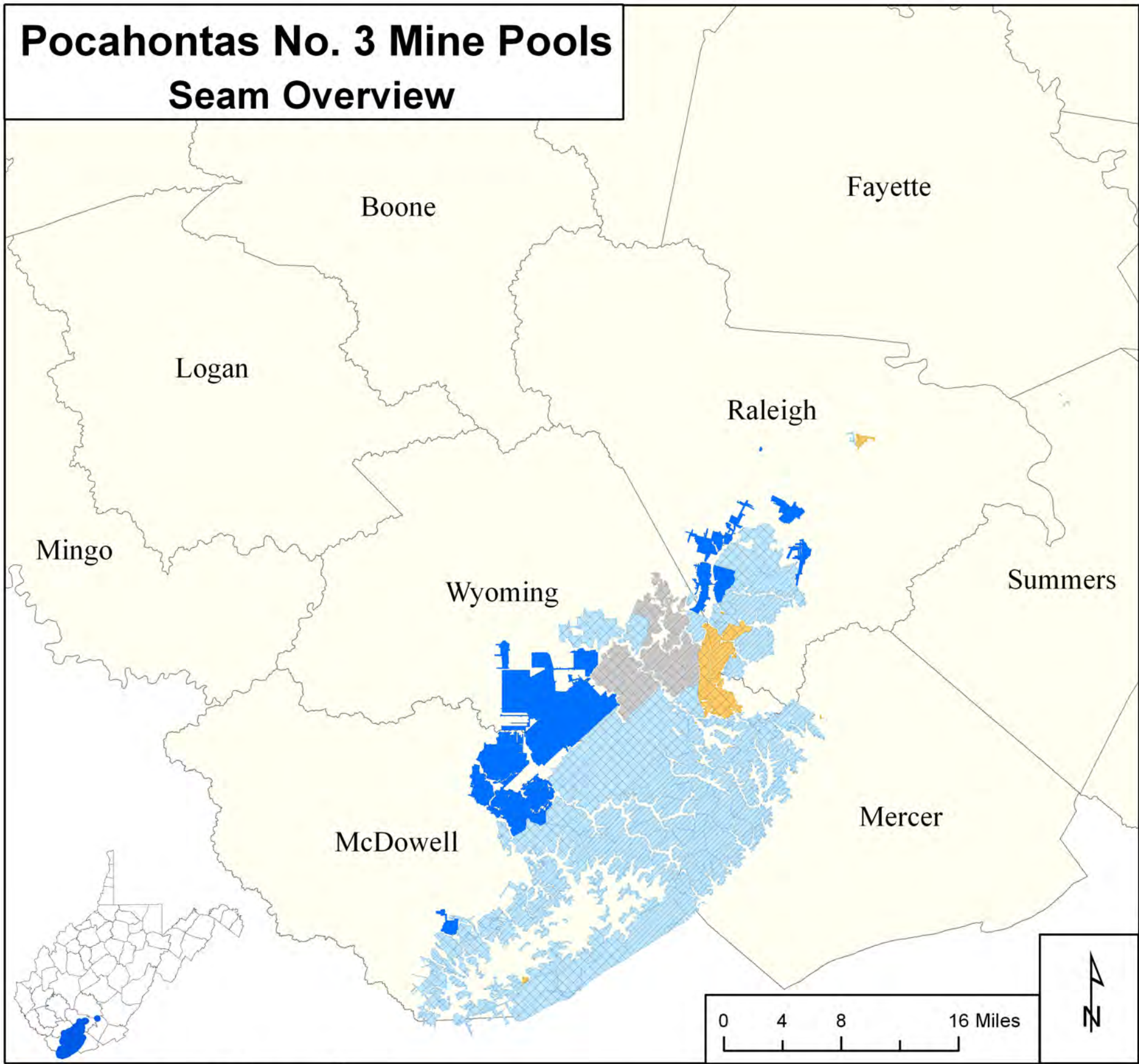
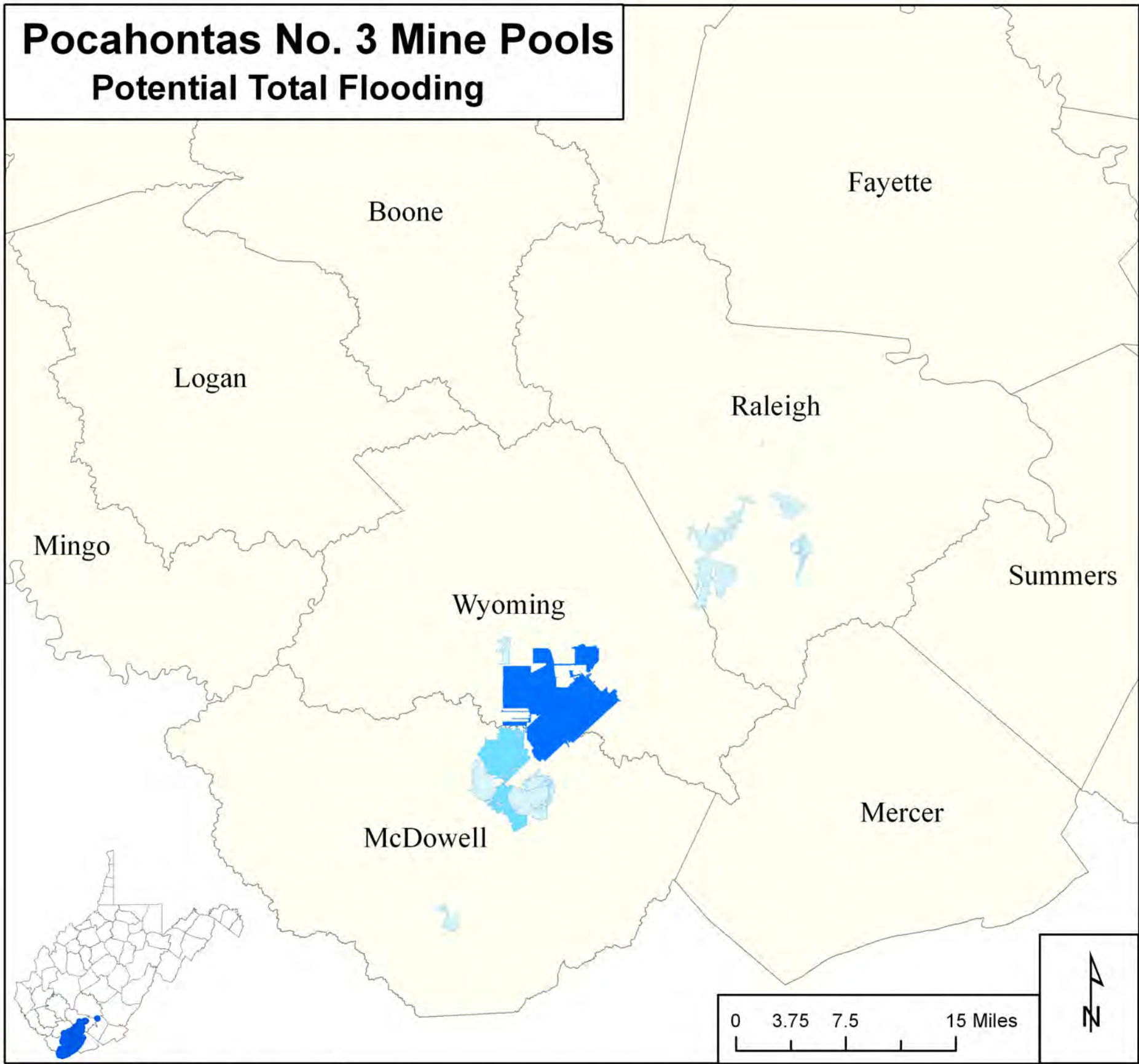


Figure 26b



Legend		Pocahontas No. 3 Mine Pool Statistics			
		Undetermined	Potentially flooded areas unlikely	Potentially partially flooded	Potentially totally flooded
<b>Position</b>					
	Above drainage				
	Near drainage				
	Below drainage				
<b>Potential Extent of Flooding</b>					
	Undetermined				
	Flooded areas unlikely				
	Partially flooded				
	Totally flooded				
No. of Mines		19	56	211	13
Mean coal bed thickness (feet)		3.63	4.27	4.72	4.10
Min. footprint area (acres)		1.00	0.02	0.03	23.38
Max. footprint area (acres)		7,469.50	4,312.28	24,666.84	21,361.85
Mean footprint area (acres)		990.66	142.19	771.26	3,350.77
Median footprint area (acres)		174.18	0.73	168.10	1,247.45
Total footprint area (acres)		18,822.60	7,962.37	162,736.63	43,560.05
Estimated void volume (acre feet)		37,037.88	13,978.94	396,114.19	98,167.56
Max. potential storage (million gallons)		12,070.64	4,555.74	129,093.61	31,992.81

Figure 26c



**Position Legend**

- Above drainage
- Near drainage
- Below drainage

**Storage in Million Gallons**

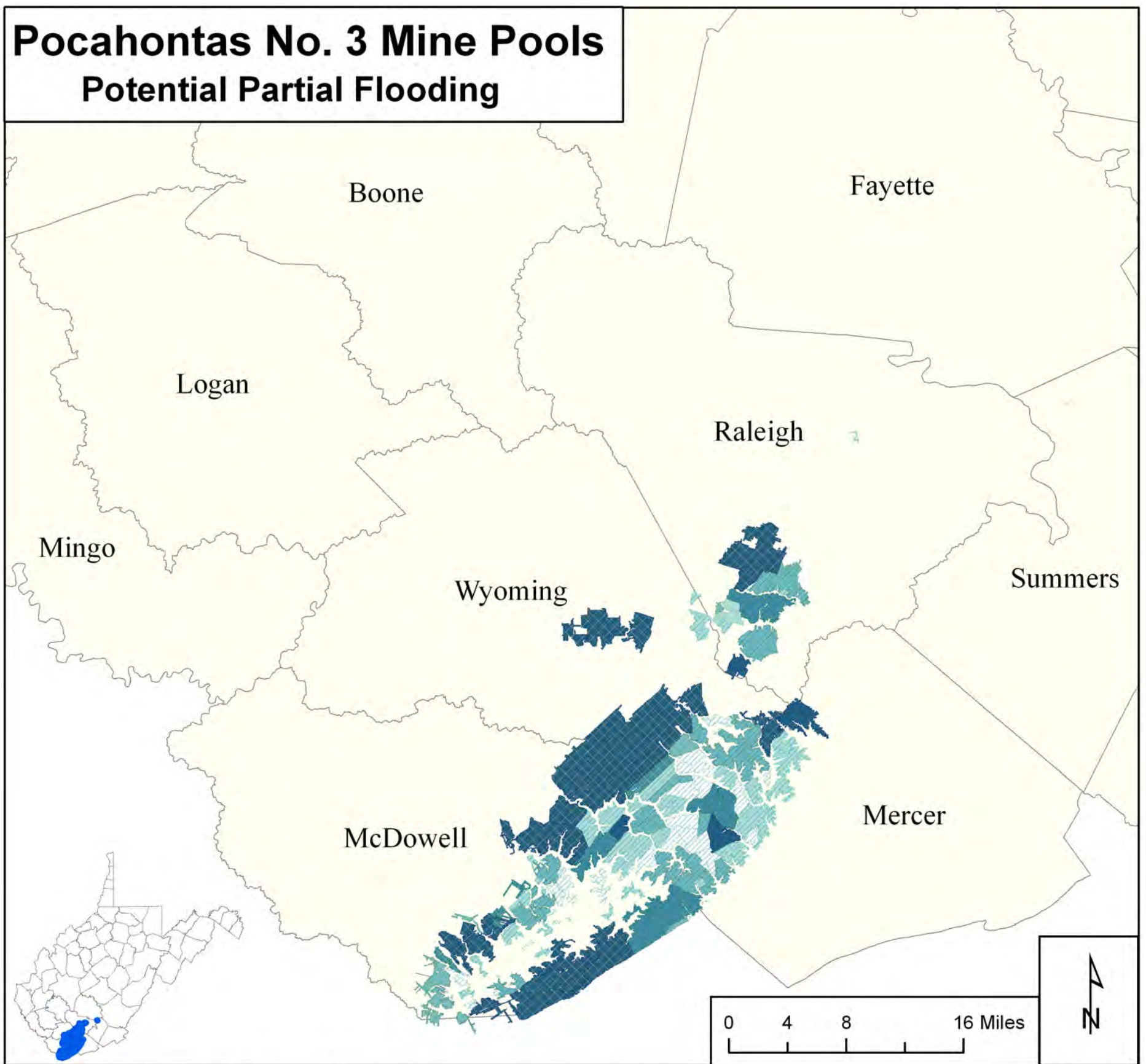
- 0.000 - 5,000
- 5,001 - 10,000
- 10,001 - 15,000
- 15,001 - 20,000
- 20,001 - 25,000
- 25,001 - 30,000

<b>Pocahontas No. 3 Mine Pool Statistics</b>			
	Potentially totally flooded above drainage mines	Potentially totally flooded near drainage mines	Potentially totally flooded below drainage mines
No. of Mines	0	0	13
Mean coal bed thickness (feet)	0.00	0.00	4.10
Min. foot print area (acres)	0.00	0.00	23.38
Max. foot print area (acres)	0.00	0.00	21,361.85
Mean foot print area (acres)	0.00	0.00	3,350.77
Median foot print area (acres)	0.00	0.00	1,247.45
Total foot print area (acres)	0.00	0.00	43,560.05
Estimated void volume (acre feet)	0.00	0.00	98,167.56
Max. potential storage (million gallons)	0.00	0.00	31,992.81

Figure 26d





# Pocahontas No. 3 Mine Pools Potential Partial Flooding


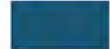


## Legend

### Position

-  Above drainage
-  Near drainage

### Potential Partial Flooding

-  Very small area(s)
-  Small area(s)
-  Intermediate area(s)
-  Large area(s)
-  Very large area(s)

## Pocahontas No. 3 Mine Pool Statistics

	Potentially partially flooded above drainage mines	Potentially partially flooded near drainage mines
No. of Mines	178	33
Mean coal bed thickness (feet)	4.79	4.32
Min. footprint area (acres)	0.03	1.17
Max. footprint area (acres)	6,331.74	24,666.84
Mean footprint area (acres)	479.62	2,344.36
Median footprint area (acres)	53.11	1,066.63
Total footprint area (acres)	85,372.69	77,363.93
Estimated void volume (acre feet)	209,876.95	186,237.24
Max. potential storage (million gallons)	68,398.90	60,694.72

Figure 26e

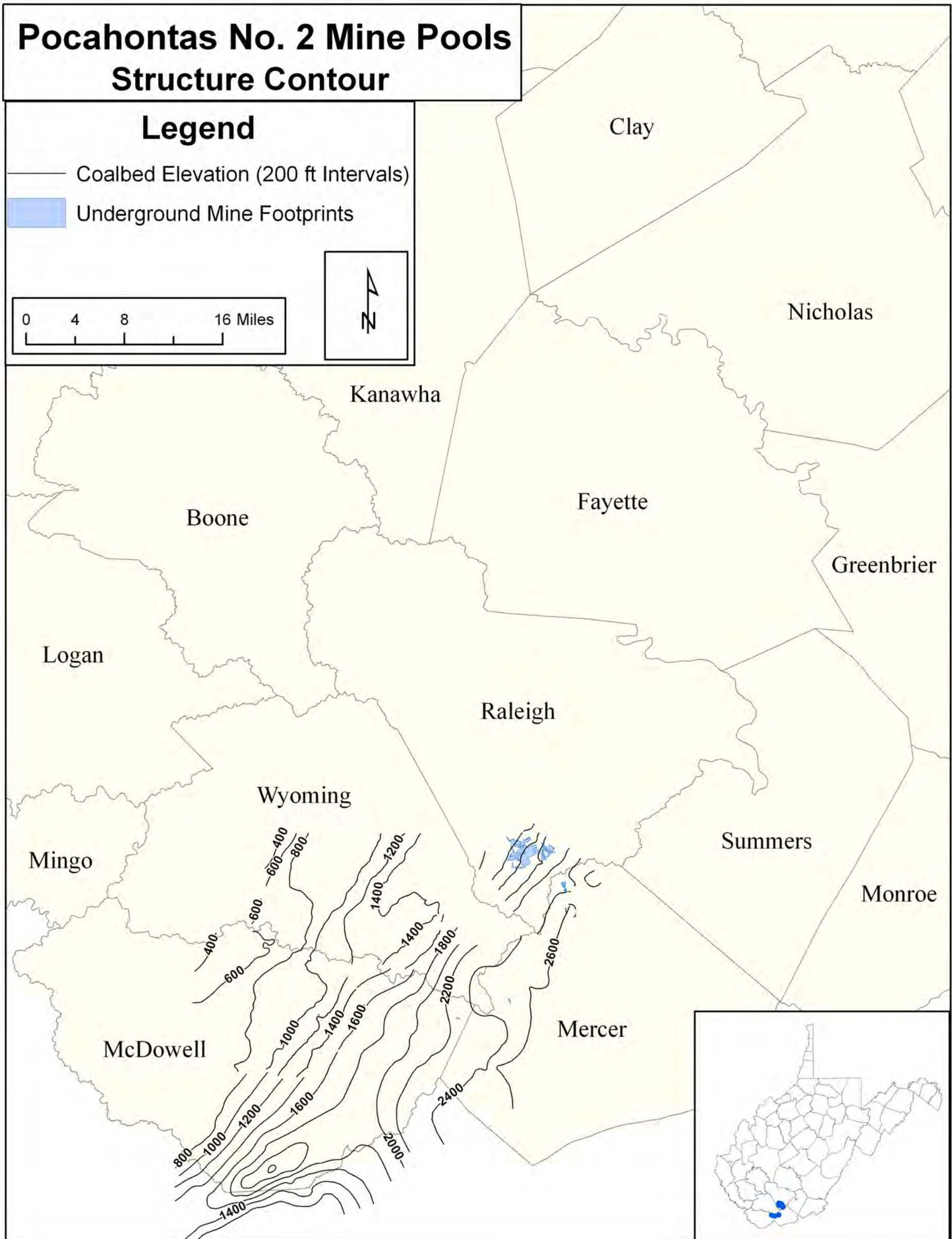


Figure 27a

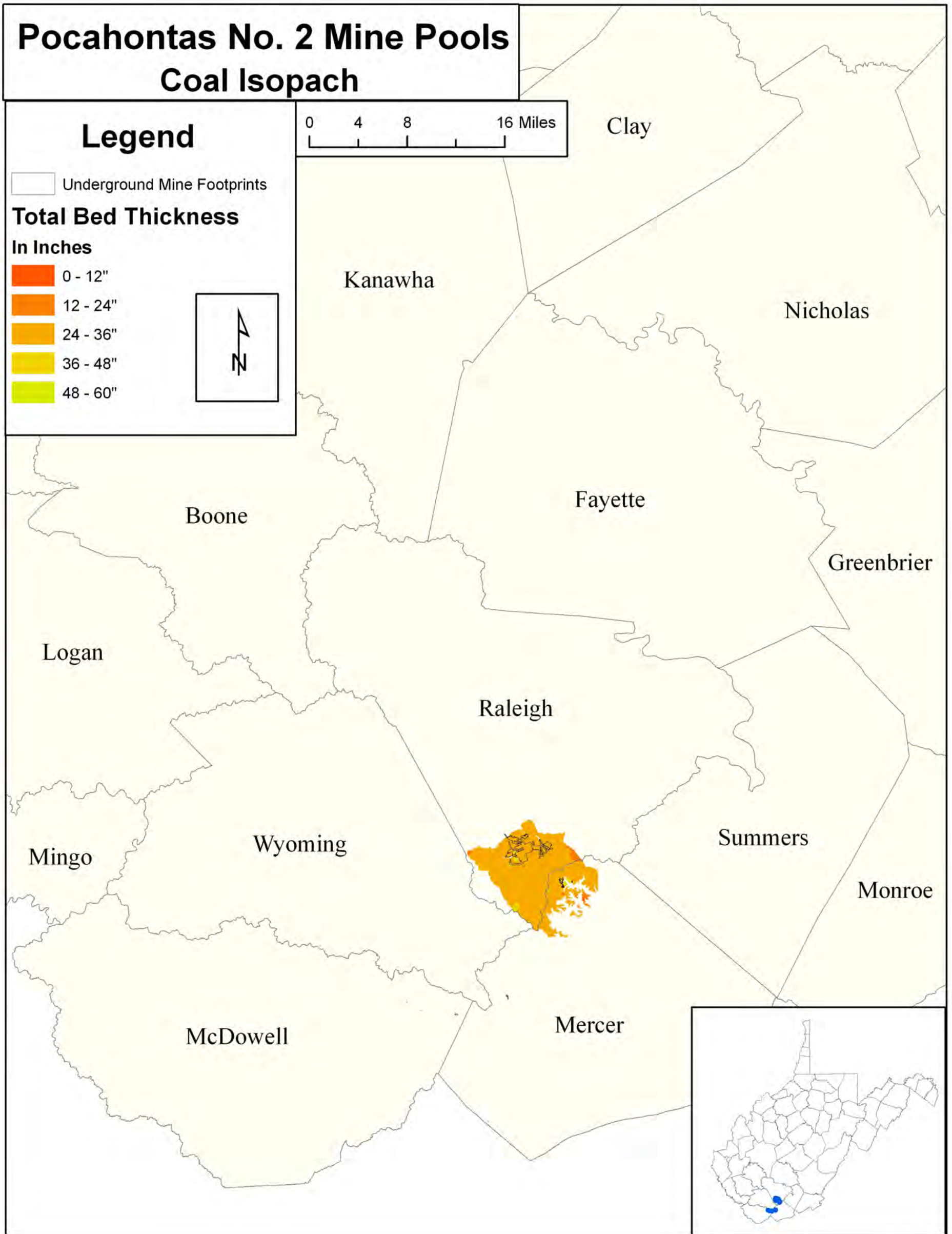


Figure 27b

# Pocahontas No. 2 Mine Pools Seam Overview



## Legend

### Position

- Above drainage
- Near drainage
- Below drainage

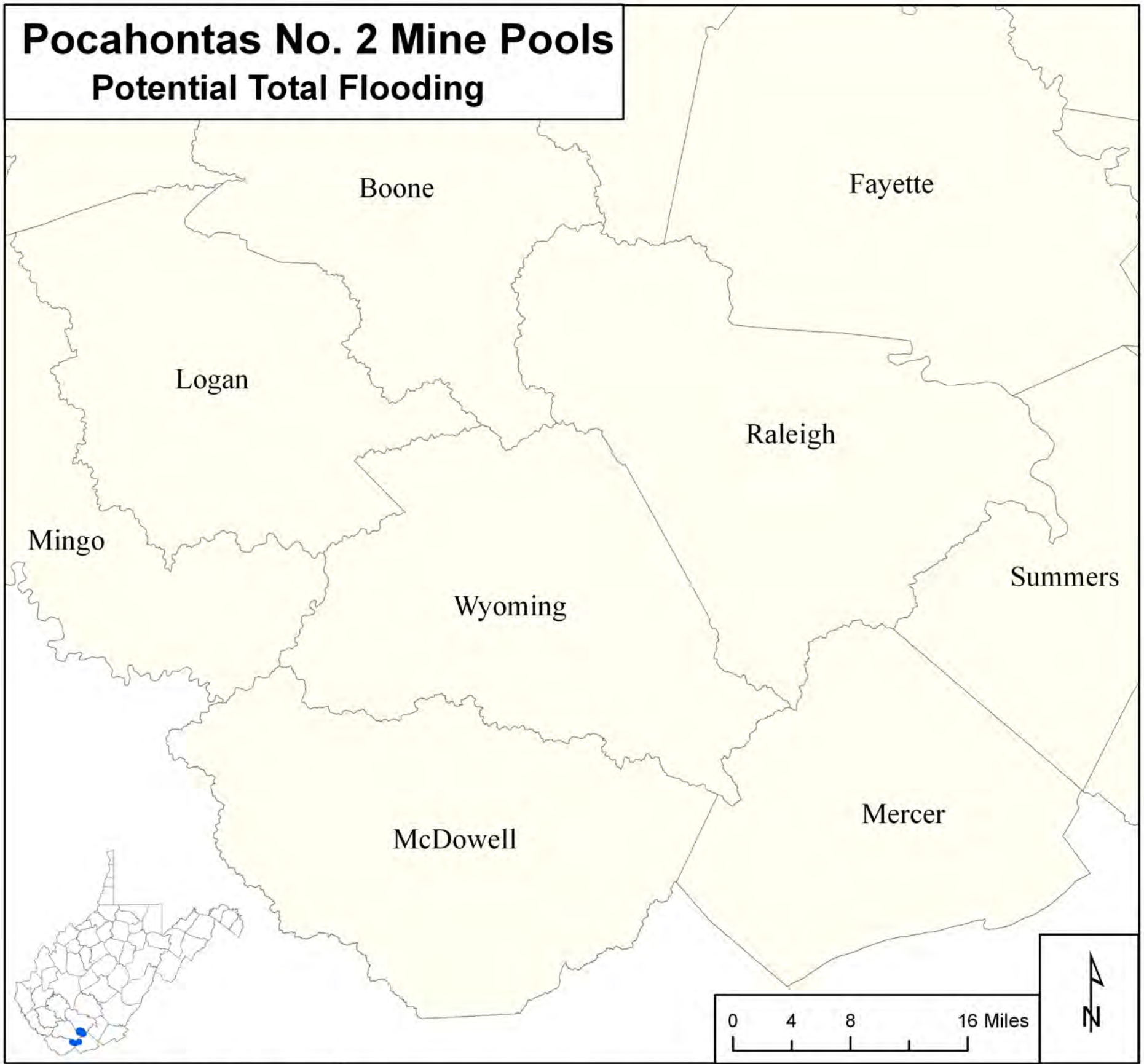
### Potential Extent of Flooding

- Undetermined
- Flooded areas unlikely
- Partially flooded
- Totally flooded

## Pocahontas No. 2 Mine Pool Statistics

	Undetermined	Potentially flooded areas unlikely	Potentially partially flooded	Potentially totally flooded
No. of Mines	0	8	7	0
Mean coal bed thickness (feet)	0.00	2.58	2.78	0.00
Min. footprint area (acres)	0.00	0.08	0.42	0.00
Max. footprint area (acres)	0.00	13.95	2,064.60	0.00
Mean footprint area (acres)	0.00	4.63	314.27	0.00
Median footprint area (acres)	0.00	1.44	12.49	0.00
Total footprint area (acres)	0.00	37.06	2,199.86	0.00
Estimated void volume (acre feet)	0.00	49.63	2,906.06	0.00
Max. potential storage (million gallons)	0.00	16.17	947.09	0.00

Figure 27c



**Position Legend**

**Position**

- Above drainage
- Near drainage
- Below drainage

**Storage**

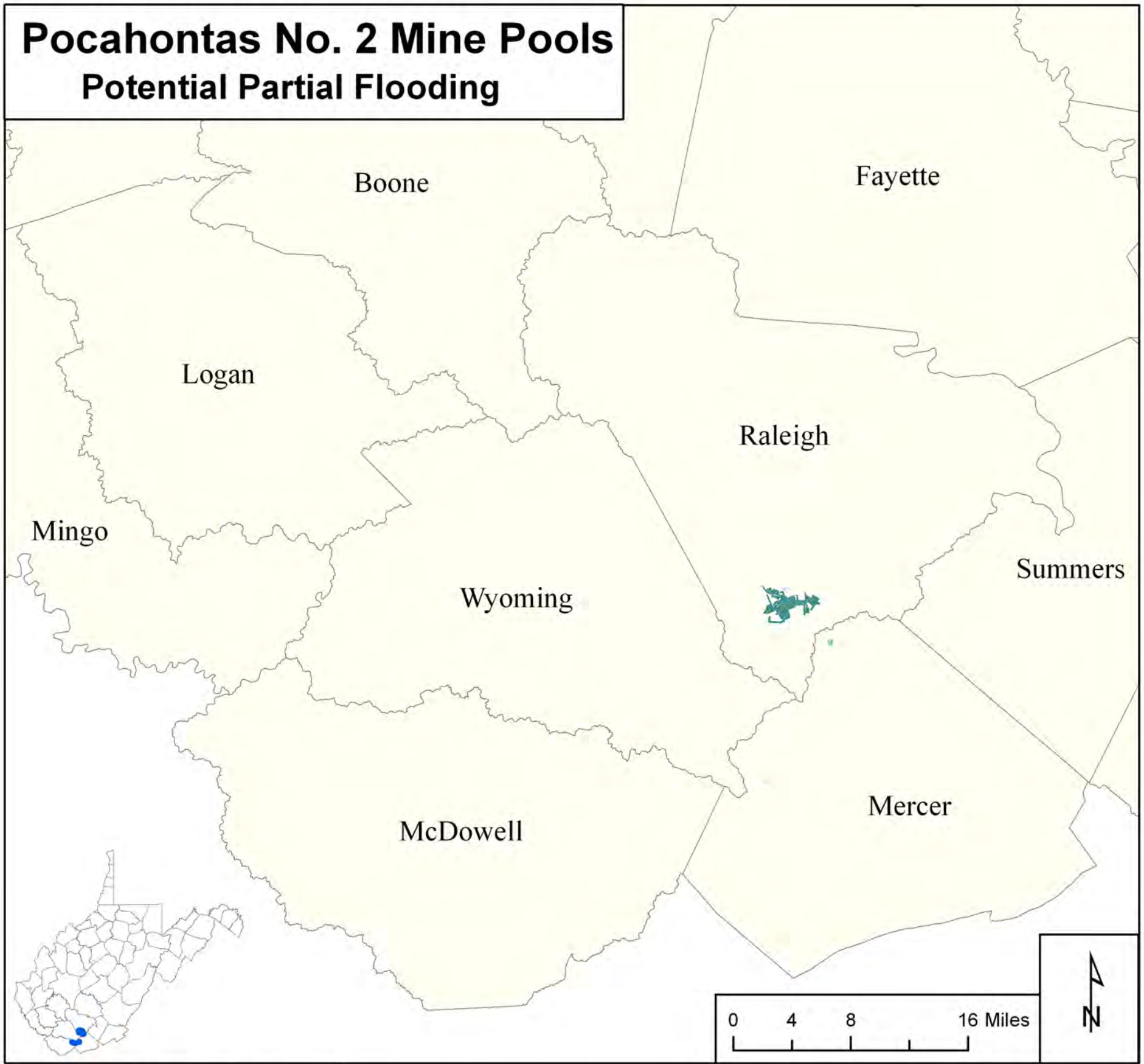
**Storage in Million Gallons**

- 0.000 - 5,000
- 5,001 - 10,000
- 10,001 - 15,000
- 15,001 - 20,000
- 20,001 - 25,000
- 25,001 - 30,000

**Pocahontas No. 2 Mine Pool Statistics**

	Potentially totally flooded above drainage mines	Potentially totally flooded near drainage mines	Potentially totally flooded below drainage mines
No. of Mines	0	0	0
Mean coal bed thickness (feet)	0.00	0.00	0.00
Min. foot print area (acres)	0.00	0.00	0.00
Max. foot print area (acres)	0.00	0.00	0.00
Mean foot print area (acres)	0.00	0.00	0.00
Median foot print area (acres)	0.00	0.00	0.00
Total foot print area (acres)	0.00	0.00	0.00
Estimated void volume (acre feet)	0.00	0.00	0.00
Max. potential storage (million gallons)	0.00	0.00	0.00

Figure 27d



<b>Legend</b>		<b>Pocahontas No. 2 Mine Pool Statistics</b>		
<b>Position</b>				
	Above drainage			
	Near drainage			
<b>Potential Partial Flooding</b>				
	Very small area(s)			
	Small area(s)			
	Intermediate area(s)			
	Large area(s)			
	Very large area(s)			
		Potentially partially flooded above drainage mines	Potentially partially flooded near drainage mines	
No. of Mines		6	1	
Mean coal bed thickness (feet)		2.81	2.58	
Min. footprint area (acres)		0.42	2,064.60	
Max. footprint area (acres)		70.37	2,064.60	
Mean footprint area (acres)		22.54	2,064.60	
Median foot print area (acres)		8.48	2,064.60	
Total footprint area (acres)		135.26	2,064.60	
Estimated void volume (acre feet)		187.16	2,718.90	
Max. potential storage (million gallons)		61.00	886.09	

Figure 27e

# **MINE POOL ATLAS**

## **TABLES**

Table 1

SUMMARY OF POTENTIALLY TOTALLY FLOODED UNDERGROUND MINES BY COAL SEAM*										
Group/Formation	Coal Seam	No. of Mines	Mean bed thickness (feet)	Min. footprint area (acres)	Max. footprint area (acres)	Mean footprint area (acres)	Median footprint area (acres)	Total footprint area (acres)	Estimated void volume (acre feet)	Max. potential storage (million gallons)
<b>Dunkard Group</b>	Washington	0								
	Waynesburg A	0								
<b>Monongahela Group</b>	Waynesburg	0								
	Uniontown	0								
	<b>Sewickley</b>	<b>10</b>	<b>5.73</b>	<b>0.01</b>	<b>494.35</b>	<b>109.84</b>	<b>9.40</b>	<b>1,098.45</b>	<b>3,223.36</b>	<b>1,050.49</b>
	Redstone	5	3.57	5.13	486.29	212.93	86.26	1,064.63	1,777.56	579.31
	<b>Pittsburgh</b>	<b>46</b>	<b>6.38</b>	<b>0.92</b>	<b>20,204.27</b>	<b>3,933.91</b>	<b>641.06</b>	<b>180,959.81</b>	<b>625,388.68</b>	<b>203,814.17</b>
<b>Conemaugh Group</b>	Elk Lick	0								
	Harlem	0								
	Bakerstown	0								
	Brush Creek	0								
	Mahoning	0								
<b>Allegheny Formation</b>	<b>Upper Freeport</b>	<b>3</b>	<b>5.27</b>	<b>17.38</b>	<b>1,592.89</b>	<b>582.25</b>	<b>136.47</b>	<b>1,746.75</b>	<b>3,621.87</b>	<b>1,180.37</b>
	Lower Freeport	0								
	Upper Kittanning	1		402.06	402.06	402.06	402.06	402.06		
	<b>Middle Kittanning</b>	<b>5</b>	<b>5.39</b>	<b>81.75</b>	<b>4,755.03</b>	<b>1,879.00</b>	<b>172.19</b>	<b>9,395.02</b>	<b>24,387.17</b>	<b>7,947.78</b>
	Lower Kittanning	0								
	No. 6 Block	0								
	Upper No. 5 Block	0								
	No. 5 Block	0								
Little No. 5 Block	0									
<b>Kanawha Formation</b>	Stockton Rider	0								
	Stockton	0								
	Stockton lower split 2	0								
	<b>Coalburg</b>	<b>2</b>	<b>5.80</b>	<b>0.80</b>	<b>8,603.08</b>	<b>4,351.50</b>	<b>4,351.50</b>	<b>8,703.00</b>	<b>24,163.17</b>	<b>7,874.78</b>
	Coalburg lower split 1	0								
	Little Coalburg	0								
	Upper Winifrede	0								
	Winifrede	0								
	Lower Winifrede	0								
	Chilton A	0								
	Chilton	0								
	Little Chilton	1		90.66	90.66	90.66	90.66	90.66		
	Fire Clay	0								
	Fire Clay lower split 1	0								
	Cedar Grove	0								
	Williamson	0								
	<b>Peerless</b>	<b>11</b>	<b>3.12</b>	<b>2.58</b>	<b>1,484.80</b>	<b>310.25</b>	<b>33.94</b>	<b>3,412.75</b>	<b>4,645.15</b>	<b>1,513.85</b>
	<b>No. 2 Gas</b>	<b>21</b>	<b>4.31</b>	<b>22.63</b>	<b>6,268.92</b>	<b>963.91</b>	<b>292.18</b>	<b>20,242.08</b>	<b>51,374.31</b>	<b>16,742.89</b>
	No. 2 Gas lower split 2	0								
	<b>Powellton</b>	<b>7</b>	<b>4.65</b>	<b>706.86</b>	<b>3,633.60</b>	<b>2,096.45</b>	<b>2,040.75</b>	<b>14,675.15</b>	<b>35,651.81</b>	<b>11,618.92</b>
	<b>Lower Powellton</b>	<b>3</b>	<b>2.71</b>	<b>26.80</b>	<b>1,695.89</b>	<b>788.70</b>	<b>662.74</b>	<b>2,366.11</b>	<b>3,794.42</b>	<b>1,236.60</b>
Eagle A	0									
<b>Eagle</b>	<b>25</b>	<b>3.94</b>	<b>0.99</b>	<b>4,857.58</b>	<b>1,366.10</b>	<b>1,210.73</b>	<b>34,152.40</b>	<b>72,132.80</b>	<b>23,508.08</b>	
Eagle lower split 1	2		17.27	199.09	108.18	108.18	216.36			
Little Eagle	2		89.73	193.90	141.82	141.82	283.63			
Middle War Eagle	0									
Bens Creek	0									
Lower War Eagle	0									
Glenalum Tunnel	0									
Gilbert	0									
Douglas	0									
<b>New River Formation</b>	Bradshaw	0								
	laeger	0								
	Castle	0								
	Sewell B	0								
	Sewell A	0								
	<b>Sewell</b>	<b>17</b>	<b>3.76</b>	<b>4.58</b>	<b>4,587.45</b>	<b>1,960.08</b>	<b>1,380.26</b>	<b>33,321.34</b>	<b>61,339.45</b>	<b>19,990.53</b>
	Welch	0								
	Little Raleigh	0								
	<b>Beckley</b>	<b>6</b>	<b>5.05</b>	<b>9.73</b>	<b>4,133.41</b>	<b>2,302.42</b>	<b>2,396.15</b>	<b>13,814.54</b>	<b>38,356.68</b>	<b>12,500.44</b>
	Beckley lower split 1	0								
Fire Creek	1		128.53	128.53	128.53	128.53	128.53			
Little Fire Creek	0									
Pocahontas No. 9	0									
<b>Pocahontas Formation</b>	Pocahontas No. 7	0								
	Pocahontas No. 6 upper split 1	0								
	<b>Pocahontas No. 6</b>	<b>6</b>	<b>2.99</b>	<b>14.23</b>	<b>2,186.21</b>	<b>437.76</b>	<b>48.01</b>	<b>2,626.56</b>	<b>3,465.45</b>	<b>1,129.39</b>
	Pocahontas No. 5	0								
	<b>Pocahontas No. 4</b>	<b>7</b>	<b>4.29</b>	<b>129.16</b>	<b>14,555.01</b>	<b>3,078.85</b>	<b>1,330.92</b>	<b>21,551.98</b>	<b>55,060.54</b>	<b>17,944.23</b>
	<b>Pocahontas No. 3</b>	<b>13</b>	<b>4.10</b>	<b>23.38</b>	<b>21,361.85</b>	<b>3,350.77</b>	<b>1,247.45</b>	<b>43,560.05</b>	<b>98,167.56</b>	<b>31,992.81</b>
Pocahontas No. 2	0									
Squire Jim	0									
<b>Total</b>	<b>21 seams/14 with mines&gt;500 acres</b>	<b>194</b>	<b>71.07</b>	<b>1,775.17</b>	<b>101,914.86</b>	<b>28,595.98</b>	<b>16,911.24</b>	<b>393,811.87</b>	<b>1,106,549.98</b>	<b>360,624.64</b>

\*Includes above, near, and below drainage underground mines — seams containing below drainage underground mines > 500 acres in area are highlighted and major seams are in boldface





Table 3

POTENTIALLY TOTALLY AND PARTIALLY FLOODED MINES BY DRAINAGE POSITION AND MINE FOOTPRINT AREA													
Group/Formation	Seam	Mines above drainage				Mines near drainage				Mines below drainage			
		Mine footprint <500 acres		Mine footprint >500 acres		Mine footprint <500 acres		Mine footprint >500 acres		Mine footprint <500 acres		Mine footprint >500 acres	
		Potentially totally flooded	Potentially partially flooded	Potentially totally flooded	Potentially partially flooded	Potentially totally flooded	Potentially partially flooded	Potentially totally flooded	Potentially partially flooded	Potentially totally flooded	Potentially partially flooded	Potentially totally flooded	Potentially partially flooded
<b>Dunkard Group</b>	Washington Waynesburg A												
<b>Monongahela Group</b>	Waynesburg Uniontown Sewickley Redstone Pittsburgh		4 47 152 451		1 4 36		7 5 46		6 31	10 5 22		22	
<b>Conemaugh Group</b>	Elk Lick Harlem Bakerstown Brush Creek Mahoning		50		2		1		1				
<b>Allegheny Formation</b>	Upper Freeport Lower Freeport Upper Kittanning Middle Kittanning Lower Kittanning No. 6 Block Upper No. 5 Block No. 5 Block Little No. 5 Block		179 2 1 10 5 16 67 329 10		13 1 1 4 12 1		3 3 11		7 3 1	2 1 3		1 2	
<b>Kanawha Formation</b>	Stockton Rider Stockton Stockton lower split 2 Coalburg Coalburg lower split 1 Little Coalburg Upper Winifrede Winifrede Lower Winifrede Chilton A Chilton Little Chilton Fire Clay Fire Clay lower split 1 Cedar Grove Williamson Peerless No. 2 Gas No. 2 Gas lower split 2 Powellton Lower Powellton Eagle A Eagle Eagle lower split 1 Little Eagle Middle War Eagle Bens Creek Lower War Eagle Glenalum Tunnel Gilbert Douglas	1	2 119 36 232 5 1 1 213 9 15 22 24 82 8 92 65 173 365 10 245 92 15 290 15 43 11 8 1 1		13 3 33 1 1 29 3 4 7 14 2 15 9 3 4 7 14 2 15 9 29 59 16 6 2 32 3 1 1 1 1		2 2 7 2		1 2 2 23 2 2 15 5 1		1 1 3 7 6 2 11		1 3 8 6 2 11
<b>New River Formation</b>	Bradshaw laeger Castle Sewell B Sewell A Sewell Welch Little Raleigh Beckley Beckley lower split 1 Fire Creek Little Fire Creek Pocahontas No. 9		3 3 213 74 212 25 28		27 3 12 1	1	15 6		13 4	4 1 1		12 5	
<b>Pocahontas Formation</b>	Pocahontas No. 7 Pocahontas No. 6 upper split 1 Pocahontas No. 6 Pocahontas No. 5 Pocahontas No. 4 Pocahontas No. 3 Pocahontas No. 2 Squire Jim	2	12 23 104 11 28 119 6 4		8 4 3 59		1 8 5 11		8 4 22 1	3 1 1		1 6 12	
<b>Total</b>	<b>All seams</b>	<b>16</b>	<b>4,383</b>	<b>1</b>	<b>474</b>	<b>10</b>	<b>187</b>	<b>6</b>	<b>147</b>	<b>69</b>	<b>0</b>	<b>92</b>	<b>0</b>

Table 4

POTENTIAL EXTENT OF PARTIAL FLOODING IN ABOVE DRAINAGE MINES <500 ACRES IN AREA									
Group/Formation	Seam	Mines above drainage				Potential extent of partial flooding			
		Mine footprint <500 acres				Small	Medium	Large	Very large
			Potentially partially flooded						
<b>Dunkard Group</b>	Washington Waynesburg A								
<b>Monongahela Group</b>	Waynesburg		4			4			
	Uniontown								
	<b>Sewickley</b>		47			41	4	2	
	Redstone		152			146	6		
<b>Conemaugh Group</b>	<b>Pittsburgh</b>		451			432	15	3	1
	Elk Lick								
	Harlem								
	<b>Bakerstown</b>		50			43	5	1	1
	Brush Creek Mahoning								
<b>Allegheny Formation</b>	<b>Upper Freeport</b>		179			154	23	1	1
	Lower Freeport		2			1	1		
	Upper Kittanning		1				1		
	<b>Middle Kittanning</b>		10			10			
	Lower Kittanning		5			5			
	No. 6 Block		16			14	2		
	Upper No. 5 Block		67			63	4		
	<b>No. 5 Block</b>		329			285	42	2	
	Little No. 5 Block		10			8	2		
<b>Kanawha Formation</b>	Stockton Rider		2			1	1		
	<b>Stockton</b>		119			87	29	3	
	Stockton lower split 2		36			26	10		
	<b>Coalburg</b>		232			204	22	6	
	Coalburg lower split 1		5			5			
	Little Coalburg		1				1		
	Upper Winifrede		1			1			
	Winifrede		213			197	16		
	Lower Winifrede		9			8	1		
	Chilton A		15			2	12	1	
	Chilton		22			8	14		
	Little Chilton		24			10	13	1	
	Fire Clay		82			51	31		
	Fire Clay lower split 1		8			5	3		
	Cedar Grove		92			71	21		
	Williamson		65			34	27	3	1
	<b>Peerless</b>		173			153	18	2	
	<b>No. 2 Gas</b>		365			324	38	3	
	No. 2 Gas lower split 2		10			9	1		
	<b>Powellton</b>		245			228	17		
	<b>Lower Powellton</b>		92			80	12		
	Eagle A		15			15			
	<b>Eagle</b>		290			279	9	2	
	Eagle Lower Split 1		15			4	11		
	Little Eagle		43			32	11		
	Middle War Eagle		11			4	7		
	Bens Creek		8			8			
	Lower War Eagle		1				1		
Glenalum Tunnel		1				1			
Gilbert									
Douglas									
<b>New River Formation</b>	Bradshaw								
	Jaeger								
	Castle								
	Sewell B		3			1	2		
	Sewell A		3			1	2		
	<b>Sewell</b>		213			205	7	1	
	Welch								
	Little Raleigh								
	<b>Beckley</b>		74			68	5	1	
	Beckley lower split 1								
Fire Creek		212			166	43	3		
Little Fire Creek		25			22	3			
Pocahontas No. 9		28			25	2	1		
<b>Pocahontas Formation</b>	Pocahontas No. 7		12			5	7		
	Pocahontas No. 6 upper split 1		23			23			
	<b>Pocahontas No. 6</b>		104			100	4		
	Pocahontas No. 5		11			9	2		
	<b>Pocahontas No. 4</b>		28			28			
	<b>Pocahontas No. 3</b>		119			118	1		
	<b>Pocahontas No. 2</b>		6			6			
Squire Jim		4			1	3			
<b>Total</b>	<b>All seams</b>		<b>4,383</b>			<b>3,830</b>	<b>513</b>	<b>36</b>	<b>4</b>

Table 5

POTENTIAL EXTENT OF PARTIAL FLOODING IN ABOVE DRAINAGE MINES >500 ACRES IN AREA									
Group/Formation	Seam	Mines above drainage				Potential extent of partial flooding			
		Mine footprint >500 acres			Potentially partially flooded	Small	Medium	Large	Very large
<b>Dunkard Group</b>	Washington Waynesburg A								
<b>Monongahela Group</b>	Waynesburg Uniontown <b>Sewickley</b> Redstone <b>Pittsburgh</b>				1 4 36	3 29	6	1	1
<b>Conemaugh Group</b>	Elk Lick Harlem <b>Bakerstown</b> Brush Creek Mahoning				2	1	1		
<b>Allegheny Formation</b>	<b>Upper Freeport</b> Lower Freeport Upper Kittanning <b>Middle Kittanning</b> Lower Kittanning No. 6 Block Upper No. 5 Block <b>No. 5 Block</b> Little No. 5 Block				13 1 4 12 1	3 3 6	2 1 1	5 1 5	3
<b>Kanawha Formation</b>	Stockton Rider <b>Stockton</b> Stockton lower split 2 <b>Coalburg</b> Coalburg lower split 1 Little Coalburg Upper Winifrede Winifrede Lower Winifrede Chilton A Chilton Little Chilton Fire Clay Fire Clay lower split 1 Cedar Grove Williamson <b>Peerless</b> <b>No. 2 Gas</b> No. 2 Gas lower split 2 <b>Powellton</b> <b>Lower Powellton</b> Eagle A <b>Eagle</b> Eagle Lower Split 1 Little Eagle Middle War Eagle Bens Creek Lower War Eagle Glenalum Tunnel Gilbert Douglas				13 3 33 1 29 3 4 7 14 2 15 9 29 59 16 6 2 32 3 1 1 1 1 1	2 7 6 4 2 7 1 4 8 1 4 26 10 5 2 17 1 1 1 1	4 2 11 1 13 9 3 4 8 1 3 6 10 4 6 2 6 2 6 1	7 1 13 3 9 3 2 3 1 4 11 15 2 6 6 6 1	2 2 3 1 1 1 3 8
<b>New River Formation</b>	Bradshaw Jaeger Castle Sewell B Sewell A <b>Sewell</b> Welch Little Raleigh <b>Beckley</b> Beckley lower split 1 Fire Creek Little Fire Creek Pocahontas No. 9				27 3 12 1	12 2 6 1	4 1 5	11 1 1	
<b>Pocahontas Formation</b>	Pocahontas No. 7 Pocahontas No. 6 upper split 1 <b>Pocahontas No. 6</b> Pocahontas No. 5 <b>Pocahontas No. 4</b> <b>Pocahontas No. 3</b> <b>Pocahontas No. 2</b> Squire Jim				8 4 3 59	5 30	1 2 1 18	2 1 1 7	1 1 4
<b>Total</b>	<b>All seams</b>				<b>474</b>	<b>201</b>	<b>127</b>	<b>116</b>	<b>30</b>

Table 6

POTENTIAL EXTENT OF PARTIAL FLOODING IN NEAR DRAINAGE MINES <500 ACRES IN AREA									
Group/Formation	Seam	Mines near drainage				Potential extent of partial flooding			
		Mine footprint <500 acres				Small	Medium	Large	Very large
			Potentially partially flooded						
<b>Dunkard Group</b>	Washington Waynesburg A								
<b>Monongahela Group</b>	Waynesburg Uniontown <b>Sewickley</b> Redstone <b>Pittsburgh</b>		7 5 46			5 1 26	2 2 16	2 2 2	2
<b>Conemaugh Group</b>	Elk Lick Harlem <b>Bakerstown</b> Brush Creek Mahoning		1					1	
<b>Allegheny Formation</b>	<b>Upper Freeport</b> Lower Freeport Upper Kittanning <b>Middle Kittanning</b> Lower Kittanning No. 6 Block Upper No. 5 Block <b>No. 5 Block</b> Little No. 5 Block		3 3 11			1 3 10	1 1 1	1	
<b>Kanawha Formation</b>	Stockton Rider <b>Stockton</b> Stockton lower split 2 <b>Coalburg</b> Coalburg lower split 1 Little Coalburg Upper Winifrede Winifrede Lower Winifrede Chilton A Chilton Little Chilton Fire Clay Fire Clay lower split 1 Cedar Grove Williamson <b>Peerless</b> <b>No. 2 Gas</b> No. 2 Gas lower split 2 <b>Powellton</b> <b>Lower Powellton</b> Eagle A <b>Eagle</b> Eagle lower split 1 Little Eagle Middle War Eagle Bens Creek Lower War Eagle Glenalum Tunnel Gilbert Douglas		2 7 2 8 13 4 3 26			5 2 4 8 3 22	2 2 4 4 1 3 3	2 1	
<b>New River Formation</b>	Bradshaw Jaeger Castle Sewell B Sewell A <b>Sewell</b> Welch Little Raleigh <b>Beckley</b> Beckley lower split 1 Fire Creek Little Fire Creek Pocahontas No. 9		15 6			14 4	1 1	1	
<b>Pocahontas Formation</b>	Pocahontas No. 7 Pocahontas No. 6 upper split 1 <b>Pocahontas No. 6</b> Pocahontas No. 5 <b>Pocahontas No. 4</b> <b>Pocahontas No. 3</b> <b>Pocahontas No. 2</b> Squire Jim		1 8 5 11			7 2 5	1 1 2 5	1 1	
<b>Total</b>	<b>All seams</b>		<b>187</b>			<b>120</b>	<b>52</b>	<b>13</b>	<b>2</b>

Table 7

POTENTIAL EXTENT OF PARTIAL FLOODING IN NEAR DRAINAGE MINES >500 ACRES IN AREA										
Group/Formation	Seam	Mines near drainage				Potential extent of partial flooding				
					Mine footprint >500 acres	Small	Medium	Large	Very large	
				Potentially partially flooded						
<b>Dunkard Group</b>	Washington Waynesburg A									
<b>Monongahela Group</b>	Waynesburg Uniontown				6				6	
	<b>Sewickley</b> Redstone <b>Pittsburgh</b>				31	1	2	2	26	
<b>Conemaugh Group</b>	Elk Lick Harlem				1				1	
	<b>Bakerstown</b> Brush Creek Mahoning									
<b>Allegheny Formation</b>	<b>Upper Freeport</b>				7				7	
	Lower Freeport Upper Kittanning <b>Middle Kittanning</b>				3			2	1	
	Lower Kittanning No. 6 Block Upper No. 5 Block <b>No. 5 Block</b>				1			1		
	Little No. 5 Block									
<b>Kanawha Formation</b>	Stockton Rider <b>Stockton</b>				1			1		
	Stockton lower split 2 <b>Coalburg</b>				2			2		
	Coalburg lower split 1 Little Coalburg Upper Winifrede Winifrede Lower Winifrede Chilton A Chilton Little Chilton Fire Clay Fire Clay lower split 1 Cedar Grove Williamson <b>Peerless</b>				1				1	
	<b>No. 2 Gas</b> No. 2 Gas lower split 2 <b>Powellton</b>				23		3	6	14	
	<b>Lower Powellton</b> Eagle A <b>Eagle</b>				2			1	1	
	Eagle lower split 1 Little Eagle Middle War Eagle Bens Creek Lower War Eagle Glenalum Tunnel Gilbert Douglas				2			1	1	
					15	1	1	8	5	
	<b>New River Formation</b>	Bradshaw laeger Castle Sewell B Sewell A <b>Sewell</b>				13		1	12	
		Welch Little Raleigh <b>Beckley</b>				4	1		3	
Beckley lower split 1 Fire Creek Little Fire Creek Pocahontas No. 9										
<b>Pocahontas Formation</b>	Pocahontas No. 7 Pocahontas No. 6 upper split 1 <b>Pocahontas No. 6</b>				8	2	1	1	4	
	Pocahontas No. 5 <b>Pocahontas No. 4</b>				4			1	3	
	<b>Pocahontas No. 3</b> <b>Pocahontas No. 2</b> Squire Jim				22	1	3	3	15	
					1			1		
<b>Total</b>	<b>All seams</b>				147	6	11	45	85	

# **MINE POOL ATLAS**

## **APPENDIX A**

## **Test Results of Mining Above/Below Drainage GIS Models**

The Sewell coal bed was selected to assess the Mining Above/Below Drainage GIS models because it has been extensively mined by underground methods in southern West Virginia as shown in Figure 8. Coal and mining information for the Sewell seam including mine polygons, coal cropline, structure contour of the base of this coal, and scanned images of mine maps (WVGES, 2011) were visually examined to establish which areas have adequate data available to determine the position of each mine relative to major drainage (above, near, or below) and to determine the potential for each mine to be partially or totally filled with groundwater. Of the 884 documented mines in this seam, 472 are located in areas in which cropline, structure contour, and seam elevation raster data are available to provide input to the models.

Visual structure contour/cropline examination of underground mines indicates 431 mines are above drainage, 24 are near drainage, and 17 are below drainage. Nineteen of the near drainage mines and 250 of the above drainage mines are potentially partially flooded. Three of the near drainage mines and all 17 below drainage mines are potentially totally flooded. The potentially totally flooded mines have footprints that range in area from 1.7 to 4,587.4 acres and jointly occupy approximately 33,361 acres.

The effectiveness of the Mining Above/Below Drainage GIS models was tested by comparing the results of the visual structure contour/cropline examination of underground mines to the GIS model output for 472 mines in the Sewell coal seam located in Nicholas, Fayette, Greenbrier, Raleigh, and northeastern Wyoming counties. The results are shown in Table A-1.

The comparison of visual structure contour/cropline examination to Mining Above/Below Drainage GIS models shows the structure contour/cropline examination is the most effective method of identifying areas and potential extents of flooding in mines. The perennial drainage model is a fairly good predictive tool, but it is most effective in identifying potential flooding below drainage. The major drainage model proved ineffective in predicting potential mine flooding.



Mine position relative to drainage/extent of probable groundwater flooding		Method		
		Structure contour/cropline examination	Perennial drainage model	Major drainage model
Mines above drainage	not flooded	181	265	428
	partially flooded	250	118	2
	flooded	0	48	1
Mines near drainage	not flooded	2	0	23
	partially flooded	19	15	1
	flooded	3	9	0
Mines below drainage	not flooded	0	0	12
	partially flooded	0	0	4
	flooded	17	17	1
Total mines		472	472	472

**Table A-1.** Comparison of structure contour/cropline examination to the major and perennial Mining Above/Below Drainage GIS models for determining mine position with respect to drainage and extent of probable groundwater flooding for underground mines in the Sewell coal seam. Note that Table 1 only includes mines that are potentially partially or totally flooded.

# **MINE POOL ATLAS**

## **Potential Totally Flooded Underground Mines > 500 Acres In Area**

### **APPENDIX B**



**POTENTIALLY TOTALLY FLOODED UNDERGROUND MINES >500 ACRES IN AREA**

Seam name	Mine ID	Mine name	Company name	State permit number	Average coal bed thickness (inches)	Footprint (acres)	Storage (MMGal)	Drainage position
Pocahontas No. 3	365493A	NATIONAL POCAHONTAS	NATIONAL MINES CORP		40.00	636.46	345.80	below
Pocahontas No. 3	500461A	JOSEPHINE NO 3	POCAHONTAS COAL CO	U-3036-92F	35.00	930.13	448.18	below
Pocahontas No. 3	362955A	KEYSTONE NO 4	EASTERN ASSOCIATED COAL		40.00	824.50	454.66	below
Pocahontas No. 3	500528A	CUCUMBER MINE	BROOKS RUN MINING CO LLC	U-4001-01	52.00	731.50	521.71	below
Pocahontas No. 3	385847A	KEYSTONE NO 5	AFFINITY MINING	7071	41.00	1,247.45	710.99	below
Pocahontas No. 3	365820A	MAITLAND NO 3 SEAM	CONSOLIDATION COAL	5047	66.00	802.82	721.89	below
Pocahontas No. 3	362950A	SLAB FORK NO 10	SLAB FORK COAL		40.00	1,520.85	838.01	below
Pocahontas No. 3	904126A	Unknown	Kingston Pocahontas Coal Co.		57.00	1,771.93	1,390.45	below
Pocahontas No. 3	323266A	HELEN NO 9	EASTERN GAS & FUEL		41.00	3,154.06	1,763.80	below
Pocahontas No. 3	353606A	POCAHONTAS NO 3	CANNELTON INDUSTRIES		67.00	3,286.68	3,010.49	below
Pocahontas No. 3	355397A	SHANNON BRANCH	VERA MINING	10588	59.64	7,268.44	5,883.52	below
Pocahontas No. 3	500536A	PINNACLE MINE	PINNACLE MINING CO LLC	U-0204-83A	54.79	21,361.85	15,888.68	below

# **MINE POOL ATLAS**

## **Potential Partially Flooded Underground Mines > 500 Acres In Area**

### **APPENDIX C**









**POTENTIALLY PARTIALLY FLOODED UNDERGROUND MINES >500 ACRES IN AREA**

Seam name	Mine ID	Mine name	Company name	State permit number	Average coal bed thickness (inches)	Footprint (acres)	Storage (MMGal)	Drainage position	Extent of partial flooding
No. 2 Gas	500431A	JUSTICE NO 1	INDEPENDENCE MINING	U-5013-98	44.58	6,761.60	4,092.22	near	very large
No. 2 Gas	363123Q	Mine No. 22	Island Creek Coal Co.		73.63	4,779.42	4,777.09	near	very large
No. 2 Gas	323251A	HAMPTON NO 3	WESTMORELAND COAL CO		77.93	4,771.18	5,048.39	near	very large
No. 2 Gas	355310A	GUYAN NO 1	ISLAND CREEK COAL	986	64.03	14,838.87	12,901.35	near	very large
Powellton	344142B	ALLIED CHEMICAL B	ALLIED CHEMICAL		30.18	634.08	259.81	above	small
Powellton	500466A	LICK BRANCH NO 2	LITTLE EAGLE COAL CO	U-0002-88-A	38.14	509.23	263.67	above	medium
Powellton	330040A	MALLORY NO 4 & 5	MCDONALD LAND		41.73	516.65	292.85	above	small
Powellton	372193F	UNKNOWN	UNKNOWN		45.00	561.36	347.15	above	small
Powellton	318904B	CARBON FUEL NO 9X	UNKNOWN		29.00	1,024.60	413.07	above	small
Powellton	904041A	Mine No. 3	Gay Coal & Coke Co.		51.00	626.33	439.03	above	very small
Powellton	907503A	No. 8 Mine	Crystal Block Coal Co.		48.00	691.57	458.97	above	medium
Powellton	500622E	UNKNOWN	UNKNOWN		46.00	805.18	506.40	above	large
Powellton	318904F	UNKNOWN	UNKNOWN		29.00	1,391.30	563.68	above	medium
Powellton	363189A	MILBURN NO 2	MILBURN BY-PRODUCTS COAL		60.00	850.00	693.48	above	small
Powellton	344142A	ALLIED CHEMICAL C	SEMET-SOLVAY ALLIED CHEMICAL		31.00	1,877.63	803.29	above	small
Powellton	903589A	Unknwn	Hinch Coal Mining Co.		64.00	975.49	854.93	above	large
Powellton	903940F	Spruce No. 4	Spruce River Coal Co.		53.00	1,395.34	1,016.34	above	medium
Powellton	323197A	KING POWELLTON NO 1	KING POWELLTON MINING		74.00	1,080.31	1,089.92	above	small
Powellton	975007K	PEABODY COAL	PEABODY COAL		65.00	2,423.97	2,170.61	above	small
Powellton	975007N	PEABODY COAL	PEABODY COAL		45.00	4,288.44	2,665.72	above	small
Powellton	365723A	W P NO 19C	W P COAL		42.00	1,540.09	889.78	near	large
Powellton	500651A	MOUTAINEER ALMA A	MINGO LOGAN COAL CO	U-5038-97	39.00	4,755.16	2,525.91	near	very large
Lower Powellton	377472A	HOLLOW MINING NO 1	HOLLOW MINING		31.93	553.49	240.01	above	small
Lower Powellton	368612A	ROCKY EQUIPMENT NO 1	ROCKY EQUIPMENT RENTAL		32.15	647.14	282.04	above	small
Lower Powellton	307650A	ISLAND CREEK NO 1,2,3 & 4	ISLAND CREEK COAL		25.78	840.00	294.28	above	small
Lower Powellton	376524K	FAVOR COAL	FAVOR COAL	UNKNWON	39.74	566.35	305.40	above	small
Lower Powellton	384032A	CANDICE	MYSTIC ENERGY	10959	79.00	1,354.53	1,452.91	above	medium
Lower Powellton	376524F	FAVOR COAL	FAVOR COAL	10351	49.00	2,256.73	1,505.82	above	small
Lower Powellton	307145B	PATSY NO 12	PATSY DEVELOPMENT		46.00	630.19	399.29	near	large
Lower Powellton	907593A	MINE NO. 1	CRYSTAL FUELS CO.	U-56-83-E-B	34.00	1,126.98	534.25	near	very large
Eagle	906195E	No. 2	Snap Creek Coal		31.41	578.08	246.67	above	small
Eagle	366054A	BELVA MINES	BELVA COAL		34.68	541.46	254.92	above	medium
Eagle	379535A	ROBERT EAGLE NO 2	TERRY EAGLE COAL		34.67	573.03	269.84	above	medium
Eagle	363181A	IMPERIAL COLLIERY	IMPERIAL COLLIERY		40.71	534.66	295.51	above	medium
Eagle	318913F	CARBON FUEL NO 2	CARBON FUEL		50.00	526.09	357.90	above	medium
Eagle	903181A	Cornelia No. 10	Peters Creek Coal Company		36.00	810.05	400.61	above	small
Eagle	904040A	Unknown	Moniter & Yuma Coal & Coke Co.		32.00	938.26	409.95	above	large
Eagle	379340A	TONYS BRANCH NO 56	TONYS BRANCH COAL		53.00	611.29	442.55	above	small
Eagle	381079A	KRIS ENERGY NO 2	KRIS ENERGY		56.00	576.99	445.25	above	large
Eagle	368762A	PEERLESS EAGLE NO 3	PEERLESS EAGLE COAL		36.00	951.10	470.25	above	very large
Eagle	368122A	ARMCO STEEL	ARMCO STEEL		57.00	713.35	552.33	above	medium
Eagle	907659A	NAOMA NO. 1 MINE	WILLIAMS MOUNTAIN COAL CO.	U-66-82B	58.00	706.14	556.49	above	small
Eagle	307644A	MCGAYE NO 2	MCGAYE COAL & COKE		42.00	975.93	565.33	above	small
Eagle	364984A	MADISON NO 2	KANAWHA COAL		42.00	1,097.73	637.00	above	small
Eagle	349937A	RIVERTON EAGLE NO 1	RIVERTON COAL		56.00	863.26	659.57	above	small
Eagle	318913E	NABOB NO 1	CARBON FUEL		44.00	1,118.15	672.14	above	small
Eagle	379395A	ROWLAND NO 9	CONSOLIDATION COAL		70.00	853.83	811.77	above	small
Eagle	953002N	LOUP CREEK	LOUP CREEK POCA LAND MAP		68.00	905.41	838.16	above	small
Eagle	308232A	AMHERST NO 3A	AMHERST COAL		49.00	1,356.63	918.94	above	small
Eagle	379377A	BETHENERGY NO 81	BETHENERGY MINES		54.00	1,256.10	931.25	above	large
Eagle	333755A	LONG BRANCH NO 1	KOPPERS COAL DIVISION OF EASTERN GAS AND FUEL		61.00	1,182.57	986.88	above	small
Eagle	953029A	MOUNTAIN MINERALS NO 1	MOUNTAIN MINERALS	U-255-83-A	67.00	1,113.21	1,023.91	above	small
Eagle	318913B	CARBON FUEL NO 20	CARBON FUEL		60.00	1,251.88	1,026.63	above	small
Eagle	344144A	PEERLESS EAGLE NO 1	PEERLESS EAGLE COAL		40.00	2,192.01	1,213.66	above	very large
Eagle	903685A	Raleigh Eagle Coal Co. Mine	Winding Gulf Coal Co.		53.00	1,704.09	1,231.69	above	small
Eagle	384315B	POCAONTAS LAND CORP	POCAHONTAS LAND CORP		50.00	1,895.04	1,288.86	above	small
Eagle	953119A	EASTERN GAS & FUEL	EASTERN GAS & FUEL		55.00	2,275.18	1,701.65	above	small
Eagle	344334A	KINGSTON & WESTERLY	KINGSTON & WESTERLY		60.00	2,240.89	1,838.10	above	small
Eagle	500218A	BRUSHY EAGLE	MARFORK COAL	U-3006-93B	50.00	3,212.75	2,209.59	above	large
Eagle	975004A	EAGLE ENERGY	EAGLE ENERGY		57.00	3,404.30	2,670.62	above	very large
Eagle	500272B	KOPPERSTON NO 1	EASTERN ASSOCIATED		52.67	9,048.34	6,470.13	above	large
Eagle	355223A	HAREWOOD COLLIERY	ALLIED CHEMICAL		50.72	9,964.83	6,862.41	above	large
Eagle	500495A	ROCKHOUSE NO 8	ROCKHOUSE CREEK DEVELOPMENT	U-5002-04	34.91	598.18	284.47	near	medium
Eagle	368943A	INDIAN CREEK NO 4	CANNELTON INDUSTRIES		47.00	592.02	378.60	near	large
Eagle	377356B	U S STEEL MINING NO 36	U S STEEL MINING		47.00	644.76	416.41	near	large
Eagle	500493A	ROCKHOUSE NO 3	ROCKHOUSE CREEK DEVELOPMENT	U-5030-99	36.00	879.43	434.44	near	large
Eagle	384013A	BALD EAGLE NO 1	TERRY EAGLE COAL		36.00	895.80	439.49	near	large
Eagle	384013B	CHRISTOPHER NO 1	UNKNOWN		39.00	898.54	483.68	near	large
Eagle	358810A	CANNELTON INDUSTRIES NO 8	CANNELTON INDUSTRIES		30.00	1,247.83	524.76	near	very large
Eagle	906286A	Elkay Mining - Dehue, Wade Eage	Elkay Mining, Standard Island Creek Coal		75.00	548.43	561.69	near	small
Eagle	376313A	AMHERST NO 4H	AMHERST COAL	2811	52.00	993.18	704.02	near	large
Eagle	907637A	CAMP CREEK NO. 1 MINE	HOBET MINING COMPANY	U-5008-94	46.00	1,486.00	946.83	near	very large
Eagle	368071A	NELLIS COAL PROPERTY MAP	NELLIS COAL		52.00	2,841.50	2,009.76	near	large
Eagle	907592A	Rocky Hollow Mine	Rawl Sales & Processing Co.	D-9907	53.00	2,831.79	2,043.00	near	very large
Eagle	362958B	DABNEY	UNKNOWN		59.00	2,686.74	2,176.90	near	large
Eagle	953639A	Upper Big Branch Mine	Performance Coal Co.	U-3042-92	61.22	9,134.51	7,592.04	near	very large
Eagle	500482A	HARRIS NO 1	EASTERN ASSOCIATED COAL CO	U-5004-97-C	65.09	10,804.17	9,547.57	near	very large
Sewell	336829Q	MACDONALD	UNKNOWN		23.77	535.73	172.78	above	small
Sewell	336807D	DUBREE NO 1	UNKNOWN		24.55	610.50	203.49	above	medium
Sewell	340051A	DUBREE NO 4	MARYLAND NEW RIVER COAL		33.25	516.03	232.68	above	small
Sewell	338893F	BABCOCK NO 7, 8 & 9	BABCOCK COAL & COKE		31.04	600.66	253.02	above	small
Sewell	327402A	DUO	DUO COALS		37.00	764.08	391.32	above	small
Sewell	500234B	UNKNOWN	UNKNOWN		33.00	877.65	400.23	above	large
Sewell	905494A	Cunard Mine	Coal Run		45.00	758.14	463.91	above	large
Sewell	500235A	WHITE BUCK NO 2	WHITE BUCK COAL	U-0059-85B	29.00	1,227.23	486.82	above	large
Sewell	336829Z	TAMROY	UNKNOWN		25.00	1,452.46	501.80	above	large
Sewell	366093A	F & J NO 4	F & J COAL		44.00	834.60	503.78	above	small
Sewell	367238B	BRANCH COAL	BRANCH COAL		42.00	940.27	539.19	above	large
Sewell	307443A	SAXSEWELL NO 1	ISLAND CREEK COAL		30.00	1,360.74	557.16	above	large
Sewell	367238A	ELI SMOKELESS	ELI SMOKELESS		41.00	1,015.62	568.93	above	small
Sewell	315826A	BOONE JAMES E LEASE 21	BOONE JAMES E COAL		44.00	965.97	581.67	above	small
Sewell	376337A	BELLEMEAD	UNKNOWN		26.00	1,672.24	599.15	above	medium
Sewell	336829T	KILSYTH	UNKNOWN		49.00	915.55	613.44	above	medium
Sewell	905366A	ROCK LICK	ROCK LICK		40.00	1,470.98	814.15	above	large
Sewell	364408B	NO 7	UNKNOWN		41.00	1,445.17	816.71	above	small
Sewell	336809A	AMES MINING	AMES MINING		31.00	2,236.14	954.64	above	large
Sewell	366518A	LESLIE	UNKNOWN		68.00	1,241.98	1,148.42	above	small
Sewell	903263D	Unknown	Island Creek Coal Co.		33.00	2,610.72	1,204.97	above	small
Sewell	364408A	IMPERIAL QUINWOOD 2	WESTMORELAND COAL		29.00	3,055.10	1,219.18	above	large
Sewell	366379C	FRANCES	UNKNOWN		59.00	1,655.81	1,329.63	above	small
Sewell	365986A	AMES LAND	AMES LAND		39.00	3,304.82	1,779.23	above	medium

POTENTIALLY PARTIALLY FLOODED UNDERGROUND MINES >500 ACRES IN AREA

Seam name	Mine ID	Mine name	Company name	State permit number	Average coal bed thickness (inches)	Footprint (acres)	Storage (MMGal)	Drainage position	Extent of partial flooding
Sewell	500235B	JOHNSTOWN COAL & COKE	JOHNSTOWN COAL & COKE		42.00	3,201.21	1,858.20	above	small
Sewell	339390A	KAYMOOR NO 1	UNKNOWN		38.00	4,240.02	2,228.24	above	small
Sewell	500234A	GRASSY CREEK NO 1	WHITE BUCK COAL	U-0148-82C	45.51	15,697.79	9,699.07	above	large
Sewell	953319A	NEW RIVER	MEADOW RIVER COAL	EM-7	40.00	905.65	499.36	near	large
Sewell	336829J	COLLINS	UNKNOWN		43.00	913.07	537.82	near	medium
Sewell	336829C	STAR COAL	STAR COAL		55.00	793.18	602.07	near	large
Sewell	338893A	CLIFFTOP SMOKELESS NO 1	CLIFFTOP SMOKELESS COAL		38.00	1,262.46	652.11	near	large
Sewell	312174A	CRAB ORCHARD	C & H COAL		27.00	1,761.60	662.73	near	large
Sewell	903051A	Stanaford No. 6 Mine	Eastern Gas & Fuel Associated		35.00	1,505.67	721.05	near	large
Sewell	314365A	DONEGAN NO 10 PROPERTY	ISLAND CREEK COAL		46.00	1,539.35	977.95	near	large
Sewell	336829D	HARVEY	STAR COAL		57.00	1,294.29	1,002.49	near	large
Sewell	373495B	MINDEN NO 4 & 5	UNKNOWN		56.00	1,579.18	1,208.06	near	large
Sewell	336829AH	SKELTON	UNKNOWN		40.00	2,282.02	1,250.16	near	large
Sewell	368723A	SILTIX	NEW RIVER		52.00	2,075.76	1,476.02	near	large
Sewell	335447A	SPRAGUE	NEW RIVER CO		36.00	4,059.02	1,986.38	near	large
Sewell	339390B	MINDEN NO 4	UNKNOWN		45.00	4,168.97	2,595.81	near	large
Beckley	327279A	DEXTER POCAHONTAS NO 1	DEXTER POCAHONTAS COAL		39.44	595.95	319.08	above	small
Beckley	367315C	RALEIGH COAL & COKE NO 3	RALEIGH COAL & COKE		40.00	1,515.59	825.40	above	large
Beckley	906307G	Sayers Poca	Unknown		59.00	1,633.38	1,314.30	above	small
Beckley	906307D	Mine No. 5	Unknown		54.00	621.88	463.64	near	large
Beckley	367315H	RALEIGH COAL & COKE NO 4	RALEIGH COAL & COKE		47.00	970.21	622.35	near	large
Beckley	383395A	SKELTON	NEW RIVER CO		35.00	5,411.83	2,601.75	near	large
Beckley	906310A	No. 4 Mine	Pond Creek Pocahontas Co.		40.21	6,383.02	3,485.53	near	small
Pocahontas No. 6	341215A	UNKNOWN	UNKNOWN		13.08	502.29	89.18	above	small
Pocahontas No. 6	383118A	EAST GULF NO 4	EAST GULF FUEL	D-10904	20.12	998.05	272.62	above	small
Pocahontas No. 6	905383A	Mine No. 71	Peabody Coal Co.		35.00	778.06	372.67	above	small
Pocahontas No. 6	376719A	LOUISVILLE NO 6	WINDING GULF COLLIERIES		38.00	879.40	462.48	above	small
Pocahontas No. 6	365639A	HUNTER	SMITH & STOVER COAL	D-943	40.00	1,300.50	711.69	above	large
Pocahontas No. 6	381094A	CRANE CREEK NO 6	CONSOLIDATION COAL	46-01586	24.00	2,224.17	734.93	above	medium
Pocahontas No. 6	330277A	STOTESBURY NO 10	EASTERN ASSOCIATED COAL	NDE	38.00	1,437.87	758.44	above	very small
Pocahontas No. 6	379277A	DRIFTWOOD NO 14	ALGOMA NO 14	46-01967	39.00	2,076.88	1,109.71	above	large
Pocahontas No. 6	903154A	No. 10 Mine	Sterling Smokeless Coal Co.		27.00	945.03	346.69	near	small
Pocahontas No. 6	372133A	STOTESBURY NO 11	EASTERN GAS & FUEL		33.00	1,036.68	473.91	near	small
Pocahontas No. 6	382515A	STONEY NO 8	STONEY COAL	3024-88	31.00	1,284.76	550.95	near	very large
Pocahontas No. 6	307289A	STERLING SMOKELESS	STERLING SMOKELESS COAL		37.00	1,120.67	569.60	near	very large
Pocahontas No. 6	375044A	KEYSTONE NO 4	EASTERN ASSOCIATED COAL		34.00	3,273.69	1,538.00	near	very large
Pocahontas No. 6	362948A	SLAB FORK NO 8	SLAB FORK COAL		36.00	3,818.22	1,881.04	near	very large
Pocahontas No. 6	307255A	LILLYBROOK NO 3	LILLYBROOK COAL		29.00	5,513.83	2,223.04	near	large
Pocahontas No. 6	366483A	TAMS NO 2	UNKNOWN		33.63	8,426.85	3,847.62	near	medium
Pocahontas No. 4	369015A	GARY NO 14-4	U S STEEL MINING		68.00	1,370.04	1,274.57	above	large
Pocahontas No. 4	377296A	ANCHOR NO 2 DEEP	UNKNOWN		73.00	1,310.26	1,305.50	above	very large
Pocahontas No. 4	314194C	U S STEEL NO 6	U S STEEL		76.00	1,328.22	1,372.23	above	medium
Pocahontas No. 4	381351G	GARY NO 4	GARY COAL SALES		60.00	1,721.11	1,415.37	near	large
Pocahontas No. 4	341408A	AMONATE NO 31-CLOSURE MAP	POCAHONTAS FUEL		59.21	4,622.36	3,715.74	near	very large
Pocahontas No. 4	381351F	GARY NO 4	GARY COAL SALES		45.28	7,430.91	4,568.79	near	very large
Pocahontas No. 4	337808B	U S STEEL NO 2,6	U S STEEL		78.27	16,614.66	17,655.03	near	very large
Pocahontas No. 3	384671A	TOP GUN NO 1	TOP GUN	4025-89	58.00	501.49	395.39	above	small
Pocahontas No. 3	904509K	ROANOKE	EMPIRE		59.00	510.98	410.87	above	small
Pocahontas No. 3	953090A	BRUSHY GAP	ESSENTIAL FUELS	U-3044-91B	33.00	993.50	448.59	above	very large
Pocahontas No. 3	500533A	CHEROKEE MINE	WA MINING INC	U-4023-87E	53.00	635.59	459.45	above	medium
Pocahontas No. 3	904593A	Weyanoke Mine	Cliff Coal Co.		40.00	844.54	467.96	above	small
Pocahontas No. 3	902883A	Mine No. 1	Wesley Leasing, Inc.	U-75-84-D	51.00	674.15	473.88	above	small
Pocahontas No. 3	904710A	Cherokee Mine	Pocahontas Fuel Co.		58.00	610.15	488.44	above	medium
Pocahontas No. 3	904509P	TURKEY GAP			51.00	728.20	511.47	above	small
Pocahontas No. 3	366510E	ZENITH LEASEHOLD	UNITED POCAHONTAS?		50.00	796.33	550.91	above	very small
Pocahontas No. 3	904509L	ARLINGTON	EMPIRE		58.00	711.25	560.87	above	small
Pocahontas No. 3	904440A	Thomas Mine No. 1	The Thomas Coal Co.		45.00	937.44	584.83	above	very small
Pocahontas No. 3	904509O	DELTA			61.00	712.11	591.73	above	very small
Pocahontas No. 3	904509H	ASHLAND	ASHLAND		27.00	1,599.18	605.27	above	large
Pocahontas No. 3	904720A	Hiawatha No. 1 Mine	Enris Coal Co.		47.00	967.87	624.02	above	small
Pocahontas No. 3	953527A	EUREKA LEASEHOLD			85.00	542.83	630.58	above	small
Pocahontas No. 3	904509B	CRANE CREEK	AMERICAN COAL		54.00	847.90	632.87	above	small
Pocahontas No. 3	904509M	GREENBRIER			67.00	707.69	643.93	above	very small
Pocahontas No. 3	366273A	WYOMING NO 3 & 4	WYOMING COAL		44.00	1,111.00	665.49	above	small
Pocahontas No. 3	905633A	Mine No. 4	Jacobs Fork Pocahontas Coal Co.		56.00	879.92	675.30	above	medium
Pocahontas No. 3	906112E	SHAWNEE LEASE			80.00	624.33	682.63	above	small
Pocahontas No. 3	904749A	Mine No. 13	United States Coal and Coke Company		88.00	569.44	688.15	above	very small
Pocahontas No. 3	366327A	LECCONY NO 2	LECCONY SMOKELESS FUEL		32.00	1,604.58	707.96	above	large
Pocahontas No. 3	904509T	LICK BRANCH			80.00	657.98	718.50	above	very small
Pocahontas No. 3	904509F	ROLFE			51.00	1,034.24	723.44	above	medium
Pocahontas No. 3	904509E	EMPIRE	EMPIRE COAL AND LAND		42.00	1,280.02	731.24	above	small
Pocahontas No. 3	334967B	MEAD	NORTH AMERICAN COAL & DOCK		25.00	2,092.29	732.93	above	large
Pocahontas No. 3	366510B	INDIAN RIDGE	UNKNOWN		54.00	1,001.63	741.21	above	very small
Pocahontas No. 3	904641C	WENONAH	UNKNOWN		48.00	1,123.61	741.41	above	small
Pocahontas No. 3	904608A	Buckeye Mine	Consolidation Coal Co.		70.00	784.77	746.10	above	medium
Pocahontas No. 3	904596A	Mine No. 1	McDowell Coal & Coke Co.		56.00	1,029.27	787.77	above	very small
Pocahontas No. 3	904654A	Springton Colliery	Kingston Pocahontas Coal Co.		48.00	1,203.04	789.73	above	small
Pocahontas No. 3	904509R	POWHATAN			60.00	957.00	792.68	above	medium
Pocahontas No. 3	904509AA	LYNCHBURG			75.00	880.64	897.34	above	very large
Pocahontas No. 3	904431A	Angle Mine	Angle Coal & Coke Co.		69.00	972.43	917.79	above	very small
Pocahontas No. 3	384300A	MURPHYS BRANCH NO 2	MURPHYS BRANCH INC	U-4023-92	48.00	1,400.62	926.64	above	medium
Pocahontas No. 3	904509DD	MILL CREEK	MILL CREEK		98.00	698.35	930.18	above	large
Pocahontas No. 3	904509Q	HOUSTON			70.00	1,011.58	973.13	above	medium
Pocahontas No. 3	904604A	Booth-Bowen Mine	Booth-Bowen Coal & Coke Co.		76.00	942.16	978.66	above	very small
Pocahontas No. 3	904425B	Elkhorn Mine	Elkhorn Coal & Coke Co.		94.00	767.74	984.66	above	medium
Pocahontas No. 3	904509Z	UPLAND			66.00	1,099.17	997.37	above	small
Pocahontas No. 3	904704A	Louisville Mine	Louisville Coal & Coke Co.		56.00	1,361.45	1,049.92	above	small
Pocahontas No. 3	359505A	U S STEEL NO 9	U S STEEL		55.00	1,489.23	1,118.27	above	medium
Pocahontas No. 3	904424A	West Mine	Mill Creek Coal & Coke Co.		108.00	807.61	1,185.05	above	medium
Pocahontas No. 3	904509J	CRANE CREEK NO 1 ?	AMERICAN ?		47.00	1,864.51	1,198.56	above	large
Pocahontas No. 3	366510A	CHANDLER AND WYOMING LEASES	UNITED POCAHONTAS COAL ?		51.00	1,740.82	1,216.19	above	very small
Pocahontas No. 3	904571A	Piedmont No. 3	Unknown		48.00	1,837.48	1,219.91	above	medium
Pocahontas No. 3	904712A	Pinnacle Mine	Unknown		48.00	1,852.41	1,223.98	above	small
Pocahontas No. 3	305461A	ARISTA	WEYANOKE COAL & COKE		47.00	1,936.49	1,249.13	above	medium
Pocahontas No. 3	904509BB	PULASKI IRON			75.00	1,227.25	1,265.38	above	small
Pocahontas No. 3	953099A	TOMMY CREEK NO 1	MATE CREEK LOADING	U-3040-87A	32.00	2,907.07	1,292.29	above	medium
Pocahontas No. 3	904600C	Shamokin	Pocahontas Land Corp.		86.00	1,158.66	1,360.23	above	medium
Pocahontas No. 3	904641A	TURKEY GAP	Unknown		42.00	2,439.53	1,409.96	above	very large
Pocahontas No. 3	904727A	Sagamore No. 3 Mine	Unknown		56.00	1,890.53	1,455.09	above	very large
Pocahontas No. 3	904509V	CROZER			62.00	1,845.41	1,558.37	above	small
Pocahontas No. 3	367257A	LILLYBROOK	LILLYBROOK COAL		34.00	3,386.53	1,564.60	above	medium

**POTENTIALLY PARTIALLY FLOODED UNDERGROUND MINES >500 ACRES IN AREA**

Seam name	Mine ID	Mine name	Company name	State permit number	Average coal bed thickness (inches)	Footprint (acres)	Storage (MMGal)	Drainage position	Extent of partial flooding
Pocahontas No. 3	372024A	C & B NO 10	C & B COAL		54.00	2,467.37	1,810.56	above	medium
Pocahontas No. 3	904619F	PAGE LEASE	Page Coal and Coke		81.00	2,349.02	2,600.00	above	large
Pocahontas No. 3	904708A	Caswell Mine	Caswell Creek Colliery		96.00	2,016.13	2,640.74	above	medium
Pocahontas No. 3	904569A	Jenkinjones Mine	Jenkinjones Colliery		103.49	6,331.74	8,896.89	above	large
Pocahontas No. 3	904611O	UNKNOWN	UNKNOWN		42.64	527.91	305.46	near	large
Pocahontas No. 3	500532A	XMV NO 35	XMV INC	U-4022-91B	46.00	547.81	343.17	near	large
Pocahontas No. 3	366527A	TOMMY CREEK	AMIGO SMOKELESS COAL		42.00	639.52	367.07	near	small
Pocahontas No. 3	904611G	Unknown Mine G	Unknown		44.00	1,021.87	612.06	near	medium
Pocahontas No. 3	368946A	BISHOP NO 36	CONSOLIDATION COAL		52.00	954.15	685.28	near	very large
Pocahontas No. 3	907647A	POSTAR NO. 1	POSTAR COAL CO.	U-75-84B-B	48.00	1,066.63	698.07	near	very large
Pocahontas No. 3	385844A	HIOPE MINING NO 9	HIOPE MINING		43.00	1,315.50	770.03	near	medium
Pocahontas No. 3	308204A	PINNACLE	ALGOMA COAL & COKE		53.00	1,123.62	819.84	near	medium
Pocahontas No. 3	904611Q	UNKNOWN	UNKNOWN		45.00	1,528.33	942.73	near	very large
Pocahontas No. 3	382509A	KEYSTONE NO 3D	NOSEMAN BRANCH MINING		47.00	1,500.71	969.73	near	very large
Pocahontas No. 3	383162A	ITMANN NO 2	ITMANN COAL	900	44.00	1,827.93	1,092.71	near	very large
Pocahontas No. 3	368955C	UNKNOWN	UNITED POCAHONTAS COAL		58.00	1,512.11	1,199.76	near	large
Pocahontas No. 3	381213A	MODOC	CONSOLIDATION COAL		47.00	1,910.15	1,226.86	near	very large
Pocahontas No. 3	903269A	Newhall No. 6	Brewster Coal Co.		59.00	1,809.21	1,464.52	near	very large
Pocahontas No. 3	368078A	PEERLESS COAL & COKE PROPERTY	PEERLESS COAL & COKE		70.00	2,123.70	2,033.64	near	very large
Pocahontas No. 3	500126F	ITMANN NO 3	ITMANN COAL	901	44.00	4,115.58	2,482.46	near	very large
Pocahontas No. 3	362890A	EAST GULF	WESTMORELAND COAL	7051	38.08	6,927.65	3,582.00	near	very large
Pocahontas No. 3	323205A	U S STEEL NO 14D	UNKNOWN		77.27	4,195.45	4,400.61	near	very large
Pocahontas No. 3	340957A	BISHOP NO 35	UNKNOWN		66.85	5,005.16	4,543.15	near	very large
Pocahontas No. 3	374412A	JENKIN JONES	CONSOLIDATION COAL		80.58	4,491.56	4,914.20	near	very large
Pocahontas No. 3	375585A	GARY NO 10	U S STEEL MINING		70.56	5,935.20	5,685.98	near	very large
Pocahontas No. 3	368955A	KEYSTONE NO 1, NO 2	EASTERN ASSOCIATED COAL		58.99	24,666.84	19,754.60	near	very large
Pocahontas No. 2	500460A	JOSEPHINE NO 2	POCAHONTAS COAL CO	U-3036-92E	31.00	2,064.60	886.09	near	large

# **MINE POOL ATLAS**

## **Overviews of Minor Seams**

### **APPENDIX D**

# APPENDIX D

<b>OVERVIEWS OF MINOR SEAMS</b>				
<b>DUNKARD GROUP</b>				
<b>Washington</b>	<b>Undetermined</b>	<b>Potentially flooded areas unlikely</b>	<b>Potentially partially flooded</b>	<b>Potentially totally flooded</b>
No. of Mines	0	0	0	0
Mean coal bed thickness (feet)				
Min. footprint area (acres)				
Max. footprint area (acres)				
Mean footprint area (acres)				
Median footprint area (acres)				
Total footprint area (acres)				
Estimated void volume (acre feet)				
Max. potential storage (million gallons)				
<b>Waynesburg A</b>	<b>Undetermined</b>	<b>Potentially flooded areas unlikely</b>	<b>Potentially partially flooded</b>	<b>Potentially totally flooded</b>
No. of Mines	0	0	0	0
Mean coal bed thickness (feet)				
Min. footprint area (acres)				
Max. footprint area (acres)				
Mean footprint area (acres)				
Median footprint area (acres)				
Total footprint area (acres)				
Estimated void volume (acre feet)				
Max. potential storage (million gallons)				
<b>MONONGAHELA GROUP</b>				
<b>Waynesburg</b>	<b>Undetermined</b>	<b>Potentially flooded areas unlikely</b>	<b>Potentially partially flooded</b>	<b>Potentially totally flooded</b>
No. of Mines	0	0	4	0
Mean coal bed thickness (feet)				
Min. footprint area (acres)			0.47	
Max. footprint area (acres)			30.97	
Mean footprint area (acres)			17.74	
Median footprint area (acres)			19.76	
Total footprint area (acres)			70.95	
Estimated void volume (acre feet)				
Max. potential storage (million gallons)				
<b>Uniontown</b>	<b>Undetermined</b>	<b>Potentially flooded areas unlikely</b>	<b>Potentially partially flooded</b>	<b>Potentially totally flooded</b>
No. of Mines	0	0	0	0
Mean coal bed thickness (feet)				
Min. footprint area (acres)				
Max. footprint area (acres)				
Mean footprint area (acres)				
Median footprint area (acres)				
Total footprint area (acres)				
Estimated void volume (acre feet)				
Max. potential storage (million gallons)				

## OVERVIEWS OF MINOR SEAMS

### CONEMAUGH GROUP

Elk Lick	Undetermined	Potentially flooded areas unlikely	Potentially partially flooded	Potentially totally flooded
No. of Mines	18	0	0	0
Mean coal bed thickness (feet)				
Min. footprint area (acres)	713.23			
Max. footprint area (acres)	0.41			
Mean footprint area (acres)	105.48			
Median footprint area (acres)	39.62			
Total footprint area (acres)	17.87			
Estimated void volume (acre feet)				
Max. potential storage (million gallons)				
Harlem	Undetermined	Potentially flooded areas unlikely	Potentially partially flooded	Potentially totally flooded
No. of Mines	0	0	0	0
Mean coal bed thickness (feet)				
Min. footprint area (acres)				
Max. footprint area (acres)				
Mean footprint area (acres)				
Median footprint area (acres)				
Total footprint area (acres)				
Estimated void volume (acre feet)				
Max. potential storage (million gallons)				
Brush Creek	Undetermined	Potentially flooded areas unlikely	Potentially partially flooded	Potentially totally flooded
No. of Mines	0	0	0	0
Mean coal bed thickness (feet)				
Min. footprint area (acres)				
Max. footprint area (acres)				
Mean footprint area (acres)				
Median footprint area (acres)				
Total footprint area (acres)				
Estimated void volume (acre feet)				
Max. potential storage (million gallons)				
Mahoning	Undetermined	Potentially flooded areas unlikely	Potentially partially flooded	Potentially totally flooded
No. of Mines	5	0	0	0
Mean coal bed thickness (feet)				
Min. footprint area (acres)	24.43			
Max. footprint area (acres)	530.20			
Mean footprint area (acres)	175.97			
Median footprint area (acres)	114.40			
Total footprint area (acres)	879.84			
Estimated void volume (acre feet)				
Max. potential storage (million gallons)				

## OVERVIEWS OF MINOR SEAMS

### ALLEGHENY FORMATION

Lower Freeport	Undetermined	Potentially flooded areas unlikely	Potentially partially flooded	Potentially totally flooded
No. of Mines	9	0	2	0
Mean coal bed thickness (feet)				
Min. footprint area (acres)	1.69		3.07	
Max. footprint area (acres)	531.10		118.82	
Mean footprint area (acres)	89.00		60.95	
Median footprint area (acres)	21.23		60.95	
Total footprint area (acres)	801.03		121.90	
Estimated void volume (acre feet)				
Max. potential storage (million gallons)				
Upper Kittanning	Undetermined	Potentially flooded areas unlikely	Potentially partially flooded	Potentially totally flooded
No. of Mines	5	1	1	1
Mean coal bed thickness (feet)				
Min. footprint area (acres)	0.76	0.43	58.09	402.06
Max. footprint area (acres)	476.64	0.43	58.09	402.06
Mean footprint area (acres)	160.25	0.43	58.09	402.06
Median footprint area (acres)	27.91	0.43	58.09	402.06
Total footprint area (acres)	801.23	0.43	58.09	402.06
Estimated void volume (acre feet)				
Max. potential storage (million gallons)				
Lower Kittanning	Undetermined	Potentially flooded areas unlikely	Potentially partially flooded	Potentially totally flooded
No. of Mines	55	2	6	0
Mean coal bed thickness (feet)				
Min. footprint area (acres)	0.04	6.03	2.38	
Max. footprint area (acres)	2,503.69	7.24	813.96	
Mean footprint area (acres)	160.37	6.64	236.82	
Median footprint area (acres)	53.05	6.64	71.82	
Total footprint area (acres)	8,820.40	13.27	1,420.91	
Estimated void volume (acre feet)				
Max. potential storage (million gallons)				
No. 6 Block	Undetermined	Potentially flooded areas unlikely	Potentially partially flooded	Potentially totally flooded
No. of Mines	0	3	16	0
Mean coal bed thickness (feet)				
Min. footprint area (acres)		28.92	10.51	
Max. footprint area (acres)		38.73	282.57	
Mean footprint area (acres)		34.98	78.05	
Median footprint area (acres)		37.29	60.97	
Total footprint area (acres)		104.94	1,248.87	
Estimated void volume (acre feet)				
Max. potential storage (million gallons)				

## OVERVIEWS OF MINOR SEAMS

### ALLEGHENY FORMATION

Upper No. 5 Block	Undetermined	Potentially flooded areas unlikely	Potentially partially flooded	Potentially totally flooded
No. of Mines	1	31	71	0
Mean coal bed thickness (feet)	0	0	0	0
Min. footprint area (acres)	5.79	0.17	0.60	0.00
Max. footprint area (acres)	5.79	274.06	547.03	0.00
Mean footprint area (acres)	5.79	37.37	83.64	0.00
Median footprint area (acres)	5.79	15.28	32.08	0.00
Total footprint area (acres)	5.79	1,158.54	5,938.39	0.00
Estimated void volume (acre feet)	0.00	0.00	0.00	0.00
Max. potential storage (million gallons)	0.00	0.00	0.00	0.00

Little No. 5 Block	Undetermined	Potentially flooded areas unlikely	Potentially partially flooded	Potentially totally flooded
No. of Mines	1	3	11	0
Mean coal bed thickness (feet)				
Min. footprint area (acres)	1.70	0.00	11.48	
Max. footprint area (acres)	1.70	2.09	713.54	
Mean footprint area (acres)	1.70	0.76	136.54	
Median footprint area (acres)	1.70	0.18	53.18	
Total footprint area (acres)	1.70	2.27	1,501.90	
Estimated void volume (acre feet)				
Max. potential storage (million gallons)				

### KANAWHA FORMATION

Stockton Rider	Undetermined	Potentially flooded areas unlikely	Potentially partially flooded	Potentially totally flooded
No. of Mines	0	0	2	0
Mean coal bed thickness (feet)				
Min. footprint area (acres)			19.90	
Max. footprint area (acres)			102.54	
Mean footprint area (acres)			61.22	
Median footprint area (acres)			61.22	
Total footprint area (acres)			122.44	
Estimated void volume (acre feet)				
Max. potential storage (million gallons)				

Stockton lower split 2	Undetermined	Potentially flooded areas unlikely	Potentially partially flooded	Potentially totally flooded
No. of Mines	2	14	39	0
Mean coal bed thickness (feet)				
Min. footprint area (acres)	0.09	0.17	0.74	
Max. footprint area (acres)	0.52	6.85	3,117.49	
Mean footprint area (acres)	0.31	2.74	200.09	
Median footprint area (acres)	0.31	2.01	16.38	
Total footprint area (acres)	0.62	38.32	7,803.33	
Estimated void volume (acre feet)				
Max. potential storage (million gallons)				



## OVERVIEWS OF MINOR SEAMS

### KANAWHA FORMATION

Coalburg lower split 1	Undetermined	Potentially flooded areas unlikely	Potentially partially flooded	Potentially totally flooded
No. of Mines	0	0	5	0
Mean coal bed thickness (feet)				
Min. footprint area (acres)			11.29	
Max. footprint area (acres)			77.29	
Mean footprint area (acres)			37.64	
Median footprint area (acres)			23.73	
Total footprint area (acres)			188.20	
Estimated void volume (acre feet)				
Max. potential storage (million gallons)				
Little Coalburg	Undetermined	Potentially flooded areas unlikely	Potentially partially flooded	Potentially totally flooded
No. of Mines	0	1	2	0
Mean coal bed thickness (feet)				
Min. footprint area (acres)		125.61	339.02	
Max. footprint area (acres)		125.61	695.59	
Mean footprint area (acres)		125.61	517.31	
Median footprint area (acres)		125.61	517.31	
Total footprint area (acres)		125.61	1,034.61	
Estimated void volume (acre feet)				
Max. potential storage (million gallons)				
Upper Winifrede	Undetermined	Potentially flooded areas unlikely	Potentially partially flooded	Potentially totally flooded
No. of Mines	1	0	1	0
Mean coal bed thickness (feet)				
Min. footprint area (acres)	119.53		18.52	
Max. footprint area (acres)	119.53		18.52	
Mean footprint area (acres)	119.53		18.52	
Median footprint area (acres)	119.53		18.52	
Total footprint area (acres)	119.53		18.52	
Estimated void volume (acre feet)				
Max. potential storage (million gallons)				
Winifrede	Undetermined	Potentially flooded areas unlikely	Potentially partially flooded	Potentially totally flooded
No. of Mines	0	39	244	0
Mean coal bed thickness (feet)		3.34	3.77	
Min. footprint area (acres)		0.01	0.00	
Max. footprint area (acres)		489.06	6,254.69	
Mean footprint area (acres)		25.47	236.08	
Median footprint area (acres)		2.02	44.21	
Total footprint area (acres)		993.18	57,603.54	
Estimated void volume (acre feet)		2,209.54	132,950.40	
Max. potential storage (million gallons)		720.09	43,328.53	

## OVERVIEWS OF MINOR SEAMS

### KANAWHA FORMATION

Lower Winifrede	Undetermined	Potentially flooded areas unlikely	Potentially partially flooded	Potentially totally flooded
No. of Mines	40	3	9	0
Mean coal bed thickness (feet)				
Min. footprint area (acres)	0.26	4.46	4.84	
Max. footprint area (acres)	1,192.74	40.58	175.68	
Mean footprint area (acres)	103.21	25.86	60.10	
Median footprint area (acres)	16.90	32.53	37.28	
Total footprint area (acres)	4,128.27	77.57	540.88	
Estimated void volume (acre feet)				
Max. potential storage (million gallons)				
Chilton A	Undetermined	Potentially flooded areas unlikely	Potentially partially flooded	Potentially totally flooded
No. of Mines	0	2	18	0
Mean coal bed thickness (feet)				
Min. footprint area (acres)		2.01	4.64	
Max. footprint area (acres)		89.74	938.86	
Mean footprint area (acres)		45.88	266.38	
Median footprint area (acres)		45.88	160.71	
Total footprint area (acres)		91.75	4,794.91	
Estimated void volume (acre feet)				
Max. potential storage (million gallons)				
Chilton	Undetermined	Potentially flooded areas unlikely	Potentially partially flooded	Potentially totally flooded
No. of Mines	1	3	26	0
Mean coal bed thickness (feet)				
Min. footprint area (acres)	0.30	3.16	2.71	
Max. footprint area (acres)	0.30	80.31	1,017.15	
Mean footprint area (acres)	0.30	30.64	231.26	
Median footprint area (acres)	0.30	8.44	91.38	
Total footprint area (acres)	0.30	91.91	6,012.84	
Estimated void volume (acre feet)				
Max. potential storage (million gallons)				
Little Chilton	Undetermined	Potentially flooded areas unlikely	Potentially partially flooded	Potentially totally flooded
No. of Mines	0	0	31	1
Mean coal bed thickness (feet)				
Min. footprint area (acres)			6.41	90.66
Max. footprint area (acres)			3,322.56	90.66
Mean footprint area (acres)			425.32	90.66
Median footprint area (acres)			174.69	90.66
Total footprint area (acres)			13,184.95	90.66
Estimated void volume (acre feet)				
Max. potential storage (million gallons)				

## OVERVIEWS OF MINOR SEAMS

### KANAWHA FORMATION

Fire Clay	Undetermined	Potentially flooded areas unlikely	Potentially partially flooded	Potentially totally flooded
No. of Mines	0	15	96	0
Mean coal bed thickness (feet)				
Min. footprint area (acres)		0.02	0.01	
Max. footprint area (acres)		222.07	15,447.96	
Mean footprint area (acres)		23.07	398.87	
Median footprint area (acres)		1.70	62.52	
Total footprint area (acres)		346.09	38,291.92	
Estimated void volume (acre feet)				
Max. potential storage (million gallons)				
Fire Clay lower split 1	Undetermined	Potentially flooded areas unlikely	Potentially partially flooded	Potentially totally flooded
No. of Mines	0	0	10	0
Mean coal bed thickness (feet)				
Min. footprint area (acres)			2.99	
Max. footprint area (acres)			1,099.16	
Mean footprint area (acres)			325.39	
Median footprint area (acres)			115.04	
Total footprint area (acres)			3,253.94	
Estimated void volume (acre feet)				
Max. potential storage (million gallons)				
Cedar Grove	Undetermined	Potentially flooded areas unlikely	Potentially partially flooded	Potentially totally flooded
No. of Mines	6	6	107	0
Mean coal bed thickness (feet)				
Min. footprint area (acres)	1.46	0.26	0.39	
Max. footprint area (acres)	149.71	529.62	3,746.07	
Mean footprint area (acres)	29.61	96.23	296.28	
Median footprint area (acres)	4.26	2.84	27.36	
Total footprint area (acres)	177.65	577.37	31,702.21	
Estimated void volume (acre feet)				
Max. potential storage (million gallons)				
Williamson	Undetermined	Potentially flooded areas unlikely	Potentially partially flooded	Potentially totally flooded
No. of Mines	0	3	74	0
Mean coal bed thickness (feet)				
Min. footprint area (acres)		4.56	1.37	
Max. footprint area (acres)		13.85	2,475.04	
Mean footprint area (acres)		9.03	188.71	
Median footprint area (acres)		8.68	71.37	
Total footprint area (acres)		27.10	13,964.21	
Estimated void volume (acre feet)				
Max. potential storage (million gallons)				

## OVERVIEWS OF MINOR SEAMS

### KANAWHA FORMATION

No. 2 Gas lower split 2	Undetermined	Potentially flooded areas unlikely	Potentially partially flooded	Potentially totally flooded
No. of Mines	24	1	10	0
Mean coal bed thickness (feet)				
Min. footprint area (acres)	0.82	42.94	1.14	
Max. footprint area (acres)	934.72	42.94	265.84	
Mean footprint area (acres)	106.33	42.94	49.92	
Median footprint area (acres)	36.27	42.94	17.29	
Total footprint area (acres)	2,551.87	42.94	499.19	
Estimated void volume (acre feet)				
Max. potential storage (million gallons)				
Eagle A	Undetermined	Potentially flooded areas unlikely	Potentially partially flooded	Potentially totally flooded
No. of Mines	0	8	17	0
Mean coal bed thickness (feet)				
Min. footprint area (acres)		2.40	0.05	
Max. footprint area (acres)		16.06	742.24	
Mean footprint area (acres)		6.46	107.14	
Median footprint area (acres)		4.24	11.89	
Total footprint area (acres)		51.69	1,821.42	
Estimated void volume (acre feet)				
Max. potential storage (million gallons)				
Eagle lower split 1	Undetermined	Potentially flooded areas unlikely	Potentially partially flooded	Potentially totally flooded
No. of Mines	0	6	18	2
Mean coal bed thickness (feet)				
Min. footprint area (acres)		0.83	3.61	17.27
Max. footprint area (acres)		12.01	1,040.62	199.09
Mean footprint area (acres)		6.50	239.13	108.18
Median footprint area (acres)		7.14	103.80	108.18
Total footprint area (acres)		38.97	4,304.32	216.36
Estimated void volume (acre feet)				
Max. potential storage (million gallons)				
Little Eagle	Undetermined	Potentially flooded areas unlikely	Potentially partially flooded	Potentially totally flooded
No. of Mines	0	16	44	2
Mean coal bed thickness (feet)				
Min. footprint area (acres)		0.03	0.01	89.73
Max. footprint area (acres)		15.15	2,311.24	193.90
Mean footprint area (acres)		3.14	68.20	141.82
Median footprint area (acres)		1.02	3.18	141.82
Total footprint area (acres)		50.18	3,000.88	283.63
Estimated void volume (acre feet)				
Max. potential storage (million gallons)				

## OVERVIEWS OF MINOR SEAMS

### KANAWHA FORMATION

Middle War Eagle	Undetermined	Potentially flooded areas unlikely	Potentially partially flooded	Potentially totally flooded
No. of Mines	97	1	11	0
Mean coal bed thickness (feet)				
Min. footprint area (acres)	0.06		1.79	
Max. footprint area (acres)	704.53		374.32	
Mean footprint area (acres)	34.86		74.08	
Median footprint area (acres)	2.92		12.87	
Total footprint area (acres)	3,381.18		814.89	
Estimated void volume (acre feet)				
Max. potential storage (million gallons)				
Bens Creek	Undetermined	Potentially flooded areas unlikely	Potentially partially flooded	Potentially totally flooded
No. of Mines	36	0	9	0
Mean coal bed thickness (feet)				
Min. footprint area (acres)	0.05		0.10	
Max. footprint area (acres)	366.26		3,468.35	
Mean footprint area (acres)	31.44		387.95	
Median footprint area (acres)	3.00		2.88	
Total footprint area (acres)	1,131.80		3,491.57	
Estimated void volume (acre feet)				
Max. potential storage (million gallons)				
Lower War Eagle	Undetermined	Potentially flooded areas unlikely	Potentially partially flooded	Potentially totally flooded
No. of Mines	80	0	1	0
Mean coal bed thickness (feet)				
Min. footprint area (acres)	0.13		87.22	
Max. footprint area (acres)	167.18		87.22	
Mean footprint area (acres)	19.83		87.22	
Median footprint area (acres)	5.51		87.22	
Total footprint area (acres)	1,586.32		87.22	
Estimated void volume (acre feet)				
Max. potential storage (million gallons)				
Glenalum Tunnel	Undetermined	Potentially flooded areas unlikely	Potentially partially flooded	Potentially totally flooded
No. of Mines	8	0	2	0
Mean coal bed thickness (feet)				
Min. footprint area (acres)	0.26	267.54	267.54	
Max. footprint area (acres)	228.72	267.54	1,171.14	
Mean footprint area (acres)	53.79	267.54	610.61	
Median footprint area (acres)	24.90	267.54	782.14	
Total footprint area (acres)	430.35	267.54	393.14	
Estimated void volume (acre feet)				
Max. potential storage (million gallons)				

## OVERVIEWS OF MINOR SEAMS

### KANAWHA FORMATION

Gilbert	Undetermined	Potentially flooded areas unlikely	Potentially partially flooded	Potentially totally flooded
No. of Mines	68	0	0	0
Mean coal bed thickness (feet)				
Min. footprint area (acres)	0.07		0.00	
Max. footprint area (acres)	566.74		0.00	
Mean footprint area (acres)	62.05		0.00	
Median footprint area (acres)	16.69		0.00	
Total footprint area (acres)	4,219.18		0.00	
Estimated void volume (acre feet)				
Max. potential storage (million gallons)				

Douglas	Undetermined	Potentially flooded areas unlikely	Potentially partially flooded	Potentially totally flooded
No. of Mines	621	0	0	0
Mean coal bed thickness (feet)				
Min. footprint area (acres)	0.03		0.00	
Max. footprint area (acres)	761.05		0.00	
Mean footprint area (acres)	18.64		0.00	
Median footprint area (acres)	4.32		0.00	
Total footprint area (acres)	11,575.39		0.00	
Estimated void volume (acre feet)				
Max. potential storage (million gallons)				

### NEW RIVER FORMATION

Bradshaw	Undetermined	Potentially flooded areas unlikely	Potentially partially flooded	Potentially totally flooded
No. of Mines	66	0	0	0
Mean coal bed thickness (feet)				
Min. footprint area (acres)	0.12		0.00	
Max. footprint area (acres)	3,172.20		0.00	
Mean footprint area (acres)	90.43		0.00	
Median footprint area (acres)	4.29		0.00	
Total footprint area (acres)	5,968.56		0.00	
Estimated void volume (acre feet)				
Max. potential storage (million gallons)				

laeger	Undetermined	Potentially flooded areas unlikely	Potentially partially flooded	Potentially totally flooded
No. of Mines	34	0	0	0
Mean coal bed thickness (feet)				
Min. footprint area (acres)	0.02		0.00	
Max. footprint area (acres)	1,563.25		0.00	
Mean footprint area (acres)	120.50		0.00	
Median footprint area (acres)	19.83		0.00	
Total footprint area (acres)	4,096.92		0.00	
Estimated void volume (acre feet)				
Max. potential storage (million gallons)				

## OVERVIEWS OF MINOR SEAMS

### NEW RIVER FORMATION

Castle	Undetermined	Potentially flooded areas unlikely	Potentially partially flooded	Potentially totally flooded
No. of Mines	0	0	0	0
Mean coal bed thickness (feet)				
Min. footprint area (acres)				
Max. footprint area (acres)				
Mean footprint area (acres)				
Median footprint area (acres)				
Total footprint area (acres)				
Estimated void volume (acre feet)				
Max. potential storage (million gallons)				
Sewell B	Undetermined	Potentially flooded areas unlikely	Potentially partially flooded	Potentially totally flooded
No. of Mines	1	3	26	0
Mean coal bed thickness (feet)				
Min. footprint area (acres)	0.30	3.16	2.71	
Max. footprint area (acres)	0.30	80.31	1,017.15	
Mean footprint area (acres)	0.30	30.64	231.26	
Median footprint area (acres)	0.30	8.44	91.38	
Total footprint area (acres)	0.30	91.91	6,012.84	
Estimated void volume (acre feet)				
Max. potential storage (million gallons)				
Sewell A	Undetermined	Potentially flooded areas unlikely	Potentially partially flooded	Potentially totally flooded
No. of Mines	21	0	3	0
Mean coal bed thickness (feet)				
Min. footprint area (acres)	0.17		7.96	
Max. footprint area (acres)	123.88		195.29	
Mean footprint area (acres)	16.72		76.13	
Median footprint area (acres)	4.32		25.13	
Total footprint area (acres)	351.10		228.38	
Estimated void volume (acre feet)				
Max. potential storage (million gallons)				
Welch	Undetermined	Potentially flooded areas unlikely	Potentially partially flooded	Potentially totally flooded
No. of Mines	79	0	0	0
Mean coal bed thickness (feet)				
Min. footprint area (acres)	0.01		0.00	
Max. footprint area (acres)	4,103.16		0.00	
Mean footprint area (acres)	100.87		0.00	
Median footprint area (acres)	12.01		0.00	
Total footprint area (acres)	7,968.66		0.00	
Estimated void volume (acre feet)				
Max. potential storage (million gallons)				

## OVERVIEWS OF MINOR SEAMS

### NEW RIVER FORMATION

Little Raleigh	Undetermined	Potentially flooded areas unlikely	Potentially partially flooded	Potentially totally flooded
No. of Mines	15	0	0	0
Mean coal bed thickness (feet)				
Min. footprint area (acres)	0.16			
Max. footprint area (acres)	62.84			
Mean footprint area (acres)	22.36			
Median footprint area (acres)	17.34			
Total footprint area (acres)	335.44			
Estimated void volume (acre feet)				
Max. potential storage (million gallons)				
Beckley lower split 1	Undetermined	Potentially flooded areas unlikely	Potentially partially flooded	Potentially totally flooded
No. of Mines	19	0	0	0
Mean coal bed thickness (feet)				
Min. footprint area (acres)	0.29			
Max. footprint area (acres)	663.50			
Mean footprint area (acres)	62.36			
Median footprint area (acres)	8.63			
Total footprint area (acres)	1,184.90			
Estimated void volume (acre feet)				
Max. potential storage (million gallons)				
Fire Creek	Undetermined	Potentially flooded areas unlikely	Potentially partially flooded	Potentially totally flooded
No. of Mines	48	186	224	1
Mean coal bed thickness (feet)				
Min. footprint area (acres)	0.10	0.00	0.01	128.53
Max. footprint area (acres)	1,107.64	550.64	5,399.51	128.53
Mean footprint area (acres)	108.38	8.21	129.50	128.53
Median footprint area (acres)	8.05	0.05	12.00	128.53
Total footprint area (acres)	5,202.34	1,526.78	29,008.15	128.53
Estimated void volume (acre feet)				
Max. potential storage (million gallons)				
Little Fire Creek	Undetermined	Potentially flooded areas unlikely	Potentially partially flooded	Potentially totally flooded
No. of Mines	2	5	25	0
Mean coal bed thickness (feet)				
Min. footprint area (acres)	21.12	0.10	0.22	
Max. footprint area (acres)	326.34	130.30	399.34	
Mean footprint area (acres)	173.73	27.80	74.72	
Median footprint area (acres)	173.73	0.65	17.20	
Total footprint area (acres)	347.47	139.02	1,868.05	
Estimated void volume (acre feet)				
Max. potential storage (million gallons)				



## OVERVIEWS OF MINOR SEAMS

### NEW RIVER FORMATION

Pocahontas No. 9	Undetermined	Potentially flooded areas unlikely	Potentially partially flooded	Potentially totally flooded
No. of Mines	1	12	29	0
Mean coal bed thickness (feet)				
Min. footprint area (acres)	3.44	0.02	0.02	
Max. footprint area (acres)	3.44	79.51	813.81	
Mean footprint area (acres)	3.44	10.87	68.41	
Median footprint area (acres)	3.44	1.15	33.15	
Total footprint area (acres)	3.44	130.48	1,983.89	
Estimated void volume (acre feet)				
Max. potential storage (million gallons)				

### POCAHONTAS FORMATION

Pocahontas No. 7	Undetermined	Potentially flooded areas unlikely	Potentially partially flooded	Potentially totally flooded
No. of Mines	61	4	12	0
Mean coal bed thickness (feet)				
Min. footprint area (acres)	0.16	0.84	0.15	
Max. footprint area (acres)	1,342.66	17.23	424.67	
Mean footprint area (acres)	94.34	6.79	60.84	
Median footprint area (acres)	11.04	4.55	22.11	
Total footprint area (acres)	5,754.86	27.17	730.06	
Estimated void volume (acre feet)				
Max. potential storage (million gallons)				

Pocahontas No. 6 upper split 1	Undetermined	Potentially flooded areas unlikely	Potentially partially flooded	Potentially totally flooded
No. of Mines	20	21	24	0
Mean coal bed thickness (feet)	2.77	3.25	3.63	
Min. footprint area (acres)	0.08	0.05	43.79	
Max. footprint area (acres)	488.87	76.94	115.09	
Mean footprint area (acres)	53.16	13.00	24.60	
Median footprint area (acres)	10.24	0.91	10.50	
Total footprint area (acres)	1,063.14	272.95	590.31	
Estimated void volume (acre feet)	1,227.65	427.01	1,070.22	
Max. potential storage (million gallons)	400.09	139.16	348.79	

Pocahontas No. 5	Undetermined	Potentially flooded areas unlikely	Potentially partially flooded	Potentially totally flooded
No. of Mines	1	10	15	0
Mean coal bed thickness (feet)				
Min. footprint area (acres)	4.45	0.01	0.31	
Max. footprint area (acres)	4.45	2.66	4,673.27	
Mean footprint area (acres)	4.45	0.51	603.13	
Median footprint area (acres)	4.45	0.05	74.33	
Total footprint area (acres)	4.45	5.06	9,046.96	
Estimated void volume (acre feet)				
Max. potential storage (million gallons)				

**OVERVIEWS OF MINOR SEAMS**

**POCAHONTAS FORMATION**

Squire Jim	Undetermined	Potentially flooded areas unlikely	Potentially partially flooded	Potentially totally flooded
No. of Mines	0	1	4	0
Mean coal bed thickness (feet)				
Min. footprint area (acres)		1.95	0.07	
Max. footprint area (acres)		1.95	102.34	
Mean footprint area (acres)		1.95	40.70	
Median footprint area (acres)		1.95	30.20	
Total footprint area (acres)		1.95	162.81	
Estimated void volume (acre feet)				
Max. potential storage (million gallons)				