EMERGENCY ACTION PLAN

SURVEILLANCE, WARNING AND EVACUATION PROCEDURES

EBENSBURG STORAGE DAM
DEP NUMBER D11-061

LOCATED ACROSS HOWELL'S RUN
IN EBENSBURG BOROUGH CAMBRIA COUNTY

LATITUDE 40° 29' 22" LONGITUDE -78° 43' 03"

SIZE CATEGORY "C"
HAZARD POTENTIAL CATEGORY "1"

OWNED/ OPERATED BY:	**EBENSBURG BOROUGH** **300 WEST HIGH STREET** **EBENSBURG, PA 15931** **JEFF EVANS – RESERVOIR MANAGER**
TELEPHONE:	**BUSINESS: (814) 472-8780** **CELL: (814) 244-1414** **E-MAIL: jevans@ebensburgpa.com**

DATE: SEPTEMBER 2005
REVISED: JULY 2011

TABLE OF CONTENTS

PROMULGATION AND CONCURRENCE		ii
PEMA AND DEP APPROVALS		iii
I.	PURPOSE AND SCOPE	1
II.	SITUATION	1
III.	CONCEPT OF OPERATIONS	1
IV.	RESPONSIBILITIES AND DUTIES	4
V.	ADMINISTRATION AND LOGISTICS	7
VI.	AUTHORITY AND REFERENCES	8
VII.	DEFINITIONS	8
VIII.	EXERCISE AND TRAINING	11
IX.	PLAN MAINTENANCE AND DISTRIBUTION	11

ATTACHMENTS

ATTACHMENT A	INUNDATION MAP
ATTACHMENT B	TRAFFIC CONTROL POINTS
ATTACHMENT C	LOCATION MAP
ATTACHMENT D	TELEPHONE ROSTER
ATTACHMENT E	MEDIA ANNOUNCEMENT
ATTACHMENT F	NOTICE

PROMULGATION AND CONCURRENCE

We, the undersigned, on date indicated, have reviewed the requested support activity in the Emergency Action Plan for the Ebensburg Storage Dam. Our support action will be executed in accordance with existing recommended operating guidelines and existing municipal or county emergency operation plans.

Jeff Evans – Reservoir Manager,
Borough of Ebensburg
DAM OWNER/OPERATOR

10/13/11
DATE

Ronald Springer, Director
Cambria County EMA

10/14/11
DATE

PEMA AND DEP APPROVALS

The Pennsylvania Emergency Management Agency approves the Emergency Action Plan for EBENSBURG STORAGE DAM (D11-061).

Director, PEMA Western Area Office — **DATE** 29 AUG 2011

The Department of Environmental Protection, Division of Dam Safety, approves the Emergency Action Plan for EBENSBURG STORAGE DAM (D11-061).

Chief, Division of Dam Safety — **DATE** 9/1/11

I. PURPOSE AND SCOPE

A. To safeguard the lives as well as to reduce property damage of the citizens living within the dam's potential downstream flood or inundation area.

B. To provide for effective dam surveillance, prompt notification to local emergency management agencies, citizen warning and evacuation response, when required.

C. To identify emergency actions to be taken by the dam owner/operator, public officials, emergency personnel, and to outline response actions in the event of a potential or imminent failure of the dam.

II. SITUATION

A. The dam is a 16 foot high earthen water supply dam with crest length of 670 feet. It has a 20 inch reservoir drain and a 12 inch potable water supply pipe which constitute the drawdown facility of the reservoir. The dam's emergency spillway consists of a 56 feet wide spillway (concrete) at elevation 1983.3 and a 25 feet wide emergency spillway (grass lined) at elevation 1984.8. The normal pool capacity is 92 acre-feet at elevation 1983.3 with a maximum pool capacity of 139 acre-feet at elevation 1988.5 (top of dam).

B. The dam is located across Howells Run in Ebensburg Borough, just north of Ebensburg Borough, and approximately 1 mile upstream of State Route 22. Refer to the Location Map at ***Attachment C***.

C. The inundation area resulting from a sudden dam failure follows Howells Run southward to Lake Jenks near the Borough Swimming Pool, and then into Lake Rowena. Approximately 4 miles south of the Borough in Cambria Township, Howells Run merges with Roaring Run. From this point Howells Run flows eastward for approximately 2 miles to its confluence with the North Branch of the Little Conemaugh River in Munster Township. The Little Conemaugh River then flows southward to Wilmore Dam located approximately 8.7 miles downstream of Howells Run Dam in Summerhill and Portage Townships. Refer to the Inundation Map at ***Attachment A***.

D. Within the inundation area there are approximately 11 homes with an estimated 30 residents, 10 commercial businesses, one water treatment plant, one sewage treatment plant, one baseball field, and one public swimming pool. Refer to the Inundation Map at ***Attachment A***.

III. CONCEPT OF OPERATIONS

A. SURVEILLANCE – NORMAL CONDITIONS - (DAM OWNER OR OPERATOR)

1. The dam owner, dam operator or a designated representative will conduct an on-site visual inspection of the dam, the dam's spillway(s), control systems, and the toe area below the dam at a minimum of once every three months. Any abnormal or questionable conditions will be immediately brought to the attention of the owner's engineer and the Division of Dam Safety of DEP.

B. SURVEILLANCE – UNUSUAL EVENT CONDITIONS (DAM WATCH)

1. The dam owner, dam operator or a designated representative will commence surveillance of conditions at the dam site when:

    a. Severe thunderstorms, heavy rains with local flood warnings, tropical storms and hurricanes, or heavy rains with frozen ground and/or snow cover are occurring.
    b. The National Weather Service issues a flash flood watch or warning and conditions warrant.
    c. Any abnormal or questionable conditions as identified in Section III.D.1.

C. EARLY WARNING NOTIFICATION

1. The dam owner, dam operator or a designated representative is responsible for determining the dam's threat potential. The following conditions constitute a dam early warning notification to the Cambria County PSAP/911 and require 24-hour around-the-clock surveillance.

    a. The water level in the impoundment area has reached the threshold level of 3.7 feet below the top of the dam (1.5 feet of flow in the concrete spillway) and is rising, or
    b. Following the occurrence of an earthquake in the general region of the dam.

2. Early warning notification will be relayed from the Cambria County PSAP/911 to the Cambria County EMC, the PEMA State EOC and all applicable emergency responders and designated government officials and agencies.

D. WARNING AND EVACUATION NOTIFICATION

1. The dam owner, dam operator or a designated representative is responsible for determining the dam's threat potential. The following conditions constitute a dam emergency requiring warning and evacuation notification to the Cambria County PSAP/911.

    a. The depth of flow in the concrete emergency spillway has reached a depth of 3.2 feet. (pool elevation of 1986.5 feet), and
    b. The water level in the impoundment area has reached the threshold level of 2 feet below the top the dam, or
    c. Imminent failure of this dam might be indicated by observance of one or more of the following conditions at the dam site:

        i. The lake or pond level is at or near the top of the dam and water is flowing, or about to flow, over the top of the dam.
        ii. The overflow pipe or spillway is damaged, or clogged with debris or ice, which is resulting in a rapid rise in the lake or pond level.

iii. The primary or emergency spillway is experiencing heavy flows which are causing severe erosion to the spillway or the dam embankment.
iv. Any structural movement or failure of the concrete spillway or the spillway abutment walls.
v. Any sloughing or sliding of the embankment upstream or downstream slope. Also, earth slides in the spillway channel, either upstream or downstream of the dam's crest, which could impede the flow in the spillway.
vi. Subsidence, sinkholes or cracks found in any part of the dam's embankment or abutting slopes.
vii. Any new discharge of water is observed through the dam's embankment or abutting slopes, adjacent to any conduit outlets, or under the dam, which appears as a boil along the downstream toe. Should such a discharge occur and the water is cloudy or muddy in color, then a very serious problem exists.

2. Warning and evacuation notification will be relayed from the Cambria County PSAP/911 to the Cambria County EMC, the PEMA State EOC and all applicable emergency responders and designated government officials and agencies.
3. Emergency management officials will accomplish the needed actions, which are explained in this EAP, in accordance with their existing recommended operating guidelines and existing municipal or county emergency operation plans.
4. Warning and evacuation of the public must commence upon notification by the dam owner, dam operator or a designated representative of a potential or imminent failure of the dam. Emergency responders should initiate action in accordance with the plan outline and any existing internal organizational recommended operating guidelines, and existing municipal or county operation plans.

E. TERMINATION OF SURVEILLANCE AND NOTIFICATIONS

1. The dam owner, dam operator or a designated representative may terminate 24 - hour surveillance of dam site conditions when:

a. All National Weather Service flash flood watches or warnings have expired, **and**
b. Heavy rains have ended and the water level in the lake has dropped 4.0' below the top of the dam and is receding.
c. After a personal inspection of the dam site has been conducted by a knowledgeable professional engineer following an earthquake, overtopping of the dam, or an evacuation of the inundation area as a result of this EAP, or other serious problems resulting in a notification of a dam site emergency and the Department concurs with the results of the inspection.

2. Upon termination of 24 hour surveillance of dam site conditions, the dam owner, dam operator, or a designated representative shall notify the Cambria County PSAP/911.
3. Termination of notifications will be relayed from the Cambria County PSAP/911 to the Cambria County EMC, the PEMA State EOC and all applicable emergency responders and designated government officials and agencies.

IV. RESPONSIBILITIES AND DUTIES - EMERGENCY RESPONSE

A. DAM OWNER OR DAM OPERATOR (DAM SITE EMERGENCY)

1. The dam owner, dam operator or a designated representative will provide for 24-hour on-site dam surveillance and monitoring as required in Section III.C.1. and initiate early warning notification to the Cambria County PSAP/911.
2. When the situation meets the criteria under the warning and evacuation notification guidelines, presented in Section III.D.1, indicating a failure of the dam is possible or a significant threat condition is developing, the dam owner, dam operator or a designated representative will initiate warning and evacuation communication to the Cambria County PSAP/911.

B. CAMBRIA COUNTY PSAP/911

1. The Cambria County PSAP/911 will notify:

    a. Cambria County EMA
    b. PEMA State EOC
    c. Ebensburg Borough Police Department
    d. Cambria Township Police Department
    e. Summerhill Township Police Department
    f. PA State Police – (Ebensburg Barracks)
    g. Dauntless Fire Company
    h. Revloc Volunteer Fire Department
    i. Cresson Fire Department
    j. Summerhill Township Fire Company
    k. Ebensburg Area Ambulance Association
    l. Portage Area Ambulance Association
    m. Forest Hills Ambulance Association

C. CAMBRIA COUNTY EMA

1. The Cambria County EMA will contact the following personnel and agencies:

    a. National Weather Service
    b. Central Cambria Zone EMA
    c. Munster Township EMA

d. Portage Township EMA
e. Summerhill Township EMA
f. Cambria County Chairman of the Commissioners
g. Media - Warning and/or Evacuation (Activate EAS). Refer to Attachment E
h. Cambria County EOC staff, as necessary
i. American Red Cross - Keystone Chapter (when mass care or family assistance is required). Coordinate sheltering per ESF 6 of County EOP.
j. Central Cambria School District
k. Pennsylvania Emergency Management Agency
l. PennDOT - District 9-3
m. Ebensburg Borough Swimming Pool
n. Cambria Somerset Authority
o. Forrest Hills School District

2. The Cambria County EMA will ascertain and report to PEMA any unmet needs requirements.

3. The Cambria County EMA will initiate Damage Assessment and Recovery procedures as the situation requires.

D. LOCAL MUNICIPAL EMAs

1. CENTRAL CAMBRIA ZONE EMA
2. MUNSTER TOWNSHIP EMA
3. PORTAGE TOWNSHIP EMA
4. SUMMERHILL TOWNSHIP EMA
   a. Advise facilities with special needs individuals as outlined in the Emergency Operations Plan (EOP) and identified by the Hazard Vulnerability Analysis (areas impacted due to a dam failure and indicated on the Inundation Map).
   b. Notify municipal elected officials and municipal services (water, sewer, etc.).
   c. Keep the County EMA apprised of the situation.
   d. Coordinate the evacuation (where appropriate).
   e. Provide damage reporting to the Cambria County EMC.

E. FIRE DEPARTMENTS

1. DAUNTLESS FIRE COMPANY
2. REVLOC VOLUNTEER FIRE DEPARTMENT
3. CRESSON FIRE DEPARTMENT
4. SUMMERHILL TOWNSHIP FIRE COMPANY
   a. Provide citizen notification and route alerting to advise residents living within their jurisdiction (See Inundation Map - Attachment A).
   b. Assist in evacuation.
   c. Assist police and EMS, as requested.

d. Provide communications support if feasible and requested.

F. POLICE SERVICES

1. EBENSBURG BOROUGH POLICE DEPARTMENT
2. CAMBRIA TOWNSHIP POLICE DEPARTMENT
3. SUMMERHILL TOWNSHIP POLICE DEPARTMENT
4. PA STATE POLICE (EBENSBURG BARRACKS)
   a. Dispatch radio vehicle to dam site in order to provide alternate communications link to PSAP/911 - Summerhill Township Police Department.
   b. Assist evacuation traffic flow and establish traffic control points (TCP) at pre-designated locations (See Inundation Map – Attachment A and Traffic Control Points – Attachment B).
   c. Prevent unauthorized entry and provide security of evacuated areas.
   d. Provide assistance with route alerting, if requested.

G. EMERGENCY MEDICAL SERVICES (EMS)

1. EBENSBURG AREA AMBULANCE ASSOCIATION
2. PORTAGE AREA AMBULANCE ASSOCIATION
3. FOREST HILLS AMBULANCE ASSOCIATION

   a. Provide evacuation transportation assistance and coordinate with designated fire services agencies for transportation of persons with disabilities and any special needs.
   b. Assist fire and police departments as requested.
   c. Provide EMS support to any mass care center as requested.

H. AMERICAN RED CROSS

1. KEYSTONE CHAPTER (If requested by Cambria County EMA)

   a. Identify and activate an appropriate shelter, as necessary.
   b. Support and maintain operations of the reception center.
   c. Maintain communications with County EMC, local EMA and reception center.

I. PENNSYLVANIA DEPARTMENT OF TRANSPORTATION (PennDOT)

1. Provide services, signs, barricades and guidance on roads and bridges affecting the evacuation and recovery.

V. ADMINISTRATION AND LOGISTICS

A. The NOTICE (Attachment F) will be posted in the following public places located within the inundation area:

1. CAMBRIA TOWNSHIP MUNICIPAL BUILDING
2. EBENSBURG BOROUGH MUNCIPAL BUILDING
3. MUNSTER TOWNSHIP MUNICIPAL BUILDING
4. PORTAGE TOWNSHIP MUNICIPAL BUILDING
5. SUMMERHILL TOWNSHIP MUNICIPAL BUILDING
6. REVLOC VOLUNTEER FIRE COMPANY
7. DAUNTLESS FIRE COMPANY
8. CRESSON FIRE DEPARTMENT
9. SUMMERHILL TOWNSHIP VOLUNTEER FIRE DEPARTMENT
10. EBENSBURG OIL & GAS
11. LIONS FIELD
12. EBENSBURG TENNIS CENTER

B. The NOTICE (Attachment F) must state that copies of the Emergency Action Plan for this dam are available for inspection at the following locations:

1. CAMBRIA COUNTY EMERGENCY MANAGEMENT AGENCY
   110 Franklin Street, Suite 200
   Johnstown, PA 15901

2. CAMBRIA TOWNSHIP EMERGENCY MANAGEMENT OFFICE
   184 Municipal Road
   Revloc, PA 15948

3. EBENSBURG BOROUGH EMERGENCY MANAGEMENT OFFICE
   300 West High Street
   Ebensburg, PA 15931

4. MUNSTER TOWNSHIP EMERGENCY MANAGEMENT OFFICE
   264 Gailey Road
   Lilly, PA 15938

5. PORTAGE TOWNSHIP EMERGENCY MANAGEMENT OFFICE
   416 Miller-Shaft Road
   Portage, PA 15946

6. SUMMERHILL TOWNSHIP EMERGENCY MANAGEMENT OFFICE
   114 Irvin Street
   Beaverdale, PA 15946

7. EBENSBURG BOROUGH MUNICIPAL AUTHORITY
   300 West High Street
   Ebensburg, PA 15931

8. CENTRAL CAMBRIA ZONE EMA
569 Cambria Avenue
Revloc, PA 15948

C. A new NOTICE will be sent to those locations in paragraph "A" when the EAP is revised.

D. The dam owner is responsible to verify posting of the NOTICE and documenting the status in the annual inspection report.

VI. AUTHORITY AND REFERENCES

A. AUTHORITY

1. The Dam Safety and Encroachments Act (32 P.S. Sections 693.1-693.27), May 16, 1985.
2. The Pennsylvania Code - Title 25, Chapter 105 Dam Safety and Waterways Management, Section 105.63 and 105.134.
3. Emergency Management Services Code, 35 Pa C.S. Section 7101 et seq., as amended.

B. REFERENCES

1. Guidelines for Developing an Emergency Action Plan for Hazard Category 1 & 2 Dams. Prepared by the Department of Environmental Protection, Water Management, Bureau of Waterways Engineering, Division of Dam Safety and the Pennsylvania Emergency Management Agency, January 2009.
2. Inspection, Maintenance and Operation of Dams in Pennsylvania. Prepared by the Department of Environmental Protection, Water Management, Bureau of Waterways Engineering, Division of Dam Safety, February 2009.
3. Cambria County Emergency Operations Plan.

VII. DEFINITIONS

A. **ABUTMENT** - The part of the valley's hillside against which the dam abuts. Right and left abutments are those on respective sides of the dam as an observer looks downstream.

B. **AFFECTED COUNTIES/MUNICIPALITIES** – Those jurisdictions within Pennsylvania or adjoining states that, according to the inundation map, may experience flooding as a result of a failure of the dam.

C. **BOIL** - A disturbance in the surface layer of soil caused by water escaping under pressure from behind a water-retaining structure such as a dam or a levee. The boil may be accompanied by deposition of soil particles (usually sand or silt) in the form of a ring (miniature volcano) around the area where the water escapes.

D. **BREACH** - An opening or a breakthrough of a dam sometimes caused by rapid erosion of a section of earth embankment by water.

E. **CONDUIT** - A pipe used to convey water through or around or under a dam.

F. **CONTROL TOWER** - A structure in the dam or reservoir used to control withdraw of water from the reservoir through pipes or culverts.

G. **CREST OF DAM** - The crown of an overflow section of the dam. In the United States, the term "crest of dam" is often used when "top of dam" is intended. To avoid confusion, the terms **crest of spillway** and **top of dam** should be used for referring to the overflow section and dam proper, respectively.

H. **CULVERT** - (a) A drain or waterway structure built transversely under a road, railway, or embankment. A culvert usually comprises a pipe or a covered channel of box section. (b) A gallery or waterway constructed through any type of dam, which is normally dry but is used occasionally for discharging water; hence the terms scour culvert, drawoff culvert and spillway culvert.

I. **DAM** - A barrier built across a watercourse for impounding or diverting the flow of water.

J. **DAM FAILURE** - The uncontrolled release of a dam's impounded water. It is recognized that there are degrees of failure. Any malfunction or abnormality, outside the design assumptions and parameters, which adversely affect a dam's primary function of impounding water is properly considered a failure. Minor malfunctions or abnormalities can result in a sudden failure of a dam.

K. **EARTH DAM (EARTHFILL DAM)** - An embankment dam in which more than 50% of the total volume is formed of compacted fine-grained earth.

L. **EMBANKMENT** - Fill material, usually earth or rock, placed with sloping sides.

M. **EMERGENCY** - A condition of serious nature which develops unexpectedly and endangers the structural integrity of a dam or endangers downstream property and human life. An emergency requires immediate action.

N. **EAP** – Emergency Action Plan - A formal document that identifies potential emergency conditions at a dam and specifies preplanned actions to be followed to minimize property damage and loss of life. It contains procedures and information to assist the dam owner in issuing early warning and notification messages to responsible downstream emergency management authorities of the emergency situation. It also contains inundation maps to show the emergency management authorities of the critical areas for action in case of an emergency.

O. **EOP** – Emergency Operations Plan - "The document … which describes the hazards, vulnerabilities, emergency management situations and assumptions that affect the municipality, the concept of operations during an emergency, and the various roles and assignments of the elected officials, emergency management coordinator and other emergency response personnel, whether paid or volunteer." (From PEMA Directive D2007-1). The EOP includes checklists for known critical facilities, special facilities, critical personnel, hearing impaired residents, non-English speaking residents, residents requiring ambulance assistance, etc., as identified by local emergency management officials.

P. **FACE** - With reference to a structure, the external surface that limits the structure, e.g., the face of a wall or dam.

Q. **FAILURE** - An incident resulting in the uncontrolled release of water from an operating dam. See "Dam Failure".

R. **FOUNDATION OF DAM** - The natural material on which the dam structure is placed.

S. **GROIN** - That area along the contact (or intersection) of the face of a dam with the abutment.

T. **HAZARD** - A situation which creates the potential for adverse consequences such as loss of life, property damage, and adverse social and environmental impacts. Impacts may be for a defined area downstream of a dam from flood-waters released through spillways and outlet works of the dam or waters released by partial or complete failure of the dam. This could include an area upstream of the dam from effects of backwater flooding or effects of landslides around the reservoir perimeter.

U. **INUNDATION AREA** - The downstream area that would be flooded or otherwise affected by the failure of a dam or large flows. This area can be subject to a fast moving flood wave, 20 to 50 MPH is common, with a height of 1 foot to tens of feet.

V. **INUNDATION MAP** - A map delineating the area that would probably be flooded in the event of a dam failure. This map must be prepared by a registered professional engineer.

W. **NOTIFICATION** - To promptly inform appropriate individuals or emergency agency about an emergency condition so they can initiate appropriate actions.

X. **NORMAL WATER LEVEL (NORMAL WATER POOL)** - For reservoir with a fixed overflow spillway crest, it is the lowest level of that crest.

Y. **OPERATOR** - The person or position in a company or organization, who is responsible for a dam's operation and surveillance.

Z. **OUTLET** - A constructed opening through which water can be safely discharged for a particular purpose from a reservoir.

AA. **OWNER** - Any person, authority or agency that manages a dam or reservoir.

BB. **PSAP** - Public Safety Answering Point - an agency in the United States, typically county or city controlled, responsible for answering 9-1-1 calls for emergency assistance from police, fire, and ambulance services.

CC. **SEEPAGE** - The movement of water that might occur through the dam, its foundation or its abutments. Small amounts of clear water seepage is normal. Increase in the amount of water flow or change in color is a concern for a dam's safety.

DD. **SLIDE** - The movement of a mass of earth down a slope. In embankments and abutments, this involves the separation of a portion of the slope from the surrounding materials.

EE. **SPILLWAY** - A structure over or through which flows are discharged. If the flow is controlled by gates, it is considered a controlled spillway; if the elevation of the spillway crest is the only control, it is considered an uncontrolled spillway.

FF. **SPILLWAY CHANNEL** - A channel conveying water from the spillway crest to the river downstream.

GG. **TOE OF DAM** - The junction of the downstream face of a dam with the ground surface. Also referred to as downstream toe. For an embankment dam, the junction of the upstream face with ground surface is called the upstream toe.

HH. **TOP OF DAM** - The elevation of the uppermost surface of a dam, usually a road or walkway, excluding any parapet wall, railings, etc.

II. **TRAFFIC CONTROL POINT (TCP)** – Manned or unmanned posts established at critical road junctions for the purpose of controlling or limiting traffic. TCPs are used to control evacuation movement and also limit entry into the inundation area when an emergency situation requires it.

JJ. **VOAD** - Voluntary Organizations Active in Disasters - collaboration of diverse organizations and citizens trained to meet community needs in the wake of a large-scale disaster.

VIII. EXERCISE AND TRAINING

The dam owner will advise and cooperate with the Cambria County EMA of any exercises scheduled, and coordinate with the Cambria County EMA to exercise all or portions of this EAP as part of the county's all-hazard exercise program schedule.

IX. PLAN MAINTENANCE AND DISTRIBUTION

A. This EAP will be reviewed every five years by the owner or the owner's engineer. During the five year review:

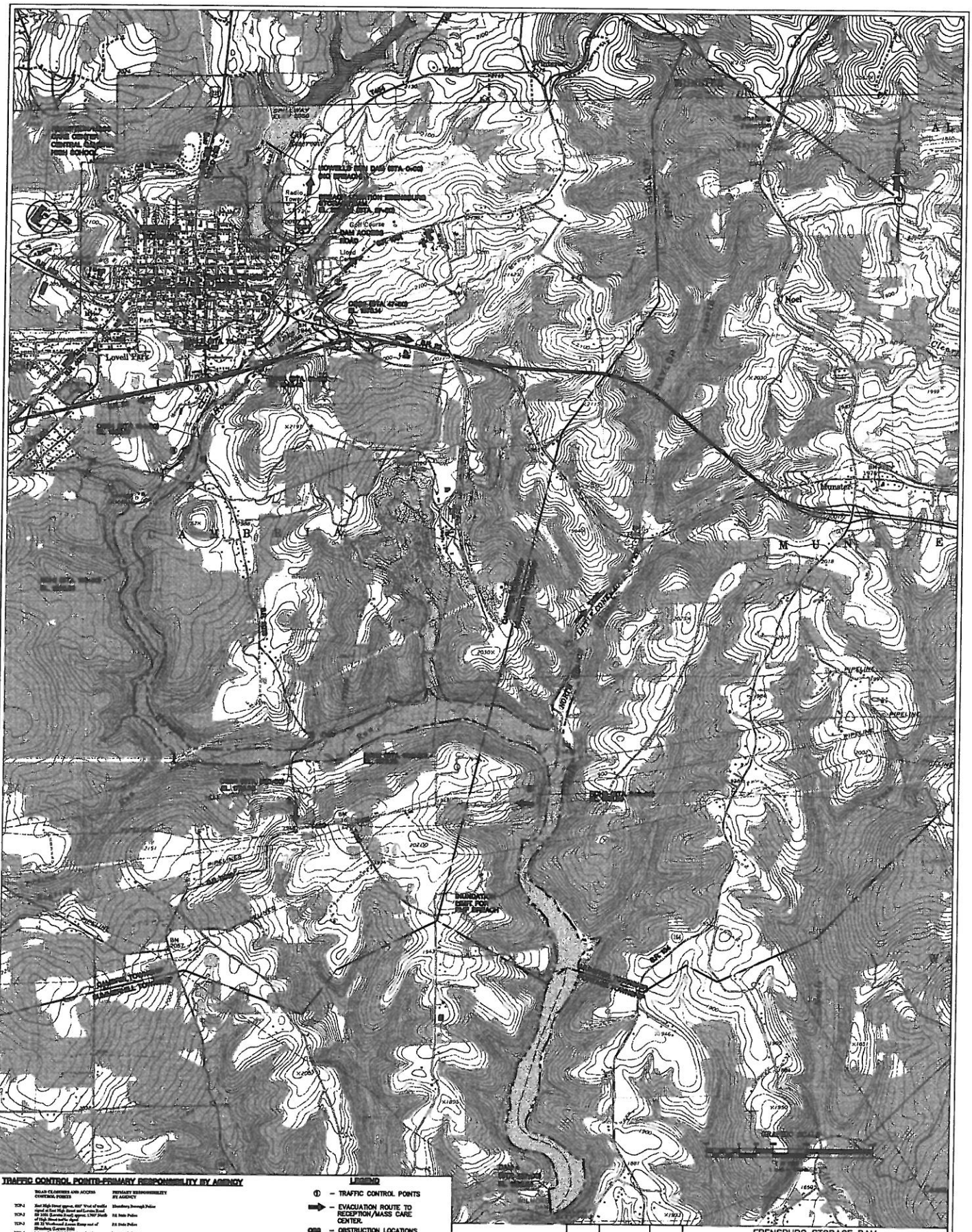
1. The owner or the owner's engineer will conduct an on-site review of the flood (inundation) area for any increase in downstream development and revise the Inundation Map, if needed.
2. The owner's engineer will review and revise surveillance conditions as needed.
3. The owner will coordinate with Cambria County EMA if population increase or development within the inundation area could affect the emergency response requirements. If so, a new or revised plan must be developed.
4. The owner will meet with and obtain concurrence from the Cambria County EMC.
5. The owner will submit 6 copies at a minimum of the revised plan to DEP for review and approval.

B. A copy of the approved EAP will be distributed by the dam owner to those emergency response agencies listed in Section IV. DEP, Division of Dam Safety will distribute a copy of the approved EAP to PEMA's Area Office, the affected county Emergency Management Agency(s) and PSAP/911 Center(s), the National Weather Service, and the DEP's Regional Office. Within 60 days, the dam owner will submit a letter certifying distribution of the approved EAP and posting of NOTICE(s) to the DEP, Division of Dam Safety.

ATTACHMENTS:

ATTACHMENT A INUNDATION MAP
ATTACHMENT B TRAFFIC CONTROL POINTS
ATTACHMENT C LOCATION MAP
ATTACHMENT D TELEPHONE ROSTER
ATTACHMENT E MEDIA ANNOUNCEMENT

INSERT
ATTACHMENT A
INUNDATION MAP



TRAFFIC CONTROL POINTS-PRIMARY RESPONSIBILITY BY AGENCY

	ROAD CLOSURES AND ACCESS CONTROL POINTS	PRIMARY RESPONSIBILITY BY AGENCY
TCP-1	East High Street approx. 400' West of traffic signal at East High Street and Levine Road	Ebensburg Borough Police
TCP-2	SR 1002 (Levine Road) approx. 1,700' North of High Street traffic signal	PA State Police
TCP-3	SR 22 Westbound Access Ramp east of Ebensburg (Layton Exit)	PA State Police
TCP-4	Intersection of SR 22 Eastbound and Wilmore Road	PA State Police
TCP-5	Intersection of SR 2013 and Trent Road	PA State Police/Cambria Township Police
TCP-6	Intersection of SR 2013 and T326 (Munster Township)	Munster Township Police
TCP-7	T326 Northbound (Munster Township) @ the confluence of the North Branch of the Little Conemaugh River and Hinckle Run	Munster Township Police
TCP-8	Westbound T326 (Cambria Township) approx. 500' east of TCP8	Cambria Township Police
TCP-9	T424 (Cambria Township) approx. 1000' North of East High Street	Cambria Township Police
TCP-10	SR3013 (Widnoon Road) approx. 2500' South of SR 1022	Cambria Township Police
TCP-11	SR3013 (Widnoon Road) approx. 600' North of T-424 (Hoover Hill Road)	Cambria Township Police
TCP-12	Lakeview Road (Ebensburg Borough) approx. 1250' South of SR1026 (Geronia Drive)	Ebensburg Borough Police

SOURCE:
MAP SCANNED FROM U.S.G.S. 7.5 MINUTE QUADRANGLE, EBENSBURG AND CARROLLTOWN, PA.

LEGEND

- (1) – TRAFFIC CONTROL POINTS
- ➡ – EVACUATION ROUTE TO RECEPTION/MASS CARE CENTER.
- OBS – OBSTRUCTION LOCATIONS
- RCN – REACH LOCATIONS
- ⊠ – NO PUBLIC ACCESS
- (A) – SPECIAL RISK FACILITIES: (WITHIN INUNDATION AREA)
  - A. EBENSBURG WATER TREATMENT PLANT.
  - B. EBENSBURG BOROUGH POOL.
  - C. EBENSBURG WASTEWATER TREATMENT PLANT.
  - D. LAKE ROWENA (RECREATION AREA)

7/20/11

DATE	REVISED	BY
7/22/11	PADEP Comments	GBW
12/27/10	2010 Update	GBW

EBENSBURG STORAGE DAM
DEP. NO. D11-061 EBENSBURG BOROUGH, CAMBRIA CO.

INUNDATION MAP & TRAFFIC CONTROL PLAN

L. ROBERT KIMBALL & ASSOCIATES, INC.
CONSULTING ENGINEERS
EBENSBURG, PA. PITTSBURGH, PA.

DRAWN BY NLS	DATE 1/10/05	CODE NO. NA	SHEET NO. 1
CHECKED BY JWS	DATE 1/17/05	SCALE 1"=1000'	OF 1
APPROVED BY DGN	DATE 1/18/05		

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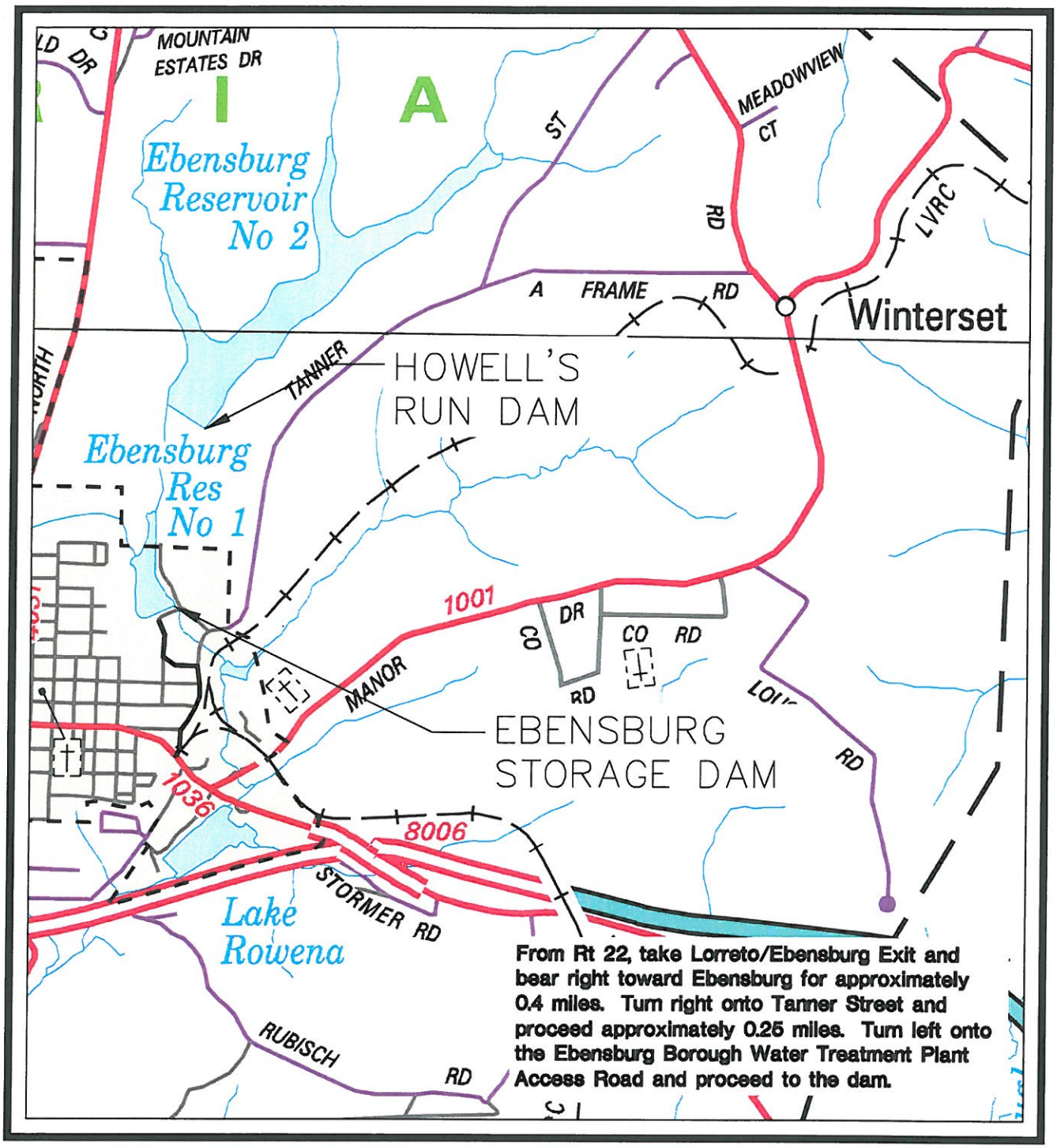
ATTACHMENT B
TRAFFIC CONTROL POINTS

	ROAD CLOSURES AND ACCESS CONTROL POINTS	PRIMARY RESPONSIBILITY BY AGENCY
TCP-1	East High Street approx. 600' West of traffic signal at East High Street and Loretto Road	Ebensburg Borough Police
TCP-2	SR 1001 (Loretto Road) approx. 1700' North of High Street traffic signal	PA State Police
TCP-3	SR 22 Westbound Access Ramp east of Ebensburg (Loretto Exit)	PA State Police
TCP-4	Intersection of SR 22 Eastbound and Wilmore Road	PA State Police
TCP-5	Intersection of SR 2013 and Trout Road	PA State Police/Cambria Township Police
TCP-6	Intersection of SR 2013 and T438 (Munster Township)	Munster Township Police PA State Police
TCP-7	T438 Northbound (Munster Township) @ the confluence of the North Branch of the Little Conemaugh River and Howells Run	Munster Township Police
TCP-8	Westbound T416 (Cambria Township) approx. 5600' east of T420.	Cambria Township Police
TCP-9	T454 (Cambria Township) approx. 1800' North of East High Street	Cambria Township Police
TCP-10	SR2013 (Wilmore Road) approx. 2500' South of SR 0022	Cambria Township Police
TCP-11	SR2013 (Wilmore Road) approx. 650' North of T420 (Howell Hill Road)	Cambria Township Police
TCP-12	Lakeview Road (Ebensburg Borough) approx. 1230' South of SR1036 (Rowena Drive)	Ebensburg Borough Police

INSERT
ATTACHMENT C
LOCATION MAP



ATTACHMENT C
LOCATION MAP
EBENSBURG STORAGE DAM

Scale: 1=2,000'
Ebensburg Storage Dam, Cambria County, Pennsylvania
From PADOT, General Highway Map, Cambria County, PA, 2010

L. ROBERT KIMBALL & ASSOCIATES, INC.

ATTACHMENT D
TELEPHONE ROSTER

AGENCY	PHONE NUMBERS	
	Non-Emergency	Emergency/24Hr
Dam Owner/Operator Jeff Evans – Reservoir Manager Borough of Ebensburg	(814) 472-8780	(814) 244-1414
Cambria County Communications Center 911 Cambria County 911	(814) 472-2100	911
Cambria County Emergency Management Agency	(814) 472-2072	911
Central Cambria Zone EMA	(814) 659-5881	
Munster Township EMA	(814)886-4049	
Portage Township EMA	(814) 736-3625	
Summerhill Township EMA	(814) 487-5331	
Dauntless Fire Co.	(814) 472-9281	911
Cresson Fire Dept.	(814) 886-4485	911
Summerhill Twp. VFC	(814) 487-5177	911
Revloc VFD	(814) 472-2100	911
Ebensburg Area Ambulance Association	(814) 472-6700	911
Portage Area Ambulance Service Association	(814) 436-3360	911
Forest Hills Ambulance Association	(814) 495-5107	911
Ebensburg Borough Police	(814) 472-8930	911
Cambria Township Police	(814) 472-6040	911
Summerhill Township Police	(814) 487-7314	911
Pennsylvania State Police Ebensburg Barracks	(814) 472-8500	911
Ebensburg Borough Manager	(814) 472-8780	(814) 659-3491
Cambria Township Supervisors	(814) 472-8810	
Munster Township Supervisors	(814) 886-5190	
Portage Township Supervisors	(814) 736-3372	
Summerhill Township Supervisors	(814) 487-4147	

AGENCY	PHONE NUMBERS	
	Non-Emergency	Emergency/24Hr
Cambria County Commissioners	(814) 472-5440	
American Red Cross - Keystone Chapter	(814) 255-1550	(814) 255-1550
PADEP Dam Safety	(717) 787-8568	800-541-2050
DEP Southwest Regional Office	(412) 442-4187	(412) 442-4000
PA Emergency Management Agency	(717) 651-2001	800-424-7362
Pa Department of Transportation Ebensburg Area	(814) 472-7100	(814) 472-7100
Media Center (WQKK FM 99.1)	(814) 539-9999	
Ebensburg Borough Swimming Pool	(814) 472-9845	
Central Cambria School District Office	(814) 472-8870	
Forrest Hills School District Office	(814) 487-7613	

ATTACHMENT E
MEDIA ANNOUNCEMENT

EARLY WARNING MESSAGE:

The Cambria County Emergency Management Agency advises that due to conditions at the Ebensburg Storage Dam in Cambria Township, the public should avoid the area downstream of the dam between Ebensburg Borough and Wilmore Dam along Howells Run and the North Branch of the Little Conemaugh River. Stay tuned for further information.

REPEAT PERIODICALLY

WARNING AND EVACUATION MESSAGE:

The Cambria County Emergency Management Agency is advising all residents living downstream of the Ebensburg Storage Dam in Cambria Township to evacuate the area immediately. Evacuate the area between Ebensburg Borough and Wilmore Dam along Howells Run and the North Branch of the Little Conemaugh River. If you require shelter during this emergency you should report to (location of reception/mass care center to be determined by county EMC, American Red Cross or other VOAD at time of emergency).

REPEAT PERIODICALLY

INCIDENT RESOLVED - SAFE TO RETURN:

The Cambria County Emergency Management Agency is advising residents of the area downstream of the Ebensburg Storage Dam in Cambria Township that the problem at the dam has been resolved and that residents may return to their homes.

REPEAT PERIODICALLY

NOTE: The above messages should be modified as necessary to fit the situation.

ATTACHMENT F

NOTICE

EBENSBURG STORAGE DAM HAS BEEN CLASSIFIED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION, DIVISION OF DAM SAFETY, AS A HIGH HAZARD DAM; THIS IS A DAM SO LOCATED AS TO ENDANGER POPULATED AREAS DOWNSTREAM BY ITS FAILURE.

AN EMERGENCY ACTION PLAN HAS BEEN DEVELOPED FOR

EBENSBURG STORAGE DAM

(NAME OF DAM)

A COPY OF THIS PLAN, INCLUDING AN INUNDATION MAP NOTING AREAS IN

EBENSBURG BOROUGH, CAMBRIA TOWNSHIP, MUNSTER TOWNSHIP, SUMMERHILL TOWNSHIP, AND PORTAGE TOWNSHIP

(NAME OF MUNICIPALITY AND/OR MUNICIPALITIES)

SUBJECT TO FLOODING IN THE EVENT OF FAILURE, IS AVAILABLE FOR PUBLIC INSPECTION AT THE FOLLOWING LOCATIONS:

Ebensburg Municipal Authority
300 West Hight Street
Ebensburg, PA

Ebensburg Borough EMA
300 West High Street
Ebensburg, PA 15931

Summerhill Township EMA
114 Irvin Street
Beaverdale, PA15921

Cambria County EMA
110 Franklin Street, Suite 200
Johnstown, PA 15901

Cambria Township EMA
184 Municipal Road
Revloc, PA 15948

Central Cambria Zone EMA
569 Cambria Avenue
Revloc, PA 15948

Munster Township EMA
264 Gailey Road
Lilly, PA 15938

Portage Township EMA
416 Miller-Shaft Road
Portage, PA 15946

This NOTICE is posted per Department of Environmental Protection's Chapter 105 Dam Safety and Waterway Management §105.134(c).