

Table 1. Comparison between the 2018 and 2019 DA Permit Applications

PROJECT	2018 DA PERMIT APPLICATION	2019 MODIFIED DA PERMIT APPLICATION
Submittal Date	4-Sep-18	5-Feb-19
SMCRA Permit Acreage	1,747.0 acres	1,629.4 acres
Area Proposed to be Impacted	1,337.3 acres	1,219.0 acres
Avoidance Area	409.7 acres	410.4 acres
Total Wetlands Delineated	743.76 acres	693.70 acres
Total Wetlands to be Impacted	420.18 acres	374.37 acres
PFO to be Impacted	362.14 acres	311.72 acres
PSS to be Impacted	29.41 acres	34.96 acres
PEM to be Impacted	27.33 acres	27.32 acres
PUB to be Impacted	1.30 acres	0.37 acre
Total Wetlands Avoided	323.58 acres	319.33 acres
PFO to be Avoided	251.32 acres	242.25 acres
PSS to be Avoided	54.46 acres	46.98 acres
PEM to be Avoided	11.49 acres	21.07 acres
PUB to be Avoided	6.31 acres	9.03 acres
Total Streams Assessed	70,762 feet	54,915 feet
Total Streams to be Impacted	55,552 feet	38,923 feet
Ephemeral Streams to be Impacted	10,739 feet	16,187 feet
Intermittent Streams to be Impacted	44,600 feet	22,736 feet
Perennial Streams to be Impacted	213 feet	0
Total Streams Avoided	15,210 feet	15,992 feet
Ephemeral Streams to be Avoided	812 feet	489 feet
Intermittent Streams to be Avoided	6,522 feet	7,479 feet
Perennial Streams to be Avoided	7,876 feet	8,024 feet
Total Open Waters Assessed	105.91 acres	105.82 acres
Total Open Waters to be Impacted	104.54 acres	104.45 acres
Total Open Waters Avoided	1.37 acres	1.37 acres
Area Mining	428.7 acres	428.7 acres
Auger/Thin Seam Mining	6.7 acres, not included in total below	6.7 acres, not included in total below
Roadways	802.8 acres	685.2 acres
Undisturbed Acres	409.7 acres	410.4 acres
Floodway Enhancement	223.5 acres	223.5 acres
Disturbed Acres	1,337.3 acres	1,219.0 acres
Direct Employment	109	109
Annual Coal Production	1,400,000 tons/year	1,400,000 tons/year
Total Coal Production	9,500,000 tons	9,500,000 tons
Acres Disturbed/Ton	0.0001408 acres/tons	0.0001283 acres/tons

Table 2. Mining and Reclamation Phases Relevant to the Discharge of Dredged and/or Fill Material to Waters of the United States and Contemporaneous Establishment and Re-Establishment of Streams, Wetlands, and Open Waters								
Seven Hills Mine Phase	Description	Disturbed Acres	Discharge of Dredged and/or Fill Material into Stream (linear feet/acre)	Acres of Wetlands Re-established/Established	Discharge of Dredged and/or Fill Material into Wetlands (acres)	Linear Feet of Streams Re-established/established	Discharge of Dredged and/or Fill Material into Open Water (acres)	Acres of Open Water Re-established
I	Infrastructure Development and Floodway Enhancement	748	12,648/0.78	31	80.18	0	104.54	62.71
II	Construct Temporary Levee Diversions	95	5,171/0.35	0	57.58	0	0	0
III	Mining with Contemporaneous Reclamation	102	2,397/0.11	4.86	54.75	4,663	0	0
IV	Mining with Contemporaneous Reclamation	72	6,315/0.36	51.09	59.4	6,299	0	0
V	Mining with Contemporaneous Reclamation	128	5,718/0.36	51.9	104.16	1,171	0	0
VI	Reclaiming Spoil Disposal Area	74	6,675/0.38	93.4	18.29	5,618	0	33.5
VII	Post-Project Site Reclamation and Re-establishment	0	0	173.11	0	21,172	0	0

Table 3. Comparison of Proposed Discharge of Dredged and/or Fill Material into Waters of the United States and Proposed Compensatory Mitigation				
Impacts	Impact Totals (acres)	Compensatory Mitigation	Wetland (acres) and Stream (linear feet) Compensatory	Riparian/Upland Buffer Provided
Total Wetlands to be Impacted	374.37	Total Wetlands to be Mitigated	1,333.58	91.1
PFO Wetlands to be Impacted	311.72	PFO Wetlands to be Mitigated	1,146.22	91.1
PSS Wetlands to be Impacted	34.96	PSS Wetlands to be Mitigated	138.19	
PEM Wetlands to be Impacted	27.32	PEM Wetlands to be Mitigated	43.69	
PUB Wetlands to be Impacted	0.37	PUB Wetlands to be Mitigated	5.48	
Total Streams to be Impacted	38,923	Total Streams to be Mitigated	49,052	141.6
Ephemeral Streams to be Impacted	16,187	Ephemeral Streams to be Mitigated	16,619	37.2
Intermittent Streams to be Impacted	22,736	Intermittent Streams to be	30,633	104.4
Perennial Streams to be Impacted	0	Perennial Streams to be Mitigated	1,800	

Table 4. Proposed Stream Compensatory Mitigation Sites			
Compensatory Mitigation Site	Stream Length	Flow Regime	Mitigation Type
OFF-SITE			
Enhancement			
Ellison West	1,800	Perennial	Off-Site In-Stream Enhancement
Restoration			
UNT to Little Pigeon Creek	2,265	Intermittent	Off-Site Stream Restoration
UNT to Pokeberry Creek	1,100	Intermittent	Off-Site Stream Restoration
Total Restoration	3,365		
Total Off-Site	5,165		
ON-SITE			
Enhancement			
1NS1	900	Intermittent	On-Site Stream Enhancement
1MS4	400	Intermittent	On-Site Stream Enhancement
Total Enhancement	1,300		
Establishment			
SCR001A	490	Ephemeral	On-Site Stream Establishment
SCR001B	287	Ephemeral	On-Site Stream Establishment
SCR001C	661	Ephemeral	On-Site Stream Establishment
SCR002A	2,578	Ephemeral	On-Site Stream Establishment
SCR003A	1,701	Ephemeral	On-Site Stream Establishment
SCR003B	831	Ephemeral	On-Site Stream Establishment
SCR006A	1,746	Ephemeral	On-Site Stream Establishment
Total Establishment	8,294		
Re-Establishment			
Ephemeral			
SCR002	4,271	Ephemeral	On-Site Stream Re-establishment
SCR002B	735	Ephemeral	On-Site Stream Re-establishment
SCR004A	1,921	Ephemeral	On-Site Stream Re-establishment
SCR004A1	486	Ephemeral	On-Site Stream Re-establishment

Table 4. Proposed Stream Compensatory Mitigation Sites			
Compensatory Mitigation Site	Stream Length	Flow Regime	Mitigation Type
SCR004B	479	Ephemeral	On-Site Stream Re-establishment
Total Ephemeral Re-establishment	7,892		
Intermittent			
SCR001	4,524	Intermittent	On-Site Stream Re-establishment
SCR002	326	Intermittent	On-Site Stream Re-establishment
SCR003	3,905	Intermittent	On-Site Stream Re-establishment
SCR004	2,461	Intermittent	On-Site Stream Re-establishment
SCR005	2,153	Intermittent	On-Site Stream Re-establishment
SCR006	4,621	Intermittent	On-Site Stream Re-establishment
SCR007	4,747	Intermittent	On-Site Stream Re-establishment
Total Intermittent Re-establishment	22,737		
Total Re-establishment	30,629		
Preservation			
Avoidance Area	4,532	Intermittent	On-Site Stream Preservation
Avoidance Area	432	Ephemeral	On-Site Stream Preservation
Total Preservation	4,964		

Table 5. Proposed Wetland Compensatory Mitigation Sites		
Wetland Compensatory Mitigation Site/Tract	Acres	Mitigation Type
ON-SITE		
Establishment		
WR1 - Floodway Enhancement	0.79	On-Site PFO Wetlands Establishment
WR2 - Floodway Enhancement	0.73	On-Site PFO Wetlands Establishment
WR3 - Floodway Enhancement	4.96	On-Site PFO Wetlands Establishment
WR4 - Floodway Enhancement	23.98	On-Site PFO Wetlands Establishment
WR5 - Floodway Enhancement	0.54	On-Site PFO Wetlands Establishment
WR6 – Seven Hills Forested	263.86	On-Site PFO Wetlands Establishment
WR7 – Seven Hills Forested	13.41	On-Site PFO Wetlands Establishment
WR8 – Seven Hills Forested	0.56	On-Site PFO Wetlands Establishment
WR9 – Seven Hills Forested	3.90	On-Site PFO Wetlands Establishment
Total Forested Establishment	312.73	
WR6 – Seven Hills Scrub-Shrub	55.40	On-Site PSS Wetlands Establishment
Total Scrub-Shrub Establishment	55.40	
WR6 – Seven Hills Emergent	37.23	On-Site PEM Wetlands Establishment
Total Emergent Establishment	37.23	
Total On-Site Establishment	405.36	
Preservation		
Avoidance Area	145.47	On-Site PFO Wetlands Preservation
Avoidance Area	33.31	On-Site PSS Wetlands Preservation
Avoidance Area	6.46	On-Site PEM Wetland Preservation
Avoidance Area	5.48	On-Site PUB Wetland Preservation
Total Preservation	190.72	
Total On-Site Mitigation	596.08	
OFF-SITE		
Establishment		
Wild Boar Mine	50.52	Off-Site PFO Wetlands Establishment
Total Forested Establishment	50.52	
Wild Boar Mine	49.48	Off-Site PSS Wetland Establishment
Total Scrub-Shrub Establishment	49.48	
Total Establishment	100	
Restoration		

Table 5. Proposed Wetland Compensatory Mitigation Sites		
Wetland Compensatory Mitigation Site/Tract	Acres	Mitigation Type
Little Pigeon Site 1	30.80	Off-Site PFO Wetlands Restoration
Little Pigeon Site 2	127.50	Off-Site PFO Wetlands Restoration
Pokeberry Site 1	62.80	Off-Site PFO Wetlands Restoration
Pokeberry Site 2	40.60	Off-Site PFO Wetlands Restoration
Pokeberry Site 3	49.80	Off-Site PFO Wetlands Restoration
Pigeon Site 1	37.50	Off-Site PFO Wetlands Restoration
Pigeon Site 2	35.60	Off-Site PFO Wetlands Restoration
Pigeon Site 2	5.90	Off-Site PSS to PFO Wetlands Wetland Rehabilitation
Bluegrass Site 1	108.40	Off-Site PFO Wetlands Restoration
Bluegrass Site 2	47.70	Off-Site PFO Wetlands Restoration
Ellison West	32.20	Off-Site PFO Wetlands Restoration
Ellison West	2.00	Off-Site PSS to PFO Wetland Rehabilitation
Total Restoration	580.8	
Preservation		
Little Pigeon Site 2	0.5	Off-Site PFO Wetlands Preservation
Pokeberry Site 1	3.7	Off-Site PFO Wetlands Preservation
Pokeberry Site 2	0.2	Off-Site PFO Wetlands Preservation
Pokeberry Site 3	2.9	Off-Site PFO Wetlands Preservation
Pigeon Site 1	0.4	Off-Site PFO Wetlands Preservation
Pigeon Site 2	9.7	Off-Site PFO Wetlands Preservation
Ellison West	1.4	Off-Site PFO Wetlands Preservation
Indiana Bat Roost	37.90	Off-Site PFO Wetlands Preservation
Total Preservation	56.7	
Total Off-Site Compensatory Mitigation	737.5	
Total On- and Off-Site Compensatory Mitigation	1,333.58	

Table 6. Protective Real Estate Instruments Provided for Site Protection		
Site	Type	Acres
Seven Hills On-Site Wetland Establishment	Conservation Easement	Approximately 288.00 of wetlands, 13,833 linear feet of ephemeral stream, 19,194 linear feet of intermittent stream, and 139.69 acres of riparian buffer
Seven Hills On-Site Wetland Preservation	Conservation Easement	Approximately 190.72 acres of wetlands, 4,532 linear feet of intermittent stream, 432 linear feet of ephemeral stream, and 54 acres of upland forested buffer
Indiana Bat Off-Site Wetland Preservation	Conservation Easement	40.00
Wild Boar Off-Site Wetlands Establishment	Conservation Easement	100.00
Little Pigeon Site 1	Conservation Easement	35.30
Little Pigeon Site 2	Conservation Easement	125.50
Pokeberry Site 1	Conservation Easement	77.40
Pokeberry Site 2	Conservation Easement	40.20
Pokeberry Site 3	Conservation Easement	57.00
Pigeon Site 1	Conservation Easement	40.00
Pigeon Site 2	Conservation Easement	54.80
Bluegrass Site 1	Restrictive Covenant	64.90
Bluegrass Site 1	Conservation Easement	44.90
Bluegrass Site 2	Conservation Easement	49.50
Ellison West	Conservation Easement	43.70