

EMERGENCY ACTION PLAN

**SURVEILLANCE, WARNING AND EVACUATION PROCEDURES
for**

UNIVERSITY PARK AIRPORT DETENTION POND 1A DAM DEP NUMBER D14-121

**LOCATED ACROSS AN UNNAMED TRIBUTARY TO BIG HOLLOW CREEK
IN BENNER TOWNSHIP, CENTRE COUNTY**

LATITUDE 40° 50' 34" LONGITUDE -77° 50' 48"

**SIZE CATEGORY "C"
HAZARD POTENTIAL CATEGORY "1"**

OPERATED BY:	BRYAN RODGERS, DIRECTOR THE PENNSYLVANIA STATE UNIVERSITY UNIVERSITY PARK AIRPORT 2535 FOX HILL ROAD STATE COLLEGE, PA 16803
TELEPHONE:	BUSINESS: 814-865-4042 24 HOUR: 814-865-4042 CELL: 814-409-8627 E-MAIL: bqr3@psu.edu
OWNED BY:	THE PENNSYLVANIA STATE UNIVERSITY UNIVERSITY PARK AIRPORT BRYAN RODGERS, DIRECTOR
ADDRESS:	2535 FOX HILL ROAD STATE COLLEGE, PA 16803
TELEPHONE:	BUSINESS: 814-865-4042 24 HOUR: 814-865-4042 CELL: 814-409-8627 E-MAIL: bqr3@psu.edu WEB PAGE: www.universityairport.com

DATE: January 2019

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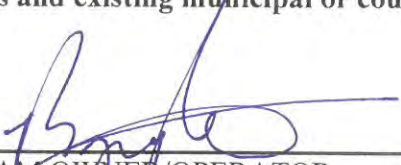
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PROMULGATION AND CONCURRENCE

We, the undersigned, on date indicated, have reviewed the requested support activity in the Emergency Action Plan for the University Park Airport Detention Pond Dam 1A (D14-121). Our support action will be executed in accordance with existing recommended operating guidelines and existing municipal or county emergency operation plans.



DAM OWNER/OPERATOR
BRYAN RODGERS, DIRECTOR
PENNSYLVANIA STATE UNIVERSITY
UNIVERSITY PARK AIRPORT

11/20/18
DATE



CENTRE COUNTY EMA
JEFFREY A. WHARRAN, DIRECTOR

11/28/18
DATE

PEMA AND DEP ACKNOWLEDGEMENTS

The Pennsylvania Emergency Management Agency has reviewed the University Park Airport Detention Pond Dam 1A (D14-121) Emergency Action Plan for appropriate content.




Director, PEMA Central Area Office

3/14/19

DATE

The Department of Environmental Protection, Division of Dam Safety, has reviewed the University Park Airport Detention Pond Dam 1A (D14-121) Emergency Action Plan for appropriate content.



Chief, Division of Dam Safety

3/25/19

DATE

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 600-foot long, impervious-fill earthen embankment of a stormwater detention pond for the University Airport. The height of the embankment is 23.5 feet measured from the downstream toe of the dam at its lowest point to the top-of-dam elevation. At top-of-dam elevation, the pool area will measure 2.7 acres. As a stormwater detention facility, the reservoir maintained by the dam embankment is normally dry. The drainage area served by the detention facility is approximately 110 acres and has the capability of impounding approximately 15 acre-feet of water at the emergency spillway crest elevation (1151.5 ft-msl) and 24 acre-feet at the top-of-dam elevation (1155.0 ft-msl) during precipitation events.
- B. The University Park Airport Detention Pond Dam 1A is located across an unnamed tributary to Big Hollow Creek, at the University Airport approximately 1.2 miles northnorthwest of the I-99 and SR 322 interchange. The dam is situated near the west side of the Walnut Grove Estates residential development and is approximately 2,900 feet eastsoutheast of the approach to Runway 6. Refer to Attachment C - *Location Map*.
- C. The inundation area resulting from a sudden dam failure consists of the area beginning at the dam and extending downstream to Big Hollow Road along an unnamed tributary of Big Hollow Creek, along the dam's drainage swale, and along Walnut Grove Drive. The inundation area is roughly parallel to, and includes low-lying areas along and over the Walnut Grove Drive roadway from Majestic View Drive to Big Hollow Road in Benner Township. Refer to Attachment A - *Inundation Map*.
- D. Within the inundation area there are four (4) homes with an approximate total population of 10 people. There are also eight (8) homes immediately adjacent to the inundation area along Willow Grove Drive that will become isolated in the event of a dam failure that would wash out Willow Grove Drive. There are no businesses, special needs, institutional or public facilities situated within the identified inundation area. Refer to Attachment A - *Inundation Map*.

III. CONCEPT OF OPERATIONS

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

1. The Dam Operator (Pennsylvania State University, University Park Airport Director) or Airport personnel designated by the Dam Operator 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 Operator (Pennsylvania State University, University Park Airport Director) or a designated representative will commence surveillance of conditions at the dam site when:
 - a. Severe thunderstorms or 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 Operator (Pennsylvania State University, University Park Airport Director) or a designated representative is responsible for determining the dam's threat potential. The following conditions constitute early warning notification to the Centre County 911/Emergency Communications Center and require 24-hour around-the-clock surveillance.
 - a. The water level in the impoundment area has reached the threshold level of seven (7) feet below the top of the dam 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 Centre County 911/Emergency Communications Center to the Centre County EMC, the PEMA - Commonwealth Watch and Warning Center and all applicable emergency responders and designated government officials and agencies. Refer to Section IV.B. for additional notifications.

D. WARNING AND EVACUATION NOTIFICATION

1. The Dam Operator (Pennsylvania State University, University Park Airport Director) 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 Centre County 911/Emergency Communications Center.
 - a. The water level in the impoundment area has reached the threshold level of four (4) feet below the top the dam, or
 - b. 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 emergency spillway is experiencing heavy flows which are causing severe erosion to the spillway or the dam embankment.
 - iv. Any sloughing or sliding of the embankment's 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.
 - v. Subsidence, sinkholes or cracks found in any part of the dam's embankment or abutting slopes.
 - vi. 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. If a discharge occurs 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 Centre County 911/Emergency Communications Center to the Centre County EMC, the PEMA - Commonwealth Watch and Warning Center and all applicable emergency responders and designated government officials and agencies. Refer to Section IV.B. for additional notifications.
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 Operator (Pennsylvania State University, University Park Airport Director) 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 Operator (Pennsylvania State University, University Park Airport Director) 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 seven and one-half (7.5) feet 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 Operator (Pennsylvania State University, University Park Airport Director) or a designated representative shall notify the Centre County 911/Emergency Communications Center.
3. Termination of surveillance and notifications will be relayed from the Centre County 911/Emergency Communications Center to the Centre County EMC, the PEMA - Commonwealth Watch and Warning Center and all applicable emergency responders and designated government officials and agencies. Refer to Section IV.B. for additional notifications.

IV. RESPONSIBILITIES AND DUTIES - EMERGENCY RESPONSE

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

1. The Dam Operator (Pennsylvania State University, University Park Airport Director) 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 Centre County 911/Emergency Communications Center.
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 Operator (Pennsylvania State University, University Park Airport Director) or a designated representative will initiate warning and evacuation notification to the Centre County 911/Emergency Communications Center.

B. COUNTY 911/EMERGENCY COMMUNICATIONS CENTER

1. The Centre County 911/Emergency Communications Center will notify:
 - a. Centre County EMA
 - b. PEMA - Commonwealth Watch and Warning Center (CWWC)
 - c. University Police Services
 - d. Alpha Fire Company
 - e. Undine Fire Company
 - f. Logan Fire Company
 - g. PA State Police – (Rockview Barracks)
 - h. Centre Lifelink Emergency Medical Services (EMS)

C. COUNTY EMA

1. The Centre County EMA will notify:
 - a. National Weather Service
 - b. Penn State Emergency Management Office
 - c. Media – Early Warning and/or Warning and Evacuation (Activate EAS). Refer to Attachment E
 - d. Benner Township EMA
 - e. Centre County EOC Staff, as necessary
 - f. American Red Cross – Centre County Chapter (when mass care or family assistance is required). Coordinate sheltering per ESF 6 of Centre County EOP.
 - g. State College Area School District (regarding closure of school bus routes).
 - h. Centre County elected officials
 - i. Pennsylvania Emergency Management Agency
 - j. PennDOT - District 2-1
 - k. Benner Township Public Works Department
2. The Centre County EMA will ascertain and report to PEMA any unmet needs requirements.
3. The Centre County EMA will initiate Damage Assessment and Recovery procedures as the situation requires.

D. LOCAL MUNICIPAL EMAs

BENNER TOWNSHIP EMA
PENN STATE EMERGENCY MANAGEMENT OFFICE

1. 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*).
2. Notify municipal elected officials and municipal services (water, sewer, etc.).
3. Keep the County EMA apprised of the situation.
4. Coordinate the evacuation (where appropriate).
5. Provide damage reporting to the Centre County EMA.

E. FIRE DEPARTMENTS

ALPHA FIRE COMPANY
UNDINE FIRE COMPANY
LOGAN FIRE COMPANY

1. Provide citizen notification and route alerting to advise residents living within their jurisdiction (See Inundation Map - Attachment A).
2. Assist in evacuation.
3. Assist police and EMS, as requested.
4. Provide communications support if feasible and requested.

F. POLICE SERVICES

UNIVERSITY POLICE SERVICES
PENNSYLVANIA STATE POLICE, ROCKVIEW BARRACKS

1. Dispatch radio vehicle to dam site in order to provide alternate communications link to PSAP/911 – University Police Services.
2. 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).
3. Prevent unauthorized entry and provide security of evacuated areas.
4. Provide assistance with route alerting, if requested.

G. EMERGENCY MEDICAL SERVICES (EMS)

CENTRE LIFELINK EMERGENCY MEDICAL SERVICES (EMS)

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

H. AMERICAN RED CROSS

CENTRE COUNTY CHAPTER (If requested by Centre County EMA)

1. Identify and activate an appropriate shelter, as necessary.
2. Support and maintain operations of the reception center.
3. Maintain communications with Centre County EMC, Benner Township EMA and reception center.

I. PUBLIC WORKS AND HIGHWAY DEPARTMENTS

**PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BENNER TOWNSHIP PUBLIC WORKS DEPARTMENT**

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 or near the inundation area:

1. Benner Township Municipal Office
2. Spring Creek Trail and Benner Spring Trail -Trail Head
3. PSU University Airport, Administration Building
4. Hillside Lodge and Resort
5. The Pennsylvania State University Office of Physical Plant
6. Alpha Fire Company Hall
7. Undine Fire Company Fire Hall
8. Logan Fire Company Fire Hall

- B. The *NOTICE* must state that copies of the Emergency Action Plan for this dam are available for inspection at the following locations:
1. Centre County Emergency Management Agency Office
Willowbank County Office Building
420 Holmes Street
Bellefonte, PA 16823
 2. Benner Township Municipal Office
1224 Buffalo Run Road
Bellefonte, PA 16823
 3. Pennsylvania State University – Dam Owner
University Park Airport, Administrative Office
2535 Fox Hill Road
State College, PA 16803
- 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, and 3 Dams. Prepared by the Department of Environmental Protection, Water Management, Bureau of Waterways Engineering and Wetlands, 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 and Wetlands, Division of Dam Safety, February 2009.
3. Centre 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. **COMMONWEALTH RESPONSE COORDINATION CENTER (CRCC)** - Serves as the Commonwealth's primary coordination point for response and recovery operations during natural or human-caused disasters and other emergencies. When activated, state agencies, volunteer organizations, and other stakeholders send representatives to the CRCC where they work to coordinate state agency response and recovery efforts to support affected counties and local jurisdictions.
- F. **COMMONWEALTH WATCH AND WARNING CENTER (CWWC)** - Serves as the 24/7 monitoring and emergency alerting hub for all-hazards incidents and events throughout the Commonwealth. The CWWC works with county Public Safety Answering Points (PSAP's), Emergency Management agencies, state agencies and other stakeholders to maintain Situational Awareness (SA) and provide a Common Operating Picture (COP) for agencies throughout the state.
- G. **CONDUIT** - A pipe used to convey water through or around or under a dam.
- H. **CONTROL TOWER** - A structure in the dam or reservoir used to control withdraw of water from the reservoir through pipes or culverts.
- I. **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.
- J. **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.
- K. **DAM** - A barrier built across a watercourse for impounding or diverting the flow of water.
- L. **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.
- M. **EARTH DAM (EARTHFILL DAM)** - An embankment dam in which more than 50% of the total volume is formed of compacted fine-grained earth.
 - N. **EMBANKMENT** - Fill material, usually earth or rock, placed with sloping sides.
 - O. **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.
 - P. **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.
 - Q. **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.
 - R. **FACE** - With reference to a structure, the external surface that limits the structure, e.g., the face of a wall or dam.
 - S. **FAILURE** - An incident resulting in the uncontrolled release of water from an operating dam. See “Dam Failure”.
 - T. **FOUNDATION OF DAM** - The natural material on which the dam structure is placed.
 - U. **GROIN** - That area along the contact (or intersection) of the face of a dam with the abutment.
 - V. **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 floodwaters 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.
 - W. **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.
 - X. **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.

- Y. **NOTIFICATION** - To promptly inform appropriate individuals or emergency agency about an emergency condition so they can initiate appropriate actions.
- Z. **NORMAL WATER LEVEL (NORMAL WATER POOL)** - For reservoir with a fixed overflow spillway crest, it is the lowest level of that crest.
- AA. **OPERATOR** - The person or position in a company or organization, who is responsible for a dam's operation and surveillance.
- BB. **OUTLET** - A constructed opening through which water can be safely discharged for a particular purpose from a reservoir.
- CC. **OWNER** - Any person, authority or agency that manages a dam or reservoir.
- DD. **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.
- EE. **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.
- FF. **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.
- GG. **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.
- HH. **SPILLWAY CHANNEL** - A channel conveying water from the spillway crest to the river downstream.
- II. **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.
- JJ. **TOP OF DAM** - The elevation of the uppermost surface of a dam, usually a road or walkway, excluding any parapet wall, railings, etc.
- KK. **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.
- LL. **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 Centre County EMA of any exercises scheduled, and coordinate with the Centre County EMA to exercise all or portions of this EAP as part of the county's all-hazard exercise program schedule.

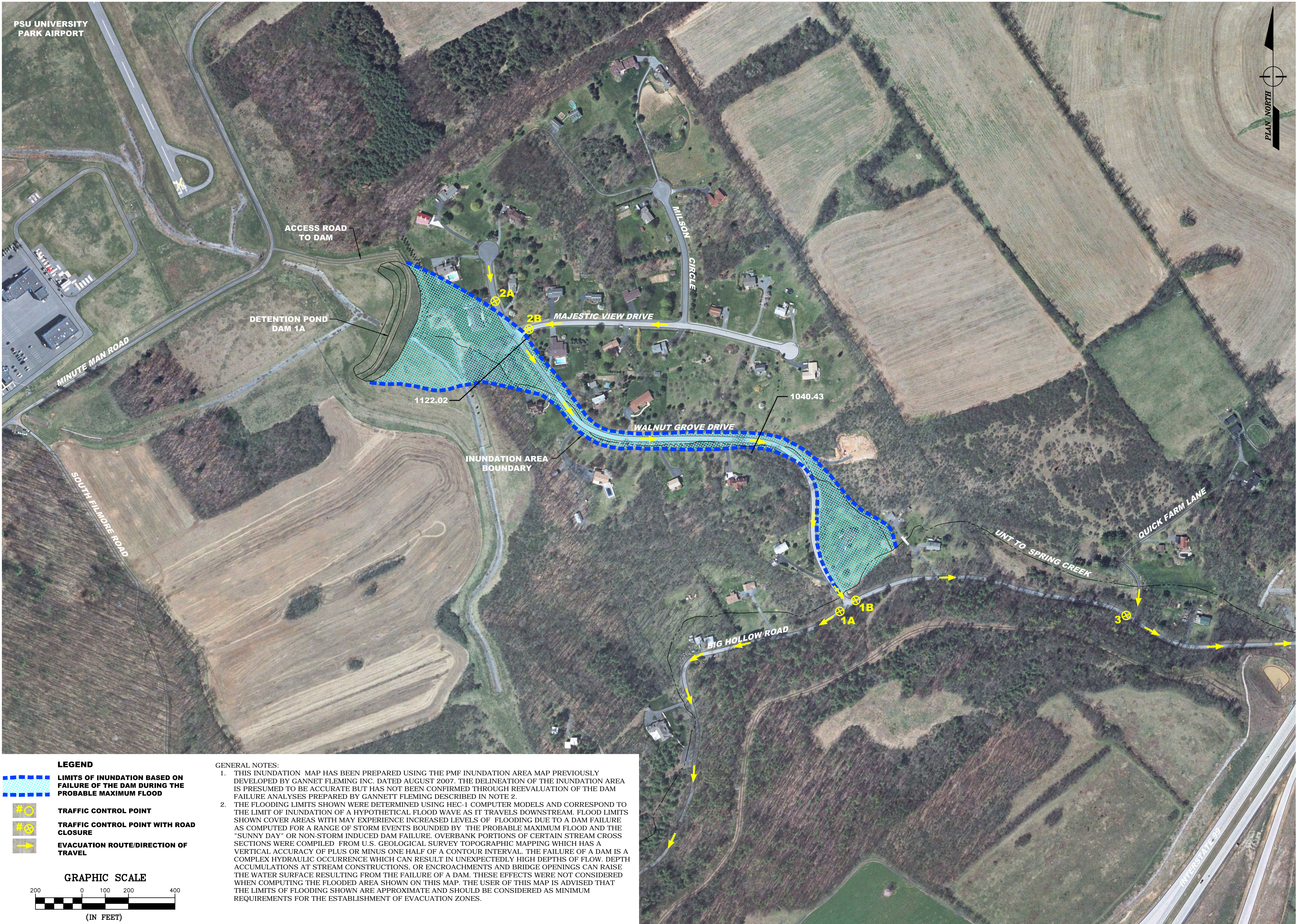
IX. PLAN MAINTENANCE AND DISTRIBUTION

- 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 Centre 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 Centre 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.

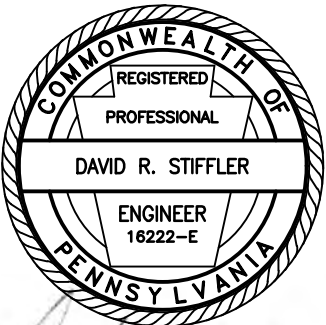
ATTACHMENTS:

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

**ATTACHMENT A
INUNDATION MAP
DETENTION POND 1A**



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



Stiffler, McGraw & Associates, Inc.

Owner:
PENNSYLVANIA STATE
UNIVERSITY
UNIVERSITY PARK AIRPORT
2535 FOX HILL ROAD
STATE COLLEGE, PA 16803

Project Name:
DETENTION POND DAM 1A

DEP NO. D14-121

BENNER TOWNSHIP
CENTRE COUNTY, PENNSYLVANIA

Revisions:		
No.	Date	Description
△		

Sheet Title:

INUNDATION PLAN

PROJECT NO.	08-0018
DRAWN BY:	SEL
DESIGNED BY:	RMM
CHECKED BY:	DRS
SCALE:	GRAPHIC

Drawing:

IND-1

ATTACHMENT B

TRAFFIC CONTROL POINTS

- TCP – 1A University Police, with assistance from Alpha, Undine and Logan Fire Companies as needed. On Big Hollow Road (T-361) immediately west of the Walnut Grove Drive (T-777) intersection. Traffic control for evacuation routing and eastbound road closure.
- TCP – 1B University Police, with assistance from Alpha, Undine and Logan Fire Companies as needed. On Big Hollow Road (T-361) immediately east of the Walnut Grove Drive (T-777) intersection. Road closure both lanes.
- TCP – 2A University Police, with assistance from Alpha, Undine and Logan Fire Companies as needed. Walnut Grove Drive (T-777) 200 feet north of the Majestic View Drive (T-780) intersection. Traffic Control for evacuation routing.
- TCP – 2B University Police, with assistance from Alpha, Undine and Logan Fire Companies as needed. Majestic View Drive (T-780) immediately east of the Walnut Grove Drive (T-777) intersection. Traffic Control for evacuation routing.
- TCP - 3 University Police, with assistance from Alpha, Undine and Logan Fire Companies as needed. On Big Hollow Road (T-361) immediately west of the Quick Farm Lane intersection. Road closure, westbound traffic.
- TCP - 4 University Police, with assistance from Alpha, Undine and Logan Fire Companies as needed. On Big Hollow Road (T-361) at Rock Road (T-376) intersection. Traffic control

ATTACHMENT C

LOCATION MAP

Directions to Dam Site:

From I-99 northbound, take the exit toward Innovation Park/Penn State Beaver Stadium. Turn right onto E. Park Avenue (follow signs for the airport). Follow E. Park Avenue (SR 3007) for 0.81 miles to the intersection with Fox Hollow Road (SR-3005). Turn right onto Fox Hollow Road and follow Fox Hollow Road in a northwesterly direction for 1.8 miles to the intersection with Hemlock Hill Road. At Hemlock Hill Road (T-880), Fox Hollow Road becomes Fox Hill Road (SR-3005). Follow Fox Hill Road for 1.3 miles to the intersection with Minute Man Road. Turn right onto Minute Man Road and follow Minute Man Road 1.18 miles to access road to the dam on the right. Turn right onto the access drive and follow the access drive 190 feet to the dam site access gate.



ATTACHMENT C
SCALE: 1" = 2000'

EMERGENCY ACTION PLAN
DAM LOCATION MAP

REVISED DATE: SEPTEMBER 2018

PENNSYLVANIA STATE UNIVERSITY
UNIVERSITY PARK AIRPORT

DETENTION POND 1A DAM
DEP NUMBER D14-121

BENNER TOWNSHIP
CENTRE COUNTY, PA
PROJECT NO.: 08-0018.119

ATTACHMENT D TELEPHONE ROSTER

	NON-EMERGENCY	EMERGENCY
DAM OWNER:		
Penn State University, University Park Airport	814-865-4042	814-865-4042
Bryan Rodgers, Director		814-409-8627 (cell)
DAM OPERATOR:		
Penn State University, University Park Airport	814-865-4042	814-865-4042
Bryan Rodgers, Director		814-409-8627 (cell)
Centre County 911/Emergency Communications Center	814-355-6800	911
Dale I. Neff, Director		
PA DEP North Central Regional Office	570-327-3636	570-327-3636
PA DEP Division of Dam Safety	717-787-8568	717-787-4343
		800-541-2050
		717-805-3057
Pennsylvania Emergency Management Agency	717-651-2001	717-651-2001
State CWWC 24 Hr Watch Desk	800-424-7362	800-424-7362
Centre County Emergency Management Agency	814-355-6745	911
Jeffrey A. Wharran, Director		
Penn State University Emergency Management Office	814-867-3430	911
Brian Bittner, Director		
Penn State University Police Services	814-865-1864	911
Keith Morris, Chief		814-863-1111
Pennsylvania State Police, Rockview Barracks	814-355-7545	911
Alpha Fire Company	814-237-5359	911
Undine Fire Company	814-355-7265	911
Logan Fire Company	814-355-3100	911
Centre LifeLink EMS	814-237-8163	911
Scott Rawson, Exec. Director		
Kent Knable, EMS Chief		
Benner Township EMA	814-404-8483	911
Jayson Lose, EMA Coordinator		

ATTACHMENT D

TELEPHONE ROSTER

American Red Cross, Centre Communities Region Virginia Dimling Brown, Executive Director	814-237-3162	N/A
Benner Township Supervisors	814-355-1419	N/A
Centre County Commissioners	814-355-6700	N/A
PSU University Park Airport Dam Engineering Consult Stiffler, McGraw and Associates David Stiffler, P.E.	814-696-6280	814-696-6280

MEDIA CONTACTS

TV Stations

WTAJ TV	814-237-1010
WHVL TV	814-238-9485
WWCP TV	814-237-4987
C-Net TV	814-238-5031
WRSC TV	814-237-4201
WJAC TV	814-238-0604

Radio Stations:

WRSC/WAPY Radio	814-237-4201
WBHV/WOWY/WWSH Radio	814-238-5085
WBUS Radio	814-867-9287
WFGE Radio	814-272-0408
WMAJ Radio	814-234-3550
WPSU Radio	814-865-1877
WGMR Radio	814-238-0717
WTLR Radio	814-237-9857
WRXV Radio	814-867-3836
WUBZ Radio	814-272-2899
WQJU Radio	814-288-9857
WBLF Radio	814-272-1320
WZWW Radio	814-231-0953

ATTACHMENT E
MEDIA ANNOUNCEMENT

EARLY WARNING MESSAGE:

The Centre County Emergency Management Agency advises that due to conditions at the Penn State University Park Airport Detention Pond 1A Dam in Benner Township, the public should avoid the area downstream of the dam. The inundation area resulting from a sudden dam failure consists of the area beginning at the dam and extending downstream to Big Hollow Road along an unnamed tributary of Big Hollow Creek, along the dam's drainage swale, and along Walnut Grove Drive. The inundation area is roughly parallel to, and includes low-lying areas along and over the Walnut Grove Drive roadway from Majestic View Drive to Big Hollow Road in Benner Township. Stay tuned for further information.

REPEAT PERIODICALLY

WARNING AND EVACUATION MESSAGE:

The Centre County Emergency Management Agency is advising all residents living downstream of Penn State University Park Airport Detention Pond 1A Dam in Benner Township to evacuate the area immediately. Evacuate the areas situated along the unnamed tributary of Big Hollow Creek and the dam's drainage swale that extend downstream from the dam site to Big Hollow Creek, including low-lying areas and properties adjacent to the stream, the dam's drainage swale and along Walnut Grove Drive from Majestic View Drive to Big Hollow Road in Benner Township. 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 Centre County Emergency Management Agency is advising residents of the area downstream of the University Park Airport Detention Pond 1A Dam in Benner Township that the problem at the dam has been resolved and that residents may return to their homes.

REPEAT PERIODICALLY

ATTACHMENT F
NOTICE

NOTICE

**PENN STATE UNIVERSITY PARK AIRPORT DETENTION POND DAM 1A
HAS BEEN CATEGORIZED 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

UNIVERSITY PARK AIRPORT DETENTION POND 1A DAM

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

BENNER TOWNSHIP

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

**THE PENN STATE UNIVERSITY
UNIVERSITY PARK AIRPORT
2535 FOX HILL ROAD
STATE COLLEGE PA 16803
(DAM OWNER)**

**CENTRE COUNTY EMA OFFICE
WILLOWBANK COUNTY OFFICE BLDG
420 HOLMES STREET
BELLEFONTE PA 16823**

**BENNER TOWNSHIP MUNICIPAL OFFICE
1224 BUFFALO RUN ROAD
BELLEFONTE PA 16823**

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