EMERGENCY ACTION PLAN

For

Estling Lake Dam

NJ File Number: 25-169

Owner/Operator (Spillway):	Estling Lake Corporation
Address:	P.O. Box 281
	Denville, NJ 07834-0281
Owner (Embankment):	NJ Transit Rail Operations, Inc.
Address:	One Penn Plaza, East
	Newark, NJ 07105-2246
Prepared By:	Estling Lake Corp
Address:	P.O. Box 281
	Denville, NJ 07834-0281
Third Revision:	Hardesty & Hanover, LLC
Address:	303 Fellowship Road Suite 200
	Mount Laurel, NJ 08054
Date:	September 2013

Revision Dates:*

1st Revision:	November 2016
2nd Revision:	March 2018
3rd Revision:	April 2020
4th Revision:	**April 2023**

*** THE DAM OWNER/OPERATOR IS RESPONSIBLE FOR THE ANNUAL**

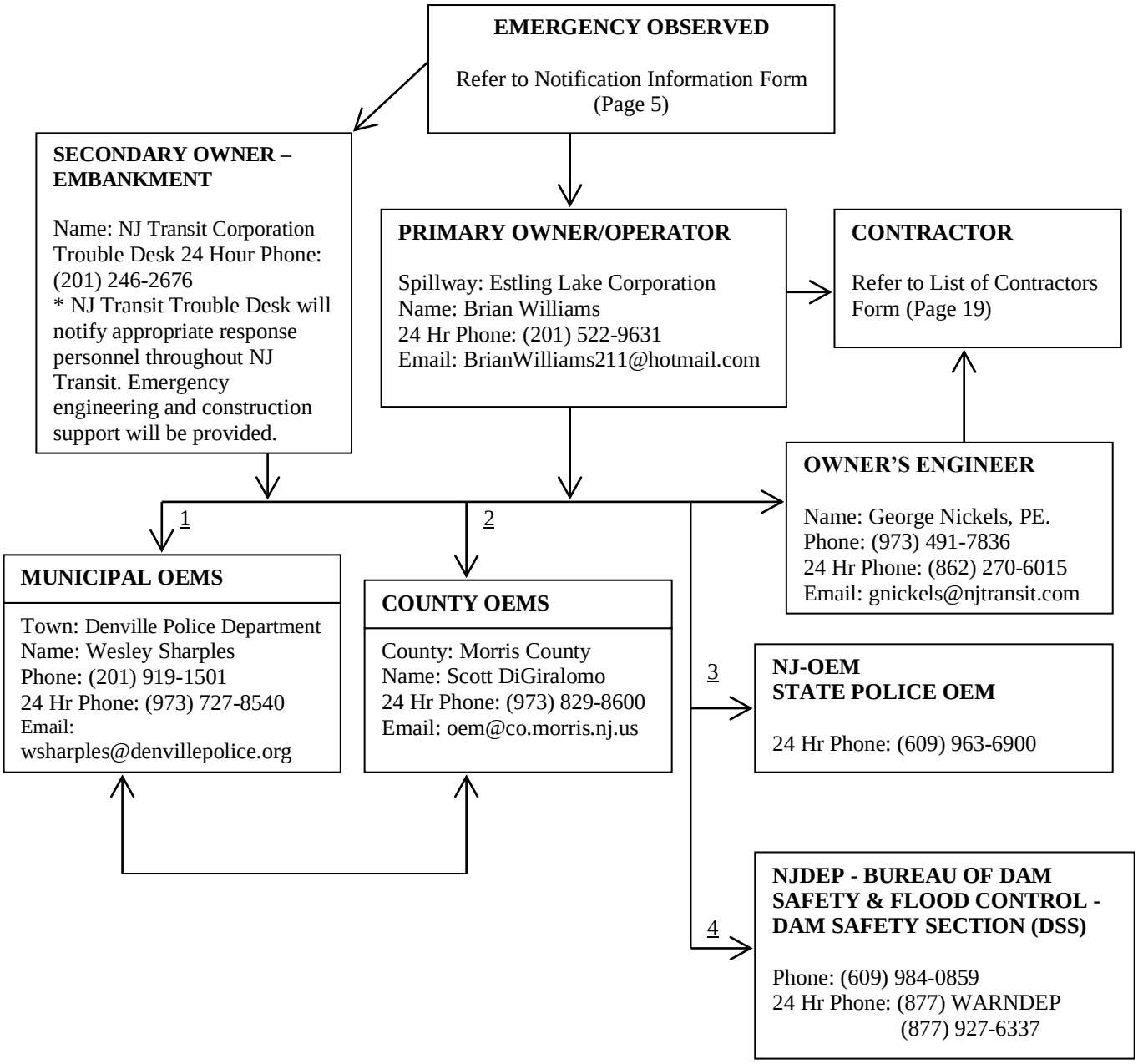
REVIEW AND UPDATING OF THE EAP.

Table of Contents

Table of Contents (continued)

Title **Page**

EMERGENCY NOTIFICATION FLOWCHART



Revised April 2023

I. Emergency Notification

Emergency Notification Information

Dam emergency information for the four emergency conditions

Name of person reporting the emergency: _____

Affiliation: _____

Phone Number: _____

Name & file number of dam: Estling Lake Dam - 25-169

Location of Dam:

County: Morris County

Municipality: Denville Township

Stream: Den Brook

Road(s): Delaware Trail and South Shore Road .

Time and Date of Dam Emergency: _____

Type of Emergency: _____

Phone appropriate parties: *[refer to the Emergency Notifications Flow Chart, page 4]*

"This is (your name, title & affiliation).
There is a Dam (Advisory, Warning, Emergency, or Breach) condition at (name of dam).
Observation was at (time).
The situation is (explain the condition).
What is your anticipated time of arrival at the dam and what are my instructions?"
[refer to Site Description, page 7, for directions to the dam]

Communication Priority List:

1. Municipal OEM:	Wesley Sharples Phone:		(201) 919-1501
		24 Hr Phone:	(973) 727-8540
2. County OEM:	Scott DiGiralomo	24 Hr Phone:	(973) 829-8600
3. NJ-OEM:		24 Hr Phone:	(609) 963-6900
4. NJ-DSS:		Phone:	(609) 984-0859
		24 Hr Phone:	(877) 927-6337
5. Owner's Engineer:	George M. Nickels P.E.	Phone:	(973) 491-7836
		24 Hr Phone:	(862) 270-6015

II. Statement of Purpose

Purpose:

To establish procedures necessary to protect life and property in areas affected by the failure of a dam or the uncontrolled release of stored water.

Scope:

This Emergency Action Plan:

1. Establishes a monitoring system which can activate the Plan.
2. Identifies the officials, organizations, agencies, and their respective responsibilities for implementing the plan.
3. Identifies those areas, residences, facilities and roads which might be affected by a dam failure.

Authority

1. Public Law 1942, Chapter 251, as amended.
2. N.J.S.A. 58:4-1 et seq., Safe Dam Act.
3. N.J.A.C. 7:20-1 et seq., Dam Safety Standards.

III. Project Description

Project Site Description

Dam Name: Estling Lake Dam Hazard Classification: Class I

NJ File No: 25-169 NJ Federal Id: NJ 00184

City/Town: Denville Township County: Morris

Location & Access (provide a location map & directions to the dam from a major highway):

Spillway is approximately one (1) mile southwest of the Route 46 Route 53 Intersection

Lot No: 1 Block No: 30001

Latitude: N40° 52’ 59" Longitude: W74° 29’ 39"

River/Stream: Den Brook, tributary to Rockaway River

Quad Sheet: Boonton, Morristown, Dover Nearest City/Town: Denville

Height (ft): 19’ Normal Surface (ac): 75

Length (ft): 1200’ Normal Capacity (ac-ft): 358

Dam Type: Earthfill; railroad embankment Maximum Capacity (ac-ft): 1341

Spillway: Stone masonry Spillway Capacity (cfs): 5700

Dike: N/A Drainage Area (sqr mls): 6.5

Outlet other than spillway: 24" low level outlet at east wingwall; manual operation

Purpose/Operation of Dam (attach additional sheets if necessary): Embankment carries NJ Transit rails; impoundment used for recreation.

Instrumentation (if any): None

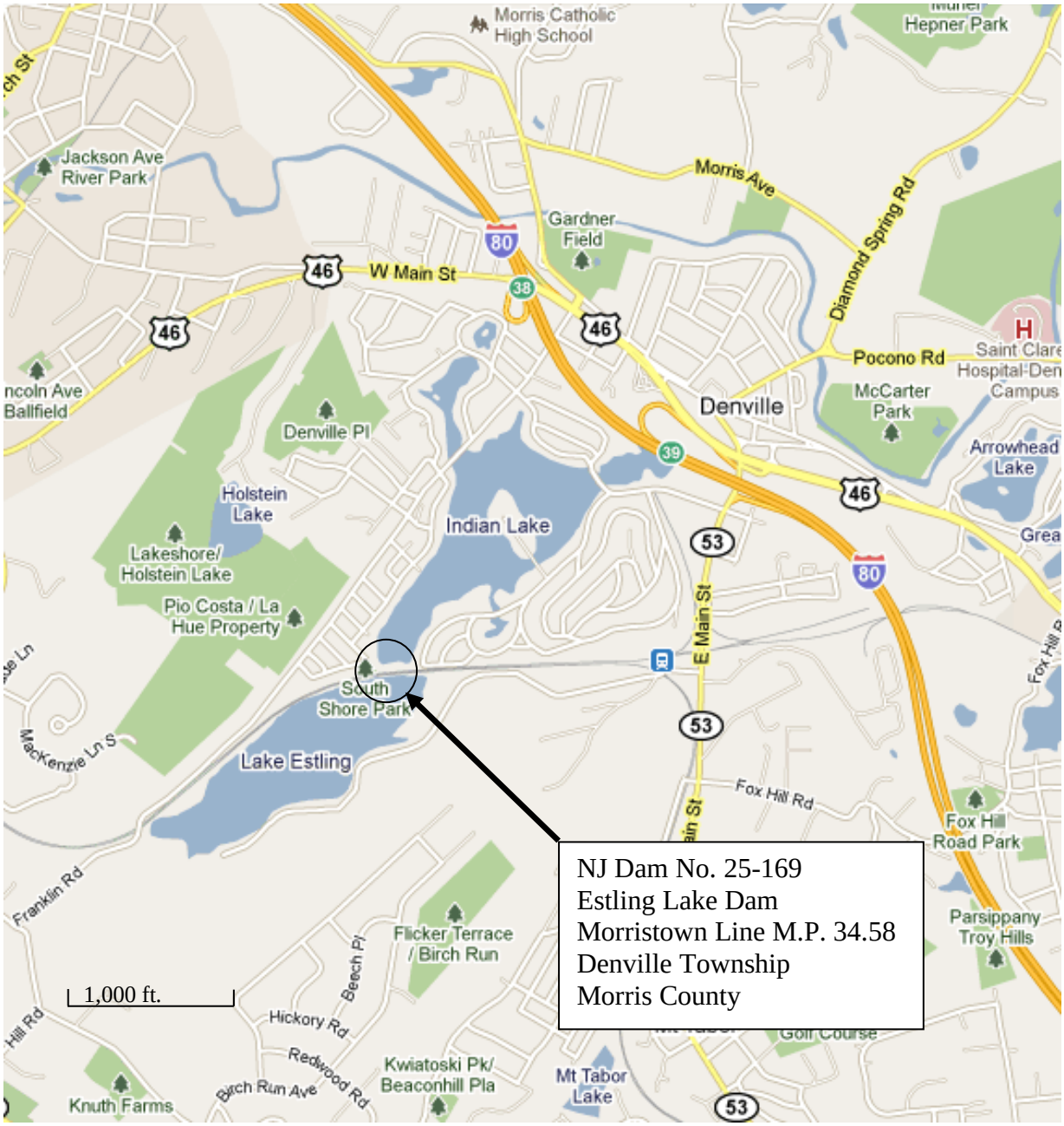
Significant upstream or downstream dams (if any): Openaki Lake and Shongum Lake upstream and Indian Lake downstream

Overview of Inundation Area: Indian Lake Community

Method of emergency drawdown: 24" low level outlet at east wingwall; manually operated.

***PROJECT SITE DRAWINGS IN APPENDIX D.**

DAM LOCATION MAP



IV. Emergency Detection, Evaluation, and Classification

Emergency Condition Identification

Since the goal of dam emergency planning is to protect lives and property, the timely identification of emergency conditions by trained personnel becomes paramount. Procedures to identify emergency conditions have been established by NJ-OEM. Four (4) dam emergency conditions of varying severity have been identified and are described below.

Dam Advisory Condition

A Dam Advisory Condition is a situation where an unusual problem or situation has occurred, but a failure of the dam is not imminent. Examples of a Dam Advisory Condition are:

- Instrumentation readings reach pre-determined numerical limits.
- Any undocumented or unusual spring.
- Any sign of piping.
- Any sign of slumping.
- Any sinkhole.
- Any unusual crack.
- Any unusual wet spot or boggy area.
- Seismic activity (refer to attachment F for EAP activation criteria)
- Any obstruction in the spillway.
- Evidence of damage due to vandalism at any structure(s).
- Bomb threat.
- A civil disorder near the reservoir structure(s).
- Any aircraft accident near the reservoir structure(s).

Required responses are: *[refer to Emergency Notification Flow Chart, page 4]*

- Notify municipal OEM.
- Notify county OEM.
- Notify NJ-OEM.
- Notify NJ-DSS.
- Investigation.
- Assessment and response.

Dam Warning Condition

A Dam Warning Condition is any developing or occurring event or circumstance which is or may adversely affect the integrity of the dam but is considered controllable. The Dam Warning Condition has the potential of evolving into a Dam Emergency or a Dam Breach condition. Examples of a Dam Warning Condition are:

- Water level of the lake is at an unsafe level and is rising threatening to overtop the dam.
- Any developing erosion, settlement or upheaval occurring on the downstream slope or at the toe of the dam and is considered to be controllable.
- Any undocumented leakage through any dam structure considered to be controllable.

IV. Emergency Detection, Evaluation, and Classification

Required responses are: *[refer to Emergency Notification Flow Chart, page 4]*
- Notify municipal OEM.
- Notify county OEM.
- Notify NJ-OEM.
- Notify NJ-DSS.
- Investigation.
- Assessment and response.

Dam Emergency Condition

A Dam Emergency Condition is defined as one or more of the following situations:
- Water has overtopped or will overtop any dam or dike.
- Any uncontrollable erosion, settlement or upheaval occurring on the downstream slope or at the toe of the dam.
- Any uncontrollable leakage through any dam structure.

Required responses are: *[refer to Emergency Notification Flow Chart, page 4]*
- Notify municipal OEM.
- Notify county OEM.
- Notify NJ-OEM.
- Notify NJ-DSS.
- Commence emergency actions.
- Issue public warning and begin evacuation.

Dam Breach Condition

A Dam Breach Condition is defined as:
- A dislocation or failure of any structure which allows for an expanding, uncontrollable discharge of water through the spillway, dam or dikes indicating a breach is occurring.

Required responses are: *[refer to Emergency Notification Flow Chart, page 4]*
- Notify municipal OEM.
- Notify county OEM.
- Notify NJ-OEM.
- Notify NJ-DSS.
- Commence emergency actions.
- Issue public warning and begin evacuation.

V. General Responsibilities Under the EAP

Dam Owner/Operator Responsibilities:

During an emergency condition:

1. Identification of the emergency condition.
2. Notification of the Office of Emergency Management (OEMs) and New Jersey Department of Environmental Protection, Dam Safety Section (NJ-DSS). *[refer to the Emergency Notification Flow Chart on page 4]*
   Person responsible for the notification: ____Brian Williams_____
3. Implementation and direction of emergency repairs.
4. Update the emergency status to the OEMs and NJ-DSS.
   Person responsible for the updates: _____Michael DeAngelis_____
5. Provisions for security measures at the dam.
6. Provision of technical assistance to OEM officials, when necessary.
7. Reporting termination of emergency situation on-site at the dam.

In non-emergency conditions, owner/operator must also provide for:

8. Routine maintenance and operations of the dam.
9. Routine surveillance of the dam.
10. Routine inspection of the dam.
11. Annual review, updating, and distribution of the EAP.

Owner/Operators EAP Coordinator Responsibility

Once the dam owner/operator has designated an EAP Coordinator, that person shall be responsible for EAP related activities including:

1. Inclusion and distribution of document revisions.
2. Establish training seminars.
3. Coordinate EAP exercises.
4. Contact person for any EAP related inquiries.

EAP Coordinator Name: ____Michael DeAngelis _____
Phone Number: ___(973) 520-3952_____

Municipal OEM Responsibilities:

1. Warn the public of emergency conditions at the dam.
2. Implement and direct required evacuations of threatened areas.
3. Establish reception centers for evacuated people.
4. Secure and control access to evacuated areas.
5. Conduct rescue and recovery operations as required.
6. Determination and declaration of termination of an emergency/disaster response activities off-site.

County OEM Responsibilities:

1. Pass warning of emergency conditions at the dam to all affected municipalities.
2. Provide assistance to municipalities to help fulfill the emergency responsibilities.

V. General Responsibilities Under the EAP

NJ-OEM Responsibilities:

1. Assumption of control and coordination (when appropriate) of all emergency actions in accordance with Public Law.
2. Provision of assistance to the affected municipalities and counties (when requested and beyond their capabilities).
3. Coordination of specialized assistance.
4. Notification of appropriate State agencies.
5. Notification of appropriate counties of any declared emergency condition.
6. Periodic testing of the emergency notification procedures.

NJ-DSS Responsibilities:

1. Provide technical assistance to the dam owner/operator.
2. Assist in the evaluation and resolution of potential emergency conditions.
3. Has the authority to direct the owner/operator to take necessary safety measures.

Termination

The **owner/operator** is responsible for evaluating a declared emergency condition. The NJ-DSS is responsible for making the decision, when appropriate, that an emergency condition no longer exists on-site at the Dam. The Office of Emergency Management representatives (OEMs) are responsible for declaring termination of an emergency condition off-site. As such, it will be the responsibility of the owner/operator to notify the OEMs of an emergency condition termination promptly.

As part of the termination phase, the **County/Municipal OEM** will be responsible to conduct a critique of the overall emergency response and to prepare a report documenting emergency procedures and actions. The critique process will be a discussion of the events that occurred prior to, during, and after a dam emergency. Participants review and evaluate their particular actions. The purpose of the critique is to determine what, if any, practicable improvements could be made for potential future emergencies, and conversely to identify deficiencies in procedures, manpower, materials and equipment. A report will be prepared and submitted to the NJ-OEM and NJ-DSS.

Recovery

The basic goal of the recovery phase is to demobilize and return to the pre-emergency situation. The **owner/operator** is responsible for implementing all actions necessary to achieve this goal on-site at the dam. The Emergency Management Service (EMS) has the responsibility to effectuate recovery off-site in the affected communities.

The Owner/Operator is responsible for directing all on-site recovery activities. The basic recovery actions common to the four dam emergency conditions are:

- Secure access to emergency site,
- Restore basic facilities and services, and
- Assess damage.

V. General Responsibilities Under the EAP

An additional activity that could be part of a high level dam emergency with associated physical actions would be a disaster declaration. Official disaster declarations would be made by members of the EMS, not by the owner of the dam.

A damage assessment report will be prepared by the owner to quantify the economic damages and to evaluate the impacts to the dam structure or the lake. Damage assessment will be done in two stages. The first stage will estimate the overall impacts in a broad sense and will be prepared as soon as possible following the dam emergency. The second stage will be a detailed evaluation and formal report of all impacts. The damage assessment report will be prepared and submitted to the NJ-OEM and NJ-DSS.

VI. Preparedness

Emergency Notification Directory

1. Dam Owner (Embankment): NJ Transit Rail Operations, Inc.

   Contact Person: George Nickels, P.E.

   Address: 1 Penn Plaza East, Newark, NJ 07105-2246

   Phone No: (973) 491-7836 24-Hr No: (862) 270-6015
   E-mail Address: gnickels@njtransit.com

2. Dam Operator (Spillway): Estling Lake Corporation

   Address: P.O. Box 281, Denville, NJ 07834

   Phone No: (973) 377-5262 24-Hr No: (973) 520-3952

   E-mail address: michaeljd52@gmail.com

3. EAP Development Crew

   Coordinator: Estling Lake Corporation - Michael DeAngelis

   Phone No: (973) 520-3952

Crew	Phone No.
Glen Skar	(973) 540-0818
Alfred Edwards	(973) 627-4509 Summer, (908) 464-2463 Winter
Michael DeAngelis	(973) 520-3952

4. Maintenance & Operations Crew

   Supervisor: David Lobycz, Division Engineer

   Phone No: (973) 768-9478

Crew	Phone No.
Ken McCathern	(973) 573-4462

5. Inspectors

Name	Phone No.
Guiseppe Sanzone	(973) 879-7012
Kenny Santos	(201) 725-5129

VI. Preparedness

6. Owners' Engineers

Name: Structures Department, NJ Transit Rail Operations

Contact Person: George Nickels, P.E.

Address: One Penn Plaza East, Newark, NJ 07105-2246

Phone: (973) 491-7836 24-Hr No: (862) 270-6015

7. Municipalities

Municipality	Phone No.	Police No.
Township of Denville	(201) 919-1501	(973) 627-4900

8. Counties

County	Phone No.	Police No.
Morris	(973) 829-8600	(973) 285-6600

9. State Agencies

Agency	Phone No.	24-Hr No.
NJ-OEM, State Police	(609) 963-6900	(609) 963-6900
NJ-DSS	(609) 984-0859	(877) WARNDEP (877) 927-6337

VI. Preparedness

Emergency Operation Center (EOC)

EOC should be located upstream of the dam.

Address: 1 St. Mary's Place
Denville, NJ 07834

Direction to the Emergency Operations Center from the nearest State or County highway:

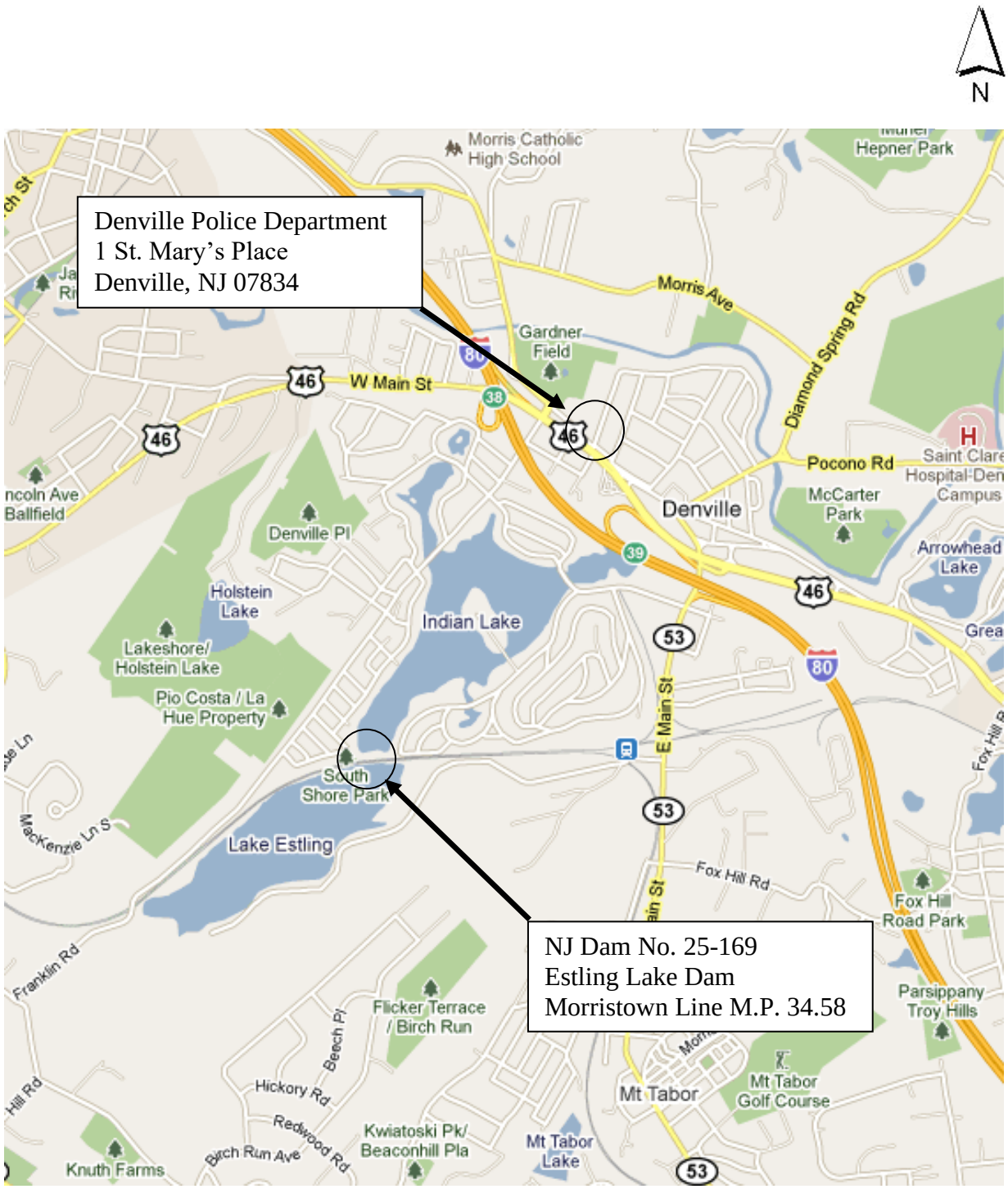
Route 80 westbound to Exit 38 - Route 46 eastbound; 0.1 miles left at Franklin Road, 300’ right at Savage Road, 0.15 miles left on St. Mary's Place, left into EOC.

Route 80 eastbound to Exit 39 - Route 46 eastbound; 0.3 miles to Route 53 (Main Street) northbound jughandle; 0.15 miles left on Broadway; 0.3 miles right on St. Mary's Place; turn left into EOC.

***Location map of the Emergency Operations Center next page.**

VI. Preparedness

EOC Location Map



Revised April 2023

VI. Preparedness

Surveillance Checklist

Inspector: _____ Date: _____ Time: _____

Observation	Response*	Upstream Slope	Crest	Downstream Slope	Toe Area	Spillway	Bridge & Piers	Drain Pipe Valve	Remarks
Normal (No defects)	0								
Not Inspected									
Vegetation Growth	0								
Dam Breach	1								
Overtopping of Dam Crest	2								
Uncontrollable Settlement, Heave or Erosion	2								
Uncontrollable Leakage	2								
Water Level 4 ft. Below Crest & Rising	3								
Controllable Settlement, Heave or Erosion	3								
Controllable Leakage	3								
New Spring or Piping	4								
Slump or Heave	4								
Sinkhole	4								
Wet Spot or Boggy Area	4								
Seismic Event	4								
Spillway Obstruction	5								
Unusual Cracking	4								
Unusual Noise or Vibration	4								
Unsubstantial Bomb Threat	4								
Civil Disorder	6								
Aircraft Accident	6								
Other	6								

0-No Action, Continue Inspection.
1-Condition I, Activate Enos, Sirens.
2-Condition II, Notify Officer.
3-Condition III, Notify Officer.
4-Advisory Condition, Notify Duty Officer
5-Advisory Condition, Notify Duty Officer and State Police. Inspect Facility Structures.
6-Advisory Condition, Notify Duty Officer, State Police.

VI. Preparedness

List of Contractors

After a situation is identified as an emergency and evaluated, the Chief Executive/Operator is responsible, with assistance from the Owner's Engineer and an approval from the NJ-DSS, to direct repairs to resolve the condition. The severity of the condition will dictate the resources and response time necessary.

It will be the responsibility of the owner to maintain the list of contractors that may be contacted during an emergency condition for equipment, materials, and repairs current.

For each contractor on the list, the following must be provided:
- Contractor name.
- Contact person.
- Address.
- Phone number.
- Scope of its contracted services.

1. Contractor: NJ Transit (Rail Operations)

   Contact person: George Nickels, P.E., Chief Engineer Phone No: (973) 491-7836

   Address: One Penn Plaza East, Newark, NJ 07105

   Services contracted for: Protection of embankment

2. Contractor: Railroad Construction Company, Inc.

   Contact person: Alfonso R. Daloisio Phone No: 973-684-0362

   Address: 75-77 Grove Street, Paterson, New Jersey

   Services contracted for: Heavy Railroad Construction

3. Contractor: Hall Construction Company

   Contact person: Mark Hall Phone No: 732-938-4255

   Address: 1720 Route 34 Wall, NJ 07719

   Services contracted for: Heavy Construction

VI. Preparedness

Available On-Site Materials

Material	Location	Quantity

None

Available On-Site Equipment

Equipment	Location	Quantity

None

VI. Preparedness

Available Off-Site Materials

Material	Company & Location	Phone No.	Approximate Arrival Time to Dam (Min)
Gravel, riprap, sand	Tilcon Rock Products 625 Mt. Hope Road Mt. Hope, NJ	973-366-0841	15 minutes
Pipe	Morris Pipe & Supply Co. 777 NJ-23, Pompton Plains, NJ 07444	973-835-6600	25 minutes
Lumber	Park Union Lumber Co. 243 Salem Street Randolf, NJ 07869	973-366-0345	6 minutes
Concrete	Sparta Ready Mix 33 Demarest Road Sparta, NJ 07871	973-383-4651	25 minutes
Concrete	County Concrete 50 Railroad Avenue Kenville, NJ	973-584-7122	30 minutes

Available Off-Site Equipment

Equipment	Company & Location	Phone No.	Approximate Arrival Time to Dam (Min)
Crane Front End Loader Bulldozer Backhoe Grader Dump Trucks	NJ Transit, Port Morris Yard Roxbury, NJ	973-448-6160	15 minutes
Heavy Equipment	Railroad Construction Company 75-77 Grove Street Patterson, NJ 07503	973-684-0362	30 minutes
Heavy Equipment	Bobcat of North Jersey 201 Maltese Dr, Totowa, NJ 07512	(973) 774-9500	30 minutes

VII. Inundation Maps

Description of Inundated Area

Extends from Estling Lake Dam Downstream to Route 80

Index of Maps

Lake Estling Dam - Inundation Mapping – Sheet 1 of 1

(See Appendix D)

VIII. Appendices

Appendix A. Plans for Training, Exercising, Updating & Posting

The EAP development coordinator of the dam is responsible for the training, exercising, and updating of the EAP.

Training

The EAP development coordinator of the dam is responsible for the training of all personnel involved in the implementation of the EAP. Training of personnel involved in implementing the EAP is to ensure that they are thoroughly familiar with all elements of the plan, the availability of material and equipment, and their responsibilities and duties.

Technically qualified personnel should be trained in problem detection and evaluation and appropriate remedial (emergency and non-emergency) measures. This training is essential for proper evaluation of developing situations at all levels of responsibility which, initially, is usually based on onsite observations. A sufficient number of personnel should be trained to ensure adequate coverage at all times.

Training courses should be held within two (2) months of the implementation of the EAP. Follow-up training sessions should be held annually. The following should be part of the training:

1. For Normal Operations:
   - Instruction on the location, purpose, and operations of the dam structure components.
   - Demonstration of normal dam conditions and operations.
   - Instruction on visual inspection procedures for the weekly/monthly inspections.
   - Hands-on training of communications equipment**.**

2. For Emergency Condition Identification:
   - Review of Emergency Action Plan.
   - Instruction on visually detecting an emergency warning sign.
   - Review of conditions which would indicate an emergency including proper identification of the type of emergency.
   - Instruction on interpreting the surveillance checklists to detect an emergency situation**.**

3. For Emergency Communications:
   - Instruction on proper use of communications equipment.
   - Instruction on appropriate individuals to contact, as well as the time to call them and the order in which calls should be made.
   - Instruction on appropriate message to convey.

4. For Emergency Response Actions:
   - Instruction on the role of each worker in response actions.
   - Instruction on dam emergency response actions to be taken for each type of emergency situation.

VIII. Appendices

Appendix A. Plans for Training, Exercising, Updating & Posting

- Instruction on obtaining and utilizing on and off-site emergency supplies.
- Instruction on determining the end of a dam emergency.
- Instruction on proper communications for notifying the appropriate individuals of the emergency termination.
- Instruction on the appropriate dam emergency recovery activities.

Exercising

Develop scenarios for the various emergency conditions and exercise the state of training and readiness of key personnel responsible for actions during an emergency in order to make sure that they know and understand the procedures to be followed and actions required.

Emergency response exercises should be held annually and should simulate an emergency situation in which the worker is tested on emergency condition notification, emergency communications, and emergency response skills. The exercise, whenever possible, should include participation by both the dam owner and the affected state and local emergency management officials. The exercises should be evaluated both orally and in writing and the EAP should be revised to correct any deficiencies noted.

Updating

The EAP should be updated promptly after each change in involved personnel or their telephone numbers or after the completion of a scheduled exercise review which revealed required changes. A review of the adequacy of the EAP should be conducted at intervals not to exceed one year. If no revision is necessary, a statement that the review was made and no revision to the EAP was necessary should be provided to each recipient of the original EAP.

Posting of the Notification Flowchart

An up-to-date copy of the Notification Flowchart should be posted in prominent locations at the dam site and local emergency operations center (essential for unattended dams).

The flowchart should be posted at each phone and radio transmitter at the dam, powerhouse (if applicable), and at all other desirable locations. The locations of the posted flowcharts should be indicated below.

List of Location of Notification Flowchart at the Dam Site:

1. Denville Police Headquarters, 1 St. Mary's Place, Denville, NJ
2. Corner of Estling Lake Road and Thumont Road

VIII. Appendices

Appendix B. Definitions

The words and terms listed below, as used in this plan, shall have the following meanings, unless the context clearly indicates otherwise.

Dam - Any artificial dike, levee or other barrier, together with appurtenant works, which is constructed for the purpose of impounding water on a permanent or temporary basis, that raises the water level five (5) feet or more above the usual, mean, low water height when measured from the downstream toe-of-dam to the emergency spillway crest or in the absence of an emergency spillway, the top-of-dam.

Drawdown - Lowering of lake/reservoir level through the use of flood gates, low level outlets, etc.

Emergency - A condition in which a significant hazard to life or property is occurring.

Emergency Action Plan (EAP) - Established procedures necessary to minimize threat to life and damage to property in the event of a dam failure related release.

Emergency Condition - Any of the four conditions identified in the Emergency Condition Identification section.

Emergency Management Service (EMS) - All Offices of Emergency Management (State, County or Local) which would be involved in an emergency response.

Emergency Operation Center (EOC) - The command post from which emergency operations are coordinated. Must contain a telephone/communication line or be close to one.

Failure - An incident resulting in the uncontrolled release of water from an operating dam.

File Number - New Jersey State identification number for the dam.

Hazard Classification - Classification of potential hazard a dam failure would cause downstream of the dam.
Class I (High Hazard Potential) - Those dams the failure of which may cause the probable loss of life or extensive property damage.
Class II (Significant Hazard Potential) - Those dams the failure of which may cause significant damage to property and project operation, but loss of human life is not envisioned.

Inundation - The area that would be directly affected by flood waters resulting from a catastrophic dam failure.

VIII. Appendices

Appendix B. Definitions

Large Dam - A dam which raises the water of any stream more than 70 feet above its usual mean low-water height or which impound more than 10,000 acre-feet of water.

NJ-DSS - New Jersey Department of Environmental Protection, Dam Safety Section.

NJ File No. - New Jersey State identification number for the dam.

NJ-OEM - New Jersey State Police, Office of Emergency Management.

Outlet - An opening through which water can be freely discharged from a lake/reservoir for a particular purpose.

Owner/Operator - Person/entity who owns, controls, operates, maintains, manages the dam.

Piping - The progressive development of internal erosion by seepage, appearing downstream as a hole or seam discharging water that contains soil particles.

Sinkhole - Any unusual subsidence.

Slumping - The movement of a mass of earth and/or down a slope. In embankments and abutments, this involves the separation of a portion of the slope from the surrounding material.

Spillway - A waterway/structure designed to convey excess water from a reservoir/lake without endangering the safety of the dam.

Spillway Design Flood - The flood associated with the spillway design storm upon which the hydraulic capacity of the spillway structure is designed.

VIII. Appendices

Appendix C. Approval & Distribution of the EAP

Approval and Distribution

Once the EAP has been developed, the owner/operator shall submit the completed EAP with inundation mapping and dam breach analyses to the NJ-DSS for review and approval. Once the NJ-DSS approves the EAP, the EAP must be distributed by the owner to all individuals who will be involved during an emergency. Any revisions to the EAP should be furnished to all individuals to whom the original EAP was distributed.

Each party receiving an EAP must sign and return a receipt to the distributor (owner/operator) of the EAP. The signed receipt should help to assure that all parties are aware of and understand the EAP and agree to their assigned roles should an emergency occur.

A standard distribution letter and receipt is included for reference.

VIII. Appendices

Appendix C. Approval & Distribution of the EAP

Document Distribution

The document holder and location of each copy of the up-to-date EAP should be included in this section of the EAP.

Controlled Document Holder	Document Number
EMC-Denville Police Department	EAP-2013-01
EMC-Denville	EAP-2013-02
OEM – Morris County	EAP-2013-03
NJ-OEM (State Police OEM)	EAP-2013-04
NJ-DSS (DEP Dam Safety Section)	EAP-2013-05
NJ Transit Rail Operations	EAP-2013-06
Estling Lake Corporation	EAP-2013-07

VIII. Appendices

Appendix C. Approval & Distribution of the EAP

Standard Distribution Letter & Receipt:

(Date)

(Name of EAP document holder)
(Company or affiliation)
(mailing address)

Re: EAP for (name of dam) Dam
NJ File No. (NJ File No.)

Dear (Name of EAP holder):

(Name of the owner/operator or their group) has (prepared or revised) the Emergency Action Plan for (name of the dam) Dam located within (name of township), (name of county) County. The EAP is a public safety regulatory required document. The (year) revisions are described in the REVISION SUMMARY.

Please insert the new material with the revision date in your controlled copy and remove the obsolete material (the effective dates generally are printed at the lower right corner of the pages). Please acknowledge your receipt of your controlled copy distribution by returning the obsolete pages to the undersigned with the attached acknowledgment, signed and dated.

We appreciate your continued cooperation in the revisions of the EAP. Should you have any recommendations or questions regarding the EAP, please do not hesitate to contact the undersigned.

Sincerely,

(Your name),
(Affiliation)

I acknowledge receipt of the (revision date) revision to the (name of dam) EAP and have inserted the revision pages in my controlled copy. This EAP will be maintained at the designated location for use in the event of a drill or actual emergency declaration.

Controlled Document Holder Name: _____ Document No: _____

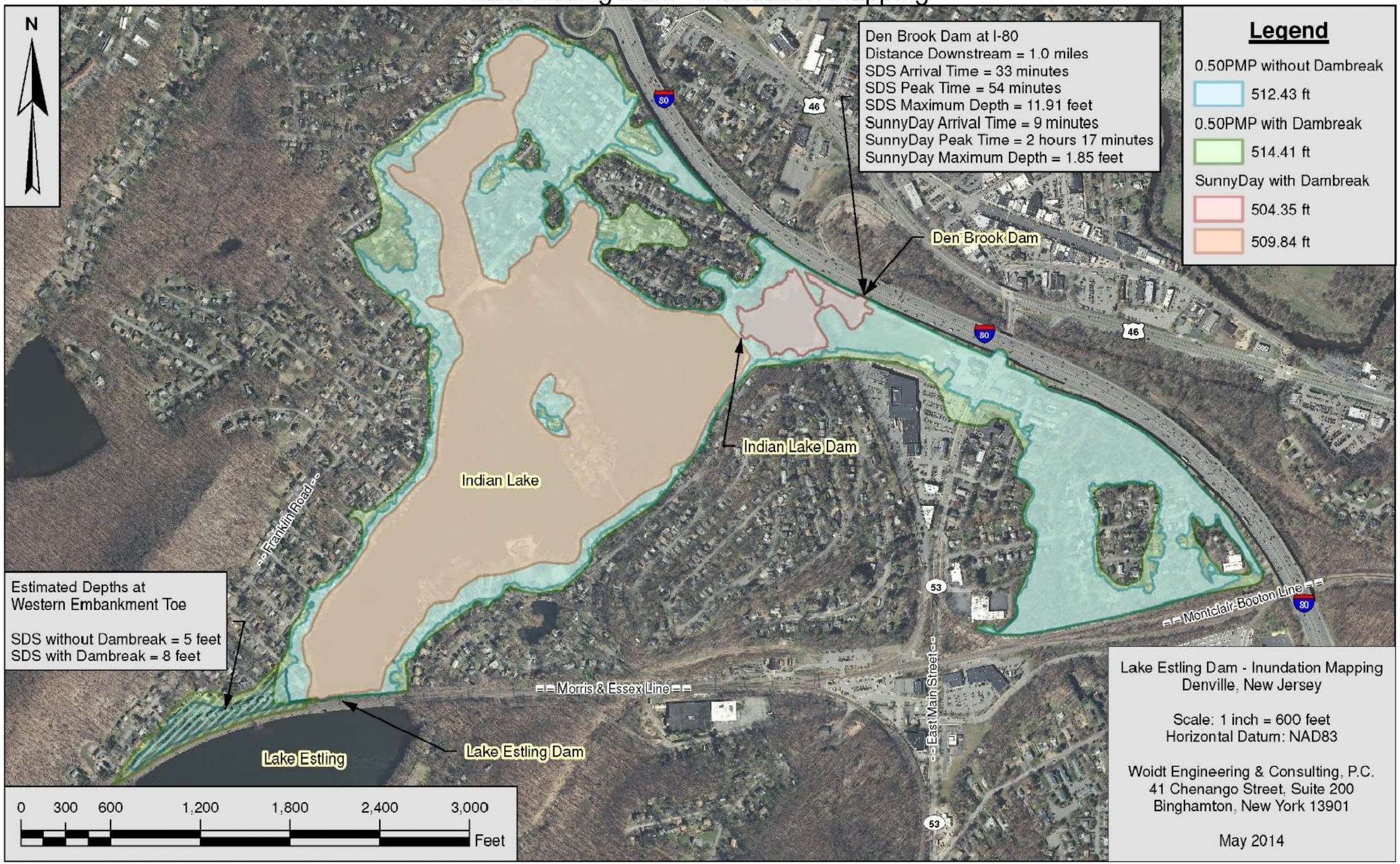
Signature: _____ Date: _____

VIII. Appendices

Appendix D. Project Site Drawings:

- **Inundation Map Sheet 1 of 1 (See Next Page)**

Lake Estling Dam - Inundation Mapping



Note: Flood limits are approximate and should be used as a guideline during an actual dam failure.

VIII. Appendices

Appendix E. Post-Earthquake Inspection and EAP Activation Guidelines

The Bureau of Dam Safety and Flood Control (Bureau) recommends that the dam owner/operator perform a site inspection following any earthquake felt at the dam site regardless of hazard classification or earthquake magnitude. However, a post-earthquake inspection of Class I (high hazard) and Class II (significant hazard) dams must be performed by a New Jersey licensed Professional Engineer (NJ PE) hired by the dam owner/operator if the following criteria are met.

- **Earthquake magnitude of 5.0 or greater occurring with an epicenter located within a 20 miles radius of the dam.**
- **Earthquake magnitude of 4.0 or greater occurring with an epicenter located within a 10 mile radius of the dam.**

Following a seismic event as described above, an inspection of the dam should be performed by the owner/operator immediately. An inspection must be performed by a NJ PE as soon as possible, but no later than 24 hours after the event. The above criteria are minimum requirements only and individual site conditions and earthquake characteristics must also be considered when determining if a post-earthquake inspection is necessary. For example, a dam that may be more vulnerable to instability during an earthquake (i.e. liquefiable materials within the embankment or foundation) may require a post-earthquake inspection by a NJ PE even if the above criteria are not met.

The Bureau must be immediately notified of any unusual or emergent conditions identified by the dam owner/operator or engineer during a post-earthquake inspection. Regardless of inspection findings, a letter summarizing the results of the inspection must be submitted to the Bureau within 7 days following the inspection.

EAP Activation:

Activation of the EAP and issuance of a dam advisory condition is required following seismic activity meeting the above criteria. The dam owner/operator is responsible for contacting the Bureau (and other agencies on the EAP flow chart) to inform them of the status of the potential emergency condition and either terminating or modifying the condition to match the current status of the situation.

Please note that the US Geological Survey (USGS) Earthquake Hazards Program provides automated notification to subscribers following an earthquake within the region via e-mail or text messaging.
To subscribe to this service, please visit the USGS at *hltps://sslearthquake.usgs.gov/ens/*.