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February 26, 2018  
Ref: # 4191

Pennsylvania Department of Environmental Protection  
Bureau of Waterways Engineering and Wetlands  
Rachel Carson State Office Building  
PO Box 8460  
Harrisburg, PA 17105-8460

Attention: Thomas E. Bold, Jr., Chief, Preparedness Enforcement & Security Section

Reference: Palomino Farms Retention Basin Dam  
DEP File No. D09-176

Dear Mr. Bold:

On behalf of Warrington Township, we have revised the Emergency Action Plan for the Palomino Farms Retention Basin Dam as requested in your letter dated January 5, 2018. Enclosed are one original and five copies of the plan and a pdf on CD, as requested. A copy has been provided to the Bucks County Emergency Management Office and copies are being provided to the Township. The Township will, at a minimum, have one copy at the Township Building on Easton Road and one copy at the Public Works Department on Pickertown Road as stated in Notice.

If you should have any questions concerning the information summarized above or enclosed herein, or require additional information, please do not hesitate to contact me.

Very truly yours,  
CKS ENGINEERS, INC.  
Township Engineers

Thomas F. Zarko, P.E.

TFZ/paf  
Enclosures

cc: Board of Supervisors  
Randal Adams, PADEP Water Program Specialist (w/encl.)  
Barry Luber, Township Manager (w/encl.)  
Terry Clemons, Esq., Township Solicitor (w/enc.)  
✓ Roy Rieder, Director of Planning and Development (w/enc.)  
Joseph Knox, Director of Public Works (w/encl.)  
Mary R. Stover, P.E., CKS Engineers, Inc.  
File

**EMERGENCY ACTION PLAN**

**SURVEILLANCE, WARNING AND EVACUATION PROCEDURES**

**PALOMINO FARMS RETENTION BASIN DAM  
DEP NUMBER D09-176**

**LOCATED ACROSS UNNAMED TRIBUTARY OF LITTLE NESHAMINY CREEK  
IN WARRINGTON TOWNSHIP, BUCKS COUNTY**

**LATITUDE 40° 14' 14"    LONGITUDE -75° 07' 34"**

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

**OPERATED BY:**            WARRINGTON TOWNSHIP  
                                  PUBLIC WORKS DEPARTMENT  
                                  JOSEPH KNOX, Director

**TELEPHONE:**            CELL:            (215) 518-7264  
                                  E-MAIL:        [jknox@warringtontownship.org](mailto:jknox@warringtontownship.org)

**OWNED BY:**             WARRINGTON TOWNSHIP  
                                  BARRY LUBER, Township Manager

**ADDRESS:**              852 EASTON ROAD  
                                  WARRINGTON, PA 18976

**TELEPHONE:**            BUSINESS: (215) 343-9350  
                                  CELL:            (215) 694-2400  
                                  E-MAIL:        [bluber@warringtontownship.org](mailto:bluber@warringtontownship.org)  
                                  WEB PAGE: [www.warringtontownship.org](http://www.warringtontownship.org)

**DATE: SEPTEMBER 15, 2015  
REVISED: JANUARY 25, 2018**

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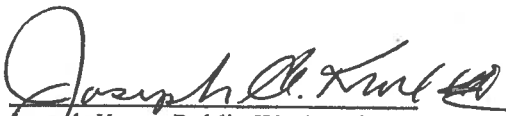
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## PROMULGATION AND CONCURRENCE

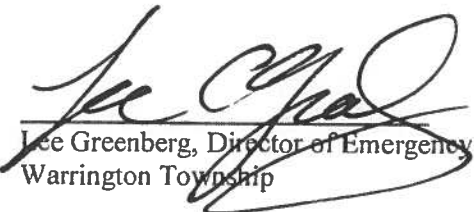
We, the undersigned, on date indicated, have reviewed the requested support activity in the Emergency Action Plan for the Palomino Farms Retention Basin Dam. Our support action will be executed in accordance with existing recommended operating guidelines and existing municipal or county emergency operation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

  
\_\_\_\_\_  
Barry Lubber, Township Manager  
Warrington Township, Dam Owner

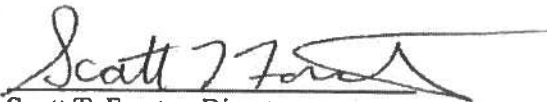
2-18-2018  
DATE

  
\_\_\_\_\_  
Joseph Knox, Public Works Director  
Warrington Township, Dam Operator

2/16/18  
DATE

  
\_\_\_\_\_  
Lee Greenberg, Director of Emergency Services  
Warrington Township

2/21/2018  
DATE

  
\_\_\_\_\_  
Scott T. Forster, Director  
Bucks County Emergency Management / Services

2/16/18  
DATE

## PEMA AND DEP ACKNOWLEDGEMENTS

**The Pennsylvania Emergency Management Agency (PEMA) has reviewed the PALOMINO FARMS RETENTION BASIN DAM (D09-176) Emergency Action Plan for appropriate content.**

\_\_\_\_\_  
**Director, PEMA Eastern Area Office**

\_\_\_\_\_  
**DATE**

**The Pennsylvania Department of Environmental Protection (PADEP), Division of Dam Safety, has reviewed the PALOMINO FARMS RETENTION BASIN DAM (D09-176) Emergency Action Plan for appropriate content.**

\_\_\_\_\_  
**Chief, Division of Dam Safety**

\_\_\_\_\_  
**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 14.8-foot high, approximately 600-foot long earthen embankment flood control dam, maintaining a normal pool of 16 acre-feet of water with a maximum pool capacity of 30 acre-feet. The normal pool depth is approximately 4 feet.
- B. The dam is located across an unnamed tributary to the Little Neshaminy Creek in the Palomino Farms subdivision, approximately 0.8 miles northeast of the Easton Road (SR 0611) and Street Road (SR 0132) intersection in Warrington Township. The dam is located adjacent to the Barclay Elementary School and is surrounded by residential streets. The surrounding streets include Grey Horse Drive, Appaloosa Road and Mare Road. Refer to the Location Map at *Attachment C*.
- C. The inundation area resulting from a sudden dam failure is generally between Palomino Drive and Roan Drive, Palomino Drive and Mare Road, and Barclay Elementary School and the Connemara Circle cul-de-sac. Refer to the Inundation Map at *Attachment A*.
- D. Within the inundation area, there are 26 residential dwellings within or touching the inundation zone with a population of approximately 75 people. A portion of the dam is located on the Barclay Elementary School property and a portion of the inundation area is within the school property. The school and the playgrounds surrounding the school are not within the inundation area. Refer to the Inundation Map at *Attachment A*.

## III. CONCEPT OF OPERATIONS

- A. SURVEILLANCE – NORMAL CONDITIONS - (WARRINGTON TOWNSHIP)
  - 1. Joseph Knox, Warrington Township Public Works Director or his 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 PADEP.

B. SURVEILLANCE – UNUSUAL EVENT CONDITIONS (DAM WATCH)

1. Joseph Knox, Warrington Township Public Works Director or his 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 or tornado watch or warning and conditions warrant.
  - c. Any abnormal or questionable conditions as identified in Section III.D.1.

C. EARLY WARNING NOTIFICATION

1. Joseph Knox, Warrington Township Public Works Director or his designated representative is responsible for determining the dam's threat potential. The following conditions constitute early warning notification to the Bucks County 911 Communications Center and require 24-hour around-the-clock surveillance.
  - a. The water level in the impoundment area has reached the threshold level of 1.0 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 Bucks County 911 Communications Center to the Bucks County Emergency Management Coordinator (EMC), the PEMA - Commonwealth Watch and Warning Center (CWWC) 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. Joseph Knox, Warrington Township Public Works Director or his 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 Bucks County 911 Communications Center.

- a. The water level in the impoundment area has reached the threshold level at the top of 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 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.
    - v. 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.
    - 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. 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 Bucks County 911 Communications Center to the Bucks County EMC, the PEMA - CWWC 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 Joseph Knox, Warrington Township Public Works Director or



his 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. Joseph Knox, Warrington Township Public Works Director or his 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 impoundment area has dropped to 1.5 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, Joseph Knox, Warrington Township Public Works Director or his designated representative shall notify the Bucks County 911 Communications Center.
3. Termination of notifications will be relayed from the Bucks County 911 Communications Center to the Bucks County EMC, the PEMA - CWWC 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. Joseph Knox, Warrington Township Public Works Director or his 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 Bucks County 911 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, Joseph Knox, Warrington Township Public Works Director or his designated representative will initiate warning and evacuation communication to the Bucks County 911 Communications Center.

B. BUCKS COUNTY 911 COMMUNICATIONS CENTER

1. The Bucks County 911 Communications Center will notify:
  - a. Bucks County Emergency Management Agency
  - b. PEMA - CWWC
  - c. Warrington Township Police
  - d. Warrington Township Volunteer Fire Department
  - e. Warrington Community Ambulance Corps

C. BUCKS COUNTY EMA

1. The Bucks County EMA will contact the following personnel and agencies:
  - a. Warrington Township EMA
  - b. National Weather Service
  - c. Media - Warning and/or Evacuation (Activate Emergency Alert System (EAS)). Refer to Attachment E
  - d. Bucks County EOC staff, as necessary
  - e. American Red Cross –Lehigh Valley, Bucks Chapter (when mass care or family assistance is required). Coordinate sheltering per Emergency Support Function (ESF) #6 of County EOP.
  - f. Bucks County Commissioners
  - g. Central Bucks School District (regarding closure of school bus routes)
  - h. St. Joseph/St. Robert School (regarding closure of school bus routes)

- i. Pennsylvania Emergency Management Agency
2. The Bucks County EMA will ascertain and report to PEMA any unmet needs requirements.
3. The Bucks County EMA will initiate Damage Assessment and Recovery procedures, as the situation requires.

D. LOCAL MUNICIPAL EMAs

WARRINGTON TOWNSHIP EMA

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 appraised of the situation.
4. Coordinate the evacuation (where appropriate).
5. Provide damage reporting to the Bucks County EMC.

E. FIRE DEPARTMENTS

WARRINGTON TOWNSHIP VOLUNTEER FIRE DEPARTMENT

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

WARRINGTON TOWNSHIP POLICE DEPARTMENT

1. Dispatch radio vehicle to dam site in order to provide alternate communications link to PSAP/911.

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)

WARRINGTON COMMUNITY AMBULANCE CORPS

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

LEHIGH VALLEY - BUCKS CHAPTER (If requested by Bucks County EMA)

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

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. Warrington Township Building
2. Warrington Post Office

- 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. Bucks County Emergency Management Agency Office  
911 Freedom Way  
Ivyland, PA 18974
  2. Warrington Township Building  
852 Easton Road  
Warrington, PA 18976
  3. Warrington Township Public Works Building  
3361 Pickertown Road  
Chalfont, PA 18914
- 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, & 3 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. Bucks 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, 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 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.
- 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 Bucks County EMA of any exercises scheduled, and coordinate with the Bucks 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

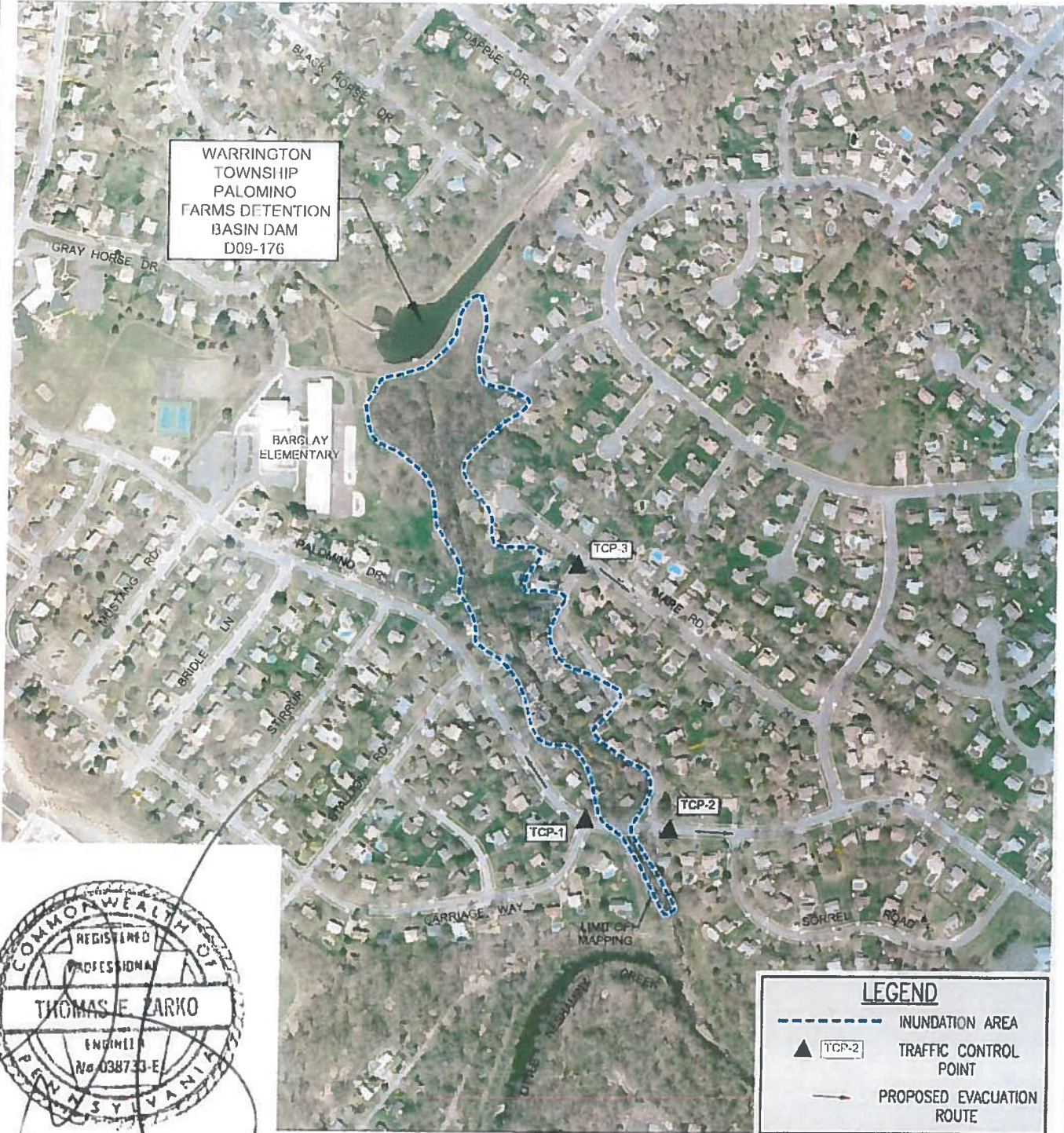
- A. This EAP will be reviewed every five years by the owner or the owner's engineer. During the five year review:
  1. The owner or the owner's engineer will conduct an on-site review of the flood (inundation) area for any increase in downstream development and revise the Inundation Map, if needed.
  2. The owner's engineer will review and revise surveillance conditions as needed.
  3. The owner will coordinate with Bucks 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 Bucks 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**



WARRINGTON  
TOWNSHIP  
PALOMINO  
FARMS DETENTION  
BASIN DAM  
D09-176

BARGLAY  
ELEMENTARY

TCP-3

TCP-1

TCP-2

**LEGEND**

- INUNDATION AREA
- TRAFFIC CONTROL POINT
- PROPOSED EVACUATION ROUTE

**INUNDATION AREA MAP**

SCALE: 1"=500'

INUNDATION AREA TAKEN FROM 'DAM BREACH ANALYSIS' BY CARROL ENGINEERING CORPORATION, MARCH 2014

MADE FOR  
**PALOMINO FARMS RETENTION BASIN DAM**  
**WARRINGTON TOWNSHIP**

SITUATED IN  
**WARRINGTON TOWNSHIP**  
**BUCKS COUNTY, PENNSYLVANIA**

DATE: 12/13/2017  
JOB No. 4191

**CKS Engineers, Inc.**

# **ATTACHMENT B**

## **TRAFFIC CONTROL POINTS**

- TCP – 1    Warrington Township Police  
              On Palomino Drive, at the intersection of Palomino Drive and Carriage Way.
  
- TCP – 2    Warrington Township Police  
              On Palomino Drive, at the intersection of Palomino Drive and Roan Drive.
  
- TCP - 3    Warrington Township Police  
              On Roan Drive, at the intersection of Mare Road.

**ATTACHMENT C  
LOCATION MAP**



THE DAM IS LOCATED ACROSS AN UNNAMED TRIBUTARY TO THE LITTLE NESHAMINY CREEK IN PALOMINO FARMS, WARRINGTON TOWNSHIP, APPROXIMATELY 0.8 MILES NORTHEAST OF THE EASTON AND STREET ROAD INTERSECTION. FROM PA TURNPIKE EXIT 343 (WILLOW GROVE) TRAVEL NORTH ON EASTON ROAD (S.R. 611) 5.2 MILES TO SHETLAND DRIVE; TURN RIGHT AND GO 0.3 MILES TO PALOMINO DRIVE; TURN RIGHT AND GO 0.2 MILES TO BARCLAY ELEMENTARY SCHOOL ON LEFT; THE DAM SITE IS LOCATED BEHIND THE SCHOOL



**LOCATION MAP**

SCALE: 1"=2000'

BASE MAP: PENNDOT TYPE 10 GENERAL HIGHWAY MAP FOR BUCKS COUNTY, 2017

MADE FOR  
**PALOMINO FARMS RETENTION BASIN DAM**  
**WARRINGTON TOWNSHIP**

SITUATED IN  
**WARRINGTON TOWNSHIP**  
**BUCKS COUNTY, PENNSYLVANIA**



DATE: 12/13/2017  
 JOB No. 4191

**CKS Engineers, Inc.**

# ATTACHMENT D TELEPHONE ROSTER

	NON- EMERGENCY	EMERGENCY
<b>DAM OWNER: WARRINGTON TOWNSHIP</b> Barry Lubber, Township Manager	215-343-9350	215-694-2400
<b>DAM OPERATOR: WARRINGTON TOWNSHIP</b> Joseph Knox, Public Works Director	215-534-6011	215-518-7264
<b>BUCKS COUNTY EMA</b> Scott T. Forster, EMC	215-340-8700	911
<b>BUCKS COUNTY 911 COMMUNICATIONS CENTER</b>	215-345-1411	911
<b>DEP - SOUTHEAST REGION</b>	484-250-5900	484-250-5900
<b>DEP - DIVISION OF DAM SAFETY</b>	717-787-8568	717-787-4343 800-541-2050
<b>PEMA</b>	717-651-2001 800-424-7362	717-651-2001 800-424-7362
<b>WARRINGTON TOWNSHIP POLICE</b>	215-343-3311	911
<b>WARRINGTON TOWNSHIP FIRE CO.</b>	215-343-0544	911
<b>WARRINGTON COMMUNITY AMBULANCE CORPS</b>	215-343-3469	911
<b>CENTRAL BUCKS SCHOOL DISTRICT</b> Director of Facilities & Energy Management – Robert Kleimnighagen, Jr., CFM, SFP	267-893-4020	215-534-8869
District Facilities Manager – Wayne Birster, Jr.	267-893-4020	267-718-6237
<b>ST. JOSEPH / ST. ROBERT SCHOOL</b> Director of Operations - Jim Crumlish Principal - Debbie Jaster	215-343-5100 215-343-5100	267-736-6397 215-913-6482
<b>AMERICAN RED CROSS GREATER LEHIGH VALLEY CHAPTER</b>	610-865-4400	610-865-4400



# ATTACHMENT E

## MEDIA ANNOUNCEMENT

### EARLY WARNING MESSAGE:

The Bucks County Emergency Management Agency advises that due to conditions at the Palomino Farms Retention Basin Dam in Warrington Township, the public should avoid the area downstream of the dam between Palomino Drive and Roan Drive, Palomino Drive and Mare Road, and Barclay Elementary and the Connemara Circle cul-de-sac. Stay tuned for further information.

\*\*\*REPEAT PERIODICALLY\*\*\*

### WARNING AND EVACUATION MESSAGE:

The Bucks County Emergency Management Agency is advising all residents living downstream of the Palomino Farms Retention Basin Dam in Warrington Township to evacuate the area immediately. Evacuate the area between Palomino Drive and Roan Drive, Palomino Drive and Mare Road, and Barclay Elementary and the Connemara Circle cul-de-sac. 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 Bucks County Emergency Management Agency is advising residents of the area downstream of the Palomino Farms Retention Basin Dam in Warrington 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**

**PALOMINO FARMS RETENTION BASIN 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.**

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**AN EMERGENCY ACTION PLAN HAS BEEN DEVELOPED FOR  
PALOMINO FARMS RETENTION BASIN DAM**

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

**WARRINGTON TOWNSHIP**

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

**WARRINGTON TOWNSHIP  
852 EASTON ROAD  
WARRINGTON PA, 18976  
(DAM OWNER)**

**WARRINGTON TOWNSHIP  
PUBLIC WORKS DEPARTMENT  
3610 PICKERTOWN ROAD  
CHALFONT, PA 18914  
(DAM OPERATOR)**

**BUCKS COUNTY EMA  
911 FREEDOM WAY  
IVYLAND, PA 18974  
(COUNTY EMA OFFICE)**

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