TABLES

Table 1.1-1

GEOGRAPHIC AREAS

Entity	Area (acres)
Wayne County	**327,778[a]**
USACE East Lynn Lake Project	**24,821[b]**
WVDNR Wildlife Management Area	**22,928[b]**
Proposed lease tracts	**13,089[c]**
Rockspring proposed lease tracts A, B, C, D, E, F - total	**5,450[c]**
Rockspring tract A	1,514[d]
Rockspring tract B	318[d]
Rockspring tract C	1,912[d]
Rockspring tract D	72[d]
Rockspring tract E	1,274[d]
Rockspring tract F	360[d]
Argus proposed lease tract areas A, B, C – total	**7,706.1[c]**
Argus area A	737[d]
Argus area B	5,535.6[d]
Argus area C	1,433.50[d]

Notes: The proposed lease tracts were originally included in land grants in the 1800s. These grants placed the land in private ownership. The lands for the USACE East Lynn Lake Project were acquired from privately owned patented fee lands and have not been open to entry under the general land entry statutes, such as the mining law, since they were patented. Therefore, there are no withdrawals on the lands within the boundary of the proposed lease tracts.

a – Digitized from USGS 1:24,000-scale Digital Raster Graphics (scanned topographic maps) by the West Virginia Department of Environmental Protection. First published January 2002, updated with Census 2000 data and re-published March 2005.

b – USACE 2007g (http://www.lrh.usace.army.mil/projects/lakes/elt/)

c – Reasonably Foreseeable Development Scenario (BLM 2007a). Note that sum of two Applicants' areas totals 13,074 acres, compared to total of 13,089.55 acres presented in the Reasonably Foreseeable Development Scenario.

d – electronic files provided by Argus and Rockspring

Table 1.3-1

Coal Reserves (By Area) East Lynn Reserve Area
Presented in "Condemnation Report" (John T. Boyd 1973)

Area	Seam	Recoverable Reserves					
		Deep		Auger		Strip	
		acres	tons (thousands)	acres	tons (thousands)	acres	tons (thousands)
1	No. 5 Block	996.81	3,901.00	69.08	389.60	168.39	368.70
	Stockton	0.00	0.00	0.00	0.00	0.00	0.00
	Winifrede	1,764.66	7,540.50	6.31	39.60	15.30	37.20
	Subtotal	2,761.47	11,441.50	75.39	429.20	183.69	405.90
1-Sub	No. 5 Block	0.00	0.00	10.86	41.00	26.50	38.90
	Stockton	0.00	0.00	0.00	0.00	0.00	0.00
	Winifrede	439.69	1,794.40	0.00	0.00	0.00	0.00
	Subtotal	439.69	1,794.40	10.86	41.00	26.50	38.90
4	No. 5 Block	268.45	1,099.10	32.13	197.80	78.03	186.80
	Stockton	36.55	106.60	9.45	38.80	22.98	36.80
	Winifrede	615.47	2,547.80	24.24	161.90	59.63	156.50
	Subtotal	920.47	3,753.50	65.82	398.50	160.64	380.10
4-Sub	No. 5 Block	455.65	1,544.00	62.37	303.30	151.63	286.90
	Stockton	0.00	0.00	15.12	53.90	36.72	50.90
	Winifrede	1,326.72	5,929.20	7.30	51.50	18.09	47.40
	Subtotal	1,782.37	7,473.20	84.79	408.70	206.44	385.20
5	No. 5 Block	2,348.11	9,100.80	270.45	1,418.20	656.43	1,339.90
	Stockton	2,588.49	9,718.30	144.37	736.40	350.68	695.20
	Winifrede	4,575.99	16,496.70	155.95	907.10	379.91	858.80
	Subtotal	9,512.59	35,315.80	570.77	3,061.70	1,387.02	2,893.90
6	No. 5 Block	571.84	2,382.80	60.83	375.70	148.20	355.80
	Stockton	0.00	0.00	0.00	0.00	0.00	0.00
	Winifrede	1,098.90	4,868.60	39.37	270.60	96.97	261.70
	Subtotal	1,670.74	7,251.40	100.20	646.30	245.17	617.50
6-Sub	No. 5 Block	69.47	268.60	8.19	36.80	19.89	34.60
	Stockton	0.00	0.00	0.00	0.00	0.00	0.00
	Winifrede	316.83	1,253.50	9.58	62.10	23.26	58.60
	Subtotal	386.30	1,522.10	17.77	98.90	43.15	93.20
7	No. 5 Block	49.06	192.70	17.92	103.30	43.65	97.80
	Stockton	0.00	0.00	1.76	6.20	4.28	5.80
	Winifrede	225.14	932.30	13.99	86.10	34.79	83.30
	Subtotal	274.20	1,125.00	33.67	195.60	82.72	186.90
7-Sub	No. 5 Block	211.05	756.20	24.32	121.90	59.06	115.20
	Stockton	0.00	0.00	0.00	0.00	0.00	0.00
	Winifrede	703.67	2,952.20	7.18	34.50	17.44	33.00
	Subtotal	914.72	3,708.40	31.50	156.40	76.50	148.20
8	No. 5 Block	0.00	0.00	0.00	0.00	0.00	0.00
	Stockton	0.00	0.00	0.00	0.00	0.00	0.00
	Winifrede	9.64	54.10	0.00	0.00	0.00	0.00
	Subtotal	9.64	54.10	0.00	0.00	0.00	0.00
8-Sub	No. 5 Block	330.58	1,892.20	15.75	135.30	38.25	127.70
	Stockton	334.97	1,141.10	13.11	66.20	31.83	62.50
	Winifrede	528.72	2,565.50	2.48	17.90	6.06	16.90
	Subtotal	1,194.27	5,598.80	31.34	219.40	76.14	207.10
Total	No. 5 Block	5,301.02	21,137.40	571.90	3,122.90	1,390.03	2,952.30
	Stockton	2,960.01	10,966.00	183.81	901.50	446.49	851.20
	Winifrede	11,605.43	46,934.80	266.40	1,631.30	651.45	1,553.40
	Total, Mining (by method)	19,866.46	79,038.20	1,022.11	5,655.70	2,487.97	5,356.90
	Total, Area (acres)						23,376.54
	Total, Tons (thousands)						90,050.80

NOTES: Areas 1, 1-Sub, 4, 4-Sub, 6, 6-Sub, 7, 7-Sub, 8, 8-Sub, and all of 5 identified in the Condemnation Report (John T. Boyd Company 1973) lie under the proposed lease tracts

Areas 2, 3, part of 5, 9, 14, 15, 16, 17 identified in the Condemnation Report (John T. Boyd Company 1973) do not lie under the proposed lease tracts

Data source: Map Showing Coal Reserves (By Area) East Lynn Reserve Area, in *Coal Land Values, East Lynn Reservoir Area for Columbia Gas Transmission Corporation* , referred to as the "Condemnation Report" (John T. Boyd Company 1973)

TABLE 3.1-2
Pillar Stress Calculation

Size		Argus U-5028-93 Amend 1		Argus U5028-93	Rocksprings Proposed Lease Area	Argus Proposed Lease Area	RFDS
Overburden Unit weight[1]	pcf	155.00		155.00	155.00	155.00	
Overburden	ft	516		642	500	500	300
Pillar Width (Pw)	ft	50		40.5	35	50	35
Pillar length (Pl)	ft	50		40.5	40	50	40
Entry width (We)	ft	20		19.5	19.5	20	19.5
Original Area	ft^2	4900		3600	3242.75	4900	3242.75
Pillar Area	ft^2	2500		1640.25	1400	2500	1400
Area Mined	ft^2	2400		1959.75	1842.75	2400	1842.75
R =	***%***	***0.490***		***0.544***	***0.568***	***0.490***	***0.568***
Virgin Pillar Stress (Sv)	psi	567.600		706.200	550.000	550.000	330.000
Pillar Stress (Sp) =	***psi***	***1112.50***		***1549.96***	***1273.94***	***1078.00***	***764.36***
Compressive Strength	psi	3500.00		3500.00	3500.00	3500.00	3500.00
diameter of Specimen	in	1.75		1.75	1.75	1.75	1.75
k =		4630.06		4630.06	4630.06	4630.06	4630.06
Pillar Diameter	ft	56.42		45.70	42.22	56.42	42.22
Seam height (H)[2]	ft	6.00		6.00	6.00	6.00	6.00
S1		771.68		771.68	771.68	771.68	771.68
Pillar Strength (S2)		***2058.82***		***2369.05***	***2058.82***	***2058.82***	***1400.00***
SF		**1.85**		**1.53**	**1.62**	**1.91**	**1.83**
Planned SF		1.5		1.5	1.5	1.5	

Extraction Ratio (R) = $\frac{\text{Area Mined}}{\text{Original Area}} = \frac{\text{Original Area - Pillar Area}}{(Pw + We)(Pl + We)} = \frac{(Pw + We)(Pl + We) - (Pl \times PW)}{(Pw + We)(Pl + We)}$

Pillar Stress (Sp) = $Sv^* \frac{\text{orig area}}{\text{pillar area}} = Sv^* \frac{(Pw + We)(Pl + We)}{(Pl \times PW)}$

Sv = 1.1*Overburden depth

K constant = Compressive Strength*SQRT(diameter of specimen) (Argus, U-5028-93)

S1 = k/SQRT d limit size correction to dmax = 36 inches

Safety of Factor (SF) = $\frac{S2}{Sp} = S1^* \frac{(0.64+(.36*(Pw/H))}{SP}$

Notes:

1. The overburden unit weight is based on Argus lease application U-5028-93 Amend 1
2. Seam height is based on average reported in Argus lease application U-5028-93

Information also presented in East Lynn Lake Coal Lease Phase 1 Subsidence Analysis Assessment.

Table 3.2-1
1ELT0032 Kiah Creek of East Fork of Twelvepole Creek of Ohio River
River Mile 2.9

Date	pH	Total Dissolved Solids (mg/L)	Sulfate (mg/L)	Total Iron (mg/L)
4/21/1980	6.5	NA	20	0.56
6/16/1980	6.8	NA	17	2.09
5/1/1981	7.3	58	18	0.871
7/8/1981	5.9	44	7	0.4
7/31/1981	6.5	38	12	0.5
5/5/1982	7.6	100	32	0.4
6/1/1982	6.6	26	<5	3.3
6/29/1982	6.7	<10	33	1.2
7/6/1982	6.2	NA	NA	NA
7/27/1982	6.7	44	10	0.6
8/24/1982	7	<10	6	0.9
9/20/1982	7.5	56	20	0.5
4/25/1983	6.7	58	19	0.5
6/8/1983	8.1	32	6	0.4
8/3/1983	7.1	42	8	1.6
9/7/1983	6.4	56	13	0.7
6/11/1984	5.6	<10	<5	NA
7/12/1984	6.5	60	13	1.4
9/17/1984	6.8	56	NA	2.2
6/11/1985	6.6	NA	NA	0.3
7/22/1985	6.6	NA	NA	0.5
8/9/1985	7.1	66	15	1
9/4/1985	7	52	11	0.7
5/19/1986	7.8	NA	31	NA
6/17/1986	7.3	NA	83	0.3
7/31/1986	7.6	NA	13	0.5
8/25/1986	7.4	NA	10	2.3
9/22/1986	7.1	NA	8	0.6
10/28/1986	7.4	NA	12	0.3
5/5/1987	7.3	NA	13	0.1
6/22/1987	7.3	NA	10	1.6
8/24/1987	7.3	NA	8	0.6
5/3/1988	6.8	46	13	0.116
6/27/1988	7.2	70	28	0.632
8/22/1988	6.8	108	7	1.088
3/15/1989	6.7	<10	19	0.159
4/14/1989	6.5	32	NA	0.134
6/5/1989	7	52	20	0.19
11/21/1989	7.1	32	19.2	NA
4/17/1990	7.8	48	16	NA
6/21/1990	7	74	14	NA
10/18/1990	6.4	NA	NA	NA
1/22/1992	6.8	NA	NA	NA
1/19/1993	7.2	NA	NA	NA
1/27/1994	6.6	47	NA	2.22
2/17/1994	6.6	101	NA	0.572
3/14/1994	6.8	77	NA	0.743
4/13/1994	7.1	101	NA	2.71
5/17/1994	7.2	254	NA	0.319
5/31/1994	7.7	435	NA	0.216
6/15/1994	7.8	428	NA	0.532
6/30/1994	7.5	340	NA	0.567
7/12/1994	7.6	322	NA	0.212
7/25/1994	7.6	438	NA	0.659
8/8/1994	7.7	442	NA	0.318
8/22/1994	7.8	339	161	1.1
9/6/1994	7.6	473	NA	0.488
9/19/1994	7.6	479	NA	0.321
10/4/1994	7.9	473	NA	0.437
10/17/1994	7.8	328	NA	0.476
11/2/1994	7.9	342	NA	0.851
11/17/1994	7.9	351	NA	0.358
11/29/1994	7.3	203	NA	0.955
12/28/1994	7.2	274	NA	0.285

Table 3.2-1
1ELT0032 Kiah Creek of East Fork of Twelvepole Creek of Ohio River
River Mile 2.9

Date	pH	Total Dissolved Solids (mg/L)	Sulfate (mg/L)	Total Iron (mg/L)
1/19/1995	6.9	60	NA	0.462
2/22/1995	7	109	48.5	0.202
3/13/1995	6.9	56	23.8	1.37
9/12/1997	7.6	700	331	0.277
11/21/1997	7.4	714	282	0.25
7/13/1999	7.9	NA	NA	NA
7/13/2000	7.6	396	202.7	0.235
9/1/2000	7.7	NA	NA	NA
9/26/2000	7.5	601	318	0.487
3/13/2001	6.5	75	35.6	0.435
4/10/2001	7.2	258	135	0.22
5/21/2001	7.3	80	28.6	NA
7/24/2001	7.9	813	492	0.079
8/21/2001	7.9	858	536	0.164
9/26/2001	7.8	979	646	0.189
10/22/2001	7.4	1146	723	0.193
11/26/2001	7.6	925	548	0.274
1/9/2002	7.3	857	536	0.186
2/12/2002	7.4	314	179	0.152
3/11/2002	7.3	418	265	0.258
4/8/2002	7.5	489	317	0.233
5/14/2002	7.3	205	114	1.04
6/3/2002	7.8	747	NA	0.25
7/1/2002	7.6	1013	NA	0.136
8/6/2002	7.6	993	632	0.15
9/9/2002	7.4	1446	1070	0.264
10/22/2002	7.6	550	333	0.206
11/18/2002	7.3	110	70.8	0.277
1/8/2003	7	122	57.5	0.161
3/17/2003	7	338	204	0.17
5/20/2003	7.3	111	NA	0.34
9/11/2003	7.5	585	NA	0.223
11/3/2003	7.7	NA	NA	NA
1/25/2006	7.2	81	37.1	0.288
2/16/2006	7.8	NA	NA	NA
3/13/2006	7.7	452	287	0.344
4/17/2006	7.3	351	206	0.833
5/9/2006	7.9	NA	NA	NA
5/15/2006	8	872	508	0.138
6/12/2006	8	741	432	0.444
7/11/2006	7.9	NA	NA	NA
8/24/2006	8	NA	NA	NA

Table 3.2-2
Rockspring Water Quality Data from Big Laurel Creek Station LIN-04
Mouth of Dalton Fork

Date	pH	Total Dissolved Solids (mg/L)	Sulfate (mg/L)	Total Iron (mg/L)
10/9/2000	7.75	87	11	0.22
11/7/2000				
12/20/2000	7.35	68	32	0.25
1/17/2001	8.1	167	33	0.28
2/26/2001	6.59	37	29	0.12
3/20/2001	6.72	44	29	0.15
4/18/2001	6.34	55	30	0.14
5/8/2001				
5/23/2001	6.88	38	16	1.27
6/8/2001				
6/18/2001	7.41	82	31	0.53
7/2/2001				
7/23/2001				
8/7/2001				
8/23/2001				
9/10/2001				
9/20/2001				
10/15/2001				
11/16/2001				
12/12/2001				
12/20/2001	7.24	101	14	0.11
1/12/2002				
1/21/2002	7.44	68	32	0.22
2/13/2002				
2/28/2002	7.19	76	1	0.26
3/13/2002				
3/24/2002	6.9	80	24	0.12

Table 3.2-3
Rockspring Water Quality Data from Big Laurel Creek Station LIN-05
Big Laurel Creek Upstream of Dalton Fork

Date	pH	Total Dissolved Solids (mg/L)	Sulfate (mg/L)	Total Iron (mg/L)
10/9/2000	7.8	110	31	0.32
11/7/2000	7.94	254	10	0.22
12/20/2000	6.83	71	33	0.31
1/17/2001	8.1	121	40	0.21
2/26/2001	6.57	37	33	0.18
3/20/2001	6.51	69	21	0.21
4/18/2001	6.33	46	27	0.24
5/8/2001				
5/23/2001	7.0	36	17	0.38
6/8/2001				
6/18/2001	7.14	85	41	0.26
7/2/2001				
7/23/2001	7.04	153	35	0.15
8/7/2001				
8/23/2001				
9/10/2001				
9/20/2001				
10/15/2001	7.09	182	40	0.22
11/16/2001				
12/12/2001				
12/20/2001	7.19	92	25	0.24
1/12/2002				
1/21/2002	7.8	80	29	0.21
2/13/2002				
2/28/2002	7.39	104	25	0.09
3/13/2002				
3/24/2002	6.54	68	21	0.27

Table 3.2-4
Rockspring Water Quality Data from Big Laurel Creek Station LIN-03
Mouth of Big Laurel Creek

Date	pH	Total Dissolved Solids (mg/L)	Sulfate (mg/L)	Total Iron (mg/L)
10/9/2000	7.58	219	15	0.49
11/7/2000	7.74	256	6	0.28
12/20/2000	6.67	135	27	0.98
1/17/2001	8	169	42	0.18
2/26/2001	6.48	49	29	0.16
3/20/2001	6.59	46	25	0.15
4/18/2001	6.25	68	25	0.13
5/8/2001				
5/23/2001	6.8	48	18	0.30
6/8/2001				
6/18/2001	7.38	141	30	0.14
7/2/2001				
7/23/2001	6.9	176	22	1.21
8/7/2001				
8/23/2001	7.55	224	22	2.56
9/10/2001				
9/20/2001	7.42	357	23	0.82
10/15/2001	7	175	3	0.32
11/16/2001				
12/12/2001				
12/20/2001	7.08	138	25	0.16
1/12/2002				
1/21/2002	7.89	100	26	0.24
2/13/2002				
2/28/2002	7.21	96	25	0.23
3/13/2002				
3/24/2002	6.5	92	20	0.14

Table 3.2-5
BM004 Kiah Creek

Month	pH	Total Dissolved Solids (mg/l)	Sulfate (mg/l)	Total Iron (mg/l)
Apr-95	7.53	121	54.3	0.65
Oct-95	7	551	301	1.22
Apr-96	7.69	205	102	0.44
Oct-96	7.5	158	106	0.28
Apr-97	8.07	357	206	0.31
Oct-97	7.37	1017	553	0.657
Apr-98	7.11	285	170	0.453
Oct-98	7.54	1010		0.506
Apr-99	7.95	473	316	
Oct-99	7.47	788	536	0.791
Apr-00	7.56	210	122	0.34
Oct-00	7.12	1170	756	0.375
Apr-01	7.95	337	192	0.538
Oct-01	7.13	1070	698	0.478
Apr-02	6.9	277	159	0.241
Oct-02	7.46	1250	592	1.02
Apr-03	7.33	326	183	0.942
Oct-03	8.25	722	390	0.381
Apr-04	7.15	349	222	0.239
Oct-04	7.48	723	552	0.39
Apr-05	8.01	336	177	0.246
Oct-05	7.72	97	570	0.383
Apr-06	8.17	298	158	0.278

Table 3.4-1

AREA SOILS DATA

Soil Unit & Symbol	Landscape Position	Parent Material	Texture	Percent Slope	Depth & Drainage	Percent of All Soils in Proposed Lease Area
Beech loam (BeC)	Foot slopes, colluvial fans, coves	Colluvium	Loam to very channery loam	8-15	Very deep & moderately well drained	0.05
Beech loam (BeD)	Foot slopes, colluvial fans, coves	Colluvium	Loam to very channery loam	15-25	Very deep & moderately well drained	0.04
Beech-Urban Land complex (BuC)	Foot slopes, colluvial fans, coves	Colluvium	Loam to very channery loam	3-15	Generally very deep & moderately well drained	0.01
Dekalb-Gilpin complex, very stony (DgF)	Ridgetops & sideslopes	Residuum	Dekalb: very stony sandy loam to very channery sandy loam Gilpin: very stony silt loam to channery silty loam	35-65	Moderately deep & well drained	60.38
Dekalb-Latham complex (DIE)	Ridgetops, benches, & sideslopes	Residuum	Dekalb: very stony sandy loam to very channery sandy loam Latham: silt loam to channery silty clay	25-35	Moderately deep, well drained & moderately well drained	14.32
Dekalb-Pineville-Guyandotte Association, extremely stony (DPG)	Ridgetops, sideslopes, footslopes & coves	Residuum & Colluvium	Dekalb: very stony sandy loam to very channery sandy loam Pineville: Extremely stony loam to Very Channery loam Guyandotte: Extremely channery loam to extremely channery loam	Very steep	Moderately deep and very deep, well drained	0.01
Dormont-Latham complex (DrD)	Ridgetops, benches & sideslopes	Residuum	Dormont: silt loam to channery silty clay Latham: silt loam to very channery silty clay	15-25	Moderately deep and deep, moderately well drained	0.22
Dormont-Latham complex (DrE)	Ridgetops, benches & sideslopes	Residuum	Same	25-35	Moderately deep and deep, moderately well drained	3.63
Grigsby loam (Gw)	Floodplains	Alluvium	Loam to gravelly sandy loam	0-3	Very deep , well drained	1.34

Table 3.4-1

AREA SOILS DATA

Soil Unit & Symbol	Landscape Position	Parent Material	Texture	Percent Slope	Depth & Drainage	Percent of All Soils in Proposed Lease Area
Latham-Gilpin complex (LgC)	Ridgetops, benches, sideslopes	Residuum	Latham: silt loam to channery silty clay Gilpin: very stony silt loam to channery silty loam	8-15	Moderately deep, well drained and moderately well drained	0.77
Latham-Gilpin complex (LgD)	Ridgetops, benches, sideslopes	Residuum	Same	15-25	Moderately deep, well drained and moderately well drained	9.39
Lobdell loam (Lo)	Floodplains	Alluvium	Loam to sandy loam	0-3	Very deep, moderately well drained	0.04
Pineville and Buchanan channery loams (PbE), extremely stony	Lower sideslopes, coves & foot slopes	Colluvium	Pineville: Extremely stony loam to very channery loam Buchanan: extremely stony loam to very channery loam	15-35	Very deep, well drained and moderately well drained	8.31
Udorthents, smoothed (Ud)	Possibly all landscapes	Sediment disturbed by human activity	Not classified	Variable	Shallow to very deep, well drained	1.49

Source: NRCS 2006

Table 3.5-1: LAND COVER CLASSES
State of West Virginia

Cover Type	Mapped Area (ha)	% (of State's area)
Developed Lands	**228,956.00**	**3.6**
Major roads	3,015.40	0
Major powerlines	18,856.40	0.3
Light intensity urban	111,044.50	1.8
Moderate intensity urban	31,365.00	0.5
Intensive urban	19,620.60	0.3
Agricultural Lands	**987,330.50**	**15.7**
Planted grassland	835.8	0
Conifer plantation	14,015.90	0.2
Row crop agriculture	35,372.50	0.6
Pasture/grassland	937,106.30	14.9
Shrubland/Woodland	**131,996.80**	**2.1**
Shrubland	79,610.40	1.3
Woodland	52,386.40	0.8
Forested Lands	**4,820,420.50**	**76.8**
Floodplain forest	41,831.60	0.7
Cove hardwood forest	196,461.00	3.1
Diverse/mesophytic hardwood forest	2,382,945.70	38
Hardwood/conifer forest	250,658.60	4
Oak dominant forest	1,263,191.00	20.1
Mountain hardwood forest	653,079.50	10.4
Mountain hardwood/conifer forest	20,805.70	0.3
Mountain conifer forest	11,447.60	0.2
Barren Lands	**45,054.10**	**0.7**
Barren land - mining, construction	45,054.10	0.7
Water/Wetlands	**106,068.80**	**1.7**
Surface water	85,145.40	1.4
Forested wetland	5,358.30	0.1
Shrub wetland	4,715.40	0.1
Herbaceous wetland	10,849.70	0.2
TOTAL	**6,274,772.60**	**100**

Source: *West Virginia GAP Analysis Project* (Strager 2000).

Table 3.5-2: LAND COVER CLASSES
Vegetation Study Area

Landcover Type	Area Square Meters	Area Square Feet	Area Square Miles	Area Acres	% Cover	% of Land Area
Agricultural Lands						
Pasture/grassland	985,009	10,602,504	0.38	243.4	1.6%	1.7%
Forested Lands						
Cove hardwood forest	115,336	1,241,460	0.04	28.5	0.2%	0.2%
Diverse/mesophytic hardwood forest	45,183,737	486,351,756	17.45	11,165.1	72.1%	78.1%
Hardwood/conifer forest	2,263,011	24,358,752	0.87	559.2	3.6%	3.9%
Mountain hardwood forest	396,671	4,269,717	0.15	98.0	0.6%	0.7%
Oak dominant forest	8,747,720	94,159,296	3.38	2,161.6	14.0%	15.1%
Barren Lands						
Barren land - mining, construction	142,855	1,537,668	0.06	35.3	0.2%	0.2%
Urban Lands						
Intensive Urban	20,639	222,156	0.01	5.1	0.03%	0.04%
Light intenstiy urban	10,522	113,256	0.004	2.6	0.02%	0.02%
Water/Wetlands						
Surface water	4,838,036	52,075,980	1.87	1,195.5	7.7%	
Herbaceous Wetland	405	4,356	>0.001	0.1	>0.001%	>0.001%
TOTAL	**62,703,941**	**674,936,901**	**24.21**	**15,494.4**	**100**	**100**

Notes:

Source: *West Virginia GAP Analysis Project* (Strager 2000).

GIS layer coordinates were shifted 280m North and 70m east from original to match surface water polygons with known coordinates of East Lynn Lake

TABLE 3.13-1
AIR POLLUTANT POINT SOURCE LOCATIONS AND EMISSION RATES
WAYNE COUNTY, WEST VIRGINIA

Approximate Distance From Proposed Lease Area				1999 Emissions by Pollutant [c](TPY)					
(miles)	(km)	Facility Name	Map ID	CO	NOx	VOC	SO_2	$PM_{2.5}$	PM_{10}
4.6	7.4	Argus Preparation Plant	15					3.5	7.3
4.7	7.5	Rockspring Development, Inc.	3					6.9	47.9
7.3	11.7	Mountain Enterprises, Inc.–Kenova	14	19.4	3.0	1.0	0.3	2.9	5.9
11.9	19.2	Wayne Compressor Station	9	14.6	99.6	47.8	0.02	0.02	0.02
15.2	24.5	Mark Plant–Spartan Mining Company	1					0.8	2.1
15.5	24.9	Beech Fork Compressor Station	6	18.9	266.3	14.2	0.04	0.02	0.02
20.2	32.5	Big Sandy River Dock	16					0.7	1.3
20.9	33.7	Wayne County River Terminals(Cyrus)	11					5.8	13.5
22.4	36.0	Docks Creek Terminal	10					7.9	17.5
22.5	36.2	Columbia Gas–Ceredo CS	7	181.6	1890.6	46.5	0.5	30.4	30.4
23.0	37.1	Huntington Va Medical Center	2	3.9	5.1	0.5	0.4	1.4	1.5
23.7	38.1	Aristech Chemical Corporation-Neal Plant	5	61.0	71.1	19.8	253.0	0.4	0.4
24.5	39.4	Ashland Chemical Company	4	414.6	0.3	40.3	6.4	0.5	0.6
24.5	39.5	Columbia Gas–Kenova CS	8	262.1	1050.5	36.5	0.3	18.9	18.9
24.6	39.5	Hunington Sanitary Board	20	58.6	13.9	0.002	9.5	0.1	0.4
24.6	39.6	Markwest Hydrocarbon, Inc.	19	17.0	34.5	17.5	0.1	0.01	0.01
24.6	39.6	American National Rubber Company	12	2.4	2.9	33.9	0.02	0.9	0.9
24.8	39.9	Ceredo Dock	18					1.0	2.3
26.1	42.0	Marathon Ashland Petroleum	13			15.3			
26.2	42.1	Kenova Chemical dba Willert Home Product	17			1.6			
26.3	42.3	Marathon Ashland Petroleum LLC	21			57.1			

Notes:

Locations are shown on figure 3.13-1.

[a] UTM coordinates are in North American Datum 27

[b] Proposed Lease Area Centroid Location (km):

[c] EPA, 1999, Air_Point Pollution Sources_Wayne County, www.epa.gov/air/data

UTM = Universal Transverse Mercator

CO = Carbon Monoxide; NOx = Nitrogen Oxides; VOC = Volatile Organic Compounds; SO2 = Sulfur Dioxide

$PM_{2.5}$ = Particulate matter (PM) with aerodynamic diameters less than or equal to 2.5 microns

PM_{10} = PM with aerodynamic diameters less than or equal to 10 microns

Table 3.14-1
Sound Sample Results

Date	Time	Location	Sample ID	Reading dBA	Percentile (dBA) 1%	10%	50%	90%	95%	99%
March 29, 2007	7:00 AM	CALIBRATION IN VEHICLE 2nd Street, east of Route 37, Wayne, WV - parking lot east of Sunoco gasoline station	STOR1	113.1	N/A	N/A	N/A	N/A	N/A	N/A
March 29, 2007	7:15 AM	2nd Street, east of Route 37, Wayne, WV - parking lot east of Sunoco gasoline station	STOR2	61.1	69.2	64.7	58.0	51.5	51.1	50.6
March 29, 2007	7:45 AM	East Lynn grocery store - northeast corner of parking lot - roosters crowing (approx 80 dB at distance of 15 feet from source) other birds chirping	STOR3	64.7	79.7	67.9	49.6	45.0	44.0	42.3
March 29, 2007	8:00 AM	USACE East Lynn Lake Project Shelter 3 north of dam - parking lot east of pavillion - Route 37 highway noise approximately 5 dB over background	STOR4	47.6	54.7	50.8	45.7	43.2	42.9	42.5
March 29, 2007	9:10 AM	USACE East Lynn Lake Project - unpaved road southeast of lake - airplane passed overhead at approximately 1:25 minutes and 3:00 minutes	STOR5	40.1	48.3	44.5	38.7	36.8	36.5	36.1
March 29, 2007	9:50 AM	Rockspring Development Inc. Ben Haley Branch mine portal guard shack - ventilation fan on surface	STOR6	63.0	66.3	65.0	62.6	60.4	60.0	59.5
March 29, 2007	10:00 AM	CALIBRATION IN VEHICLE Route 37 north of East Lynn, WV	STOR7	94.3	N/A	N/A	N/A	N/A	N/A	N/A

Notes:
dBA = decibels
Sample locations are shown on figure 3.14-1.