

#### BLAIR COUNTY

1731 N. JUNIATA STREET HOLLIDAYSBURG, PA 16648

> TEL: 814.696.6280 FAX: 814.696.6240

October 6th, 2020

Mr. Dan Penatzer Borough Manager Ebensburg Borough 300 W. High Street Ebensburg, PA 15931

RE:

2020 Inspection of Ebensburg Storage Dam

DEP File No. 011-061 Project No. 15-0017.102

Dear Mr. Penatzer:

Stiffler, McGraw & Associates (SMA) has completed the 2020 annual dam safety inspection of the above referenced dam. We've attached four copies of the inspection report – two copies for your records and two for submission to the PA Department of Environmental Protection (PA DEP). The copies sent to PA DEP should be addressed to:

Brandon S. Frey, E.I.T. PADEP

Bureau of Waterways Engineering & Wetland Rachel Carson State Office Building 400 Market Street, 2<sup>nd</sup> Floor Harrisburg, PA 17101

In summary, the dam appeared to be in good condition. However, the following observations should be noted and addressed by Ebensburg staff:

- Past annual inspection reports had indicated a growing crack present along an upper wall section of the downstream western spillway wall. This wall section had been slowly sliding downhill away from the spillway. In 2019, EMA operational staff removed this section of wall, cutting the remaining concrete flush at the location of the crack. See Photos 13 and 18.
- 2. It should be noted that the 20" drain pipe was televised in 2016 and found to be in fair condition. Also, modifications to the existing intake structure including the addition of a new sluice gate have been designed and a "Letter of Amendment" submitted to the PA DEP, Division of Dam Safety in September, 2016. The Amendment has been approved by the PA DEP. At the time of our inspection, the sluice gate has been installed (See Photo 17). The authority is awaiting parts to complete the installation of the gate's operator and stem. Once completed the reservoir will begin filling.

If you should have any questions, please contact our office.

Sincerely,

David R. Stiffler P.E.

Sr. Project Engineer

**Enclosures** 

OFFICES LOCATED THROUGHOUT PENNSYLVANIA

## Annual Reservoir Inspection

#### EBENSBURG STORAGE DAM

DEP ID No. D11-061

Prepared by:



## Ebensburg Borough, Cambria County, Pennsylvania

OWNER: EBENSBURG BOROUGH

OCTOBER 2020

#### DAM INSPECTION CHECKLIST

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

NAME OF DAM: Ebensburg Storage Dam DEP DAM NO.: D11-061

LOCATION: Municipality: Ebensburg Borough County: Cambria

DEP CLASSIFICATION DATA: Size: C Hazard: 1

PHYSICAL DATA:

Type of Dam: Earth Fill Height of Dam: 17.5' Normal Pool Storage Capacity: 48 Ac-Ft

**ELEVATIONS:** 

Normal Pool: 1983.30 Pool at Inspection: Empty Tailwater at Inspection:

DAM OWNER: Ebensburg Borough OPERATOR: Jeff Evans

ADDRESS: 300 West High Street Public Works Director

Ebensburg, PA 15931 Ebensburg Borough

PHONE: (814) 472-8750 FAX NO.: E-MAIL ADDRESS: jevans@ebensburgpa.com

A completed and signed Dam Owners Notice Checklist is to accompany this Inspection Checklist.

PERSONS PRESENT AT INSPECTION:

Name Title/Position Representing

David R. Stiffler, P.E.Sr. Project EngineerStiffler, McGraw & Assoc.Tyler M. McGraw, E.I.T.Project DesignerStiffler, McGraw & Assoc.

DATE OF INSPECTION: 9/23/2020

58°F

WEATHER: Sunny

VEATHER: Sunny

This is to certify that the above dam has been inspected and the

following are the results of this inspection.

Signature of Registered Professional Engineer

(P.E. Seal Required)

Date Revised: 1/2009

TEMPERATURE

NAM	IE OF DAM: Ebensburg Storage I	Dam DEP DAM NO.: D11-061 DATE	: 9/23	3/20	)	
ITEM	CONDITION	COMMENTS	Movimor	TATIONITORY	IVESTIGATE	REPAIR
		EMBANKMENT: CREST				
1	Surface Cracking	None noted		Π		
2	Sinkhole, Animal Burrow	None noted		П		
3	Low Area(s)	None noted				
4	Horizontal Alignment	No problems noted		П		
5	Ruts and/or Puddles	None noted		П		
6	Vegetation Condition	Good cover of grass, needs cut				$\boxtimes$
7	Warning Signs	None Observed				
8						
9	itional Comments (Refer to ite					
	E	MBANKMENT: UPSTREAM FACE				
10	Slide, Slough, Scarp	None Observed				
11	Slope Protection	Concrete in good condition, to approximately 3' below spillway crest. Grass between concrete and crest		1		
12	Sinkhole, Animal Burrow	None noted		$\top$		
13	EmbAbut. Contact	No problems noted		T		
14	Erosion	None noted				
15	Vegetation Condition	Good cover of grass, needs cut				
16						
17				] [		
Addi	tional Comments (Refer to iter	m number if applicable):	300 1330			

NAM	IE OF DAM: Ebensburg Storage I	Dam         DEP DAM NO.: D11-061         DA	ATE: 9/23	/20	
ITEM	CONDITION	COMMENTS	Monnor	IVESTIGATE	Repair
	EM	BANKMENT: DOWNSTREAM FACE			
18	Wet Area(s) (No Flow)	None noted			
19	Seepage	None noted			
20	Slide, Slough, Scarp	None noted			
21	Emb Abut. Contact	No problems noted			
22	Sinkhole, Animal Burrow	None noted			
23	Erosion	None noted			
24	Unusual Movement	None noted			
25	Vegetation Control	Good cover of grass, needs cut			
26					
27	 itional Comments (Refer to ite				
		BANKMENT: INSTRUMENTATION			
28	Piezometers/Observ. Wells	None noted			
29	Staff Gauge and Recorder	None noted	$\perp \sqcup$	$\sqcup$	Ш
30	Weirs	Stream flow monitor installed November 1994 for Howell's Run Conservation Release Documentation			
31	Survey Monuments	None noted			
32	Drains	Not observed			
33	Low Flow Release	The low flow release from Howells Run Dam is discharged from a six-inch diameter pipe onto the emergency spillway, when there is not water running in the spillway. Pipe was flowing approx. 1/4 full on the day of the inspection.			
34	Frequency of Readings	The low flow release is continuously monitored			
35	Location of Records	Water treatment facility data storage unit			
36					
37					
Addi	itional Comments (Refer to ite.	m number if applicable):			

	T	T			1
ITEM	CONDITION	COMMENTS	Monttor	IVESTIGATE	REPAIR
		DOWNSTREAM AREA			
38	Abutment Leakage	None noted			
39	Foundation Seepage	None noted			
40	Slide, Slough, Scarp	None noted			
41	Drainage System	None Observed			
42	Boils	None noted			
43	Wet Areas	None noted			
44	Reservoir Slopes	No problems noted			
45	Access Roads	The dam is accessible from the downstream face by the Treatment Plant access road. The access road is gated.			
46	Security Devices	The gate on the bridge to the intake tower is locked			П
47	Act 91 Run-of-the-River Signs or Bouys	N/A			
48			П	tt	tm
49					Ħ
Add	itional Comments (Refer to ite	m number if applicable):			
	SPIL	LWAYS: ERODABLE CHANNEL: N/A			
50	Slide, Slough, Scarp				
51	Erosion				
52	Vegetation Condition				
53	Debris				
54					
55					
Addi	itional Comments (Refer to ite	m number if applicable):			

DEP DAM NO.: D11-061

NAME OF DAM: Ebensburg Storage Dam

DATE: 9/23/20

	E OF DAM: Edensburg Storage I	DATE DEP DAM NO.: DIT-061 DATE			
ITEM	CONDITION	COMMENTS	Monttor	IVESTIGATE	Repair
	SPII	LLWAYS: NON-ERODABLE CHANNEL			
56	Sidewalls	Fair condition. *See Below			
57	Channel Floor	Some concrete surface erosion. *See Below	$\boxtimes$		
58	Unusual Movement	Unusual movement of upper wall section addressed via removal of section experiencing movement. See Photos 13, 18			
59	Approach Area	No problems noted	$\boxtimes$		
60	Weir or Control	Good condition			
61	Discharge Channel	No problems noted			
62	Boils	None noted			
63					
64					
upstr	ream spillway wall was remo	section which had experienced a major crack and been separating oved by EMA operational staff in 2019. See Photos 13 and 18.  Therefore performed at the lip of the downstream spillway, near to portion Photo 14			
		SPILLWAYS: DROP INLET / N/A			
65	Intake Structure	N/A			
66	Trashrack	N/A			
67	Stilling Basin	N/A			
68					
69					
Addi	itional Comments (Refer to ite	m number if applicable):			

NAM	E OF DAM: Ebensburg Storage I	Dam	DEP DAM NO.: D11-061	DATE:	9/23/	20	
	Г						
ITEM	CONDITION		COMMENTS		Montor	VESTIGATE	Repair
		OUTLET	WORKS				
70	Intake Structure	Replaced in 1994. The condition	intake structure appears to be in g	;ood			
71	Trashrack	N/A					
72	Stilling Basin	N/A					
73	Primary Closure	*See below					
74	Secondary Closure	This valve is located in	a manhole near the (See below)	/=			
75	Control Mechanism	Replaced in 1994					
76	Outlet Pipe	The outlet pipe was tele	vised in 2016 and found (See belo	ow)	$\boxtimes$		
77	Outlet Tower	N/A					
78	Outlet Structure	N/A					
79	Seepage	None noted					
80	Unusual Movement	None noted					
81							
82							
Add	itional Comments (Refer to ite	m number if applicable):					
Ame Phot expe there	endment" was issued by the o 17), however the valve's ects their installation to occurafter.	PA DEP on Dec. 15, 20 operator and stem have ur in the coming months	te was submitted in September 2016. The 20" S.S. Sluice Gate has not been installed at the time of s, allowing the reservoir to begin this valve was exercised in September 2016.	as been f the ins in fillin	insta specti g im	alled on. I medi	(See EMA ately
76. t	o be in satisfactory condition	1.					
			AMS: UPSTREAM FAC	E N/	A		
83	Surface Conditions	N/A					
84	Condition of Joints	N/A			$\vdash$		H
85	Unusual Movement	N/A			닏		H
86	Abutment-Dam Contacts	N/A	- na		$\vdash$	Щ	H
87					<del>  </del> -	H	님
88	ii 10						
Add	itional Comments (Refer to ite	m number if applicable):					

INAIV	E OF DAM: Ebensburg Storage I	Dam   DEP DAM NO.: D11-061   DA	1E: 9/23/2	20	
ITEM	CONDITION	COMMENTS	Monnor	IVESTIGATE	REPAIR
	CONCRETE/	MASONRY DAMS: DOWNSTREAM FACE	N/A		
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					
Add	itional Comments (Refer to ite	m number if applicable):			
	CONCI	DETE/MACONDY DAME, COUCH NA			
07		RETE/MASONRY DAMS: CREST N/A			
97	Surface Conditions	N/A	ᆛ井	님	H
98	Horizontal Alignment	N/A		닖	님
99	Vertical Alignment	N/A	<del>-      </del>	닖	뮈
100	Condition of Joints	N/A			닏
101	Unusual Movements	N/A	<del>-      </del>	뭐	H
102			-		
103	4:1 C				
Add	tional Comments (Refer to ite	m number if applicable):			

NAM	IE OF DAM: Ebensburg Storage I	Dam DEP DAM NO.: D11-061 DATE	2: 9/23/2	20	
ITEM	CONDITION	COMMENTS	Montor	IVESTIGATE	REPAIR
	•	RESERVOIR AREA			
104	Sedimentation	No problems noted			
105	Slope Stability	No problems noted			
106	Sinkholes	No problems noted			
107	Fractures	No problems noted			
108	Unwanted Growth	Brush along spillway approach channel needs cut			$\boxtimes$
109	Storage Gage	None observed			
110					
111					
Add	itional Comments (Refer to ite	m number if applicable):			
Fin	al Comments:				

#### DAM OWNERS NOTICE CHECKLIST **Department of Environmental Protection Bureau of Waterways Engineering**

**Division of Dam Safety** NAME OF DAM: Ebensburg Storage Dam **DEP DAM NO.: D11-061** This is to certify that both the Downstream Hazard Description is accurate and the Posted Notice locations listed below have been inspected and the following are the results of these inspections. Ebensburg Municipal Authorit Signature of Dam Owner 9/23/2020 Date This Dam Owners Notice Checklist is to accompany the Inspection Checklist filed by the Engineer. **EMERGENCY ACTION PLAN** Date of Last Update of Emergency Plan: | September 24, 2018 Downstream Hazard Description (Refer to sections II.C and II.D in the EAP), additionally, specify any new developments, structures, etc. downstream within the inundation area: Within the inundation area there are approximately 27 homes, 12 commercial businesses, and 12 public/recreation/institutional facilities. POSTED NOTICES (Refer to section V.A in the EAP) Existing Missing DATE LOCATION COMMENTS INSPECTED 9/23/20 Ebensburg Water Plant 2 Reservoir Trail (Trailhead) 9/23 3 9/23 **Ebensburg Swimming Pool** 4 Lions Field 9/23 5 Frostbite Ice Cream and Treats 9/23 manes X 6 Festival Beverage 9/23 much 7 9/23 marco Dr. Archibald Morris Medical Office X 8 Lakeview Lanes 9/23 marco Ebensburg Oil and Gas  $\times$ 9/23 me.ces 10 Lake Rowena Park 9/23 11 9/23 Ebensburg Lake Field 12 9/23 **Ebensburg Tennis Center** 13 9/23 mones Traders Guide and Pennysaver 9/23 manuel Mainline Newspaper 14 9/23 marcas | Skills of Central PA 15 9/23 marco | Lake Inn Motel

9/23 marces

9/23 many Church of Nazarene

**Ebensburg Lakeside Community** 

**Ebensburg Animal Hospital** 

16

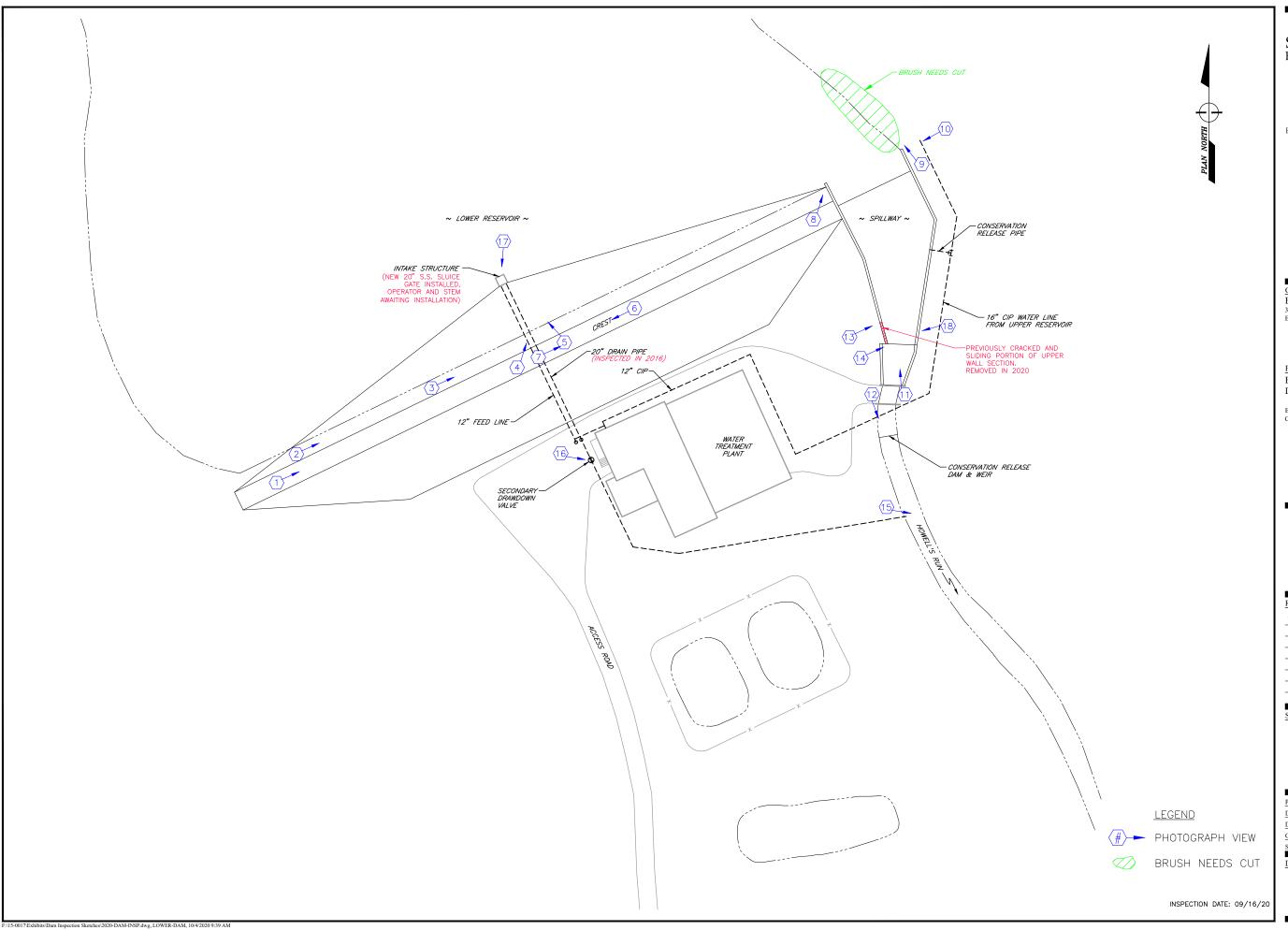
17

18

X

19	9/23	Ebensburg Outdoor Hockey Rink			X
20	9/23 moves	Country Sisters Store			X
21	9/23 marcas	Foster F. Wineland Inc.			X
22	9/23 marcas	Dunkin Donuts			X
23	9/23 marces	Scanlan Electric Supply	Now Dodson Electric		X
24	9/23	Ebensburg Wastewater Treatment Plant			X
Ado	litional Commen	its (Refer to item number if applicable):			

## SKETCH PLAN 2020



### STIFFLER McGRAW Engineers • Surveyors • Architects

BLAIR COUNTY 1731 N. Juniata Street Hollidaysburg, PA 16648 Phone: 814.696.6280 Fax: 814.696.6240

Bedford County • Bradford County • Warren County

Stiffler, McGraw & Associates, Inc.

EBENSBURG BOROUGH 300 WEST HIGH STREET EBENSBURG, PA. 15931

Project Name: EBENSBURG STORAGE DAM DEP FILE NO. D11-061

EBENSBURG BOROUGH CAMBRIA COUNTY, PENNSYLVANIA

Sheet Title:

#### DAM INSPECTION SKETCH PLAN

PROJECT NO.	15-0017.102
DRAWN BY:	TMM
DESIGNED BY:	TMM
CHECKED BY:	DRS
SCALE:	NONE

Drawing:

**S**1

## PHOTOGRAPHS 2020





Photo 1: Downstream Embankment and Crest looking Northeast



Photo 2: Upstream Embankment looking Northeast





Photo 3: Upstream Embankment looking Northeast



Photo 4: Intake Structure, Bridge and Gated Access



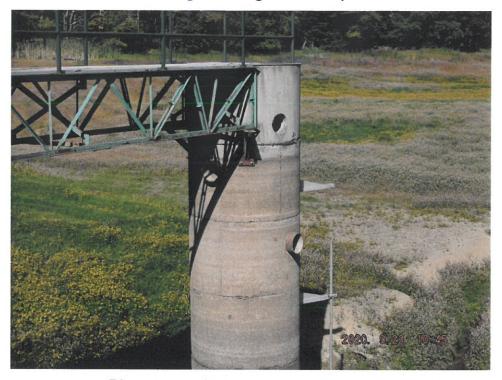


Photo 5: View of Intake Structure



Photo 6: Crest from the Middle looking Southwest





Photo 7: Crest from the Middle looking Northeast



Photo 8: Spillway Control Section looking Northeast





Photo 9: Woody Vegetation at East Abutment

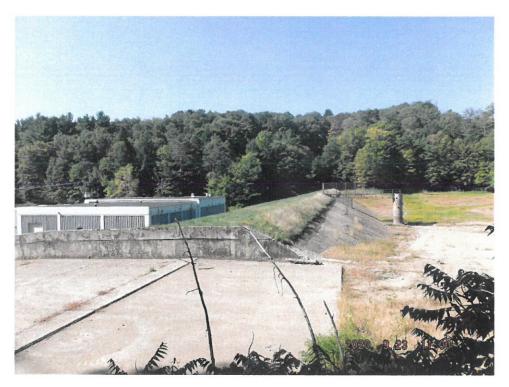


Photo 10: Spillway Entrance and Upstream Embankment looking Southwest





Photo 11: Downstream Section of Spillway



Photo 12: View of Weir on Discharge Channel Used for Measuring Conservation Release





Photo 13: Recently Removed Upper Section of the Western Spillway Wall (EMA operational staff removed portion of wall in 2019)



Photo 14: Portion of downstream spillway channel patched/repaired by EMA operational staff in 2019





Photo 15: View of Submerged Reservoir Drain Outlet



Photo 16: View of Reservoir Drain Manhole





Photo 17: Newly installed primary closure drain valve. (20" Stainless Steel Sluice Gate)

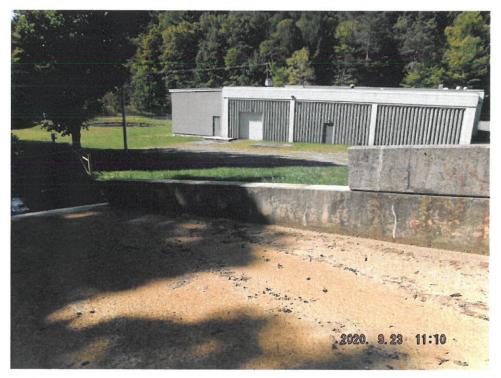


Photo 18: Recently Removed Upper Section of the Western Spillway Wall (EMA operational staff removed portion of wall in 2019)

# DEP REVIEW LETTER FOR 2019 INSPECTION REPORT

\*(not received)