

# MUSSER ENGINEERING, INC.

7785 Lincoln Highway, Central City, PA 15926-7500

814-754-8477 • 814-623-6657

ENGINEERS • SURVEYORS • GEOLOGISTS

FAX 814-754-5599

December 1, 2010

Pennsylvania Department of Environmental Protection  
Bureau of Waterways Engineering  
Rachel Carson State Office Building  
P.O. Box 8554  
Harrisburg, PA 17105-8554  
Attn: Thomas E. Bold, Jr., Chief Division of Dam Safety

RE: Revised Joint Emergency Action Plan  
For Lake Stonycreek Dam and Indian Lake Dam  
DEP File No. D56-097 & 56-103

Dear Mr. Bold:

As per our phone conversation, I am enclosing 6 copies of the EAP for Lake Stonycreek and Indian Lake Dams with the minor corrections discussed. I am also enclosing revised pages 8-10 to be exchanged in your copy.

Please return a copy of the executed PEMA and DEP signature page, iv, so I may include it in the copies for public display.

If you have any questions regarding this matter, please give me a call.

Sincerely yours,

Harry Graham

Cc: File

**JOINT EMERGENCY ACTION PLAN**

**SURVEILLANCE, WARNING, AND EVACUATION PROCEDURES**

**FOR**

LAKE STONycREEK DAM  
DEP NO. D-56-097

INDIAN LAKE DAM  
DEP NO. 56-103

**LOCATED**

Across Rhoads Creek In  
STONycREEK TOWNSHIP,  
SOMERSET COUNTY, PA  
LATITUDE 40° 01' 13" LONGITUDE 78° 53' 30"  
Size Category "B"  
Hazard Potential Category "1"

Across Calendars Run In  
INDIAN LAKE BOROUGH,  
SOMERSET COUNTY, PA  
LATITUDE 40° 01' 44" LONGITUDE 78° 52' 20"  
Size Category "B"  
Hazard Potential Category "1"

**LAKE STONycREEK DAM OPERATED BY:**

STONycREEK VALLEY DEVELOPMENT CORP.  
MARY WOY, OBSERVER  
P.O. BOX 163  
SHANKSVILLE, PA 15560  
WORK: 814-444-1413  
HOME 814-267-6894

**INDIAN LAKE DAM OPERATED BY:**

BOROUGH OF INDIAN LAKE  
DEAN SNYDER, OBSERVER  
INDIAN LAKE BOROUGH  
1301 CAUSEWAY DRIVE  
CENTRAL CITY, PA 15926  
TELEPHONE: WORK: 814-267-4614  
HOME: 814-754-5180

**LAKE STONycREEK DAM OWNED BY:**

STONycREEK VALLEY DEVELOPMENT CORP.  
DAN BEANER, PRESIDENT  
P. O. BOX 30  
Friedens, PA 15541  
Phone: 814-267-3155  
CELL: 814-442-6990

**INDIAN LAKE DAM OWNED BY:**

BOROUGH OF INDIAN LAKE  
ROBERT HANSON, PRESIDENT OF COUNCIL  
1301 CAUSEWAY DRIVE  
CENTRAL CITY, PA 15926  
TELEPHONE: WORK: 814-267-4614  
HOME: 814-754-5230

**DATE: FEBRUARY 2, 1994**

**REVISION DATE: OCTOBER 6, 2010**

# TABLE OF CONTENTS

|                                       |                        |       |
|---------------------------------------|------------------------|-------|
| PROMULGATION AND CONCURRENCE          | iii                    |       |
| PEMA AND DEP APPROVALS                | iv                     |       |
| I. PURPOSE AND SCOPE                  | 1                      |       |
| II. SITUATION                         | 1                      |       |
| III. CONCEPT OF OPERATIONS            | 2-3                    |       |
| IV. RESPONSIBILITIES AND DUTIES       | 4-7                    |       |
| V. ADMINISTRATION AND LOGISTICS       | 8                      |       |
| VI. AUTHORITY AND REFERENCES          | 8                      |       |
| VII. DEFINITIONS                      | 8-11                   |       |
| VIII. EXERCISE AND TRAINING           | 11                     |       |
| IX. PLAN MAINTENANCE AND DISTRIBUTION | 12                     |       |
| <b><u>ATTACHMENTS</u></b>             |                        |       |
| ATTACHMENT A                          | INUNDATION MAP         | 13    |
| ATTACHMENT B                          | TRAFFIC CONTROL POINTS | 14    |
| ATTACHMENT C                          | LOCATION MAP           | 15    |
| ATTACHMENT D                          | TELEPHONE ROSTER       | 16    |
| ATTACHMENT E                          | MEDIA ANNOUNCEMENT     | 17-18 |
| ATTACHMENT F                          | NOTICE                 | 19-20 |

## PROMULGATION AND CONCURRENCE

We, the undersigned, on date indicated, have reviewed the requested support activity in support of the Emergency Action Plan for Lake Stonycreek Dam and Indian Lake Dam. Our support action will be executed in accordance with existing Standing Operation Procedures and/or municipal or county emergency operation plans.

  
\_\_\_\_\_  
DAM OWNER, BOROUGH OF INDIAN LAKE,  
ROBERT HANSON, PRESIDENT

10/20/10  
DATE

  
\_\_\_\_\_  
DAM OWNER, STONYCREEK VALLEY DEVELOPMENT  
CORP., DAN BEANER, PRESIDENT

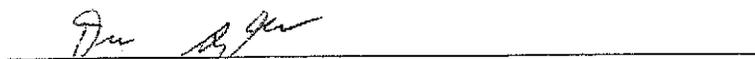
10-14-10  
DATE

  
\_\_\_\_\_  
SOMERSET COUNTY EMA, RICHARD B. LOHR

10-14-10  
DATE

  
\_\_\_\_\_  
MARY WOY, LAKE STONYCREEK DAM OBSERVER

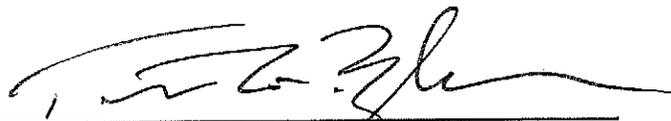
10/19/10  
DATE

  
\_\_\_\_\_  
DEAN SNYDER, INDIAN LAKE DAM OBSERVER

10-22-10  
DATE

# PEMA AND DEP APPROVALS

The Pennsylvania Emergency Management Agency approves the Emergency Action Plan for Lake Stonycreek Dam (D56-097) and Indian Lake DAM (D56-103).

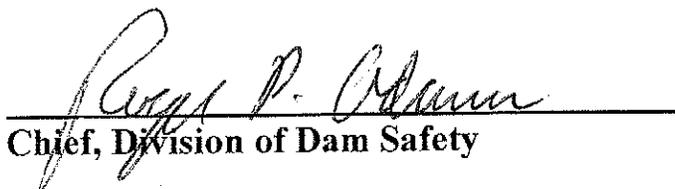


\_\_\_\_\_  
Director, PEMA Western Area Office

12/14/2010

DATE

The Department of Environmental Protection, Division of Dam Safety, approves the Emergency Action Plan for Lake Stonycreek(D56-097) and Indian Lake(D56-103) Dams.



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

12-20-10

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 by residents in the event of a potential or imminent failure of the dam.

## II. SITUATION

- A. Lake Stonycreek Dam is created by an earth embankment 900 feet long with a maximum height of 31 feet from the downstream toe. It maintains a normal pool of 2000 acre-feet of water (principal spillway elevation 2226.0) with a maximum pool capacity of 6050 acre-feet at top of dam elevation 2241.0 and an emergency earth spillway with a crest elevation at 2233.5.

Indian Lake Dam is created by an earth embankment 960 feet long with a maximum height of 71 feet from the downstream toe. It maintains a normal pool of 19,200 acre-feet of water (spillway elevation 2280.0) with a maximum pool capacity of 26,044 acre-feet at top of dam elevation 2291.0

- B. Lake Stonycreek is located on Rhoads Creek, one mile east of Shanksville in Stonycreek Township, Somerset, PA. The reservoir is immediately downstream of Indian Lake, which impounds a tributary of Rhoads Creek. (Refer to Location Map, Attachment C.)

Indian Lake Dam is located on Calendar Run, a secondary tributary of Stony Creek, immediately upstream of Lake Stonycreek Dam. It is a recreational lake two miles northeast of Shanksville in the Borough of Indian Lake, Somerset County, PA. (Refer to Location Map, Attachment C.)

- C. It is estimated that a failure of Indian Lake Dam would also result in the failure of Lake Stonycreek Dam.

The inundation area resulting from a sudden dam failure is essentially the stream valley area of Rhoads Creek which passes through the eastern edge of Shanksville and joins Stony Creek about 1000 feet south of town. (Refer to Inundation Map Attachment A.)

- D. Within the inundation area is a major portion of Shanksville, which includes about 50 homes with an approximate population of 175 residents, a school with approximately 475 students and staff, 2 churches, 3 convenience stores, 3 small businesses and the borough building and post office. (Refer to Inundation Map, Attachment A.) The total inundation area includes approximately 210 residential homes and cottages with a total population of approximately 750 people.

### III. CONCEPT OF OPERATIONS

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

1. The primary observer will conduct an on-site visual inspection of his 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 primary observer 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 primary observer is responsible for determining the dam's threat potential. The following conditions constitute a dam early warning notification to the Somerset County Control/911 and require 24-hour around-the-clock surveillance.

##### Lake Stonycreek Dam

- a. The water level in the impoundment area has reached the threshold level at the 8 foot level in the principal spillway, elevation 2234', and precipitation continuing to fall, or
- b. Following the occurrence of an earthquake in the general region of the dam.

##### Indian Lake Dam

- a. The water level in the impoundment area has reached the threshold level at the 3 foot level in the emergency spillway, elevation 2283, and is rising with precipitation continuing to fall, or
  - b. Following the occurrence of an earthquake in the general region of the dam.
2. Early warning notification will be relayed from the Somerset County Control/911 to the Somerset County EMA, the PEMA State EOC and all

applicable emergency responders and designated government officials and agencies.

D. WARNING AND EVACUATION NOTIFICATION

1. The primary observer is responsible for determining the dam's threat potential. The following conditions constitute a dam emergency requiring warning and evacuation notification to the Somerset County/911.

Lake Stonycreek Dam

- a. The depth of flow in the emergency spillway has reached a depth of 1 foot or the 9.1 foot level in the principal spillway, elevation 2235.1', and is rising with precipitation continuing to fall. (Staff gage on the spillway might be needed), and

Indian Lake Dam

- a. The depth of flow in the emergency spillway has reached a depth of 4 feet, elevation 2284', and is rising with precipitation continuing to fall. (Staff gage on the spillway might be needed), and
2. Imminent failure of these dams 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 principle 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 structural movement or failure of the spillway weir 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.
    - viii. List any other conditions, which the owner's engineer knows are a concern for the dam's safety. (List other conditions as sub-paragraphs.)
  3. Warning and evacuation notification will be relayed from the Somerset County/911 to the Somerset County EMA, the PEMA State EOC and all

applicable emergency responders and designated government officials and agencies.

2. 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 primary observer 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 primary observer 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 to the 7 foot level, elevation 2233', in the principal spillway and is receding for Lake Stonycreek Dam and the 2 foot level, elevation 2282', in the emergency spillway and is receding for Indian Lake Dam.
  - 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 primary observer shall notify the Somerset County/911.
3. Termination of notifications will be relayed from the Somerset County/911 to the Somerset County EMA, 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 primary observer 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 Somerset County/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 primary observer will initiate warning and evacuation communication to the Somerset County/911.

B. SOMERSET COUNTY/911

1. The Somerset County/911 will notify:
  - a. Somerset County EMA
  - b. PEMA State EOC
  - c. Indian Lake Borough Police
  - d. Shanksville Volunteer Fire Department
  - e. Somerset County Fire Control
  - f. Pennsylvania State Police – Somerset Barracks
  - g. Somerset Area Ambulance Association

C. SOMERSET COUNTY EMA

1. The Somerset County EMA will contact the following personnel and agencies:
  - a. National Weather Service.
  - b. Indian Lake Borough EMA.
  - c. Shanksville Borough EMA.
  - d. Stonycreek Township EMA.
  - e. Media – Advisory and/or Warning (Activate EAS)(Refer to Attachment E).
  - f. Activate/mobilize Somerset County EOC, as necessary.
  - g. American Red Cross – Keystone Chapter (when mass care or family assistance is required) – Coordinate sheltering per ESF6 of County EOP.
  - h. Somerset County elected officials.
  - i. Pennsylvania Emergency Management Agency.
  - j. Shanksville-Stonycreek School District

k. PennDOT District 9-7

2. The Somerset County EMA will ascertain and report to PEMA any unmet needs requirements.
3. The Somerset County EMA will initiate Damage Assessment and Recovery procedures as the situation requires.

D. LOCAL MUNICIPAL EMAs

1. INDIAN LAKE BOROUGH EMA
2. SHANKSVILLE BOROUGH EMA
3. STONYCREEK TOWNSHIP EMA
4. QUEMAHONING 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 Somerset County EMC.

E. FIRE DEPARTMENTS

1. SHANKSVILLE VOLUNTEER FIRE DEPARTMENT
2. SOMERSET COUNTY FIRE CONTROL
  - 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. INDIAN LAKE BOROUGH POLICE

- a. Dispatch radio vehicle to dam site in order to provide alternate communications link to PSAP/911 – Indian lake Borough Police Department.
  - b. Assist evacuation traffic flow and establish traffic control points (TCP) (See Inundation Map – Attachment A and Traffic Control Points – Attachment B).
  - c. Provide assistance with route alerting, if requested.
  - d. Prevent unauthorized entry and provide security of evacuated areas
2. PENNSYLVANIA STATE POLICE – SOMERSET BARRACKS
- a. Assist evaluation traffic flow and establish traffic control points (TCP), (See Inundation Map, Attachment A for Location and Attachment B for a description.
  - b. Prevent anaauthorized entry into evacuated areas.
  - c. Provide assistance with route alerting, if requested.
- G. EMERGENCY MEDICAL SERVICES (EMS)
1. SOMERSET AREA 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 or Volunteer Organization Active in Disasters (VOAD)
1. KEYSTOWN CHAPTER (If requested by Somerset 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. Shanksville Borough Building
  2. Indian Lake Borough Building
  3. Stonycreek Township Building
  4. Ida's Convenience Store
  5. Shanksville Volunteer Fire Company
  6. Shanksville 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 (include physical address):
1. Somerset County Emergency Management Agency Office  
100 East Union Street  
Somerset, PA
  2. Stonycreek Township Office  
120 Municipal Road  
Friedens, PA
  3. Borough of Indian Lake, Theresa Weyant, Borough Manager  
1301 Causeway Drive  
Central City, PA
  4. Shanksville Borough  
508 Main Street  
Shanksville, PA
- 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. Somerset 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 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 Somerset County EMA of any exercises scheduled, and coordinate with the Somerset 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 Somerset 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 Somerset 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

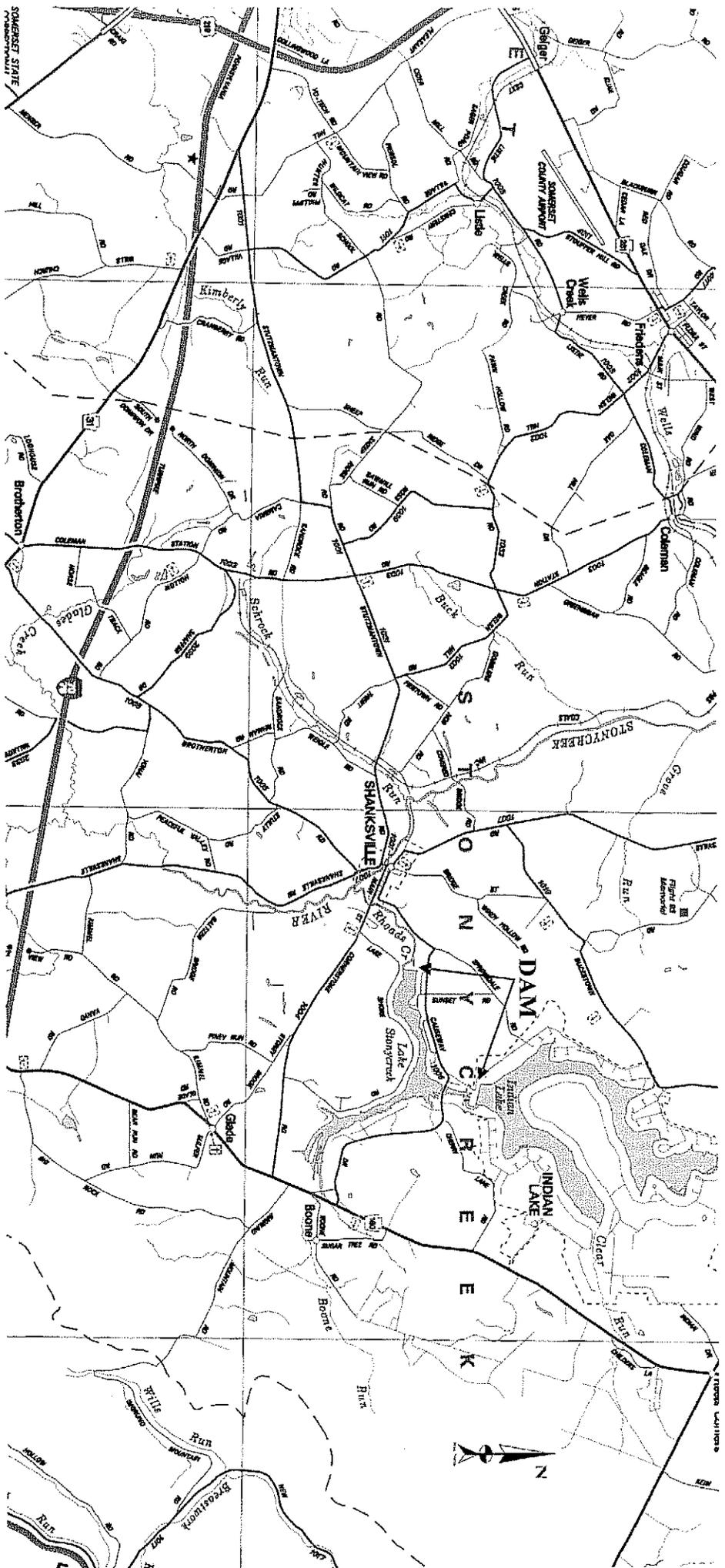
## **ATTACHMENT B**

### **TRAFFIC CONTROL POINTS**

Traffic Control Points located by Somerset County EMA and manned by The Pennsylvania State Police

- TCP - 1 At the intersection of Huckleberry Highway (S.R. 0160) and Cherry Lane Road (T-567)
- TCP - 2 At the intersection of Huckleberry Highway (S.R. 0160) and Stoney Brook Road (T-533)
- TCP - 3 At the intersection of Corner Stone Road (S.R. 1004) and Lake Run East (T-804)
- TCP - 4 At the intersection of Corner Stone Road (S.R. 1004) and Stoney Brook Road (T-533)
- \*TCP - 5 At Bridge Street (S.R. 1001), 900 feet north of the north intersection of Lambertsville Road (S.R. 1007) and Bridge Street (S.R. 1001)
- TCP - 6 At Lambertsville Road (S.R. 1007), 950 feet west of the north intersection of Lambertsville Road (S.R. 1007) and Bridge Street (S.R. 1001)
- TCP - 7 At the intersection of Lambertsville Road (S.R. 1007) and Baltzer Bridge Road (T-529)
- TCP - 8 At the intersection of Brotherton Road (S.R. 1005) and Lambertsville Road (S.R. 1007)
- TCP - 9 At the intersection of Bridge Street (S.R. 1001) and Weigle Road (T-696)
- TCP - 10 At the intersection of Bridge Street (S.R. 1001) and Welsh Hill Road (S.R. 1002)
- TCP - 11 At the intersection of Gobblers Knob Road (T-563) and Covered Bridge Road (T-565)
- TCP - 12 At the intersection of Lambertsville Road (S.R. 1007) and Covered Bridge Road (T-565)
- TCP - 13 At the intersection of Buckstown Road (S.R. 1019) and Bridge Street (S.R. 1001)
- \*TCP - 14 At the intersection of Springdale Road (T-569) and West Shore Trail
- TCP - 15 At Huckleberry Highway (S.R. 0160), 700 feet north of the intersection of Causeway Drive (S.R. 1006) and Huckleberry Highway (S.R. 0160)
- TCP - 16 At the intersection of Boone Road (T-567) and Sugar Tree Road (T-748)
- TCP - 17 At the intersection of Huckleberry Highway (S.R. 0160) and Imgrund Mountain Road (T-535)
- TCP - 18 At the intersection of Corner Stone Road (S.R. 1004) and South Lake Shore Road (T-803)
- TCP - 19 At the intersection of Buckstown Road (S.R. 1019) and West Shore Trail

\* Note: TCP-5 and TCP-14 will be manned by Indian Lake Borough Police



**DIRECTIONS:** From the intersection of Routes 30 and 160, travel south on Route 160, 3.5 miles to Causeway Drive. Turn right on Causeway Drive and travel 2 miles to Indian Lake Dam and 3 miles to Lake Stonycreek Dam.

**ATTACHMENT C  
LOCATION MAP**

## ATTACHMENT D TELEPHONE ROSTER

|   | NON-EMERGENCY   | EMERGENCY                              |
|---|---|--|
| Indian Lake Dam Owner<br>Borough of Indian Lake<br>Robert Hanson, President<br>Dean Snyder, Primary Observer                | 814-267-4614<br>814-267-4614                            | 814-754-5230<br>814-754-5180           |
| Lake Stonycreek Dam Owner<br>Stonycreek Valley Development Corp.,<br>Dan Beaner, President<br>Mary E. Woy, Primary Observer | 814-267-3155<br>814-444-1413 (Work)                     | 814-442-6990<br>814-267-6894<br>(Home) |
| Somerset County EMA, Richard Lohr   | 814-445-1515 or<br>814-445-1516                         | 814-445-1525<br>Or 911                 |
| Stonycreek Township EMA, Michael Duppstadt  | 814-267-4129<br>814-754-4283                            | N/A<br>N/A                             |
| Indian Lake Borough EMA, Michael Miscoe   | 814-267-4614  | N/A                                    |
| Shanksville Borough EMA, Michael Duppstadt  | 814-267-5972<br>814-442-5737                            | N/A<br>N/A                             |
| Quemahoning Township EMA, Donald Deaner   | 814-893-6166  | N/A                                    |
| Shanksville Volunteer Fire Company<br>Somerset County Fire Control  | 814-267-4737<br>911 or 814-445-1525                     | 814-267-4737<br>911 or 814-445-1525    |
| Indian Lake Borough Police, Dee Miller  | 814-267-4614  | 814-267-4614                           |
| Pennsylvania State Police- Somerset Barracks  | 814-445-4104  | 814-445-4104                           |
| Somerset Area Ambulance Association   | 814-445-6141  | 814-445-6141                           |
| American Red Cross-Keystone Chapter   | 800-760-4357 or<br>814-255-1550                         | N/A                                    |
| Shanksville-Stonycreek School District  | 814-267-4649  | N/A                                    |
| DEP, Southwest Regional Office  | 412-442-4187  | 412-442-4000                           |
| DEP, Dam Safety, Harrisburg   | 717-787-8568  | 800-541-2050                           |
| PEMA  | 717-651-2001  | 800-424-7362                           |
| PA Department of Transportation   | 814-445-7905 (Somerset)<br>814-696-7261 (Hollidaysburg) | N/A<br>N/A                             |
| Shanksville Borough   | 814-267-5972  | N/A                                    |
| Stonycreek Township   | 814-267-3212  | N/A                                    |
| Media:  |   |  |
| Radio:  | 814-255-4186  |  |
| Forever Broadcasting  | 814-535-8554  | N/A                                    |
| WMTZ Mountain 96.5  | 814-443-1330  | 800-359-5477                           |
| WCCL  |   | 866-482-9225                           |
| Television:   | 814-255-7600  |  |
| WJAC  | 814-255-7600  | 814-255-7600                           |

## ATTACHMENT E

### LAKE STONYCREEK DAM MEDIA ANNOUNCEMENT

#### **EARLY WARNING MESSAGE:**

The Somerset County Emergency Management Agency advises that due to conditions at the Lake Stonycreek Dam in Stonycreek Township, the public should avoid the area downstream of the dam from Lake Stonycreek embankment, 1000 feet to either side of Rhoads Creek, the Stonycreek River 5000 feet upstream from intersection of Rhoads Creek, as well as Schrock Run 4000 feet upstream from intersection with Stonycreek River and the Stonycreek River downstream to the S.R. 1008 bridge in Mostoller. Stay tuned for further information.

\*

\*REPEAT PERIODICALLY\*\*\*

#### **WARNING AND EVACUATION MESSAGE:**

The Somerset County Emergency Management Agency is advising all residents living downstream of the Lake Stonycreek Dam in Stonycreek Township to evacuate the area immediately. Evacuate the area from Lake Stonycreek embankment, 1000 feet to either side of Rhoads Creek, the Stonycreek River 5000 feet upstream from intersection of Rhoads Creek, as well as Schrock Run 4000 feet upstream from intersection with Stonycreek River and the Stonycreek River downstream to the S.R. 1008 bridge in Mostoller. If you require shelter during this emergency you should report to the Shanksville-Stonycreek School.

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

#### **INCIDENT RESOLVED - SAFE TO RETURN:**

The Somerset County Emergency Management Agency is advising residents of the area downstream of the Lake Stonycreek Dam in Stonycreek 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 E  
INDIAN LAKE DAM  
MEDIA ANNOUNCEMENT

**EARLY WARNING MESSAGE:**

The Somerset County Emergency Management Agency advises that due to conditions at the Indian Lake Dam in Indian Lake Borough, the public should avoid the area downstream of the dam from Indian Lake embankment, 1000 feet to either side of Lake Stonycreek (as far east as Boone and Glade), Rhoads Creek, the Stonycreek River 5000 feet upstream from intersection of Rhoads Creek, as well as Schrock Run 4000 feet upstream from intersection with Stonycreek River and the Stonycreek River downstream to the S.R. 1008 bridge in Mostoller. Stay tuned for further information.

\*

\*REPEAT PERIODICALLY\*\*\*

**WARNING AND EVACUATION MESSAGE:**

The Somerset County Emergency Management Agency is advising all residents living downstream of the Indian Lake Dam in Indian Lake Borough to evacuate the area downstream of the Indian Lake embankment, 1000 feet to either side of Lake Stonycreek (as far east as Boone and Glade), Rhoads Creek, the Stonycreek River 5000 feet upstream from intersection of Rhoads Creek, as well as Schrock Run 4000 feet upstream from intersection with Stonycreek River and the Stonycreek River downstream to the S.R. 1008 bridge in Mostoller. If you require shelter during this emergency you should report to the Shanksville-Stonycreek School.

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

**INCIDENT RESOLVED - SAFE TO RETURN:**

The Somerset County Emergency Management Agency is advising residents of the area downstream of the Indian Lake Dam in Indian Lake Borough 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

INDIAN LAKE 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

## INDIAN LAKE DAM

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

INDIAN LAKE BOROUGH, STONYCREEK TOWNSHIP AND SHANKSVILLE BOROUGH

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

BOROUGH OF INDIAN LAKE  
1301 CAUSEWAY DRIVE  
CENTRAL CITY, PA 15926

SHANKSVILLE BOROUGH  
508 MAIN STREET  
SHANKSVILLE, PA 15560

STONYCREEK TOWNSHIP EMA  
120 MUNICIPAL ROAD  
FRIEDENS, PA 15541

SOMERSET COUNTY EMA  
100 EAST UNION STREET  
SOMERSET, PA 15501

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

# ATTACHMENT F

# NOTICE

**LAKE STONYCREEK 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**

## **LAKE STONYCREEK DAM**

(NAME OF DAM)

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

## **STONYCREEK TOWNSHIP AND SHANKSVILLE BOROUGH**

(NAME OF MUNICIPALITY AND/OR MUNICIPALITIES)

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

**INDIAN LAKE BOROUGH  
1301 CAUSEWAY DRIVE  
CENTRAL CITY, PA 15926**

**SHANKSVILLE BOROUGH  
508 MAIN STREET  
SHANKSVILLE, PA 15560**

**STONYCREEK TOWNSHIP EMA  
120 MUNICIPAL ROAD  
FRIEDENS, PA 15541**

**SOMERSET COUNTY EMA  
100 EAST UNION STREET  
SOMERSET, PA 15501**

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