

Shaw Environmental & Infrastructure, Inc.

3 Executive Campus
Cherry Hill, NJ 08002
856-482-4807
FAX: 856-482-3039



Shaw Environmental & Infrastructure, Inc.

March 31, 2003

Ms. Sharon Mills
Project Officer
Pennsylvania Department of Environmental Protection
Southeast Regional Office
Lee Park, Suite 6010
Conshohocken, PA 17110

RE: Submittal of HRS Scoring Materials
Bo-Rit Asbestos Site

Dear Ms. Mills:

Please find enclosed the Hazard Ranking System (HRS) scoring sheets and results for the above-referenced site. The enclosed materials are print-outs from the USEPA software program PA-Score 2.1, which was the tool used to assemble the site information and calculate the HRS score. PA-Score program was approved for use in 1995. The following items are enclosed:

- the summary table from the PA-Score program showing the total site score and the scores for each of the exposure pathway components;
- the "PA Scoresheets" report from the PA-Score program showing the data entry details; and
- a 3.5-inch diskette containing the PA-Score program and data files for the Bo-Rit site.

Please note copies of the enclosed are also being sent to Mr. George Horvat.

As shown in the enclosed summary table, the total site score calculated for the Site was 82. For comparison purposes, a HRS score of 28.5 is generally used by USEPA to screen sites for further evaluation as possible candidates for the National Priorities List (NPL).

Shaw E & I appreciates the opportunity to be of service to the Pennsylvania DEP at the Bo-Rit Asbestos Site. If you would like to discuss the enclosed in more detail, or if we can be of additional service, please call me at 856 482-4807.

Respectfully,

A handwritten signature in cursive script, appearing to read "Mark Tucker".

Mark Tucker
Project Manager

Enclosures

cc: George Horvat – PADEP
IT Project File 841831

PA-Score Version 2.1

Pathway	Likelihood of Release	Targets	Waste Characteristics	Pathway Score
Ground Water	550	98	100	59
Surface Water	550	57	100	100
Drinking Water	550	300	100	38
Human Food Chain	550	300	100	100
Environmental	550	300	100	60
Soil Exposure	550	90	100	61
Resident		1		60
Nearby				1
Air	550	5192	100	100

PA-SCORE

PA SCORESHEETS

Site Name: Bo-Rit Asbestos Site
CERCLIS ID No.: 1003006437
Street Address: 6 Maple Street
City/State/Zip: Ambler , PA 19002

Investigator: Mark Tucker
Agency/Organization: Shaw E & I
Street Address: 3 Executive Campus
City/State: Cherry Hill, NJ

Date: 3/28/03

WASTE CHARACTERISTICS

Waste Characteristics (WC) Calculations:

1 Waste Pile	Pile	Ref: 4	WQ value	maximum
Volume	1.50E+05 cu yds		6.00E+04	6.00E+04
Area	3.00E+00 acres		1.03E+04	

** Only First WC Page Is Printed **

Waste Characteristics Score: WC = 100

Ground Water Pathway Criteria List
Suspected Release

Are sources poorly contained? (y/n/u)	Y
Is the source a type likely to contribute to ground water contamination (e.g., wet lagoon)? (y/n/u)	N
Is waste quantity particularly large? (y/n/u)	Y
Is precipitation heavy? (y/n/u)	N
Is the infiltration rate high? (y/n/u)	N
Is the site located in an area of karst terrain? (y/n)	N
Is the subsurface highly permeable or conductive? (y/n/u)	U
Is drinking water drawn from a shallow aquifer? (y/n/u)	Y
Are suspected contaminants highly mobile in ground water? (y/n/u)	N
Does analytical or circumstantial evidence suggest ground water contamination? (y/n/u)	N

Other criteria? (y/n) N

SUSPECTED RELEASE? (y/n) N

Summarize the rationale for Suspected Release:

Ground Water Pathway Criteria List
Primary Targets

Is any drinking water well nearby? (y/n/u)

Has any nearby drinking water well been closed? (y/n/u)

Has any nearby drinking water well user reported
foul-testing or foul-smelling water? (y/n/u)

Does any nearby well have a large drawdown/high production rate? (y/n/u)

Is any drinking water well located between the site and other wells
that are suspected to be exposed to a hazardous substance? (y/n/u)

Does analytical or circumstantial evidence suggest contamination
at a drinking water well? (y/n/u)

Does any drinking water well warrant sampling? (y/n/u)

Other criteria? (y/n)

PRIMARY TARGET(S) IDENTIFIED? (y/n)

Summarize the rationale for Primary Targets:

GROUND WATER PATHWAY SCORESHEETS

Pathway Characteristics			Ref.
Do you suspect a release? (y/n)	No		.....
Is the site located in karst terrain? (y/n)	No		1
Depth to aquifer (feet):	10		3
Distance to the nearest drinking water well (feet):	660		1
LIKELIHOOD OF RELEASE	Suspected Release	No Suspected Release	References
1. SUSPECTED RELEASE	0	.....	.....
2. NO SUSPECTED RELEASE	.....	500	
LR =	0	500	

Targets

TARGETS	Suspected Release	No Suspected Release	References
3. PRIMARY TARGET POPULATION 0 person(s)	0
4. SECONDARY TARGET POPULATION Are any wells part of a blended system? (y/n) N	0	73	
5. NEAREST WELL	0	20	
6. WELLHEAD PROTECTION AREA None within 4 Miles	0	0	
7. RESOURCES	0	5	
T =	0	98	

WASTE CHARACTERISTICS

WC =	0	100
------	---	-----

GROUND WATER PATHWAY SCORE:

59

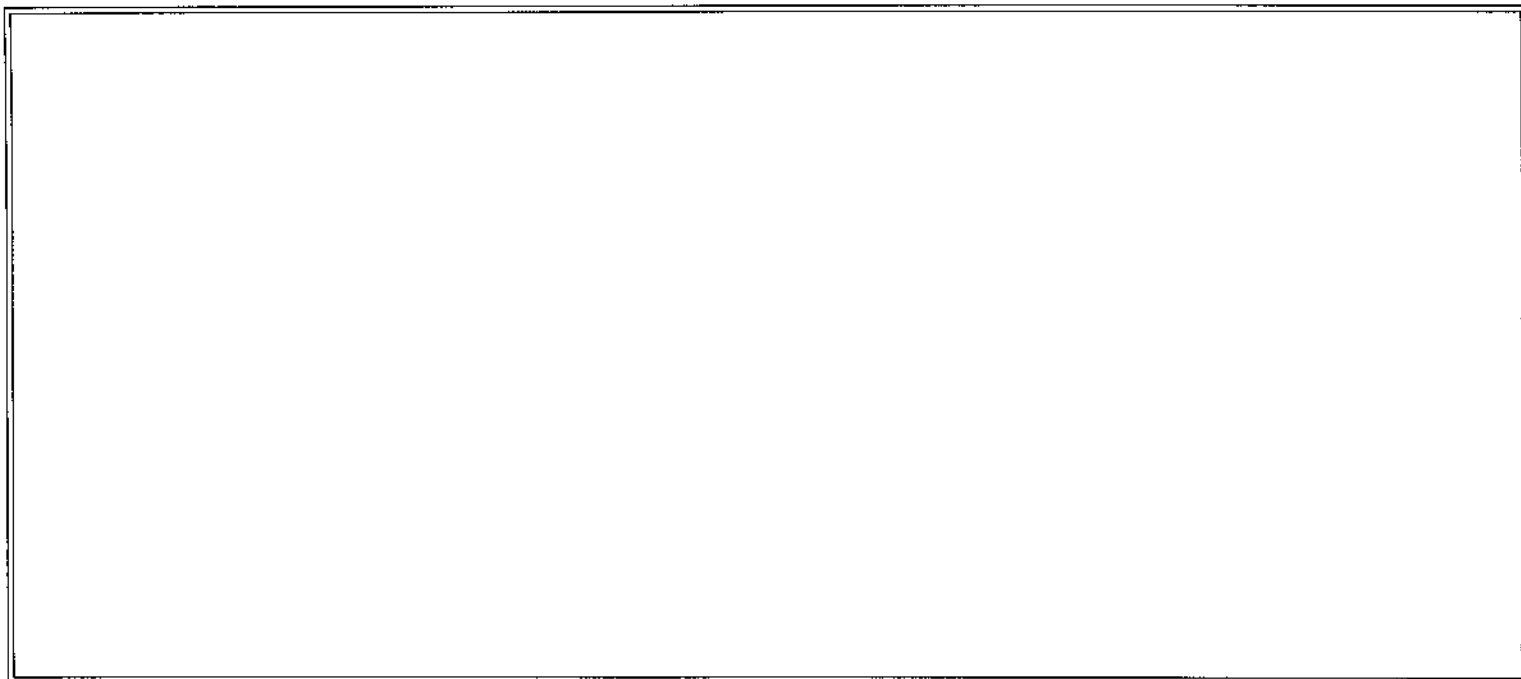
Ground Water Target Populations

Primary Target Population Drinking Water Well ID	Dist. (miles)	Population Served	Reference	Value
None				
*** Note : Maximum of 5 Wells Are Printed ***				Total

Secondary Target Population Distance Categories	Population Served	Reference	Value
0 to 1/4 mile	11	1	2
Greater than 1/4 to 1/2 mile	8	1	1
Greater than 1/2 to 1 mile	65	1	2
Greater than 1 to 2 miles	0	11	0
Greater than 2 to 3 miles	5700	10	68
Greater than 3 to 4 miles	0	11	0
			Total

73

Apportionment Documentation for a Blended System



Surface Water Pathway Criteria List
 Suspected Release

Is surface water nearby? (y/n/u)	Y
Is waste quantity particularly large? (y/n/u)	Y
Is the drainage area large? (y/n/u)	Y
Is rainfall heavy? (y/n/u)	N
Is the infiltration rate low? (y/n/u)	Y
Are sources poorly contained or prone to runoff or flooding? (y/n/u)	Y
Is a runoff route well defined(e.g.ditch/channel to surf.water)? (y/n/u)	Y
Is vegetation stressed along the probable runoff path? (y/n/u)	Y
Are sediments or water unnaturally discolored? (y/n/u)	U
Is wildlife unnaturally absent? (y/n/u)	U
Has deposition of waste into surface water been observed? (y/n/u)	Y
Is ground water discharge to surface water likely? (y/n/u)	Y
Does analytical/circumstantial evidence suggest S.W. contam? (y/n/u)	Y

Other criteria? (y/n) N

SUSPECTED RELEASE? (y/n) Y

Summarize the rationale for Suspected Release:

PA/SI analytical results indicate aqueous and sediment contamination in Wissahickon Creek and the tributary to Wissahickon Creek in the eastern part of the site.

Surface Water Pathway Criteria List
Primary Targets

Is any target nearby? (y/n/u) If yes: Y
N Drinking water intake
Y Fishery
Y Sensitive environment

Has any intake, fishery, or recreational area been closed? (y/n/u) N

Does analytical or circumstantial evidence suggest surface water
contamination at or downstream of a target? (y/n/u) Y

Does any target warrant sampling? (y/n/u) If yes: N
U Drinking water intake
U Fishery
U Sensitive environment

Other criteria? (y/n) N

PRIMARY INTAKE(S) IDENTIFIED? (y/n) N

Summarize the rationale for Primary Intakes:

continued -----

continued -----

Other criteria? (y/n) N

PRIMARY FISHERY(IES) IDENTIFIED? (y/n) Y

Summarize the rationale for Primary Fisheries:

Wissahickon Creek is a sport-fishing fishery. Trout populations in Wissahickon Creek are maintained by the Pennsylvania Fish Commission.

Other criteria? (y/n) N

PRIMARY SENSITIVE ENVIRONMENT(S) IDENTIFIED? (y/n) Y

Summarize the rationale for Primary Sensitive Environments:

The Wissahickon Valley was placed on the National Registry of Natural Landmarks in 1964, one of the first sites in the nation to be so designated. The designation encourages the preservation of the est remaining examples of the major biotic communities and geologic features of the nation's natural landscape. Wissahickon Park preserves the widest riparian zone in the city of Philadelphia. In spite of this special status, the Wissahickon Valley is now on the Registry's list of damaged and threatened natural landmark sites.

SURFACE WATER PATHWAY SCORESHEETS

Pathway Characteristics

Pathway Characteristics		Ref.
Do you suspect a release? (y/n)	Yes	.....
Distance to surface water (feet):	1	3
Flood frequency (years):	1-10	6
What is the downstream distance (miles) to:		
a. the nearest drinking water intake?	9.0	7
b. the nearest fishery?	0.0	2
c. the nearest sensitive environment?	0.0	2

LIKELIHOOD OF RELEASE	Suspected Release	No Suspected Release	References
1. SUSPECTED RELEASE	550	.....	.....
2. NO SUSPECTED RELEASE	.....	0	
LR =	550	0	

Drinking Water Threat Targets

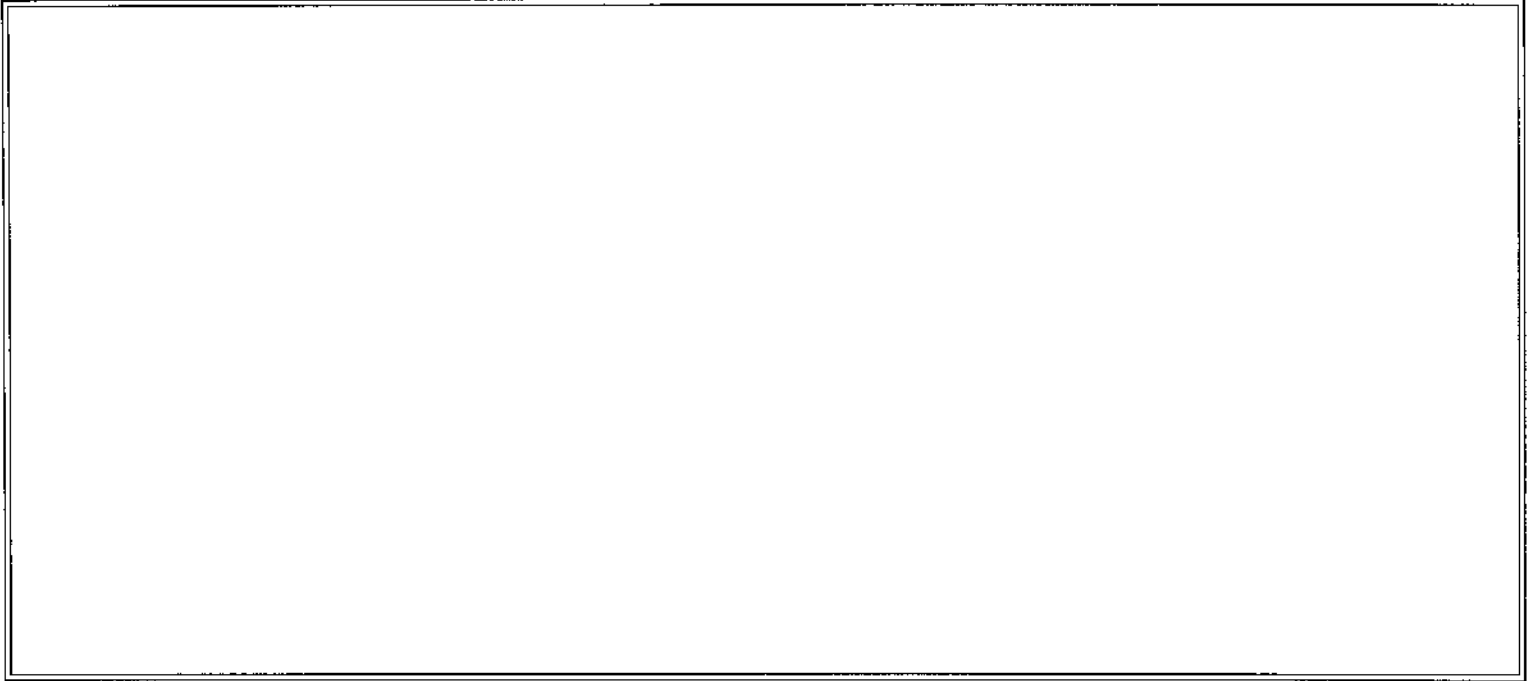
TARGETS	Suspected Release	No Suspected Release	References
3. Determine the water body type, flow (if applicable), and number of people served by each drinking water intake.	██████████	██████████	██████████
4. PRIMARY TARGET POPULATION 0 person(s)	0	██████████	
5. SECONDARY TARGET POPULATION Are any intakes part of a blended system? (y/n): N	52	0	
6. NEAREST INTAKE	0	0	
7. RESOURCES	5	0	
T =	57	0	

Drinking Water Threat Target Populations

Intake Name	Primary (y/n)	Water Body Type/Flow	Population Served	Ref.	Value
1 Philadelphia	N	>1000-10000 cfs	640000	8	0
Total Primary Target Population Value					0
Total Secondary Target Population Value					52

*** Note : Maximum of 6 Intakes Are Printed ***

Apportionment Documentation for a Blended System



Human Food Chain Threat Targets

TARGETS	Suspected Release	No Suspected Release	References
8. Determine the water body type and flow for each fishery within the target limit.	██████████	██████████	██████████
9. PRIMARY FISHERIES	300	██████████	
10. SECONDARY FISHERIES	0	0	
T =	300	0	

Human Food Chain Threat Targets

Fishery Name	Primary (y/n)	Water Body Type/Flow	Ref.	Value
1 Wissahickon Creek	Y	primary fishery	9	300
2 Schulykill River	N	>1000-10000 cfs	9	12
3 Delaware River	N	>10000 cfs	9	12
None				
Total Primary Fisheries Value				300
Total Secondary Fisheries Value				0

*** Note : Maximum of 6 Fisheries Are Printed ***

Environmental Threat Targets

TARGETS	Suspected Release	No Suspected Release	References
11. Determine the water body type and flow (if applicable) for each sensitive environment.	██████████	██████████	██████████
12. PRIMARY SENSITIVE ENVIRONMENTS	300	██████████	
13. SECONDARY SENSITIVE ENVIRONS.	0	0	
T =	300	0	

Environmental Threat Targets

Sensitive Environment Name	Primary (y/n)	Water Body Type/Flow	Ref.	Value
1 Nat Reg Natural Landmarks	Y	primary sens. envir.	12	300
2 riparian wetlands	Y	primary sens. envir.	2	300
Total Primary Sensitive Environments Value Total Secondary Sensitive Environments Value *** Note: Maximum of 6 Sensitive Environments Are Printed ***				300 0

Surface Water Pathway Threat Scores

Threat	Likelihood of Release (LR) Score	Targets (T) Score	Pathway Waste Characteristics (WC) Score	Threat Score LR x T x WC / 82,500
Drinking Water	550	57	100	38
Human Food Chain	550	300	100	100
Environmental	550	300	100	60

SURFACE WATER PATHWAY SCORE:

100

Soil Exposure Pathway Criteria List
Resident Population

Is any residence, school, or daycare facility on or within 200 feet of an area of suspected contamination? (y/n/u)	N
Is any residence, school, or daycare facility located on adjacent land previously owned or leased by the site owner/operator? (y/n/u)	N
Is there a migration route that might spread hazardous substances near residences, schools, or daycare facilities? (y/n/u)	Y
Have onsite or adjacent residents or students reported adverse health effects, exclusive of apparent drinking water or air contamination problems? (y/n/u)	N
Does any neighboring property warrant sampling? (y/n/u)	U
Other criteria? (y/n)	N

RESIDENT POPULATION IDENTIFIED? (y/n) N

Summarize the rationale for Resident Population:

SOIL EXPOSURE PATHWAY SCORESHEETS

Pathway Characteristics

		Ref.
Do any people live on or within 200 ft of areas of suspected contamination? (y/n)	No	
Do any people attend school or daycare on or within 200 ft of areas of suspected contamination? (y/n)	No	
Is the facility active? (y/n):	No	

LIKELIHOOD OF EXPOSURE	Suspected Contamination	References
1. SUSPECTED CONTAMINATION LE =	550	.....

Targets

2. RESIDENT POPULATION 1 resident(s) 0 school/daycare student(s)	0	.....
3. RESIDENT INDIVIDUAL	0	.....
4. WORKERS None	0	.....
5. TERRES. SENSITIVE ENVIRONMENTS	0	.....
6. RESOURCES	0	.....
T =	0	.....

WASTE CHARACTERISTICS

WC =

RESIDENT POPULATION THREAT SCORE:

NEARBY POPULATION THREAT SCORE:

Population Within 1 Mile: 1 - 10,000

SOIL EXPOSURE PATHWAY SCORE:

Soil Exposure Pathway Terrestrial Sensitive Environments

Terrestrial Sensitive Environment Name	Reference	Value
1 riparian wetland	2	25

Total Terrestrial Sensitive Environments Value

*** Note : Maximum of 7 Sensitive Environments Are Printed ***

--

Air Pathway Criteria List
 Suspected Release

Are odors currently reported? (y/n/u)	N
Has release of a hazardous substance to the air been directly observed? (y/n/u)	N
Are there reports of adverse health effects (e.g., headaches, nausea, dizziness) potentially resulting from migration of hazardous substances through the air? (y/n/u)	N
Does analytical/circumstantial evidence suggest release to air? (y/n/u)	Y
Other criteria? (y/n)	N

SUSPECTED RELEASE? (y/n) Y

Summarize the rationale for Suspected Release:

The PA/SI and Phase 2 investigations indicate percent-level asbestos is present in waste material at the site. Observations during the site reconnaissance by Shaw E & I and PADEP indicates extensive areas of exposed waste material in friable form. Windblown transport of asbestos-containing dust is suspected to be likely.

AIR PATHWAY SCORESHEETS

Pathway Characteristics

Do you suspect a release? (y/n)	Yes	█
Distance to the nearest individual (feet):	200	3

LIKELIHOOD OF RELEASE	Suspected Release	No Suspected Release	References
1. SUSPECTED RELEASE	550	█	█
2. NO SUSPECTED RELEASE	█	0	
LR =	550	0	

Targets

TARGETS	Suspected Release	No Suspected Release	References
3. PRIMARY TARGET POPULATION 500 person(s)	5000	█	█
4. SECONDARY TARGET POPULATION	9	0	
5. NEAREST INDIVIDUAL	50	0	
6. PRIMARY SENSITIVE ENVIRONS.	125	█	
7. SECONDARY SENSITIVE ENVIRONS.	3	0	
8. RESOURCES	5	0	
T =	5192	0	

WASTE CHARACTERISTICS

WC =

100	0
-----	---

AIR PATHWAY SCORE:

100

Air Pathway Secondary Target Populations

Distance Categories	Population	References	Value
Onsite	N.A.		0
Greater than 0 to 1/4 mile	N.A.		0
Greater than 1/4 to 1/2 mile	1000	5	3
Greater than 1/2 to 1 mile	2000	5	3
Greater than 1 to 2 miles	3000	5	1
Greater than 2 to 3 miles	4000	5	1
Greater than 3 to 4 miles	5000	5	1
Total Secondary Population Value			9

Air Pathway Primary Sensitive Environments

Sensitive Environment Name	Reference	Value
1 riparian wetlands	2	100
2 Nat Reg of Natural Landmarks	12	25
Total Primary Sensitive Environments Value		125

*** Note : Maximum of 7 Sensitive Environments Are Printed***

Air Pathway Secondary Sensitive Environments

Sensitive Environment Name	Distance	Reference	Value
1 riparian wetlands	>1/4-1/2	2	2.7
2 Nat Reg of Natural Landmarks	>1/4-1/2	12	0.1
Total Secondary Sensitive Environments Value			3

SITE SCORE CALCULATION	SCORE
GROUND WATER PATHWAY SCORE:	59
SURFACE WATER PATHWAY SCORE:	100
SOIL EXPOSURE PATHWAY SCORE:	61
AIR PATHWAY SCORE:	100
SITE SCORE:	83

SUMMARY

1. Is there a high possibility of a threat to any nearby drinking water well(s) by migration of a hazardous substance in ground water? No

If yes, identify the well(s).

If yes, how many people are served by the threatened well(s)? 0

2. Is there a high possibility of a threat to any of the following by hazardous substance migration in surface water?
- | | |
|--|-----|
| A. Drinking water intake | No |
| B. Fishery | Yes |
| C. Sensitive environment (wetland, critical habitat, others) | Yes |

If yes, identify the target(s).

- B. Wissahickon Creek fishery adjoins site and sampling indicates asbestos contamination is
- C. Riparian wetlands occur on site adjacent to Wissahickon Creek.

3. Is there a high possibility of an area of surficial contamination within 200 feet of any residence, school, or daycare facility? No

If yes, identify the properties and estimate the associated population(s)

4. Are there public health concerns at this site that are not addressed by PA scoring considerations? No

If yes, explain:

REFERENCE LIST

1. State Well Database
EDR radius search report
2. National Wetlands Inventory
EDR radius search report
3. PA/SI
Prepared for USEPA
4. Phase II Report
Montgomery County Redevelopment Authority
5. Estimated population distribution
Ambler Borough population approximately 6,000
6. Flood Zone Maps
EDR radius search report
7. USGS Topographic Maps
8. Philadelphia Water Company web site
9. Pennsylvania Fish Commission web site
10. Ambler Borough Public Utilities web site
11. No data available
12. PADEP Watershed Restoration Action Strategy web site