

# EMERGENCY ACTION PLAN

IN THE EVENT OF DAM FAILURE FOR THE:

## DEERFIELD RESERVOIR AND DAM (RESERVOIR #6)



National Inventory of Dams Number: NY 01227

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### DAM LOCATION

Trenton Road  
Town of Deerfield  
Oneida County, New York 13502

Latitude 43° 8' 32"    Longitude 75° 12' 35"

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### OWNED AND OPERATED BY:

Mohawk Valley Water Authority  
One Kennedy Plaza  
Utica, New York 13502  
(315) 792-0320

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ORIGINALLY PREPARED BY:  
Gomez and Sullivan Engineers  
REVISED BY:  
Mohawk Valley Water Authority  
August 2023

DEERFIELD RESERVOIR  
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**SECTION 1 - STATEMENT OF PURPOSE**

The purpose of this Emergency Action Plan (EAP) is to define responsibilities and provide procedures that are designed to notify the appropriate emergency management and public safety officials of a possible, impending, or actual failure of the Deerfield Reservoir Dam.

It should be noted that the preparation of a dam break analysis and EAP for the Deerfield Reservoir and Dam does not imply that the dam is not stable or that the dam poses an imminent safety concern to the public. However, on the remote chance of a dam failure emergency, the procedures presented in this plan will be used to reduce or eliminate the hazards to life and property in the inundation area downstream of the dam.

**SECTION 2 - NOTIFICATION FLOWCHARTS**

The flowchart for a dam failure condition will summarize who is to be notified, and the responsibility for and priority of such notification in the event of a Deerfield Dam failure emergency.

On the pages that follow, a flowchart is provided for each of the following emergency conditions:

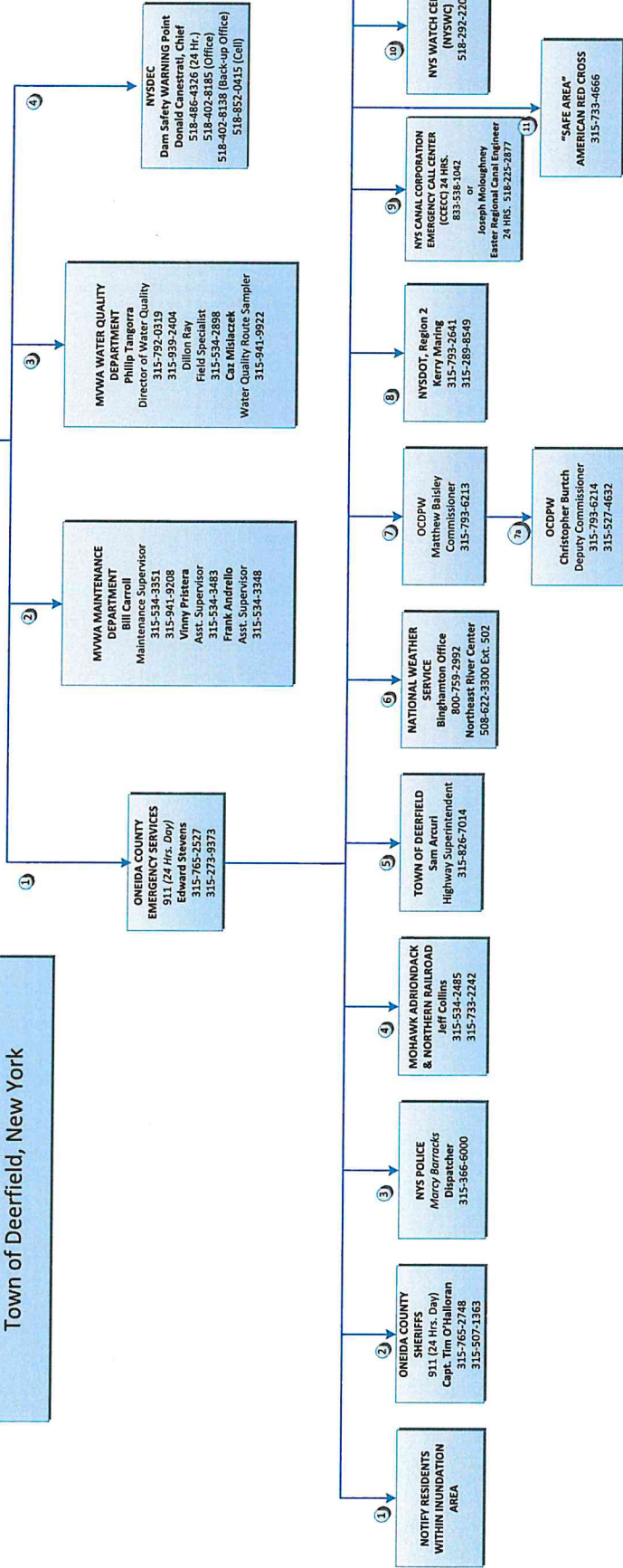
- A. **DAM FAILURE WARNING (Classification 1)** - A condition when dam failure is imminent or has occurred.
- B. **DAM FAILURE WATCH (Classification 2)** - A condition when a potentially hazardous dam situation is developing.
- C. **NON-FAILURE EMERGENCY (Classification 3)** - A condition when there is no danger of Dam failure.

Note the flowcharts are a summary of the notification procedures during a dam failure emergency. It is important to be aware that the exchange of information amongst parties must not be unidirectional. The overall success of the Emergency Action Plan in a dam failure emergency requires that information be exchanged in both directions of the flowchart.

**EAP NOTIFICATION FLOWCHART**  
**DAM FAILURE WARNING**  
 (A CONDITION WHEN DAM FAILURE IS  
 IMMINENT OR HAS OCCURRED)

**MOHAWK VALLEY WATER AUTHORITY**  
**DEERFIELD RESERVOIR AND DAM**  
**(RESERVOIR # 6)**  
 Trenton Road  
 Town of Deerfield, New York

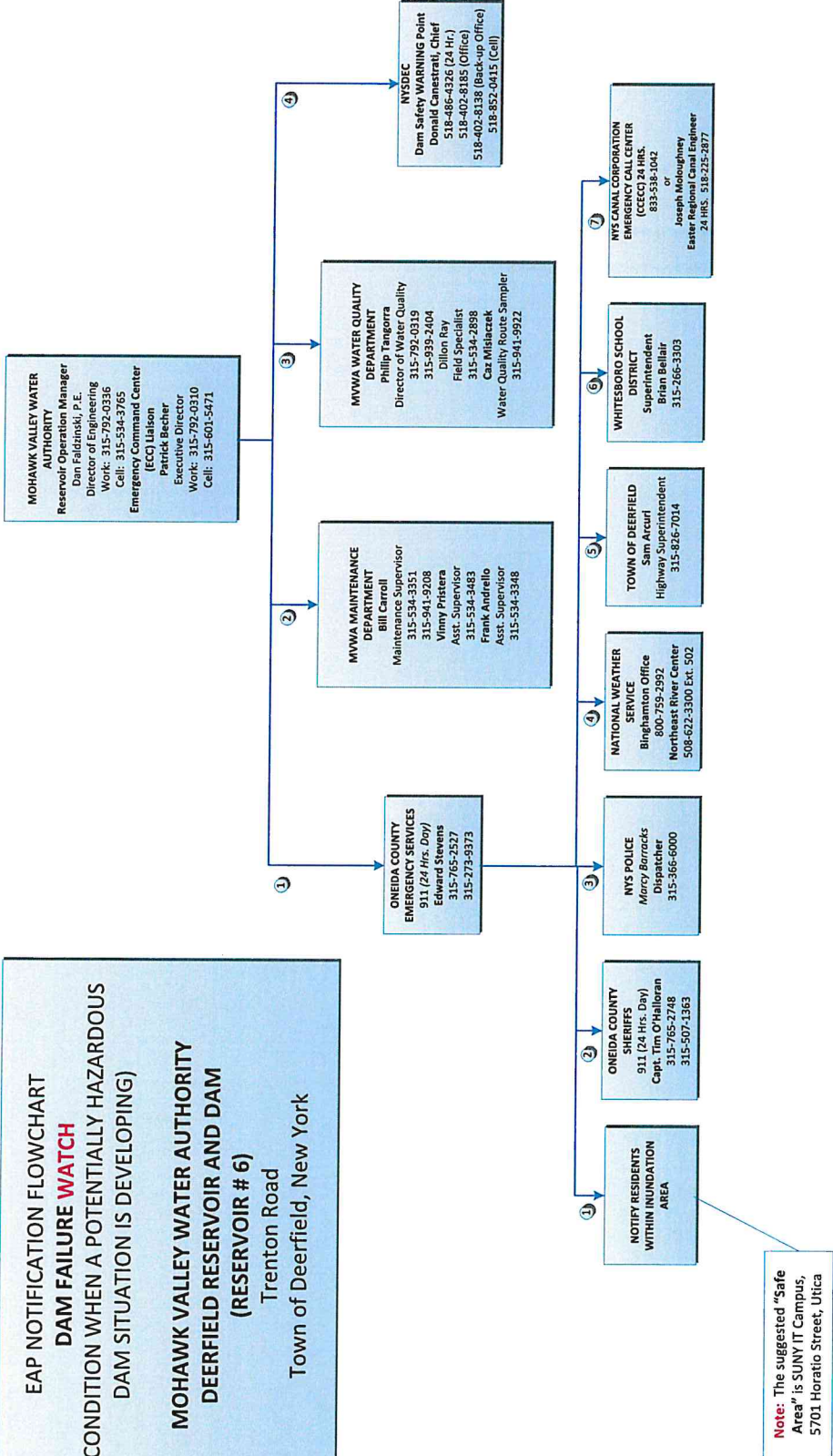
**MOHAWK VALLEY WATER AUTHORITY**  
 Reservoir Operation Manager  
 Dan Faldzinski, P. E.  
 Director of Engineering  
 Work: 315-792-0936  
 Cell: 315-534-3765  
 Emergency Command Center  
 (ECC) Liaison  
 Patrick Becher  
 Executive Director  
 Work: 315-792-0930  
 Cell: 315-601-5471



Note: The suggested "Safe Area" is SUNY IT Campus, 5701 Horatio Street, Utica

**EAP NOTIFICATION FLOWCHART  
DAM FAILURE WATCH  
(A CONDITION WHEN A POTENTIALLY HAZARDOUS  
DAM SITUATION IS DEVELOPING)**

**MOHAWK VALLEY WATER AUTHORITY  
DEERFIELD RESERVOIR AND DAM  
(RESERVOIR # 6)**  
Trenton Road  
Town of Deerfield, New York



**Note:** The suggested "Safe Area" is SUNY IT Campus, 5701 Horatio Street, Utica

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**SECTION 3 - PROJECT DESCRIPTION**

Deerfield Reservoir is part of the Mohawk Valley Water Authority's (MVWA) water distribution system and serves as a stabilizing water supply reservoir. The Reservoir is on inactive, standby status having been replaced by a new concrete tank in 2009. The site is owned and operated by the MVWA and is located near Trenton Road and east of NYS Route 12 in the Town of Deerfield, Oneida County, New York (Figure 3-1). Generally, the area immediately downstream of Deerfield Reservoir consists of suburban residential homes and commercial properties. Residences in the Ramblewood Subdivision, along with residences on Trenton Road are just downstream of the Deerfield Reservoir and would be the first areas affected in the case of a dam failure. Once the failure wave travels downstream, residences in Deerfield Heights and North Utica would be inundated by dam failure (see **SECTION 7 - MAPPING**).

The dam structure at Deerfield Reservoir is an earthen embankment with a puddle core wall which surrounds the reservoir (Figure 3-2). The total length of the embankment is 3,520 feet and the maximum height of the embankment is 50 feet at the southwest corner of the reservoir. The minimum height is about 5 feet in the northeast corner of the reservoir. The inboard slope is 1 vertical on 2 horizontal and the outboard slope is 1 vertical on 1.5 horizontal.

Inflow to the reservoir is controlled by valves on each of two inflow pipes (16 inch and 24-inch diameter). These valves are currently closed as the reservoir is on inactive, standby status. These pipes enter the reservoir at the northwestern corner of the inflow pool. Reservoir outflow capability is provided by a 20-inch supply main and a 20-inch waste pipe. The supply main begins at a concrete gate tower in the reservoir and proceeds to a meter and chlorination facility building located beyond the southern toe of the embankment.

The Deerfield Reservoir is a storage reservoir and is completely surrounded by the embankment. The total contributing drainage area to Deerfield Reservoir is approximately 17.7 acres and consists of the reservoir surface area (approximately 15.7 acres at normal maximum pool elevation) and the inboard slope from the top of the embankment to the reservoir surface. For the contributing watershed area to the reservoir, prior studies have found the Probable Maximum Flood (PMF) discharge from Deerfield Reservoir to be approximately 170 cfs<sup>1</sup> and would raise the water surface elevation 2 feet from the spillway crest elevation.

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<sup>1</sup> Corps of Engineers, New York District, Phase I Inspection Report, February 1981.



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**SECTION 4 - EMERGENCY DETECTION, EVALUATION, AND CLASSIFICATION**

This section presents the procedures for the timely detection, evaluation, and classification of an existing or potential dam-related emergency condition at Deerfield Reservoir.

**A. Detection of an Emergency Condition**

Possible failure of this dam is most likely to occur during severe thunderstorms, heavy rains, tropical storms, or seismic (earthquake) events.

The early detection of an emergency condition at Deerfield Reservoir and the evaluation of information are a critical component to the Emergency Action Plan (EAP). The Mohawk Valley Water Authority's operations and/or maintenance personnel who observe unusual discharges, abnormal reservoir levels, or water overtopping the dam should immediately report the condition to the On-Call Maintenance Supervisor or MVWA's Water Operations Emergency Manager. The On-Call Maintenance Supervisor and MVWA management will analyze the incoming information and will verify (see Paragraph 4-B) if an emergency situation exists and classify that situation (see Paragraph 4-C) according to the procedures in this EAP.

The following list provides examples of situations that indicate an abnormal condition exists at Deerfield Reservoir. The examples are a partial listing of potential dam emergency situations, and do not depict all the potential emergency conditions that could occur at the site.

- Example 1** Abnormally soft or wet spots on or around the embankment (see page, possible piping failure).
- Example 2** Discolored areas of grass on or near the embankment (see page, possible piping failure).
- Example 3** Cracking, settlement, movement or sloughing of the embankment (possible embankment failure).
- Example 4** Reservoir levels more than one (1) foot above the overflow spillway crest. Such a high-water surface elevation may indicate that the spillway is out-of-service (e.g., accumulation of debris along the overflow spillway) or the potential for severe flooding is occurring.

An emergency condition at Deerfield Reservoir may also be detected by an external source, such as town officials and/or the general public. Once notification of an unusual condition is received by the MVWA from an external source, the MVWA should assess the incoming data, dispatch personnel to the site, and determine if an emergency should be declared and the EAP implemented.

**B. Evaluation of an Emergency Condition**

When the MVWA receives notification of a potential emergency condition at Deerfield Reservoir, the MVWA must promptly evaluate the data and determine if an emergency condition exists. Input from real-time observations/surveillance of the dam, local weather forecasts, and discussions with MVWA maintenance personnel will be required in the evaluation.

**1. Surveillance**

For the emergency condition evaluation, surveillance of the dam should include the following:

- (1) The frequent measurement and recording of the reservoir water level;
- (2) The physical inspection of the dam crest for cracking, settlement, movement, or sloughing;
- (3) The physical inspection of the embankment and toe for seepage, soft spots, and boils. An estimate of the quantity of seepage flow and the clarity of the seepage water, and location should be recorded;
- (4) The physical inspection of the spillway for debris.

**2. Weather Forecasts**

Local weather forecasts should be obtained from radio stations, television networks, and/or the National Weather Service. The forecasts should be assessed for information on the precipitation amounts anticipated for the next 24-hours and be used to evaluate how conditions will be within and surrounding the Deerfield Reservoir.

Any evaluation of an emergency condition should consider the severity of the condition, anticipate the future site condition(s), consider if remedial measures can be taken, and keep in mind the safety of the general public. The evaluation should be timely and be on the side of caution. After the evaluation, a classification of the dam failure condition is to be made.

## C. Classification of the Emergency Condition

Following the evaluation of an emergency condition, one of three classifications is to be made by the MVWA:

### Classification 1

**DAM FAILURE WARNING** - a condition when **dam failure is imminent or has occurred**.

Generally, this situation is a condition where "time has run out" with respect to the failure of the dam. This is a situation where a failure has occurred, is occurring, or obviously is just about to occur. Once the MVWA has determined there is no longer any time available to attempt corrective measures to prevent dam failure, this warning should be issued, and the emergency notification process should be initiated.

Emergency management agencies should interpret a DAM FAILURE WARNING as notification that the dam is failing and immediately implement evacuation and road closure procedures.

The MVWA will establish a command center and assign a team of maintenance and management personnel who will be responsible for coordinating emergency action procedures, provide assistance to emergency management agencies, and, if possible, implement dam hazard reduction procedures.

### Classification 2

**DAM FAILURE WATCH** - a condition when a **potentially hazardous dam situation is developing**.

Generally, a watch situation is a condition where "some amount of time" may be available for further analyses/decisions to be made before dam failure is considered to be a foregone conclusion. This is a situation where a failure may eventually occur, but pre-planned actions taken during certain events (e.g., major floods, earthquakes, evidence of piping) may moderate or alleviate failure. Even if failure is inevitable, more time is generally available in a DAM FAILURE WATCH condition to issue warnings and/or take preparedness actions.

The MVWA will establish a command center and assign a team of maintenance and engineer personnel to implement steps for the reduction or the elimination of the hazard potential. Periodic status reports will be provided by the MVWA to emergency management and local authorities.

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The emergency management and local authorities will decide on the appropriate course of action in a DAM FAILURE WATCH alert. Because of the proximity of Trenton Road and residences near Deerfield Reservoir, Trenton Road closure and resident evacuation should be strongly considered. Emergency management agencies and the MVWA should interpret a DAM FAILURE WATCH as a condition that requires constant evaluation to determine what action is needed to minimize the likelihood and risk of dam failure and prevent injury or damages in the event of a dam failure.

**Classification 3**

**NON-FAILURE EMERGENCY** - a condition when **there is no danger of dam failure.**

Generally, this condition is used when there is NO danger of dam failure, but a potentially serious condition has been identified at Deerfield Dam. The MVWA will monitor the situation at the dam and will have the option to notify the appropriate agencies of the situation. Appropriate agencies to inform of a NON-FAILURE EMERGENCY at Deerfield Dam would include the Oneida County Emergency Services Office and the New York State Office of Dam Safety. At the time of contact, the agencies should be informed to stand by for further updates.

An example of a NON-FAILURE EMERGENCY would be a situation where releases from the dam could be such that flooding is expected to occur downstream of the dam. Another example would be a situation where the MVWA is notified of an emergency condition by the general public, but upon evaluation of the situation by the MVWA, it was found that an emergency condition relating to dam failure did not exist at the site.

**SECTION 5 - RESPONSIBILITIES UNDER THE EAP**

This section will specify the people and/or organizations responsible for the maintenance and operation of the dam and the persons or groups responsible for implementing various phases of the EAP.

**A. General Responsibilities**

**1. MVWA's Responsibilities**

As owner, the MVWA is responsible for the maintenance and operation of Deerfield Reservoir.

MVWA personnel will review the EAP on a regular basis to ensure that the document is up to date and that all personnel involved in the plan are familiar with their duties and responsibilities. Such personnel are to be advised of the importance of a thorough understanding of the EAP. At a minimum, review of the EAP should be conducted annually.

The MVWA will be the party to confirm that an emergency is occurring and will initiate the EAP in a dam failure emergency. When initiating the EAP, MVWA personnel will clearly state that: **"...the Emergency Action Plan for Deerfield Reservoir is now being initiated"**. They will briefly define what classification of failure is to be implemented in the EAP (i.e., **Dam Failure Warning, Dam Failure Watch**) and if applicable, the portion of the dam that has failed, or will fail, and the time of failure.

An example of what may be said for a **Dam Failure WARNING** is:

**"This is (name of personnel) from the Mohawk Valley Water Authority calling to initiate the Emergency Action Plan for Deerfield Reservoir.**

**"At (time of failure) the (section of the dam) section of Deerfield Reservoir Dam failed. Please refer to the Dam Failure Warning procedures described in your copy of the Emergency Action Plan for the Deerfield Reservoir and take appropriate action to notify the agencies/organizations under your jurisdiction and implement your own emergency plans."**

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An example of what may be said for a **Dam Failure WATCH** is:

*"This is (name of personnel) from the Mohawk Valley Water Authority calling to initiate the Emergency Action Plan for Deerfield Reservoir.*

*"It is (time of failure) and the Deerfield Dam has been observed to have (potential problem with the dam) and is in a potential failure condition. Please refer to the Dam Failure WATCH procedures described in your copy of the Emergency Action Plan for the Deerfield Reservoir and take appropriate action to notify the agencies/organizations under your jurisdiction. The Mohawk Valley Water Authority will keep you informed as we assess and mitigate the situation."*

A log of contacts during the implementation of the EAP will be made by the MVWA (APPENDIX B). After making the necessary notifications, MVWA personnel will establish a command center and assign a team of maintenance and management personnel to implement steps for the reduction or the elimination of the hazard potential.

**2. Responsibility for Notification of the Emergency Condition to State and Local Officials**

The MVWA will normally be responsible for notifying the Oneida County Emergency Services Office (OCESO) and the New York State Department of Environmental Conservation of an emergency at Deerfield Reservoir. Once notified, OCESO will be responsible for notifying the appropriate officials of the emergency situation at the Deerfield Reservoir (see **SECTION 2 - NOTIFICATION FLOWCHARTS** for Dam Failure Warning or Dam Failure Watch)

**3. Responsibility for Evacuation of Downstream Areas**

Immediately downstream of Deerfield Reservoir is Ramblewood and Trenton Road. A rapid dam failure may cause a significant flood wave to flow into the Ramblewood Subdivision and down or over Trenton Road.

The OCESO will be responsible for the closure of Trenton Road and other routes of transportation within the inundation area. Other routes of transportation that may be inundated include:

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- Mulaney Road;
- Domser Road;
- Evergreen Road;
- Schoolhouse Road;
- Firehouse Road;
- Coventry/Walker Roads'
- Herkimer Road.

The responsibility for coordinating the evacuation of the downstream area in a Deerfield Reservoir Failure Emergency is also with the OCESO. The OCESO will coordinate the evacuation of the downstream area and will notify local, county, and/or state police to dispatch personnel to the downstream area. The OCESO will also telephone residences in the inundation area and notify them of the emergency declaration. In that notification, the residents may be told to move to a designated area<sup>2</sup> to meet public safety personnel and/or wait for a head count and further instruction.

**4. Responsibility for Duration, Security, Termination, and Follow-Up Evaluations of the EAP**

The MVWA is responsible for the on-site monitoring of the situation at the dam and will keep OCESO and other authorities informed of developing conditions from the time an emergency starts until that emergency has terminated. The MVWA, with the assistance of law enforcement and safety officials, will secure and control entry into the fenced area immediately adjacent to the dam to keep the public from entering an unsafe area.

The MVWA will coordinate the termination of an emergency with local, county, and state authorities. The OCESO will be responsible for notifying applicable parties for termination of the emergency and return the decision to reopen roads, etc, to the respective municipal or state authority.

Following termination of an emergency at Deerfield Reservoir, the MVWA will prepare a follow-up evaluation of the Plan. This evaluation should have critical input from the OCESO and other officials involved in the Plan for recommendations on the need for changes, additions, or deletions to improve the Plan.

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<sup>2</sup> A suggested area for evacuated residents is the SUNY IT campus.

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**5. EAP Coordinator Responsibility**

The EAP Coordinator is responsible for EAP-related activities, including (but not limited to) preparing revisions to the EAP, establishing training seminars, and coordinating EAP exercises. The coordinator is also the contact person if any involved parties have questions about the plan.

The EAP coordinator for the MVWA is:

Dan Faldzinski, P.E.  
Director of Engineering  
Mohawk Valley Water Authority  
One Kennedy Plaza  
Utica, NY 13502  
(315) 792-0336  
(315) 264-6337  
dfaldzinski@mvwa.us

**B. Emergency Specific Responsibilities**

**1. MVWA's Responsibilities**

Upon deciding that a dam failure at Deerfield Reservoir is imminent or has occurred (**WARNING**), or a potential failure is developing (**WATCH**), the MVWA will be responsible for initiating the appropriate procedures in this EAP.

**MVWA Responsibilities - WARNING Condition**

- i) MVWA Reservoir Operations Manager will contact the OCESO (911), notify them of the DAM FAILURE **WARNING** condition, and request that notification procedures described in this EAP be implemented. The MVWA will briefly define what portion of the dam is in failure and indicate the time of the dam failure, if applicable.
- ii) The MVWA will notify the Maintenance Supervisor (Bill Carroll: 315-534-3351/315-941-9208) and the Water Treatment Plant Chief Operator (Gary Trapnell: 315-792-0345/315-982-1878) of the DAM FAILURE **WARNING** condition and advise that the water treatment and distribution system be operated to reduce the chance for dam failure, if applicable, and to minimize interruptions to service in the distribution system.



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- iii) The MVWA will contact the NYSDEC, Bureau of Flood Protection (Chief Donald Canestrari, P.E. 518-402-8138) and notify them of the DAM FAILURE **WARNING** condition at Deerfield Reservoir.

**MVWA Responsibilities - WATCH Condition**

- i) MVWA Reservoir Operations Manager will contact the OCESO (911), notify them of the DAM FAILURE **WATCH** condition, and request that notification procedures described in this EAP be implemented. The MVWA will briefly define what portion of the dam is in a WATCH condition and indicate the remedial steps that will be taken. The MVWA will advise the OCESO if evacuation and road closure will be required for public safety.
- ii) The MVWA will notify the Maintenance Supervisor (Bill Carroll: 315-534-3351/315-941-9208) and the Water Treatment Plant Chief Operator (Gary Trapnell: 315-792-0345/315-982-1878) of the DAM FAILURE **WATCH** condition and advise that the water treatment and distribution system be operated to reduce the chance for dam failure, and to minimize interruptions to service in the distribution system. Maintenance will be advised as to the actions needed to remediate the failure state, if applicable (e.g., draw-down the reservoir, mobilize/place ballast, clear spillway of debris) and operate valves to bypass water around the reservoir impoundment area.
- iii) The MVWA will contact the NYSDEC, Bureau of Flood Protection (Chief Donald Canestrari, P.E. 518-402-8138) and notify them that the dam is in a DAM FAILURE **WATCH** condition and indicate the remedial steps that will be taken at Deerfield Reservoir.

**2. Oneida County Emergency Services Office (OCESO) Responsibilities**

**OCESO Responsibilities - WARNING Condition**

- i) The OCESO will contact each homeowner in the downstream reach and notify them of the emergency. The residents will be advised to move to a designated “safe area” and await public safety personnel for a head count and further instruction. The suggested “safe area” is the SUNY IT campus.

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- ii) The OCESO will contact the Oneida County Sheriff Department (315-765-2748/315-507-1363 or 911) and notify them that a failure has occurred or is imminent at Deerfield Reservoir. OCESO will also inform the department of their responsibility to implement and/or assist in the evacuation of downstream residents, and construct roadblocks for the closure of Trenton Road and local roads in the inundation area.
  
- iii) The OCESO will contact the New York State Police Marcy Barracks: (315-366-6000) and notify them that a failure has occurred or is imminent at Deerfield Reservoir and assist in the evacuation of downstream residents and the closure of Trenton Road and local roads in the inundation area.
  
- iv) The OCESO will contact the Adirondack Scenic Railroad Mohawk Adirondack and Northern Railroad Corridor: (315-733-2242) Jeff Collins, Superintendent and notify them that a Dam failure has occurred or is imminent at Deerfield Reservoir. The railroad should be informed that the flood inundation area may overtop the railroad corridor and that rail traffic should be immediately halted.
  
- v) The OCESO will contact the Town of Deerfield Highway Superintendent (Sam Arcuri: 315-826-7014) and notify him that a dam failure has occurred or is imminent at Deerfield Reservoir. The Highway Superintendent should be informed that equipment and supplies (e.g., gravel, culverts) may be required at the dam site.
  
- vi) The OCESO will contact the National Weather Service, Binghamton Office, Senior Forecaster (800-759-2992) and the Northeast River Operations Forecast Center, On Duty Hydrologist (508-622-3300 Ext. 502) and notify them that a failure has occurred or is imminent at Deerfield Reservoir and that flooding may occur along Trenton Road and Reall Creek in the Town of Deerfield, and the Deerfield Heights and North Utica sections of the City of Utica.
  
- vii) The OCESO will contact the Oneida County Department of Public Works (Matthew Baisley: 315-793-6213) and notify them that a dam failure has occurred or is imminent at Deerfield Reservoir.
  
- viii) The OCESO will contact the New York State Department of Transportation, Region 2 (315-793-2641/315-289-8549) and notify them that a dam failure has occurred or is imminent at Deerfield Reservoir.

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- ix) The OCESO will contact the New York State Canal (Thruway) Authority (866-691-8282) to notify them that a dam failure has occurred or is imminent at Deerfield Reservoir, and that boat traffic could be impacted in the canal between Erie Canal Locks 20 and 19.
  
- x) The OCESO will contact the Whitesboro School District's Superintendent of Schools (315-266-3300) and notify them that a dam failure has occurred or is imminent at Deerfield Reservoir, and that students should be evacuated from the Deerfield Elementary School and bus routes should be routed away from Trenton Road.
  
- xi) The OCESO will contact the designated personnel at the safe area and the American Red Cross (315-733-4666) and coordinate other support for evacuees at these sites.

**OCESO Responsibilities - WATCH Condition**

- i) The OCESO will contact each homeowner in the downstream reach and notify them of the emergency. The residents will be advised to move to a designated "safe area" and await public safety personnel for a head count and further instruction. The suggested "safe area" is the SUNY IT campus.
  
- ii) The OCESO will contact the Oneida County Sheriff Department (315-765-2748/315-507-1363 or 911) and notify them that the dam is in a WATCH condition. OCESO will also inform the Sheriff of their responsibility to implement and/or assist in the evacuation of downstream residents, and construct roadblocks for the closure of Trenton Road and local roads in the inundation area.
  
- iii) The OCESO will contact the New York State Police [Marcy Barracks: (315-366-6000)] and notify them the dam is in a WATCH condition and that they are to assist in the evacuation of downstream residents and the closure of Trenton Road and local roads in the inundation area.
  
- iv) The OCESO will contact the National Weather Service, Binghamton Office, Senior Forecaster (800-759-2992) and the Northeast River Operations Forecast Center, On Duty Hydrologist (508-622-3300 Ext. 502) and notify them that the Deerfield Dam is in a WATCH condition and that flooding may occur along Trenton Road and Reall Creek in the Town of Deerfield, and the Deerfield Heights and North Utica sections of the City of Utica.

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- v) The OCESO will contact the Town of Deerfield Highway Superintendent (Sam Arcuri: 315-826-7014) and briefly define what portion of the dam is in a WATCH condition and indicate the remedial steps that will be taken. The Highway Superintendent should be informed that equipment and supplies (e.g., gravel, culverts) may be required at the dam site.
  
- vi) The OCESO will contact the Whitesboro School District's Superintendent of Schools (315-266-3303) and notify them that the Deerfield Dam is in a WATCH condition and that students should be evacuated from the Deerfield Elementary School and bus routes should be routed away from Trenton Road.

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**SECTION 6 - PREPAREDNESS**

**A. Dam Surveillance and Monitoring Program**

The Deerfield Reservoir is visited daily by the MVWA, as well as observing headwater elevations at the dam once each week. A remote monitoring program for reservoir level exists for the Deerfield Reservoir via a Supervising Control and Data Acquisition (SCADA) system and allows for automatic verification of unusual levels in the reservoir on a 24-hour basis.

MVWA does have a checklist of items to include in the monitoring of Deerfield Reservoir. Items in the checklist include:

1. MVWA will record water surface elevations continuously on SCADA.
2. MVWA will conduct annual inspections of the dam.
3. Maintenance will be provided as necessary for the safety of the dam. The embankment vegetation will be mowed regularly (vegetation height will not exceed 3 feet), and animal burrows and erosion areas will be repaired.
4. Immediately after a high flow or earthquake event, MVWA will inspect the Deerfield Reservoir and Dam for damage(s). Evidence of displacement of the structure, downstream erosion, and reduced spillway clearance will be investigated.
5. During ice conditions in the reservoir, the dam and the spillway will be monitored for ice jams. Ice that will interfere with flow over the spillway will be removed.

**B. Response During Periods of Darkness**

Should an imminent or actual flood occur due to a dam failure, MVWA personnel on duty will occupy the site and area in question with radio equipped vehicles, or with cell phones. Portable spot lanterns will be brought to the site, if necessary.

**C. Access to the Site**

The primary route to the Deerfield Reservoir is along Trenton Road. In the event of dam failure or road closure, access must be made from the north on Trenton Road by way of NYS Route 12. Other than the Trenton Road route, there is no access to the Deerfield Reservoir site.

**D. Response During Weekends and Holidays**

Should an imminent or potential failure situation develop at Deerfield Reservoir during weekends and holidays, no change in the Emergency Action Plan procedures is anticipated. In the event that conditions warrant the implementation of the Emergency Action Plan for the Deerfield Reservoir Dam, and the Water Operations Emergency Manager is not readily available to consult, the Maintenance Supervisor shall coordinate the evaluation of the emergency condition and implement the EAP, if needed. If required, additional personnel can be called in to assist in the EAP implementation.

**E. Response During Periods of Adverse Weather**

If adverse weather conditions are forecasted (such as flooding during a hurricane, or other high precipitation event, icing at the spillway), MVWA will monitor the situation at the Deerfield Reservoir and call in additional personnel, as needed.

**F. Alternative Systems of Communication**

The existing telephone system at the Reservoir Building will be used for most emergency related notifications and communications. In the event of telephone system or power failure, the MVWA has both cellular phones and/or radio equipped vehicles can be used for internal communications, and/or to other agencies.

**G. Emergency Supplies and Information**

The following emergency supplies are available to the MVWA for use at the Deerfield Reservoir dam site, when needed:

- Communication equipment
- Copy of the EAP document
- Emergency spotlights and flashlights

Special equipment, such as backhoes and other heavy equipment needed can be called to the scene, as needed.

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**SECTION 7 - MAPPING**

The Deerfield Reservoir Failure Inundation Map (Figure 7.1) shows those areas that potentially would be flooded by a failure of the dam. Note that the inundation limits portrayed on this map should be used for emergency action planning and evacuation purposes. Inundation areas and boundaries are estimated from models and cannot be used for defining the actual limits for flooding. The inundation areas displayed on Figure 7.1 are applicable for the “sunny day” and flood antecedent flow conditions. See Appendix A for information relating to the assumptions used for the development of the Deerfield Reservoir dam failure inundation mapping.

The Site Plan (Figure 3.1) for Deerfield Reservoir shows the impoundment and drainage ways, access drives and other major features.

- 3.1 – Deerfield Reservoir Site Location Map
- 3.2 – Deerfield Reservoir Dam Construction Details
- 3.3 – Deerfield Reservoir Piping Details

# APPENDICES

APPENDIX A – DAM BREAK ANALYSIS

APPENDIX B – PLANS FOR TRAINING, EXERCISING, UPDATING & POSTING THE EAP

APPENDIX C – SITE SPECIFIC CONCERNS

APPENDIX D – DISTRIBUTION LIST AND APPROVAL OF THE EAP

APPENDIX E – RECORD OF REVISIONS AND UPDATES MADE TO EAP

APPENDIX F – CHECKLIST OF THE NOTIFICATION PROCEDURES

APPENDIX G – DAM EMERGENCY REPORT

APPENDIX H – RESOURCES AVAILABLE



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**APPENDIX A – DAM BREAK ANALYSIS**

The National Weather Service (NWS) FLDWAV program was used to analyze dam break flows and flood elevations. The objective of the analysis was to determine the inundations areas and the arrival time of the flood wave to areas downstream of the dam in a dam break condition. See Figure 7 – 1.

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**APPENDIX B - PLANS FOR TRAINING, EXERCISING, UPDATING & POSTING THE EAP**

Training seminars will be held annually with all MVWA personnel who have designated responsibilities under this EAP. The seminars are to ensure that MVWA parties are thoroughly familiar with all elements of the plan, the availability of equipment, and their responsibilities and duties under the plan.

Annually, updating of the EAP will be conducted by the MVWA. A notification letter and appropriate checklist, to be filled out by those parties directly involved in the EAP, will be sent. Completed checklists are returned to the EAP coordinator who will revise the plan, if appropriate.

Each time revisions are made to the plan; the EAP will be distributed to the local agencies and MVWA personnel who have responsibilities under this EAP. Those receiving revisions to the plan will be requested to complete and sign a statement acknowledging receipt and understanding of the updated EAP.

The EAP will be reviewed and updated as necessary, and on an annual basis. The annual review of the EAP will include the following:

- A review of the notification flow chart and proper tables and appendices to verify that telephone numbers and designated contacts are current.
- The contact with each agency on the notification flow chart to review their responsibilities in the event of an emergency.

A complete, up to date copy of the EAP will be available at MVWA's Utica Office and at other sites deemed appropriate by MVWA personnel. Other locations where a copy of the EAP can be found are listed below:

<b>Control Copy No.</b>	<b>Organization, Location - Position</b>
1	MVWA, Central Office, Utica, NY – EAP Coordinator
2	MVWA, Maintenance Office, Utica, NY - Maintenance Supervisor
3	MVWA, Water Treatment Plant, Prospect, NY - Chief Operator
4	MVWA, Deerfield Reservoir, NY - Meter Building
5	Oneida County Emergency Services, Oriskany, NY - Director
6	NYS Dept. of Environmental Conservation, Bureau of Flood Protection, Albany, NY - Chief
7	Oneida County Sheriff Department, Oriskany, NY
8	NYS Police, Marcy, NY
9	Mohawk Adirondack and Northern Railroad, Utica, NY - Superintendent
10	National Weather Service, Binghamton, NY
11	Oneida County Department of Public Works, Oriskany, NY - Commissioner
12	NYS Canal Corporation, Eastern Canal Region, Albany, NY – Eastern Regional Canal Engineer
13	NYS Department of Transportation, Utica, NY
14	Town of Deerfield, Utica, NY – Town Clerk c/o Superintendent of Highways
15	Deerfield Fire Department, Deerfield, NY - Chief
16	Oriskany Fire Department, Oriskany, NY - Chief
17	Whitesboro Central School District, Whitesboro, NY - Superintendent of Schools
18	New York State Office of Emergency Management, Albany NY – Planning Section
19	New York State Office of Emergency Management, Syracuse NY – Region IV - CNY

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**APPENDIX C - SITE-SPECIFIC CONCERNS**

In the event that project drawings need to be consulted during an emergency event, a set of drawings are located in MVWA's Utica, NY Office.

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**APPENDIX D - DISTRIBUTION LIST AND APPROVAL OF THE EAP**

**1. Distribution of the Deerfield Reservoir's Emergency Action Plan**

Agency	Address	Point of Contact
Deerfield Fire Department	5476 Trenton Road Deerfield NY 13502	Chief Kevin Powers 315-732-2693
Mohawk Adirondack & Northern Railroad	4 Riverside Drive Utica NY 13502	Superintendent Jeff Collins 315-534-2485 315-733-2242
Mohawk Valley Water Authority	One Kennedy Plaza, 3 <sup>rd</sup> Floor Utica NY 13502	Dan Faldzinski, PE 315-792-0336 315-264-6337 <a href="mailto:dfaldzinski@mvwa.us">dfaldzinski@mvwa.us</a>
New York Power Authority	30 South Pearl Street, 10 <sup>th</sup> Floor Albany NY 12207	Barry Anctil, EAP Coordinator 518-461-3550 <a href="mailto:Barry.anctil@nypa.gov">Barry.anctil@nypa.gov</a>
NYS Canal Corporation	30 South Pearl Street, 5 <sup>th</sup> Floor Albany NY 12207	Joseph Moloughney Eastern Regional Canal Engineer 518-225-2877 <a href="mailto:Joseph.moloughney@canls.ny.gov">Joseph.moloughney@canls.ny.gov</a>
NYS Department of Transportation	207 Genesee Street Utica NY 13501	Kerry Maring Region 2 Emergency Manager 315-793-2641 315-289-8549 <a href="mailto:Kerry.Maring@dot.ny.com">Kerry.Maring@dot.ny.com</a>
NYS Police, Marcy Barracks	9017 River Road Marcy NY 13404	Dispatcher 315-366-6000
NYSDEC Dam Safety Section	625 Broadway Albany NY 12233	Chief Donald E. Canestrari, P.E. 518-402-8138 <a href="mailto:Donald.canestrari@dec.ny.gov">Donald.canestrari@dec.ny.gov</a>
Oneida County Emergency Services Office	120 Base Road Oriskany NY 13424	Edward Stevens 315-765-2527 315-273-9373
Oneida County Sheriff's Department	6065 Judd Road Oriskany NY 13424	Captain Tim O'Halloran 315-765-2748 315-507-1363
Oriskany Fire Department	PO Box 217 Oriskany NY 13424	Chief Jeffrey Burkhart 315-736-3221
Town of Deerfield	6329 Walker Road Deerfield NY 13502	Town Clerk 315-724-0413
Whitesboro Central School District	65 Oriskany Blvd. Whitesboro NY 13492	Superintendent Brian Bellair 315-266-3303

**2. Agency Approvals of the Deerfield Reservoir's Emergency Action Plan**

This EAP has been distributed to each party on the above list. Agencies/parties involved in the plan have indicated their receipt and approval of the plan on the following page.

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CONCURRENCE

I have reviewed the Emergency Action Plan ("Plan") dated August 2023 for the Deerfield Reservoir operated by the Mohawk Valley Water Authority. By my signature, I acknowledge that I, or my representative, have received and reviewed this plan and concur with the tasks and responsibilities assigned herein for me and my organization should an emergency occur.

  
\_\_\_\_\_  
(Signature of Responsible Party)

  
\_\_\_\_\_  
Date

*SCOTT R MAHARRY*  
\_\_\_\_\_  
(Print)

*SUPERVISOR*  
\_\_\_\_\_  
(Position)

*TOWN OF DEERFIELD*  
\_\_\_\_\_  
(Organization)

*SUPERVISOR@TOWNOFDEERFIELD.ORG*  
\_\_\_\_\_  
(Email)

*315 219 3833*  
\_\_\_\_\_  
(Emergency Telephone Number(s)/Cell)

**Please note any changes below:**

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**APPENDIX E – RECORD OF REVISIONS AND UPDATES MADE TO EAP**

REVISION NUMBER	DATE	REVISION MADE	BY WHOM
1	05/10/10		Donald E. Weimer Principal Engineer
2	10/2012		David R. Jones Senior Engineer
3	01/2017	Updates to Emergency Contacts	Joseph H. Dodd, P.E. Water Maintenance Engineer
4	01/2018	Updates to Emergency Contacts	Joseph H. Dodd, P.E. Water Maintenance Engineer
5	01/2021	Entire EAP Reissued	Joseph H. Dodd, P.E. Water Maintenance Engineer
6	01/2022	Update to Emergency Contacts	Eric G. Schuler, PE Director of Engineering
7	08/2023	Update to Emergency Contacts	Dan Faldzinski, PE Director of Engineering

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**APPENDIX F – CHECKLIST OF THE NOTIFICATION PROCEDURES**

Date: \_\_\_\_\_

The following contacts should be made immediately after the emergency level is determined. See flowchart. The person making the contacts should initial and record the time of the call and who was notified for each contact made.

TYPE OF EMERGENCY CONDITION: Dam Failure Warning/Dam Failure Watch  
*(Circle Appropriate Condition)*

✓	Agency	Person Contacted	Time Contacted	Contacted By
	Oneida County Emergency Services			
	MVWA Maintenance Department			
	MVWA Water Treatment Plant			
	NYS Department of Environmental Conservation			

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**APPENDIX G – DAM EMERGENCY REPORT** *(To be completed following the termination of emergency)*

Date: \_\_\_\_\_ Time: \_\_\_\_\_

Dam name: \_\_\_\_\_ Dam I.D.: \_\_\_\_\_

Dam location: \_\_\_\_\_  
(City) (County)

Weather conditions: \_\_\_\_\_

General description of emergency: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Area(s) of dam affected: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Extent of dam damage: \_\_\_\_\_

Possible cause(s): \_\_\_\_\_

Effect on dam's operation: \_\_\_\_\_

Initial reservoir elevation: \_\_\_\_\_ Time: \_\_\_\_\_

Maximum reservoir elevation: \_\_\_\_\_ Time: \_\_\_\_\_

Final reservoir elevation: \_\_\_\_\_ Time: \_\_\_\_\_

Description of area flooded downstream/damages/injuries/loss of life: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Other data and comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Observer's name and telephone number: \_\_\_\_\_

Report prepared by: \_\_\_\_\_ Date: \_\_\_\_\_



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**APPENDIX H – RESOURCES AVAILABLE**

Locally available equipment, labor and materials.

<b>Heavy Equipment</b>	<b>Sand &amp; Gravel</b>	<b>Concrete</b>
Burrows Trucking 315-736-1971 315-794-5655	Hansen 315-821-2353	Rome Ready Mix 315-336-7900
Marcy Excavating 315-724-4062	Burrows Trucking 315-736-1971 315-794-5655	Cranesville Block 315-732-2135
Lietz Trucking 315-525-3713 315-525-1886	Lietz Trucking 315-525-3713 315-525-1886	
Rig All 315-732-4138	Rommel Companies 315-826-3761 315-525-2365	
<b>Pumps</b>	<b>Diving Contractor</b>	<b>Sand Bags</b>
Godwin Pumps 856-467-3636	Seaway Divers 518-238-2632	McQuade & Bannigan 315-794-7560 315-525-9445
Rain for Rent 585-303-1560 585-226-8280	Fathom Solutions 860-388-7049	City of Utica DPW 315-534-0616 315-534-0560
	Underwater Solutions 508-758-6126	Oneida County DPW 315-525-5538 315-525-5537
	Liquid Engineering 406-651-0105 800-438-2187	
	LiquiVision Technology, Inc. 800-229-6959	

<b>DEPARTMENT</b>	<b>CONTACT</b>	<b>TELEPHONE NUMBERS</b>
Oneida County DPW	Mathew Baisley	315-793-6213
City of Utica DPW	David Short	315-738-1341
	Fred Sparry	315-534-0560