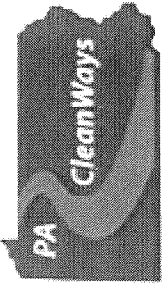


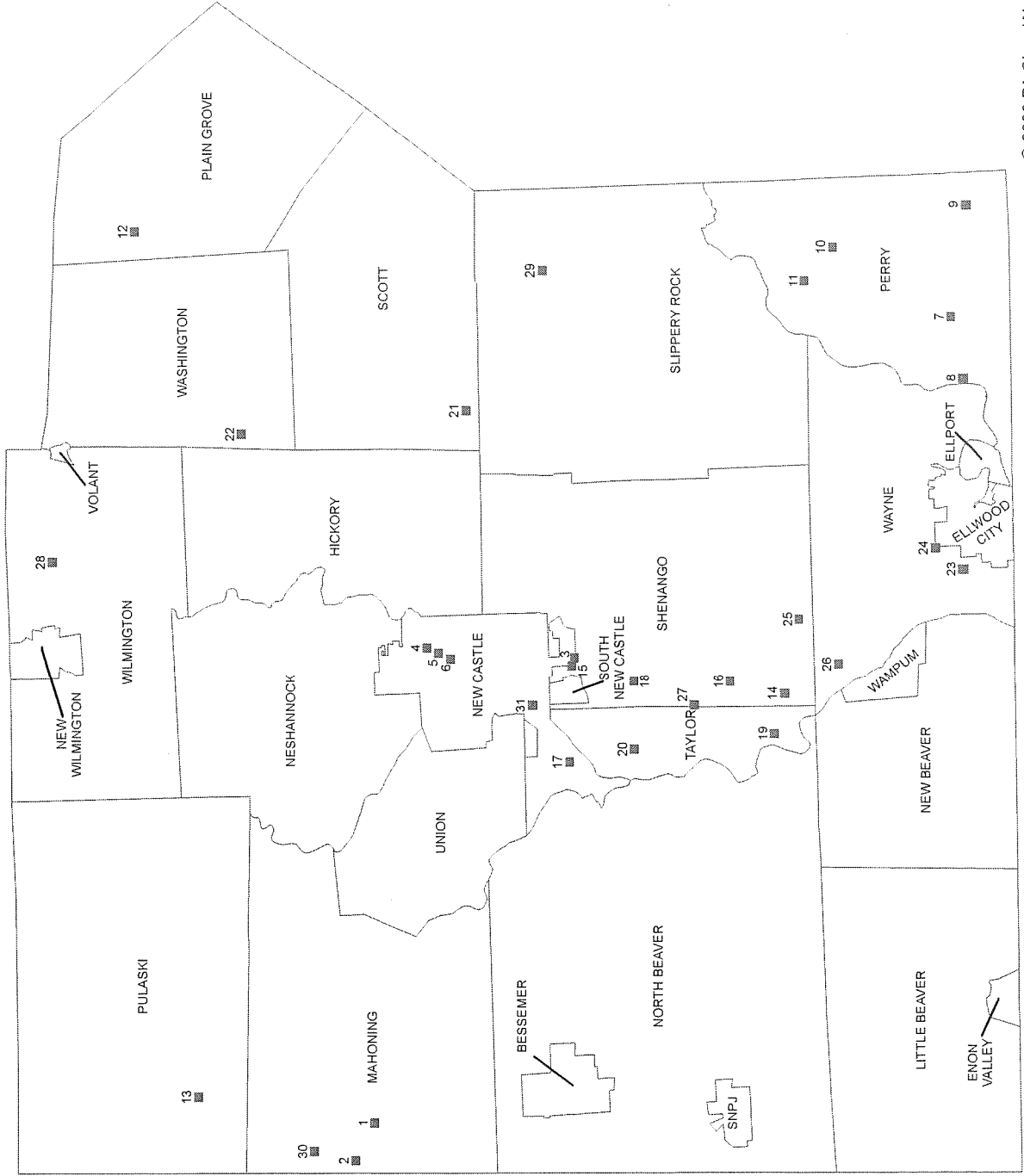
**APPENDIX 1**

**LAWRENCE COUNTY ILLEGAL DUMP SURVEY MAP**



# Lawrence County, Pennsylvania Illegal Dumpsites and Municipalities April 2008

Attachment 1



© 2008 PA CleanWays  
Map Prepared by Andrew Aurand  
UCSUR, University of Pittsburgh

**APPENDIX 2**

**ABANDONED MINE LAND INVENTORY**

**Report Selection Criteria** From the current AMLIS data files.

Priority  
**All Priorities**

Type of Mining  
**All Mining Types**

State/Tribe  
**PENNSYLVANIA**

Problem Types  
**All Problem Types**

Program Area  
**All Program Areas**

Additional Criteria  
**County is Equal to "Beaver" and County is Equal to "BEAVER"**



**Office of Surface Mining - Reclamation and Enforcement**  
 Abandoned Mine Land Inventory System (AMLIS)  
**Problem Type Cost Detail**

State	Priority and Problem Type	Unfunded Cost	Funded Cost	Completed Cost	Total Cost
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**PA - PENNSYLVANIA**

**Priority 1 Dangerous Highwalls (Feet)**

PA006922RUA	CAMP KON-O-KWEE	0	0	64,595	64,595
PA004467RUA	HARPERS FERRY R.	0	0	258,318	258,318
PA006293RUA	CO. SCHOOL EAST	1,529,218	0	0	1,529,218
PA001464RUA	HOYTDALE	1,387,500	0	0	1,387,500
PA001463RUA	GLENKIRK SCHOOL	0	0	286,362	286,362
PA006293SGA	COUNTY SCHOOL EAST	0	0	132,456	132,456
PA006638RUA	FRANKFORT SPRINGS	40,000	0	0	40,000
PA006920RUA	HARPERS FERRY E.	0	0	152,637	152,637

Total for P 1 Dangerous Highwalls 2,956,718 0 894,368 3,851,086

**Priority 1 Subsidence (Acres)**

PA006293RUA	CO. SCHOOL EAST	100,000	0	0	100,000
PA942007EMA	PA - BEAVER - FEA	0	0	1,885	1,885
PA000822EMA	BEECHWOOD AVE & ROMOOR ST	0	0	49,241	49,241
PA942007EMA	PA - BEAVER - FEA	0	0	6,554	6,554
PA942007EMA	PA - BEAVER - FEA	0	0	3,622	3,622
PA942007EMA	PA - BEAVER - FEA	0	0	8,995	8,995
PA942007EMA	PA - BEAVER - FEA	0	0	2,450	2,450
PA942007EMA	PA - BEAVER - FEA	0	0	469,511	469,511
PA942007EMA	PA - BEAVER - FEA	0	0	1,220,592	1,220,592

Total for P 1 Subsidence 100,000 0 1,762,850 1,862,850

**Priority 2 Dangerous Highwalls (Feet)**

PA006927SGA	HEREFORD MANOR LAKE N.	40,000	0	0	40,000
PA006637SGA	CLUTCH RUN EAST	300,000	0	0	300,000
PA006298SGA	NEW GALILEE NORTH	3,125	0	0	3,125
PA006288SGA	DARLINGTON ROAD	338,000	0	0	338,000
PA006281SGA	ISLAND RUN	0	0	703,826	703,826
PA000153SGA	JORDAN RUN	0	344,000	0	344,000
PA006280SGA	BEATTY HILL	0	0	628,326	628,326
PA006279SGA	MISKITA LAKE FAR SOUTHWEST	0	371,250	0	371,250
PA006269SGA	CANNELTON NORTH	122,500	0	0	122,500



# Office of Surface Mining - Reclamation and Enforcement

## Abandoned Mine Land Inventory System (AMLIS)

### Problem Type Cost Detail

State	Priority and Problem Type	Unfunded Cost	Funded Cost	Completed Cost	Total Cost
<b>PA - PENNSYLVANIA</b>					
<b>Priority 2 Dangerous Highwalls (Feet)</b>					
	PA004473SGA ELLWOOD CITY WEST	136,000	0	0	136,000
	PA004460SGA HOMEWOOD SOUTHEAST	4,500	0	0	4,500
	PA001240SGA SHERWOOD DRIVE	0	0	960,933	960,933
	PA004459SGA MORADO EAST	67,750	0	0	67,750
	PA001820SGA DARLINGTON LAKE N.W.	0	1,178,000	0	1,178,000
	PA001641SGA PEGGS RUN	30,750	0	0	30,750
	<b>Total for P 2 Dangerous Highwalls</b>	<b>1,042,625</b>	<b>1,893,250</b>	<b>2,293,085</b>	<b>5,228,960</b>
<b>Priority 2 Hazardous Equipment &amp; Facilities (Count)</b>					
	PA001263SGA DARLINGTON LAKE	0	0	3,800	3,800
	PA001259SGA FALLSTON	0	10,000	0	10,000
	<b>Total for P 2 Hazardous Equipment &amp; Facilities</b>	<b>0</b>	<b>10,000</b>	<b>3,800</b>	<b>13,800</b>
<b>Priority 2 Hazardous Water Body (Count)</b>					
	PA000153SGA JORDAN RUN	0	13,000	0	13,000
	<b>Total for P 2 Hazardous Water Body</b>	<b>0</b>	<b>13,000</b>	<b>0</b>	<b>13,000</b>
<b>Priority 2 Portals (Count)</b>					
	PA000158SGA BOLOGNE VALLEY	0	0	7,602	7,602
	PA000585SGA HODGE OPENING	0	0	4,000	4,000
	PA001259SGA FALLSTON	0	30,000	0	30,000
	PA001263SGA DARLINGTON LAKE	0	0	3,748	3,748
	<b>Total for P 2 Portals</b>	<b>0</b>	<b>30,000</b>	<b>15,350</b>	<b>45,350</b>
<b>Priority 2 Vertical Opening (Count)</b>					
	PA001237SGA CANNELTON	10,000	0	0	10,000
	<b>Total for P 2 Vertical Opening</b>	<b>10,000</b>	<b>0</b>	<b>0</b>	<b>10,000</b>
<b>Priority 3 Gobs (Acres)</b>					
	PA000158SGA BOLOGNE VALLEY	86,400	0	0	86,400
	<b>Total for P 3 Gobs</b>	<b>86,400</b>	<b>0</b>	<b>0</b>	<b>86,400</b>
<b>Priority 3 Highwall (Feet)</b>					
	PA006280ENH BEATTY HILL	0	0	0	0
	<b>Total for P 3 Highwall</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Priority 3 Mine Opening (Count)</b>					
	PA000158SGA BOLOGNE VALLEY	10,000	0	0	10,000
	<b>Total for P 3 Mine Opening</b>	<b>10,000</b>	<b>0</b>	<b>0</b>	<b>10,000</b>
<b>Priority 3 Spoil Area (Acres)</b>					
	PA006293SGA COUNTY SCHOOL EAST	0	0	1	1
	PA006281SGA ISLAND RUN	0	0	1	1
	PA006280SGA BEATTY HILL	0	0	1	1
	PA006280ENH BEATTY HILL	0	0	0	0
	<b>Total for P 3 Spoil Area</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>3</b>
<b>Priority 3 Water Problems (Gal/Min)</b>					
	PA001263SGA DARLINGTON LAKE	50,000	0	0	50,000
	PA000585SGA HODGE OPENING	0	200,000	0	200,000
	PA000158SGA BOLOGNE VALLEY	50,000	0	1	50,001
	<b>Total for P 3 Water Problems</b>	<b>100,000</b>	<b>200,000</b>	<b>1</b>	<b>300,001</b>



# Office of Surface Mining - Reclamation and Enforcement

Abandoned Mine Land Inventory System (AMLIS)

## Problem Type Cost Detail

State	Priority and Problem Type	Unfunded Cost	Funded Cost	Completed Cost	Total Cost
<b>PA - PENNSYLVANIA</b>					
Total for	<b>PENNSYLVANIA</b>	4,305,743	2,146,250	4,969,457	11,421,450

**Report Selection Criteria** From the current AMLIS data files.

Priority <b>All Priorities</b>	Type of Mining <b>All Mining Types</b>	State/Tribe <b>PENNSYLVANIA</b>
Problem Types <b>All Problem Types</b>	Program Area <b>All Program Areas</b>	

Additional Criteria  
**County is Equal to "Lawrence" and County is Equal to "LAWRENCE"**



**Office of Surface Mining - Reclamation and Enforcement**  
 Abandoned Mine Land Inventory System (AMLIS)  
**Problem Type Cost Detail**

State	Priority and Problem Type	Unfunded Cost	Funded Cost	Completed Cost	Total Cost
<b>PA - PENNSYLVANIA</b>					
<b>Priority 1 Clogged Stream Lands (Acres)</b>					
	PA000003CLA MITCHELL ROAD	0	0	0	0
	<b>Total for P 1 Clogged Stream Lands</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Priority 1 Dangerous Highwalls (Feet)</b>					
	PA000003RUA MITCHELL ROAD	0	0	136,724	136,724
	PA006297SGA NEW GALILEE FAR NORTH	22,688	0	0	22,688
	PA004478RUA EDINBURG ROAD	400,000	0	0	400,000
	<b>Total for P 1 Dangerous Highwalls</b>	<b>422,688</b>	<b>0</b>	<b>136,724</b>	<b>559,412</b>
<b>Priority 1 Dangerous Piles &amp; Embankments (Acres)</b>					
	PA000182RUA HOPE ROAD	0	0	134,985	134,985
	<b>Total for P 1 Dangerous Piles &amp; Embankments</b>	<b>0</b>	<b>0</b>	<b>134,985</b>	<b>134,985</b>
<b>Priority 1 Hazardous Water Body (Count)</b>					
	PA000951SGA HILLSVILLE	0	48,700	0	48,700
	<b>Total for P 1 Hazardous Water Body</b>	<b>0</b>	<b>48,700</b>	<b>0</b>	<b>48,700</b>
<b>Priority 1 Subsidence (Acres)</b>					
	PA002856EMA NESHANNOCK II (SHENANGO RD)	0	0	9,074	9,074
	PA002856EMA NESHANNOCK II (SHENANGO RD)	0	0	1,950	1,950
	PA002856EMA NESHANNOCK II (SHENANGO RD)	0	0	1,950	1,950
	PA002856EMA NESHANNOCK II (SHENANGO RD)	0	0	8,355	8,355
	PA002856EMA NESHANNOCK II (SHENANGO RD)	0	0	3,038	3,038
	PA002856EMA NESHANNOCK II (SHENANGO RD)	0	0	2,855	2,855
	PA002856EMA NESHANNOCK II (SHENANGO RD)	0	0	1,975	1,975
	PA002856EMA NESHANNOCK II (SHENANGO RD)	0	0	13,250	13,250
	PA002856EMA NESHANNOCK II (SHENANGO RD)	0	0	1,985	1,985
	PA942073EMA PA - LAWRENCE - FEA	0	0	1,976	1,976
	PA942073EMA PA - LAWRENCE - FEA	0	0	5,284	5,284
	PA942073EMA PA - LAWRENCE - FEA	0	0	1,705	1,705
	PA942073EMA PA - LAWRENCE - FEA	0	0	2,381	2,381
	PA942073EMA PA - LAWRENCE - FEA	0	0	5,976	5,976



# Office of Surface Mining - Reclamation and Enforcement

## Abandoned Mine Land Inventory System (AMLIS)

### Problem Type Cost Detail

State	Priority and Problem Type	Unfunded Cost	Funded Cost	Completed Cost	Total Cost
<b>PA - PENNSYLVANIA</b>					
<b>Priority 1 Subsidence (Acres)</b>					
Total for P 1	Subsidence	0	0	61,754	61,754
<b>Priority 1 Vertical Opening (Count)</b>					
PA942073EMA	PA - LAWRENCE - FEA	0	0	1,795	1,795
PA942073EMA	PA - LAWRENCE - FEA	0	0	1,560	1,560
PA942073EMA	PA - LAWRENCE - FEA	0	0	1,999	1,999
PA942073EMA	PA - LAWRENCE - FEA	0	0	1,950	1,950
Total for P 1	Vertical Opening	0	0	7,304	7,304
<b>Priority 2 Clogged Streams (Miles)</b>					
PA002854RUA	BOYD SCHOOL ROAD	20,000	0	0	20,000
PA006238SGA	NORTH EDINBURG NORTH	0	0	5,000	5,000
Total for P 2	Clogged Streams	20,000	0	5,000	25,000
<b>Priority 2 Dangerous Highwalls (Feet)</b>					
PA006238SGA	NORTH EDINBURG NORTH	0	0	66,033	66,033
PA006246RUA	BEIGHT ROAD WEST	2,200,000	0	0	2,200,000
PA006251RUA	DERRINGER CORNERS NORTHWEST	720,000	0	0	720,000
PA004481SGA	DUCKRUN EAST	128,875	91,125	0	220,000
PA004476SGA	CHEWTON SOUTHEAST	24,000	0	0	24,000
PA006254RMA	HONEY CREEK WEST	0	0	522,500	522,500
PA004489RUA	MARTIN ROAD	360,000	0	0	360,000
PA006245RUA	PEANUT SOUTHWEST	111,000	0	0	111,000
PA000185RUA	FRIDAYS HILL ROAD	108,000	0	0	108,000
PA002911SGA	MOORES CORNERS NORTH #1	0	0	24,258	24,258
PA004485SGA	UNION VALLEY EAST	16,000	0	0	16,000
PA000185SGA	FRIDAYS HILL ROAD	0	0	64,008	64,008
PA006843SGA	GRANT CITY	31,500	0	0	31,500
PA006915SGA	PLEASANT HILL EAST	56,000	0	0	56,000
PA000141SGA	GLENKIRK SCHOOL SW.	0	0	426,445	426,445
PA001201RUA	MARSHALL RUN	190,000	0	0	190,000
PA001201SGA	MARSHALL RUN	0	0	595,904	595,904
PA001231SGA	BEAVERDAM RUN EAST	0	44,324	0	44,324
PA002854SGA	CASTLEWOOD WEST	31,500	0	0	31,500
PA002854RUA	BOYD SCHOOL ROAD	400,000	0	0	400,000
PA004489SGA	MARTIN ROAD	1,210,000	0	0	1,210,000
Total for P 2	Dangerous Highwalls	5,586,875	135,449	1,699,148	7,421,472
<b>Priority 2 Dangerous Impoundments (Count)</b>					
PA006251RUA	DERRINGER CORNERS NORTHWEST	120,000	0	0	120,000
Total for P 2	Dangerous Impoundments	120,000	0	0	120,000
<b>Priority 2 Dangerous Piles &amp; Embankments (Acres)</b>					
PA006235RUA	NO.5 SCHOOL	150,000	0	0	150,000
PA006843RUA	GRANT CITY	50,000	0	0	50,000
PA006255RUA	MOUNT AIR	175,000	0	0	175,000
PA006263RUA	WILLOW GROVE	45,000	0	0	45,000
PA006840RUA	PRINCETON	75,000	0	0	75,000
PA000141RUA	COUNTY LINE	155,000	0	0	155,000
PA000005SGA	BEECH WOODS	1,030,000	0	0	1,030,000
PA001231SGA	BEAVERDAM RUN EAST	0	44,322	0	44,322



# Office of Surface Mining - Reclamation and Enforcement

Abandoned Mine Land Inventory System (AMLIS)

## Problem Type Cost Detail

State	Priority and Problem Type	Unfunded Cost	Funded Cost	Completed Cost	Total Cost
<b>PA - PENNSYLVANIA</b>					
<b>Priority 2 Dangerous Piles &amp; Embankments (Acres)</b>					
	PA006057RUA HONEY CREEK	125,000	0	0	125,000
	PA004483RUA PRINCETON ROAD	75,000	0	0	75,000
	PA001494RUA GAME LANDS #151	325,000	0	0	325,000
	PA004475RUA WAMPUM RUN	55,000	0	0	55,000
	PA001502RUA CAMP RUN	104,068	0	0	104,068
	PA001231RUA BEAVERDAM RUN EAST	375,000	0	191,050	566,050
	PA000951SGA HILLSVILLE	0	2,051,300	0	2,051,300
	PA006234RUA FRIZZLEBURG	400,000	0	0	400,000
	PA000305RUA HARLANSBURG ROAD	350,000	0	0	350,000
	<b>Total for P 2 Dangerous Piles &amp; Embankments</b>	<b>3,489,068</b>	<b>2,095,622</b>	<b>191,050</b>	<b>5,775,740</b>
<b>Priority 2 Hazardous Water Body (Count)</b>					
	PA000305RUA HARLANSBURG ROAD	0	0	147,025	147,025
	PA000005SGA BEECH WOODS	720,000	0	0	720,000
	PA001201SGA MARSHALL RUN	0	0	25,960	25,960
	<b>Total for P 2 Hazardous Water Body</b>	<b>720,000</b>	<b>0</b>	<b>172,985</b>	<b>892,985</b>
<b>Priority 2 Portals (Count)</b>					
	PA000183SGA PAPERMILL BRIDGE	0	0	191,436	191,436
	<b>Total for P 2 Portals</b>	<b>0</b>	<b>0</b>	<b>191,436</b>	<b>191,436</b>
<b>Priority 2 Subsidence (Acres)</b>					
	PA001493RUA MITCHELL ROAD	0	0	8,921	8,921
	PA002856SGA NESHANNOCK II	0	0	2,305,908	2,305,908
	<b>Total for P 2 Subsidence</b>	<b>0</b>	<b>0</b>	<b>2,314,829</b>	<b>2,314,829</b>
<b>Priority 2 Vertical Opening (Count)</b>					
	PA004474SGA ELLWOOD CITY NORTHWEST	5,000	0	0	5,000
	<b>Total for P 2 Vertical Opening</b>	<b>5,000</b>	<b>0</b>	<b>0</b>	<b>5,000</b>
<b>Priority 3 Highwall (Feet)</b>					
	PA002911SGA MOORES CORNERS NORTH #1	212,500	0	0	212,500
	PA004489SGA MARTIN ROAD	0	0	0	0
	<b>Total for P 3 Highwall</b>	<b>212,500</b>	<b>0</b>	<b>0</b>	<b>212,500</b>
<b>Priority 3 Other ( )</b>					
	PA942073EMA PA - LAWRENCE - FEA	0	0	22,076	22,076
	<b>Total for P 3 Other</b>	<b>0</b>	<b>0</b>	<b>22,076</b>	<b>22,076</b>
<b>Priority 3 Pits (Acres)</b>					
	PA002911SGA MOORES CORNERS NORTH #1	1,500	0	0	1,500
	<b>Total for P 3 Pits</b>	<b>1,500</b>	<b>0</b>	<b>0</b>	<b>1,500</b>
<b>Priority 3 Spoil Area (Acres)</b>					
	PA000141SGA GLENKIRK SCHOOL SW.	0	0	2	2
	PA002911SGA MOORES CORNERS NORTH #1	13,500	0	1	13,501
	PA004481SGA DUCKRUN EAST	0	0	0	0
	PA004489SGA MARTIN ROAD	0	0	0	0
	PA001231SGA BEAVERDAM RUN EAST	0	0	45,022	45,022
	<b>Total for P 3 Spoil Area</b>	<b>13,500</b>	<b>0</b>	<b>45,025</b>	<b>58,525</b>



# Office of Surface Mining - Reclamation and Enforcement

Abandoned Mine Land Inventory System (AMLIS)

## Problem Type Cost Detail

State	Priority and Problem Type	Unfunded Cost	Funded Cost	Completed Cost	Total Cost
<b>PA - PENNSYLVANIA</b>					
Total for	<b>PENNSYLVANIA</b>	10,591,131	2,279,771	4,982,316	17,853,218

**APPENDIX 3**

**SPECIES OF SPECIAL CONCERN, PNDI LIST**

### Species of Special Concern Within Five Miles of Study Area

SCIENTIFIC NAME	COMMON NAME	GROUP
<i>Thryomanes bewickii altus</i>	Appalachian Bewick's wren	BIRD
<i>Lanius ludovicianus migrans</i>	migrant loggerhead shrike	BIRD
<i>Phoxinus erythrogaster</i>	southern redbelly dace	FISH
<i>Ictiobus bubalus</i>	smallmouth buffalo	FISH
<i>Myotis sodalis</i>	Indiana or social myotis	MAMMAL
<i>Myotis septentrionalis</i>	northern myotis	MAMMAL
<i>Tachopteryx thoreyi</i>	gray petaltail	DRAGONFLY
<i>Cyclonaias tuberculata</i>	purple wartyback	MUSSEL
<i>Epioblasma triquetra</i>	snuffbox	MUSSEL
<i>Fusconaia subrotunda</i>	long-solid	MUSSEL
<i>Obovaria subrotunda</i>	round hickorynut	MUSSEL
<i>Plethobasus cyphus</i>	sheepnose mussel	MUSSEL
<i>Pleurobema clava</i>	clubshell	MUSSEL
<i>Pleurobema sintoxia</i>	round pigtoe	MUSSEL
<i>Quadrula cylindrica</i>	rabbitsfoot	MUSSEL
<i>Quadrula pustulosa</i>	pimpleback	MUSSEL
<i>Toxolasma parvum</i>	lilliput	MUSSEL
<i>Tritogonia verrucosa</i>	pistolgrip mussel	MUSSEL
<i>Villosa fabalis</i>	rayed bean mussel	MUSSEL
<i>Villosa iris</i>	rainbow mussel	MUSSEL
Bat Hibernaculum	winter bat colony	FEATURE
<i>Iodanthus pinnatifidus</i>	purple rocket	PLANT
<i>Myriophyllum sibiricum</i>	northern water-milfoil	PLANT
<i>Meehania cordata</i>	heartleaf meehania	PLANT
<i>Salix caroliniana</i>	Carolina willow	PLANT
<i>Lemna turionifera</i>	a duckweed	PLANT
<i>Trillium nivale</i>	snow trillium	PLANT
<i>Botaurus lentiginosus</i>	American bittern	BIRD
<i>Pandion haliaetus</i>	osprey	BIRD
<i>Protonotaria citrea</i>	prothonotary warbler	BIRD
<i>Lepisosteus osseus</i>	longnose gar	FISH
<i>Alosa chrysochloris</i>	skipjack herring	FISH
<i>Moxostoma carinatum</i>	river redhorse	FISH
<i>Ameiurus melas</i>	black bullhead	FISH
<i>Lepomis megalotis</i>	longear sunfish	FISH

<i>Cryptotis parva</i>	least shrew	MAMMAL
<i>Speyeria idalia</i>	regal fritillary	BUTTERFLY
<i>Argia tibialis</i>	blue-tipped dancer	DRAGONFLY
<i>Anodontoides ferussacianus</i>	cylindrical papershell	MUSSEL
<i>Cyprogenia stegaria</i>	fanshell	MUSSEL
<i>Ellipsaria lineolata</i>	butterfly mussel	MUSSEL
<i>Elliptio crassidens</i>	elephant ear	MUSSEL
<i>Fusconaia flava</i>	wabash pigtoe	MUSSEL
<i>Lampsilis abrupta</i>	pink mucket	MUSSEL
<i>Leptodea fragilis</i>	fragile papershell	MUSSEL
<i>Obliquaria reflexa</i>	threehorn wartyback	MUSSEL
<i>Obovaria olivaria</i>	hickorynut	MUSSEL
<i>Obovaria retusa</i>	ring pink	MUSSEL
<i>Plethobasus cooperianus</i>	orange-foot pimpleback	MUSSEL
<i>Pleurobema cordatum</i>	Ohio pigtoe	MUSSEL
<i>Pleurobema rubrum</i>	pyramid pigtoe	MUSSEL
<i>Potamilus alatus</i>	pink heelsplitter	MUSSEL
<i>Quadrula metanevra</i>	monkeyface	MUSSEL
<i>Truncilla truncata</i>	deertoe	MUSSEL
<i>Erigenia bulbosa</i>	harbinger-of-spring	PLANT
<i>Calycanthus floridus var. laevigatus</i>	sweet-shrub	PLANT
<i>Cuscuta polygonorum</i>	smartweed dodder	PLANT
<i>Phyllanthus caroliniensis</i>	carolina leaf-flower	PLANT
<i>Astragalus canadensis</i>	Canadian milkvetch	PLANT
<i>Lathyrus palustris</i>	vetchling	PLANT
<i>Swertia caroliniensis</i>	American columbo	PLANT
<i>Scutellaria saxatilis</i>	rock skullcap	PLANT
<i>Amelanchier sanguinea</i>	roundleaf serviceberry	PLANT
<i>Parnassia glauca</i>	Carolina grass-of-parnassus	PLANT
<i>Physalis virginiana</i>	Virginia ground-cherry	PLANT
<i>Sagittaria subulata</i>	subulate arrowhead	PLANT
<i>Carex alata</i>	broad-winged sedge	PLANT
<i>Carex sterilis</i>	sterile sedge	PLANT
<i>Juncus torreyi</i>	Torrey's rush	PLANT
<i>Erythronium albidum</i>	white trout-lily	PLANT
<i>Aplectrum hyemale</i>	puttyroot	PLANT
<i>Cypripedium candidum</i>	small white lady's-slipper	PLANT
<i>Cypripedium calceolus var. parviflorum</i>	small yellow lady's-slipper	PLANT
<i>Spiranthes romanzoffiana</i>	hooded ladies'-tresses	PLANT
<i>Hierochloa hirta ssp. arctica</i>	common northern sweet grass	PLANT
<i>Potamogeton illinoensis</i>	Illinois pondweed	PLANT

<i>Equisetum x ferrissii</i>	scouring-rush	PLANT
<i>Vittaria appalachiana</i>	Appalachian gametophyte fern	PLANT
Data provided by the Pennsylvania Natural Heritage Program, April, 2005		

## **APPENDIX 4**

### **HISTORIC MARKERS, LANDMARKS, and ARCHAEOLOGICAL SITES**

### Historic Landmarks and Archaeological Sites of the Beaver Corridor

Historic Name	Partial Address	County	Municipality	Status	Stat Date
Beaver Historic District	Between 5th, Beaver & Buffalo Sts.	Beaver	Beaver Borough	Listed	1996
Fort McIntosh Site	No Data Available	Beaver	Beaver Borough	Listed	1975
Quay, Matthew S., House	205 College Ave.	Beaver	Beaver Borough	NHL	1975
Carnegie Free Library of Beaver Falls	1301 7th Ave.	Beaver	Beaver Falls City	Listed	1985
Bridge Water Historic District	Cherry & Elm Sts., Otter Ln.	Beaver	Bridgewater Borough	Listed	1996
Dunlap, William B., Mansion	1298 Market St.	Beaver	Bridgewater Borough	Listed	1980
Merrick Art Gallery	5th Ave. & 11th St.	Beaver	New Brighton Borough	Listed	1983
Clow, James Beach, House	Chapel Dr.	Beaver	North Sewickley Township	Listed	1989
McClelland Homestead	McClelland Rd.	Lawrence	North Beaver Township	Listed	1989
NHL: National Historic Landmarks					
Listed: National Register Listed					

## Pennsylvania Historic Markers

**Marker Name:**

Beaver County

**County:**

Beaver

**Date Dedicated:**

1982/7/5

**Marker Type:**

City

**Location:**

County Courthouse, at park on 3rd St., Beaver

**Category:**

Government & Politics, Government & Politics 19th Century

**Marker Text:**

**Formed March 12, 1800 from Washington and Allegheny counties. The county seat, Beaver, was laid out 1792-93. County's waterways have spurred its industrial growth. At Shippingport was the world's first full-scale atomic power station devoted to civilian needs.**

**Marker Name:**

Fort McIntosh

**County:**

Beaver

**Date Dedicated:**

1946/10/31

**Marker Type:**

Roadside

**Location:**

Pa. 68 (3rd St.) at Insurance St., Beaver

**Category:**

Military, American Revolution, Forts

**Marker Text:**

**The first U.S. military post north of the Ohio. Located on River Road and occupying the area between Bank, Insurance, and Market Streets. Built in 1778 and scene of Treaty of Fort McIntosh in 1785; also a survey base. Abandoned 1790-91.**

**Marker Name:**

Ingram-Richardson Manufacturing Co.

**County:**

Beaver

**Date Dedicated:**

2001/5/4

**Marker Type:**

Roadside

**Location:**

Ing-Rich Road 24th Street Extension and 31st Street Extension, Beaver Falls

**Category:**

Business & Industry

**Marker Text:**

**During 64 years, "Ing-Rich" became one of the leading producers of porcelain enamel products in the U.S. Noted for durability, the company's output included outdoor advertising signs and "porcel panels" for building exteriors; it also made table tops, refrigerators & stove parts, and other products for the home. Founded here in 1901 by Louis Ingram & Ernest Richardson, it built plants in three other states. At its peak it employed over 1000 people.**

**Marker Name:**

King Beaver's Town

**County:**

Beaver

**Date Dedicated:**

1946/9/25

**Marker Type:**

Roadside

**Location:**

Pa. 68 (3rd St.) at Wilson Ave., Beaver

**Category:**

Government & Politics, Government & Politics 18th Century

**Marker Text:**

**Present Beaver perpetuates the name of a Delaware chief and of his village near here. Its location along the Ohio-Beaver River trails gave it importance in the fur trade.**

**Marker Name:**

Matthew S. Quay

**County:**

Beaver

**Date Dedicated:**

1949/7/22

**Marker Type:**

Roadside

**Location:**

Pa. 68 (3rd St.) at Insurance St., Beaver

**Category:**

Government & Politics, Government & Politics 19th Century

**Marker Text:**

**Home of the noted state and national political leader is near here. He rose , between 1856-87, from local and state offices to U.S. Senator. A Republican Party leader from 1887 until his death in 1904.**

**Marker Name:**

White Cottage

**County:**

Beaver

**Date Dedicated:**

1969/5/27

**Marker Type:**

City

**Location:**

1221 3rd Ave., New Brighton

**Category:**

Women, Writers

**Marker Text:**

**Home of Grace Greenwood (Sara J. Clarke Lippincott, 1823-1904), pioneer woman correspondent, poetess and authoress. While living here during the mid-19th Century, she wrote many of her popular juvenile stories.**

**APPENDIX 5**  
**LAND USE INVENTORY**

# Watershed Protection Inventory

## Beaver River Watershed

### Background Information

Municipality: \_\_\_\_\_

Name(s): \_\_\_\_\_

\_\_\_\_\_

Department(s): \_\_\_\_\_

\_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

Email: \_\_\_\_\_

Municipal Population: \_\_\_\_\_

Municipal Area (square miles): \_\_\_\_\_

**It should be noted that there may be a difference between the actual municipal ordinances/regulations and the policies that are in effect. The inventory questions refer to ordinances (what is “on the books”) rather than to policies (“the way things are done” – which may change over time). If there are policies that are regularly followed, please discuss these in the Notes section at the end of the survey.**

This inventory was customized for the Beaver River watershed communities from a sample version found in *The Do-It-Yourself Watershed Planning Kit*, produced by The Center for Watershed Protection based in Ellicott City, Maryland.

**Please answer the following questions:**

1. If your municipality has a *zoning ordinance*, has it been submitted to the county planning department?

Yes

No (please submit a copy to the county planning department)

2. If your municipality has a *subdivision and land development ordinance*, has it been submitted to the county planning department?

Yes

No (please submit a copy to the county planning department)

3. If your municipality has a *stormwater management ordinance*, has it been submitted to the county planning department?

Yes

No (please submit a copy to the county planning department)

4. If your municipality has a *floodplain management ordinance*, has it been submitted to the county planning department?

Yes

No (please submit a copy to the county planning department)

5. If your municipality has a *grading, excavation, and fill ordinance*, has it been submitted to the county planning department?

Yes

No (please submit a copy to the county planning department)

*Frank Mancini  
Beaver County Planning Commission  
Beaver County Courthouse  
812 Third St.  
Beaver, PA 15009*

*OR*

*Frank Gingras  
Lawrence County Planning Commission  
Lawrence County Government Center  
430 Court Street  
New Castle, PA 16101*

**Section 1. Watershed Planning**

*Importance: Regulatory measures and/or planning techniques that are both innovative and appropriate can be designed to maintain or limit future impervious cover, redirect development where beneficial, and protect sensitive areas.*

1.01 Does your community have a comprehensive plan?

- Yes Latest update \_\_\_\_\_
- No
- Don't know

1.02 Is the comprehensive plan based on political jurisdictions or watersheds?

- Political jurisdictions
- Watersheds
- Other, please explain \_\_\_\_\_
- Don't know
- Not applicable

1.03 Does your community participate in multi-municipal planning for:

- Water
- Wastewater treatment
- Sewer line maintenance
- Road corridors
- Transfer of development rights
- Other \_\_\_\_\_

1.04 Is your community currently operating under a joint zoning ordinance with other communities?

- Yes – if so, which communities? \_\_\_\_\_
- No
- Don't know

1.05 Is your zoning tied to the comprehensive plan?

- Yes
- No
- Don't know
- Not applicable

1.06 How often do you typically update your comprehensive plan?

- Every 5 years
- Every 10 years
- We don't
- Other, please explain \_\_\_\_\_
- Not applicable

1.07 Does your plan evaluate and take into account impacts of future land use on water resources? If yes, in what ways?

- Yes; \_\_\_\_\_
- No
- Don't know
- Not applicable

1.08 Does your plan identify and address the most important water resource goals for your community?

- Yes
- No
- Don't know
- Not applicable

If yes, list the most important water resource goals.

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Section Comments: \_\_\_\_\_

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**Section 2. Open Space Conservation**

*Importance: The preservation of open space provides the opportunity to insure rainwater and snowmelt infiltration, thus minimizing flood potential and maximizing the recharge of the water table. With proper management, riparian areas can function beneficially. Open space also preserves natural habitat niches and presents numerous recreational and educational opportunities.*

2.01 Does your community permit conservation easements (*voluntary agreement to legal transfer of development and land use rights to a piece of property to a conservation trust; easements may be temporary or permanent*)?

- Yes
- No

2.02 Does your community encourage conservation easements?

- Yes; How? \_\_\_\_\_
- No

2.03 Does your community permit land acquisition programs?

- Yes
- No

2.04 Does your community encourage land acquisition programs?

- Yes; How? \_\_\_\_\_
- No

2.05 Does your community permit transfer of development rights (TDRs) (*transfer of potential development from a designated "sending area" to a designated "receiving area"*)?

- Yes
- No

2.06 Does your community encourage transfer of development rights?

- Yes; How? \_\_\_\_\_
- No

2.07 Does your community limit infrastructure extension (*a conscious decision is made to limit or deny extending infrastructure, such as public sewer, water, or roads, to designated areas to avoid increased development in these areas*)

- Yes
- No

2.08 Does your community permit infill / community redevelopment (*new development and redevelopment within existing developed areas*)?

- Yes
- No

2.09 Does your community encourage infill / community redevelopment?

- Yes; How? \_\_\_\_\_
- No

2.10 Does your community utilize zoning overlay to promote community redevelopment?

- Yes
- No

2.11 Does your community permit zoning variances for existing buildings that may not fully comply with existing codes or other types of flexibility to promote community redevelopment?

- Yes
- No

2.12 Does your community encourage zoning variances for existing buildings that may not fully comply with existing codes or other types of flexibility to promote community redevelopment?

- Yes; How? \_\_\_\_\_
- No

2.13 Does your community require developers to identify key environmental features *before* any engineering is done or site plans are designed?

- Yes
- No

Beaver River Watershed Protection Inventory  
Section 2. Open Space Conservation

Section Comments: \_\_\_\_\_

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**Section 3. Land Conservation**

*Importance: The ways in which land is used have a direct relationship to the quality and quantity of surface water and ground water. Therefore, the focus of municipal planning and ordinances can improve or impair the watershed. Programs or efforts to conserve undeveloped, sensitive areas, or areas of particular historical or cultural value are some methods that can offer improvement.*

3.01 Does your community participate in the National Flood Insurance Program (NFIP)?

- Yes
- No
- Don't know

3.02 Are your floodplains mapped?

- Yes
- No
- Don't know

3.03 Other than what is required by state and federal laws, is the preservation of cultural or historical areas (e.g., historic or archaeological sites, scenic views, and recreational areas):

- Required
  - Encouraged
  - Neither
  - Don't know
  - Other, please describe: \_\_\_\_\_
- 

3.04 Is the preservation of agricultural areas:

- Required
  - Encouraged
  - Neither
  - Don't know
  - Other, please describe: \_\_\_\_\_
- 

3.05 Are you aware of any critical habitat areas for plant and animal species in your community?

- Yes
- No
- Don't know
- Not applicable

Beaver River Watershed Protection Inventory  
Section 3. Land Conservation

3.06 Other than what is required by state and federal laws, is the preservation of critical habitat areas for plant and animal species:

Required

Encouraged

Neither

Don't know

Other, please describe: \_\_\_\_\_

---

3.07 Does your community have regulations or requirements, other than what is required by state and federal laws, governing the preservation of wetlands during development?

Yes

No

Don't know

Other, please describe \_\_\_\_\_

3.08 Are there development restrictions pertaining to steep slopes?

Yes

No

Don't know

3.09 Are there development restrictions pertaining to sliding soils or mining?

Yes

No

3.10 Do you require developers to provide soil maps when submitting plans?

Yes

No

3.11 Does your municipality have information related to mining discharge or seepage?

Yes

No

3.12 Does your municipality have a copy of the county soil maps?

Yes

No

Don't know

3.13 Is the conservation of forested areas:

- |  |                                     |
|--|-------------------------------------|
| <input type="checkbox"/> Required                      | <input type="checkbox"/> Encouraged |
| <input type="checkbox"/> Neither                       | <input type="checkbox"/> Don't know |
| <input type="checkbox"/> Other, please describe: _____ |                                     |
- 

3.14 Does your municipality have an ordinance on:

- | Timbering?                          | Clear cutting?                      | Preservation of specimen trees?     |
|-------------------------------------|-------------------------------------|-------------------------------------|
| <input type="checkbox"/> Yes        | <input type="checkbox"/> Yes        | <input type="checkbox"/> Yes        |
| <input type="checkbox"/> No         | <input type="checkbox"/> No         | <input type="checkbox"/> No         |
| <input type="checkbox"/> Don't know | <input type="checkbox"/> Don't know | <input type="checkbox"/> Don't know |

3.15 Are there development restrictions pertaining to stream channel modification?

- Yes  
 No  
 Don't know

3.16 What information does your municipality have in a Geographic Information System (GIS)?

- Steep slopes  
 All soils  
 Sliding soils  
 Mining activity  
 Mine discharge or seepage  
 Vegetation types  
 Natural amenities  
 Environmentally sensitive areas  
 Don't have GIS

3.17 If you have GIS information, are your maps available to elected officials at public meetings?

- Yes  
 No

3.18 If you have GIS information, are your maps available to members of the planning commissions, zoning hearing boards, Environmental Advisory Council's, etc. at public meetings?

- Yes  
 No  
 Don't know

Beaver River Watershed Protection Inventory  
Section 3. Land Conservation

3.19 Is staff required to attend regional or state workshops to expand their skills or knowledge of relevant subjects? Elected officials &/or board members?

- Yes
- No

- Yes
- No

3.20 Is staff attendance at regional or state workshops to expand their skills or knowledge of relevant subjects facilitated by your municipality? Elected officials &/or board members?

- Yes
- No

- Yes
- No

3.21 Does your municipality have specific expectations or requirements for its elected officials or members of its boards, which are outlined in writing, regarding:

- Prior education in specific areas
- Mandatory ongoing training in specific areas
- Optional ongoing training in specific areas
- Time spent in preparation for meetings
- Limits of authority or ability to recommend

Section 3 Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Section 4. Aquatic Buffers**

*Importance: In natural settings, the land and vegetation adjacent to bodies of water function to slow the velocity of surface runoff, reduce erosion, filter pollutants, and absorb excess water. Consequently, the protection, restoration, creation, or reforestation of stream, wetland, and urban lake buffers offers significant improvement to problems of water quality or quantity.*

4.01 Are stream buffers required in your community?

- Yes
- No
- Don't know

4.02 What are your stream buffer width requirements?

---

4.03 Are wetland buffers required in your community?

- Yes
- No
- Don't know

4.04 What are your wetland buffer width requirements?

---

4.05 Are there reforestation, restoration, or riparian cover requirements or programs for buffers?

- Yes
- No
- Don't know
- Not applicable

4.06 Are native plant species encouraged for reforestation, restoration, or riparian cover requirements or programs for buffers?

- Yes
- No
- Don't know
- Not applicable

Section 4 Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Section 5. Better Site Design**

*Importance: Maximizing open space, natural terrain, and natural features preserves the ability of the land to function normally, thus assisting in flood prevention and increasing ground water supply. Local ordinances and codes that incorporate techniques to reduce impervious cover and/or redirect runoff onto pervious surfaces in the design of new development and redevelopment projects encourage this strategy.*

Street Width

5.01 What are the minimum / maximum pavement widths allowed for streets in low-density residential developments that have less than 500 average daily trips (ADT)?

Minimum: \_\_\_\_\_

Maximum: \_\_\_\_\_

5.02 In higher density development are parking lanes allowed to also serve as traffic lanes (i.e., queuing streets)?

Yes

No

Right-of-Way (ROW) Width

5.03 What are the minimum / maximum right-of-way (ROW) widths for a residential street?

Minimum: \_\_\_\_\_

Maximum: \_\_\_\_\_

5.04 Does the code allow utilities to be placed under the paved section of the ROW?

Yes

No

Not specified in codes

Cul-de-Sacs

5.05 What are the minimum / maximum *radii* allowed for cul-de-sacs on *public* roads?

Minimum: \_\_\_\_\_

Maximum: \_\_\_\_\_

5.06 What are the minimum / maximum *radii* allowed for cul-de-sacs on *private* roads?

Minimum: \_\_\_\_\_

Maximum: \_\_\_\_\_

5.07 Can a landscaped island be created within the cul-de-sac?

Yes

No

Not specified in codes

5.08 Are alternative turn-arounds such as "hammerheads" allowed on short streets in low-density residential developments?

Yes

No

Not specified in codes

#### Vegetated Open Channels

5.09 Does your municipality allow vegetated open channels or bioswales?

Yes

No

Not specified in codes

5.10 Are curb and gutters required for most residential street sections?

Yes

No

#### Parking Ratios

5.11 What are the minimum / maximum parking ratios for a professional office building (per 1000 ft<sup>2</sup> of gross floor area)?

Minimum: \_\_\_\_\_

Maximum: \_\_\_\_\_

5.12 What are the minimum / maximum required parking ratios for shopping centers (per 1,000 ft<sup>2</sup> gross floor area)?

Minimum: \_\_\_\_\_

Maximum: \_\_\_\_\_

5.13 What are the minimum / maximum required parking ratio for single-family homes (per home)?

Minimum: \_\_\_\_\_

Maximum: \_\_\_\_\_

Parking Codes

5.14 Is the use of shared parking arrangements permitted or encouraged?

Yes

If yes, please indicate how \_\_\_\_\_

No

Not specified in codes

5.15 Is a model for shared parking agreements provided to prospective developments?

Yes

No

Not applicable

5.16 Are parking ratios reduced if shared parking arrangements are in place?

Yes

No

Not specified in codes

Not applicable

Parking Lots

5.17 What are the minimum / maximum stall widths for a standard parking space?

Minimum: \_\_\_\_\_

Maximum: \_\_\_\_\_

5.18 What are the minimum / maximum stall length for a standard parking space?

Minimum: \_\_\_\_\_

Maximum: \_\_\_\_\_

5.19 Is a percentage of the spaces at commercial parking lots required to have smaller dimensions for compact cars?

Yes, please specify percentage \_\_\_\_\_

No

5.20 Are there ordinances regarding trees, plantings, etc.?

- Yes
- No

5.21 Can pervious materials be used for parking areas?

- Yes
  - Grass pavers
  - Concrete lug system with gravel
  - Plastic matting with gravel
  - Permanent, pervious asphalt-based surface
  - Other: \_\_\_\_\_
- No

5.22 Are pervious surfaces encouraged for use in entry and exit lanes?

- Yes
- No

Parking Lot Runoff

5.23 Is a minimum percentage of a parking lot required to be landscaped?

- Yes, please specify percentage \_\_\_\_\_
- No

5.24 Is parking lot runoff considered to be hazardous waste, which is trapped or controlled?

- Yes
- No

5.25 Is parking lot runoff considered to be an important contribution to recharging the water table?

- Yes
- No

Open Space Design

5.26 Are open space or cluster development, for single family homes – aside from PRDs designs allowed in the community?

- Yes
- No
- Not specified in codes

Beaver River Watershed Protection Inventory  
Section 5. Better Site Design

5.27 Are conservation developments, which cluster homes in a central location while leaving large areas in their natural state, encouraged in the community?

Yes

If yes, please indicate how \_\_\_\_\_

No

Not specified in codes

5.28 Are developers encouraged to design for the existing conditions?

Yes

If yes, please indicate how \_\_\_\_\_

No

Not specified in codes

5.29 Are the submittal or review requirements for open space design greater than those for conventional development?

Yes

No

Not applicable

5.30 Are flexible site design criteria available for developers that utilize open space or cluster design options (e.g., setbacks, road widths, lot sizes)? Minimum lot size? \_\_\_\_\_

Yes

No

Not specified in codes

Not applicable

Setbacks and Frontages

5.31 Are irregular lot shapes (e.g., pie-shaped, flag lots) allowed in the community?

Yes

No

Not specified in codes

5.32 What is the minimum requirement for front setbacks for the following residential lot sizes?

1/4 acre residential lot

20 feet or less

21 feet to 30 feet

31 to 40 feet

Greater than 40 ft

1/2 acre residential lot

20 feet or less

21 feet to 30 feet

31 to 40 feet

Greater than 40 ft

1 acre residential lot

20 feet or less

21 feet to 30 feet

31 to 40 feet

Greater than 40 ft

5.33 What is the minimum requirement for rear setbacks for the following residential lot sizes?

1/4 acre residential lot

- 25 feet or less
- 26 feet to 40 feet
- Greater than 40 ft

1/2 acre residential lot

- 25 feet or less
- 26 feet to 40 feet
- Greater than 40 ft

1 acre residential lot

- 25 feet or less
- 26 feet to 40 feet
- Greater than 40 ft

5.34 What is the minimum requirement for side setbacks for the following residential lot sizes?

1/4 acre residential lot

- 8 feet or less
- Greater than 8 feet

1/2 acre residential lot

- 8 feet or less
- Greater than 8 feet

1 acre residential lot

- 8 feet or less
- Greater than 8 feet

5.35 What is the minimum frontage distance for the following residential lot sizes?

1/4 acre residential lot

- 80 feet or less
- Greater than 80 feet

1/2 acre residential lot

- 80 feet or less
- Greater than 80 feet

1 acre residential lot

- 80 feet or less
- Greater than 80 feet

Zoning designations

5.36 Please list the zoning designations in your community that fall within the watershed, their definitions, and percentages of the total land use.

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
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_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Sidewalks

5.37 Are sidewalks prohibited?

- Yes; Where? \_\_\_\_\_(skip to #5.43)
- No

5.38 Are sidewalks required?

- Yes; Where? \_\_\_\_\_
- No

5.39 If so, are sidewalks always required on both sides of residential streets?

- Yes
- No

5.40 What are the minimum / maximum sidewalk widths allowed in the community?

Minimum: \_\_\_\_\_

Maximum: \_\_\_\_\_

5.41 Can alternate pedestrian networks be substituted for sidewalks (e.g., trails through common areas)?

- Yes
- No
- Not specified in codes
- Not applicable

#### Driveways

5.42 What are the minimum / maximum one-lane driveway widths specified in the community?

Minimum: \_\_\_\_\_

Maximum: \_\_\_\_\_

5.43 Can pervious materials be used for single-family home driveways (e.g., grass, gravel, porous pavers, etc)?

- Yes
- No
- Not specified in codes

5.44 Can a "two-track" design be used at single-family driveways (a driveway with two strips of paving corresponding to wheel tracks with a vegetated area in between)?

- Yes
- No
- Not specified in codes

5.45 Are shared driveways permitted in residential developments?

- Yes
- No
- Not specified in codes

Open Space Management

Skip to question 5.50 if open space, cluster, or conservation developments are not allowed in your community. If open space developments are allowed, please attach any pertinent information.

5.46 Are open space areas within subdivisions required to be consolidated into larger units?

- Yes
- No
- Not specified in codes

5.47 Does a minimum percentage of open space in a residential subdivision have to be managed in a natural condition?

- Yes
- No
- Not specified in codes

5.48 Are allowable and unallowable uses for open space in residential developments defined?

- Yes
- No

Rooftop Runoff

5.49 Can rooftop runoff be discharged to yard areas?

- Yes
- No
- Not specified in codes

Section 5 Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Section 6. Erosion and Sediment Control**

*Importance: Topsoil is a valuable resource on land. In the water, soil, sand, clay, and other materials can smother habitats and food supplies, reduce sunlight, and abrade sensitive tissues of fish and other organisms. It also contributes to the scour of streambanks, eroding them and causing the land above to fall. The use of erosion control, sediment control, and dewatering practices at all new development and redevelopment sites can reduce these problems.*

6.01 During construction, is erosion and sediment control required for:

- All sites
- Sites greater than 1 acre
- Sites greater than 2 acres
- Sites greater than 5 acres
- No sites
- Don't know

6.02 Does your community provide guidance or set forth requirements on the types of erosion and sediment control practices that may be used?

- Yes, we refer the development community to a state document
- Yes, we have developed our own guidance and/or requirements
- No
- Don't know
- Not applicable

6.03 Check all erosion and sediment control practices that your community has required to be implemented in the past three years:

- |  |   |
|--|---|
| <input type="checkbox"/> Silt fence  | <input type="checkbox"/> Straw bales                        |
| <input type="checkbox"/> Permanent seeding/ mulching                                   | <input type="checkbox"/> Construction phasing               |
| <input type="checkbox"/> Construction sequencing                                       | <input type="checkbox"/> Erosion blankets and geotextiles   |
| <input type="checkbox"/> Dust control  | <input type="checkbox"/> Fiber rolls                        |
| <input type="checkbox"/> Preservation and non-disturbance of natural vegetation        | <input type="checkbox"/> Temporary stream crossings         |
| <input type="checkbox"/> Preservation and non-disturbance of stream or wetland buffers | <input type="checkbox"/> Stabilized construction entrance   |
| <input type="checkbox"/> Temporary seeding/ mulching                                   | <input type="checkbox"/> Exit tire wash                     |
|  | <input type="checkbox"/> Energy dissipation at pipe outlets |
|  | <input type="checkbox"/> Stair-step grading                 |

Beaver River Watershed Protection Inventory  
Section 6. Erosion & Sediment Control

- |   |  |
|---|--|
| <input type="checkbox"/> Check dams in natural or man-made channels | <input type="checkbox"/> Secondary filtration (mechanical or sand filtration devices to filter fine sediments from runoff) |
| <input type="checkbox"/> Sand / gravel bag barrier                  | <input type="checkbox"/> Dikes / berms as conveyance to ESC structures   |
| <input type="checkbox"/> Brush or rock filter                       | <input type="checkbox"/> Pipe slope drains to bypass erodible soils  |
| <input type="checkbox"/> Storm drain inlet protection               | <input type="checkbox"/> Stockpile stabilization   |
| <input type="checkbox"/> Catch basin inlet filters                  |  |
| <input type="checkbox"/> Sedimentation basins                       |  |
| <input type="checkbox"/> Sediment traps                             |  |
| <input type="checkbox"/> Filtration of dewatering                   |  |

6.04 Is an erosion and sediment control plan required during the site plan review process?

- Yes
- No
- Don't know
- Not applicable

6.05 Are construction sites inspected for compliance with erosion and sediment control requirements?

- Yes
- No
- Don't know
- Not applicable

6.06 Who conducts inspections of construction sites for compliance with erosion and sediment control requirements?

- County / municipal inspector
- Third-party inspector (e.g. private engineer)
- Other, please describe \_\_\_\_\_
- Not applicable

6.07 How frequently does an erosion and sediment control inspector visit a construction site?

- Daily
- Weekly
- Monthly
- Annually
- Other, please describe \_\_\_\_\_
- Not applicable

Beaver River Watershed Protection Inventory  
Section 6. Erosion & Sediment Control

6.08 Please describe the training or background required for erosion and sediment control inspectors.

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6.09 Does your community sponsor erosion and sediment control training for:

- Developers
- Contractors
- Engineers
- Inspectors
- None of the above
- Not applicable

6.10 Are there erosion and sediment control enforcement mechanisms (e.g. fines, stop work orders, etc.)?

- Yes
- No
- Don't know
- Not applicable

6.11 Is mowing to the edge of streambanks on public lands prohibited?

- Yes
- No

6.12 Is mowing to the edge of streambanks on private lands discouraged?

- Yes
- No

6.13 Are native plants being used at the edges of streambanks on public lands?

- Yes
- No

6.14 Is the use of native plants at the edges of streambanks encouraged on private lands?

- Yes
- No



**Section 7. Stormwater Management Practices**

*Importance: Conventional engineering practices have been centered primarily upon removing water as quickly as possible from a site. The incorporation of structural practices into new development, redevelopment, or the existing landscape helps to mitigate the impacts of urbanization and stormwater runoff on receiving waters. This allows the normal water cycle to occur, providing protection against both floods and drought.*

7.01 Does your community require stormwater practices on new development sites?

- Yes
- No
- Don't know

7.02 What type of exemptions do you have for these requirements?

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7.03 If yes, what are the design criteria for stormwater practices?

- Control peak discharge rate (flood control)  
Design storm(s): \_\_\_\_\_
  - Treat stormwater runoff for water quality  
Design storm(s): \_\_\_\_\_
  - Control / reduce total volume of runoff (by means of infiltration practices, etc.)  
Design storm(s): \_\_\_\_\_
  - Protect downstream channels  
Design storm(s): \_\_\_\_\_
  - Other: \_\_\_\_\_
- 
- 
- Not applicable

7.04 Does your community provide guidance or set forth requirements on the types of stormwater practices that may be constructed?

- Yes, we refer the development community to a state document
- Yes, we have developed our own guidance and/or requirements
- No
- Don't know
- Not applicable

Beaver River Watershed Protection Inventory  
Section 7. Stormwater Management Practices

7.05 What are the top three stormwater practices typically installed in your community?

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7.06 Is a stormwater plan or other documentation required during the site plan review process?

- Yes
- No
- Don't know
- Not applicable

7.07 Does your community inspect stormwater practices during construction?

- Yes
- No
- Don't know
- Not applicable

7.08 Is an as-built or record drawing of the stormwater practice required after construction?

- Yes
- No
- Don't know
- Not applicable

7.09 Who is typically responsible for maintenance of stormwater practices over the life of the stormwater practice?

- Private owner
- Builder
- Homeowner's association
- Permitting agency
- Other, please explain \_\_\_\_\_
- Don't know
- Not applicable

Beaver River Watershed Protection Inventory  
Section 7. Stormwater Management Practices

7.10 Is there a maintenance agreement or covenant between the permitting agency and the private owner, builder, or homeowner's association in charge of maintenance?

- Yes
- No
- Don't know
- Not applicable

7.11 Are privately maintained stormwater practices inspected by a public agency for maintenance upkeep or structural integrity over the life of the facility?

- Yes
- No
- Don't know
- Not applicable

7.12 How frequently are privately owned stormwater practices inspected?

- More than once a year
- Once a year
- Every two years
- In response to complaints
- Never
- Other, please describe \_\_\_\_\_
- Don't know
- Not applicable

7.13 Are there penalties for not complying with the maintenance agreement or other applicable regulations applying to maintenance?

- Yes
- No
- Don't know
- Not applicable

If yes, please describe penalties.

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**Section 8. Non-Stormwater Discharges**

*Importance: Industrial effluents, sanitary waste water, fertilizers, petroleum products and salt on road surfaces, are just a few of the point and non-point sources of water pollution. Locating, quantifying, and controlling non-stormwater pollutant sources in the watershed are the first steps toward water quality improvement. Identifying operation and maintenance practices that prevent or reduce pollutants entering the municipal or natural drainage system is the second.*

Sanitary and Stormwater Sewer System

8.01 The best description of my community's stormwater management system is:

- Storm sewers
- Open channels
- Combination, please provide relative percentage of each
- Other, please describe \_\_\_\_\_
- Don't know

8.02 How does your community manage sanitary wastes (check all that apply)?

- Septic systems
- Aeration systems
- Package treatment plants
- Centralized wastewater treatment plants
- Other, please describe
- Don't know

8.03 Do the sanitary sewer trunk mains follow (check all that apply):

- Shortest distance
- Stream valley
- Other, please describe \_\_\_\_\_
- Don't know
- Not applicable

8.04 Is there a program for illicit connection detection?

- Yes
- No
- Don't know
- Not applicable

Beaver River Watershed Protection Inventory  
Section 8. Non-Stormwater Discharges

8.05 Does your illicit connection detection program include provisions for removal of illicit discharges?

- Yes
- No
- Don't know
- Not applicable

8.06 Within the Beaver River watershed, does your community have any involvement responding to septic system complaints?

- Yes
- No
- Don't know
- Not applicable

If yes, please explain.

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8.07 Does your community conduct inspections of privately owned septic systems?

- Yes
- No
- Don't know
- Not applicable

Spill Response, Prevention and Cleanup

8.08 Does your community have a spill response plan?

- Yes
- No
- Don't know

Snow Management

8.09 What deicing compounds are applied to *asphalt* public roads?

- Sand
- Road salt (Sodium Chloride, NaCl)
- Calcium Chloride (CaCl<sub>2</sub>)
- Magnesium Chloride (MgCl<sub>2</sub>)
- Other, please describe \_\_\_\_\_

8.10 What deicing compounds are applied to *cinder* public roads?

- Sand
- Road salt (Sodium Chloride, NaCl)
- Calcium Chloride (CaCl<sub>2</sub>)
- Magnesium Chloride (MgCl<sub>2</sub>)
- Other, please describe \_\_\_\_\_

8.11 How are the deicing compounds stored?

- Within structure
- Covered, but not in structure
- Not covered
- Other, please explain \_\_\_\_\_

Household Hazardous Waste

8.12 Is there a local household hazardous waste collection program?

- Yes Where? \_\_\_\_\_ How often? \_\_\_\_\_
- Don't know

Section 8 Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Section 9. Watershed Stewardship Programs**

*Importance: Education and the understanding of any problem promotes a change in attitude, which in turn promotes a change in behavior. Stormwater and watershed education or outreach programs targeted towards modifying human behavior to prevent or reduce pollution over a range of land uses and activities will decrease the amount of municipal effort necessary to implement new regulations.*

9.1 Does your community administer or support watershed education or outreach programs targeted towards:

- Residents
- Commercial sector
- Industrial sector
- Municipal employees
- Other, please describe \_\_\_\_\_
- None of the above

9.2 Are there any stream stewardship or volunteer monitoring programs within your community?

- Yes (please identify) \_\_\_\_\_
- No
- Don't know

9.3 Are there any stream restoration programs or projects within your community?

- Yes
- No
- Don't know

If yes, please provide a copy of relevant information.

Pet Waste Management

9.4 Does your community have any restrictions on pet waste management?

- Yes
- No
- Don't know

If yes, please describe regulations or restrictions or attach any pertinent information.

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Beaver River Watershed Protection Inventory  
Section 9. Watershed Stewardship Programs

Street Sweeping

9.05 Does your community sweep public streets?

- Yes
- No
- Don't know

9.06 How often does street sweeping occur?

- Weekly
- Monthly
- Annually
- Other, please explain \_\_\_\_\_
- Not applicable

9.07 Does street sweeping vary seasonally (e.g., streets are not swept in winter)?

- Yes, please explain \_\_\_\_\_
- No
- Don't know
- Not applicable

Lawn Care

9.08 Are fertilizers used on public lands?

- Yes; What types? \_\_\_\_\_
- No
- Don't know

9.09 Are pesticides (insecticides, herbicides) used on public lands?

- Yes; What types? \_\_\_\_\_
- No
- Don't know



