### DAM INSPECTION CHECKLIST

### Department of Environmental Protection Bureau of Waterways Engineering Division of Dam Safety

NAME OF DAM: Hershey Mill Dam **DEP DAM NO.: 15-125** LOCATION: Municipality: East Goshen Township County: Chester DEP CLASSIFICATION DATA: Size: C Hazard: 2 (based on published data) PHYSICAL DATA: Type of Dam: Earth Normal Pool Storage Capacity: 18 acre-Height of Dam: 14 feet embankment w/ concrete feet spillway **ELEVATIONS:** Normal Pool: 446.78 feet Pool at Inspection: N/A (see Final Tailwater at Inspection: 439.9 feet +/-NAVD88 (Final Comment 1) Comment 1) DAM OWNER: East Goshen Township **OPERATOR:** East Goshen Township ADDRESS: 1580 Paoli Pike West Chester, PA PHONE: 610 692 7171 FAX NO.: 610 692 8950 E-MAIL ADDRESS: rsmith@eastgoshen.org A completed and signed Dam Owners Notice Checklist is to accompany this Inspection Checklist. PERSONS PRESENT AT INSPECTION: Name Title/Position Representing Rick Smith Township Manager East Goshen Township DATE OF INSPECTION: 5/20/2015 WEATHER: Sunny, breezy TEMPERATURE: This is to certify that the above dam has been inspected and the following are the results of this inspection. 8/24/15 Signature of Registered Professional Engineer Date

(P.E. Seal Required)

Date Revised: 1/2009

NAM	IE OF DAM: Hershey Mill Dam	DEP DAM NO.: 15-125	DATE: 8	3/24/	15		
ITEM	CONDITION COMMENTS			Montor	•	VESTIGATE	REPAIR
		EMBANKMENT: CREST					
1	Surface Cracking	None observed – vegetation prohibited thorough review					
2	Sinkhole, Animal Burrow	Significant			ĪĒ		
3	Low Area(s)	Significant – see general comments below					$\boxtimes$
4	Horizontal Alignment	Poor – see general comments below					$\boxtimes$
5	Ruts and/or Puddles	Rutting observed, no puddles					$\boxtimes$
6	Vegetation Condition	Severely overgrown					$\boxtimes$
7	Warning Signs Yes – NE corner of dam crest – see Photograph 3						
8					╙		
9				Ш			<u>Ш</u>
	itional Comments (Refer to ite						
	Ŭ I	or general condition of dam crest					
- '	The dam crest vertical and he	orizontal alignment is poor with variable grade change and v	ariable	cres	st w	vidt	:h
- '	The north east portion of the	dam crest is to be private property with a swimming pool at	toe of	cres	t (s	ee	
	Photograph 3 area of post an	d rail fence)					
		,					
		MD A NIZMENT. HDCTDE AM EA CE					
10	Slide, Slough, Scarp	MBANKMENT: UPSTREAM FACE  Severe – see comment below		$\overline{\Box}$	ТГ	71	
10		Vegetation & trees currently stabilize the slope – see		<u> </u>	╁		
11	Slope Protection	Photograph 7					
12	Sinkhole, Animal Burrow	Significant - see note below Photograph 8			T		$\boxtimes$
13	EmbAbut. Contact	See comment below			ĪĽ		
14	Erosion	See comment below					$\boxtimes$
15	Vegetation Condition	Severely overgrown					$\boxtimes$
16							
17							
Add	itional Comments (Refer to ite	m number if applicable):					
- ;	Item Nos. $10 & 14 - portions$	s of upstream face from spillway to the northeast have vertic	al faces	s wit	h		
	exposed earth approximately	2 to 4 feet high (see Photograph 4). Upstream face from sp.	illway v	west	i co	nsi	sts
	of vertical stone wall approximately 2 to 4 feet high in poor condition (numerous cracking, see Photograph						
	5). Large trees present at west end of crest (see Photograph 6).						
		f crest, grade of crest blends in to natural grade. At west end	d of cre	st st	one	w	all
	terminates abruptly.	-					

NAM	NAME OF DAM: Hershey Mill Dam DEP DAM NO.: 15-125 DATE: 8/24/15			,		
ITEM	CONDITION	COMMENTS	Montror		IVESTIGATE	REPAIR
	EM	BANKMENT: DOWNSTREAM FACE	•	•		
18	Wet Area(s) (No Flow)	None observed				
19	Seepage	None observed		Ti		
20	Slide, Slough, Scarp None observed					
21	Emb Abut. Contact	See comments on "Upstream Face"				
22	Sinkhole, Animal Burrow	Significant along downstream face east of spillway				
23	Erosion	Moderate where no vegetation present, see Photograph 12				
24	Unusual Movement	See note below				
25	Vegetation Control	Severely overgrown				
26		, ,				
27						
	ground surface at base of sto 14.	eam face stone wall in disrepair, see Photograph 13. Apparent dene wall approximately 75 feet to the northeast of the spillway, see	-			
	EM	BANKMENT: INSTRUMENTATION				
28	Piezometers/Observ. Wells	None observed				
29	Staff Gauge and Recorder	Not observed				
30	Weirs	None present				
31	Survey Monuments	Not observed				
32	Drains	No instrumentation observed				
33	Low Flow Release	No instrumentation observed				
34	Frequency of Readings	Not available				
35	Location of Records	Not available				
36						
37						
Add	itional Comments (Refer to ite	m number if applicable):				

NAME OF DAM: Hershey Mill Dam		DEP DAM NO.: 15-125 DATE: 8/24/15					
ITEM	E CONDITION COMMENTS			Montor	Transport A THE	IVESTIGATE	REPAIR
		DOWNSTREAM AREA					
38	Abutment Leakage	None observed					
39	Foundation Seepage	None observed			Ī		
40	Slide, Slough, Scarp	None observed					
41	Drainage System	See note below				] [	$\boxtimes$
42	Boils	None observed					
43	Wet Areas	None observed					
44	Reservoir Slopes	Not present. Area downstream of dam is relatively level				] [	
45	Access Roads	Not applicable				] [	
46	Security Devices	None observed				] [	
47	Act 91 Run-of-the-River Signs or Bouys	Not applicable (N/A)					
48				$\sqcap$	Т	1	П
49				Ŧſ	T	Ī	靣
	Greenhill Road. Entrance to pipe is partially blocked with debris. See Photograph 16 & 17.						
	SPILLW	AYS: ERODABLE CHANNEL (see note below)					
50	Slide, Slough, Scarp	Vertical earth slopes on downstream pool and stream					
51	Erosion	Same as Item 50				]	$\boxtimes$
52	Vegetation Condition	Moderate					
53	Debris	None blocking flow					
54							
55				brack rack ra		]	
-	Additional Comments (Refer to item number if applicable):  - This section refers to downstream area from dam spillway and downstream. See Photograph Nos. 16 to 18 for general condition of downstream pool and stream.						

NAM	IE OF DAM: Hershey Mill Dam	DEP DAM NO.: 15-125 DAT	E: 8/24/15
ITEM	CONDITION	COMMENTS	MONITOR IVESTIGATE
	SPII	LWAYS: NON-ERODABLE CHANNEL	
56	Sidewalls	Severely cracked	
57	Channel Floor	Void(s) beneath floor	
58	Unusual Movement	Appears to be differential settlement between spillway and sidewalls	
59	Approach Area	Depressed from level of spillway floor	
60	Weir or Control	None observed	
61	Discharge Channel	See "Erodible Channel" section above	
62	Boils	None observed	
63			
64			
		SPILLWAYS: DROP INLET	
65	Intake Structure	See "Outlet Works" section below	
66	Trashrack	See "Outlet Works" section below	
67	Stilling Basin	See "Outlet Works" section below	
68			
00			
69			

NAME OF DAM: Hershey Mill Dam		DEP DAM NO.: 15-125 DATI	E: 8/24/	15	
ITEM	CONDITION	COMMENTS	Montor	IVESTIGATE	REPAIR
		OUTLET WORKS			
70	Intake Structure	Covered with debris, see Photograph 23			$\boxtimes$
71	Trashrack	Does not appear to be present, see Photograph 23			$\boxtimes$
72	Stilling Basin	See "SPILLWAYS: Erodible Channel" section above			
73	Primary Closure	Does not appear to be present			$\boxtimes$
74	Secondary Closure	N/A			
75	Control Mechanism	See note below			$\boxtimes$
76	Outlet Pipe	Only visible at outlet to spillway, see Photograph 22			
77	Outlet Tower	N/A			
78	Outlet Structure	N/A			
79	Seepage	None observed			
80	Unusual Movement	None observed			
81					
82					
		5. Height from top of 8 inch diameter steel riser to pipe bottom ap th from top of riser to water level approximately 6.25 feet.			
	CONCRE	TE/MASONRY DAMS: UPSTREAM FACE			
83	Surface Conditions	N/A			
84	Condition of Joints	N/A			
85	Unusual Movement	N/A			
86	Abutment-Dam Contacts	N/A			
87					
88					
Add	itional Comments (Refer to ite	m number if applicable):			

NAW	E OF DAM: Hersney Mill Dam	DEP DAM NO.: 15-125	DATE: 8/24/15
ITEM	CONDITION	COMMENTS	Monitor Ivestigate Repair
	CONCRET	E/MASONRY DAMS: DOWNSTREAM I	FACE
89	Surface Conditions	N/A	
90	Condition of Joints	N/A	
91	Unusual Movement	N/A	
92	Abutment-Dam Contacts	N/A	
93	Drains	N/A	
94	Leakage	N/A	
95			
96			
Addi	tional Comments (Refer to ite	m number if applicable):	
	COM		
		CRETE/MASONRY DAMS: CREST	
97	Surface Conditions	N/A	
98	Horizontal Alignment	N/A	
99	Vertical Alignment	N/A	
100	Condition of Joints	N/A	
101	Unusual Movements	N/A	
102			
103	tional Comments (Refer to ite		
/ Kuu	aronar Comments (Refer to the	п пишост п аррисаотс).	

Date Revised: 1/09

NAM	IE OF DAM: Hershey Mill Dam	DEP DAM NO.: 15-125 DATE	: 8/24/	15			
ITEM	CONDITION	COMMENTS	Montor	IVESTIGATE	Repair		
	RESERVOIR AREA						
104	Sedimentation	See note below and "Final Comment 1"					
105	Slope Stability	Good by dam					
106	Sinkholes	None observed by dam					
107	Fractures	None observed by dam					
108	Unwanted Growth	See "Final Comment 1"					
109	Storage Gage	None observed					
110							
111							
	Additional Comments (Refer to item number if applicable): - See Photograph 15 for typical photograph of reservoir						
Fin	Final Comments:						

- 1. Hershey's Mill Dam does not currently impound water. Pennoni understands that the observations and recommendations contained herein are provided in order to take the steps necessary to bring the dam into compliance with the Pennsylvania Dam Safety & Encroachments Act (Act 325 of 1978 as subsequently amended) and the Pennsylvania Code Title 25, Chapter 105. Repair plans are provided in a six sheet drawing set titled "Restoration Plan for Hershey's Mill Dam," developed by Edward B. Walsh & Associates, Inc. and dated April 10, 2012 (Rev. 4 date June 11, 2014).
- 2. A permit has been obtained and is on file with the PADEP as indicated in a letter to East Goshen Township dated July 15, 2014.

Notwithstanding the drawings indicated above, recommended repairs as a result of the 2015 inspection consist of:

- 1. Control vegetation on upstream and downstream embankment face in accordance with PADEP "Inspection, Maintenance, and Operation of Dams in Pennsylvania," manual.
- 2. Repair/Stabilize upstream and downstream earth and stone wall slopes.
- 3. Repair/rebuild spillway slab and adjoining stone walls. Fill voids beneath spillway floor.
- 4. Repair/restore outlet structure.

# DAM OWNERS NOTICE CHECKLIST

## Department of Environmental Protection Bureau of Waterways Engineering Division of Dam Safety

NA	NAME OF DAM:  DEP DAM NO.:					
	This is to co	=	Downstream Hazard Description is accurate and the Poste en inspected and the following are the results of these insp			
N	Name of Dam Owne	er	Signature of Dam Owner		Date	
			accompany the Inspection Checklist filed by the Eng			
			GENCY ACTION PLAN			
Dat	te of Last Update of	f Emergency Plan:				
		_	o sections II.C and II.D in the EAP), additionally, specify a within the inundation area:	any no	ew	
		POSTED N	OTICES (Refer to section V.A in the EAP)			
ITEM	DATE INSPECTED	LOCATION	COMMENTS	Existing	Missing	Replaced
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
Ado	litional Comments	(Refer to item number i	if applicable):			

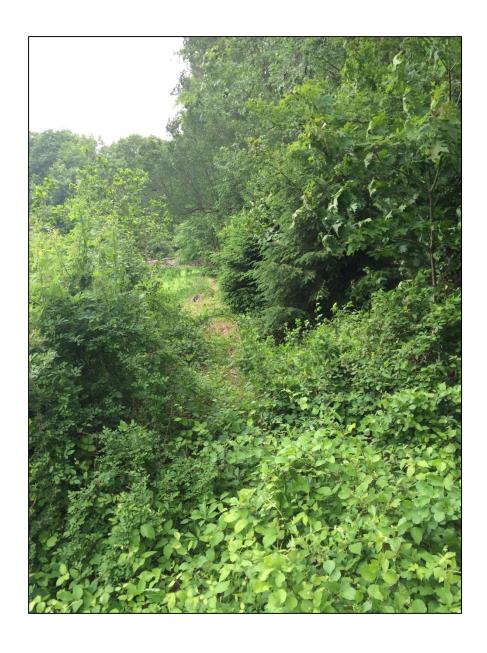


Photo 1. Dam Crest Looking Northeast



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West Chester, PA 19382

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P-1

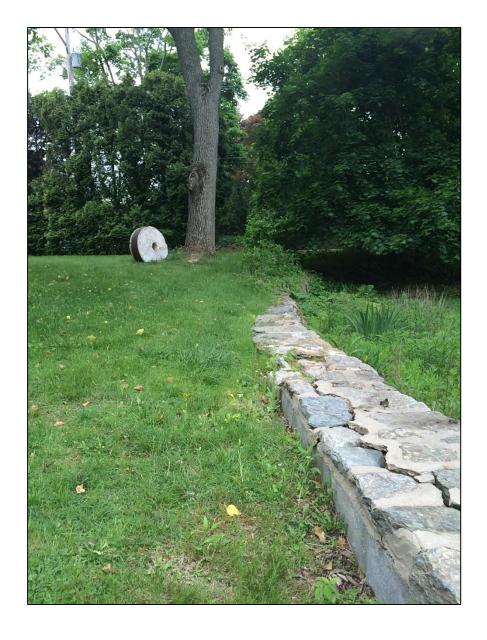


Photo 2. Dam Crest Looking West



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Photo 3. Warning Sign in Northeast Corner



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Photo 4. Upstream Face Looking Northeast



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Photo 5. Upstream Face on West Side Facing South at Spillway



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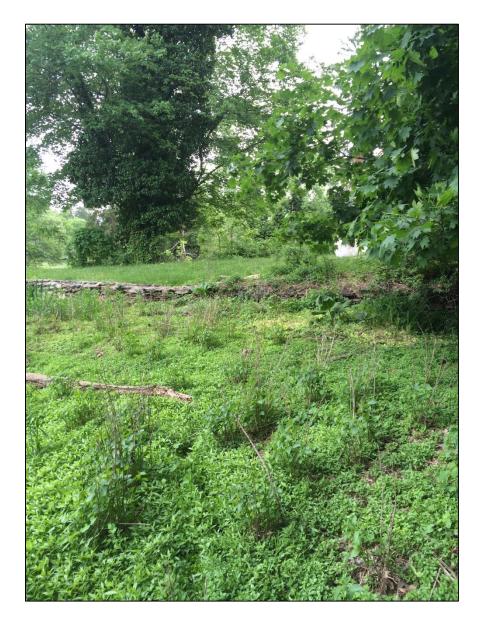


Photo 6. Upstream Face on West Side Looking South



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Photo 7. Upstream Face Northeast Side Looking West



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Photo 8. Upstream Face Northeast Side – Typical Void



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Photo 9. Downstream Face Northeast Side Looking South



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Photo 10. Downstream Face Looking Northeast



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P-10

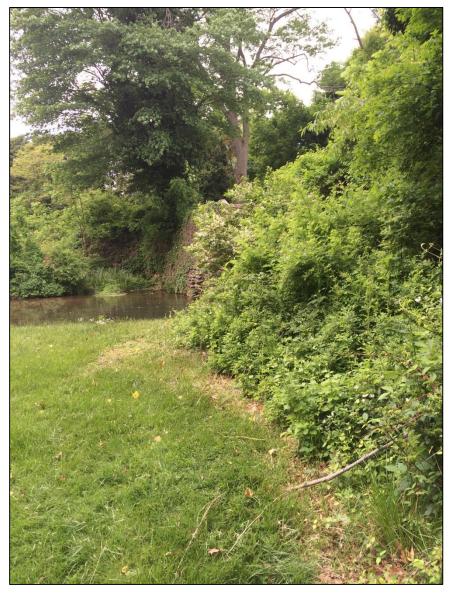


Photo 11. Downstream Face Looking West



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P-11

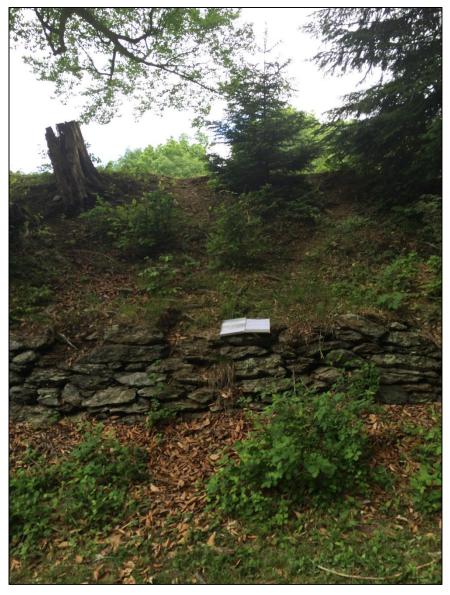


Photo 12. Downstream Face Northeast Side – Slope Erosion



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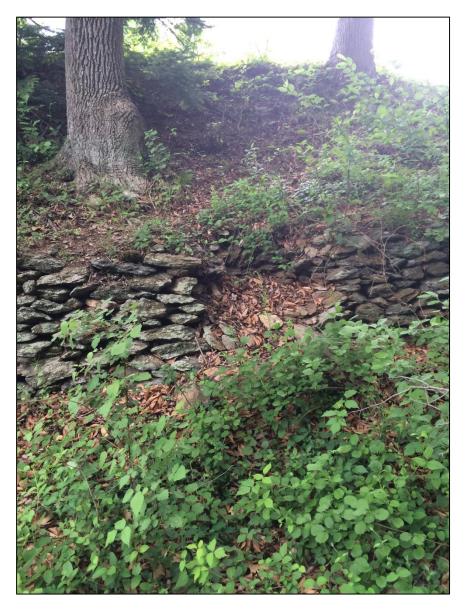


Photo 13. Downstream Face Northeast Side – Wall Disrepair



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Photo 14. Downstream Face Northeast Side – Depression at Toe



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Photo 15. Outlet Control Valve Housing on Upstream Side of Spillway



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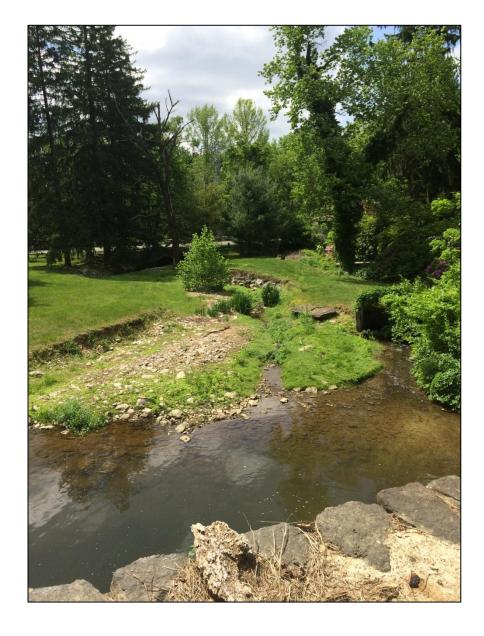


Photo 16. Downstream Area from Spillway



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Photo 17. Downstream Pipe



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Photo 18. Downstream Pool Looking Northeast



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Photo 19. Spillway Slab Looking West



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Photo 20. Spillway Northeast Wall



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Photo 21. Spillway West Wall



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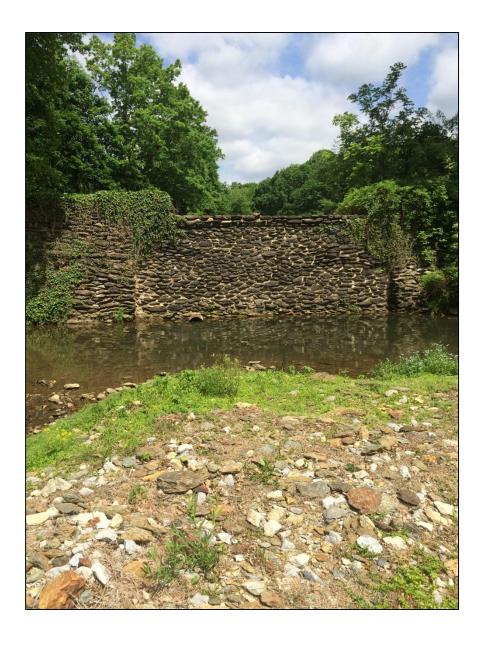


Photo 22. Spillway Downstream Face



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 ${\bf Photo~23.~Outlet~Structure/Trashrack~Upstream~of~Spillway}$ 



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