

STATE OF OHIO EMERGENCY OPERATIONS PLAN



EMERGENCY SUPPORT FUNCTION #3 TRANSPORTATION

Tab B – Water Retention Structure Incident Response Plan

FACILITATING AGENCY

Ohio Emergency Management Agency

**OHIO EMERGENCY OPERATIONS PLAN
TAB B to EMERGENCY SUPPORT FUNCTION #3
ENGINEERING AND PUBLIC WORKS**

WATER RETENTION STRUCTURE INCIDENT RESPONSE PLAN

FACILITATING AGENCY: Ohio Emergency Management Agency (OHIO EMA)

SUPPORT AGENCIES: Ohio Department of Transportation (ODOT)
Ohio Department of Natural Resources (ODNR)
Ohio State Highway Patrol (OSHP)
Ohio Department of Rehabilitation and Corrections (ODRC)
Ohio Environmental Protection Agency (OEPA)
American Red Cross (ARC)
The Salvation Army (TSA)
Ohio Volunteer Organizations Active in Disasters
(Ohio-VOAD)
Ohio Department of Administrative Services (DAS)

FEDERAL SUPPORT AGENCY: United States Army Corps of Engineers (USACE)

I. INTRODUCTION

A. Purpose

1. The State of Ohio Water Retention Structure Incident Response Plan identifies how county, state and federal agencies will prepare, respond to, and recover from the failure of a regulated dam or levee in Ohio.
2. This plan is coordinated with local and federal plans to provide a comprehensive approach to the management of emergency response activities and to assure that the State is able to assist those impacted by a dam or levee failure.
3. This plan discusses the roles and responsibilities of agencies at the local, state and federal level that are tasked with the safety and security of Ohio citizens who would be impacted by the failure of regulated water retention structures in Ohio.
4. More detailed information regarding the location, classification, assessment, inventory and risk of and from the failure of dams and levees within the State of Ohio can be found in the 2014 State of Ohio Standard Hazard Mitigation Plan (SHMP).

B. Scope

1. In the event of the imminent, expected or actual failure of a dam or levee in Ohio; local, state-, federal-, and private-sector personnel and equipment will be employed to respond with the goal of protecting life and saving property in a safe, effective, and timely manner.
2. This Plan applies to all regulated dams and levees affecting Ohio, including dams and levees outside Ohio that could have the potential of impacting local populations and infrastructure within Ohio.
3. This Plan assigns specific support responsibilities to appropriate agencies, and identifies the actions they will take in response to a water retention structure failure, and how they will coordinate with federal, state, and local agencies.
4. This Plan describes how the State will mobilize resources and conduct activities to guide and support local emergency management efforts through preparedness, response, recovery, and mitigation planning for water retention structure failures that impact Ohio.

II. SITUATION

- A. A "dam" is defined as any artificial barrier, which may or does impound water or other fluids, and where failure may cause danger to life and/or property.
- B. A "levee" is any artificial barrier together with appurtenant works that will divert or restrain the flow of a stream or other body of water and/or prevent the inundation of a town, an agricultural area, a roadway, or other areal element.
- C. A dike holds the water in one watershed and keeps the water from flowing into another watershed.
- D. Like all man-made structures, dams and levees deteriorate over time. Deferred maintenance accelerates deterioration and causes water retention structures to be more susceptible to failure. As with other critical infrastructure elements, a significant investment is essential to maintain the benefits and assure the safety that society requires. To provide safe, continuing service, dams and levees require ongoing monitoring, frequent safety inspections, and rehabilitation. Aging water retention structures often require major rehabilitation to assure their safety.
- E. A catastrophic water retention structure failure is characterized by the sudden, rapid, and uncontrolled release of impounded water or the likelihood of such an uncontrolled release. It is recognized that there are lesser degrees of failure and that any malfunction or abnormality outside the design assumptions and parameters that adversely affect a dam's

primary function of impounding water is properly considered a failure. These lesser degrees of failure can progressively lead to or heighten the risk of a catastrophic failure. However in many cases, these types of failures may also be amendable with corrective action.

- F. Environmental Impacts – Dam or levee failures can have a greater environmental impact than that associated with a flood event. Hazardous materials are carried away from flooded properties and distributed throughout the floodplain. Industrial and agricultural chemicals and wastes, solid wastes, raw sewage, and common household chemicals comprise the majority of hazardous materials spread by flood waters along the flood zone, polluting the environment and contaminating everything they contact, including the community’s water supply. The soil loss from erosion and scouring would be significantly greater because of a large amount of fast moving water affecting a small localized area, which would likely change the ecosystem.
- G. Dams and levees provide tremendous benefits, including water supply for drinking, irrigation, and industrial uses, flood control, hydroelectric power, recreation, and navigation.
- H. Dams represent one of the greatest risks to public safety, local and regional economies, and the environment. Historically, some of the largest disasters in the United States have resulted from dam failures.
- I. In 1963, the first Ohio law was enacted requiring construction permits be obtained from ODNR for building new dams. Following the failure of several dams in northeast Ohio during a period of severe flooding of 1969, the Ohio General Assembly revised the 1963 law to include a requirement for periodic inspections of existing dams. This was done to help ensure that the continued operation and use of a dam or levee does not pose a hazard to life, health, or property.

In 1972, the failure of Buffalo Creek Dam in West Virginia, which caused great loss of life and extensive property damage, led to the enactment of the National Dam Safety Act. This law, administered by the U.S. Army Corp of Engineers, called for an inventory of dams in the United States and the inspection of dams that could create the greatest damages if they failed. As a result of this law, these dams are being inspected once every five years by ODNR engineers. In Ohio’s history, no fatalities have been attributed to a dam failure incident.

J. Dams

- 1. Many dams in the State are small and are used primarily for recreation. Larger dams are used for the production of hydroelectricity, water supply, recreation, and flood control. Generally, the most common structural material used in the construction of dams in Ohio is earth, but there are some masonry and concrete dams.

2. The Classification of Ohio's dams is defined in the Ohio Administrative Code (OAC), Section 1501:21-13-01. Dams which are exempt from the Ohio Department of Natural Resources, Division of Soil and Water Resources' (Division) jurisdiction are defined in Ohio Revised Code, Section 1521.06. The classification system divides dams which are under the jurisdiction of the Division into four classes, Class I, II, III, and IV. The chief of the Division determines the class of a dam during the preliminary design review for a new structure (OAC Rule 1501:21-5-02) and/or during the periodic inspection of existing structures (OAC Rule 1501:21-21-01). Classification of dams is necessary to provide proper design criteria and to ensure adequate safety factors for dams according to the potential for downstream damage should the dam fail.

The classification system for dams in Ohio was modeled after the Federal Guidelines for Dam Safety established in 1979. The Division, in accordance with the ORC Section 1521.062 and OAC Rule 1501:21-13-01 (C), has the right to reclassify any dam as a result of a change in circumstances not in existence at the time of the initial classification.

3. The following parameters are the governing criteria for the classification of dams:
 - a. Height of dam is defined as the vertical dimension as measured from the natural streambed at the downstream toe of a dam to the low point along the top of the dam.

Class I - greater than 60 feet
Class II - greater than 40 feet
Class III - greater than 25 feet
Class IV - less than or equal to 25 feet
 - b. Storage volume - defined as the total volume impounded when the pool level is at the top of the dam immediately before it is overtopped.
 - i. Class I - greater than 5000 acre-feet
 - ii. Class II - greater than 500 acre-feet
 - iii. Class III - greater than 50 acre-feet
 - iv. Class IV - less than or equal to 50 acre-feet
 - c. Potential downstream hazard - defined as the resultant downstream damage should the dam fail, including probable future development.
 - i. Class I - probable loss of life.
 - ii. Class II - health hazard, flood water damage to homes, businesses, industrial structures (no loss of life envisioned), damage to state and interstate highways, railroads, downstream Class I, II, or III dams, only access to residential areas.
 - iii. Class III - damage to low value non-residential structures, local roads, agricultural crops and livestock.

- iv. Class IV - losses restricted mainly to the dam.
- d. A dam is placed in Class I when sudden failure of the dam would result in either a probable loss of human life, or a structural collapse of at least one residence or one commercial or industrial business.
- e. A dam is placed in Class II when sudden failure of the dam would result in any one of the following conditions, but loss of human life is not probable:
 - i. Disruption of a public water supply or wastewater treatment facility.
 - ii. Release of health hazardous industrial or commercial waste, or other health hazards.
 - iii. Flooding of residential, commercial, industrial, or publicly owned structures.
 - iv. Flooding of high-value property.
 - v. Damage or disruption to major roads including but not limited to interstate and state highways, and the only access to residential or other critical areas such as hospitals, nursing homes, or correctional facilities as determined by the chief;
 - vi. Damage or disruption to railroads or public utilities.
 - vii. Damage to downstream class I, II or III dams or levees, or other dams or levees of high value. Damage to dams or levees can include, but is not limited to, overtopping of the structure.
- f. A dam is placed in Class III when sudden failure of the dam would result in at least one of the following conditions, but loss of human life is not probable:
 - i. Property losses including but not limited to rural buildings not otherwise described above.
 - ii. Damage or disruption to local roads including but not limited to roads not otherwise listed as major roads as described above.
- g. Dams which are twenty-five feet-or-less in height and have a total storage volume of fifty acre-feet or less may be placed in class IV. When sudden failure of the dam would result in property losses restricted mainly to the dam and rural lands, and loss of human life is not probable, the dam may be placed in class IV. Class IV dams are exempt from the permit requirements of section 1521.06 of the Revised Code pursuant to paragraph (C) of rule 1501:21-19-01 of the Administrative Code.
- h. A dam is exempt from the state's authority under ORC Section 1521.062 if it is six feet or less in height regardless of total storage; less than 10 feet in height with not more than 50 acre-feet of storage, or not more than 15 acre-feet of total storage regardless of height.

- i. Dams in Ohio, with the exception of federally owned dams, are subject to regulations administered through the Ohio Dam Safety Program by the Division. The approximate ownership breakdown of dams in Ohio is 2% federal government, 7% state government, 23% local government, and 68% private (individuals, groups, companies, etc.).
- j. The Division's Dam Safety Program has the responsibility to ensure that human life, health and property are protected from dam failures. The program achieves its core purpose by performing six main functions:
 - i. Emergency response – Assessing the conditions of dams during severe floods and emergencies, taking action to correct dams that pose an immediate threat to public safety (ordering a dam owner to repair, breach, or remove a dam), providing timely and best-available information to other agencies and the public during disasters, and supporting mandate Ohio Revised Code (ORC) Section 1521.062.
 - ii. Construction permits – Ensuring that dams and levees are designed and constructed in accordance with proper engineering standards and OAC rules, reviewing construction plans and specifications, performing calculations and investigations, issuing permits, and monitoring/approving construction.
 - iii. Repairs and modifications -- Ensuring that dams and levees are repaired in accordance with proper engineering standards and OAC rules, reviewing construction plans and specifications, performing calculations and investigations, issuing permits, and monitoring/approving construction, and supporting mandate ORC Section 1521.062.
 - iv. Periodic safety inspections – Identifying water retention structure deficiencies and directing owners to correct said deficiencies, monitoring the overall condition of Ohio's dams, providing data for the National Performance of Dams Program (NPDP), supporting mandate ORC Section 1521.062, and inspecting Class I – III dams once every five years.
 - v. Enforcement – Requiring dam and levee owners to improve safety when efforts for voluntary compliance have been unsuccessful and focusing on highly deficient Class I dams with dense populations downstream.
 - vi. Public information – Providing data security for Ohio EMA, USACE, the National Guard, OEPA, as well as state and federal legislature, providing dam and levee owners and engineers with technical information and access to division files, and educating the public about dam safety and providing quality data.
- l. At any given time, any of Ohio's water retention structures may be threatened by upstream flash floods, earthquakes, neglect, or any combination of the above, which can cause personal injury or death, significant high water damage to property or additional failures to water retention structures located downstream.
- m. A dam failure is defined as an uncontrolled release of the retained water source. The causes of dam failures can be divided into three groups: dam overtopping, excessive

seepage, and structural failure of a component. Despite efforts to provide sufficient structural integrity and to perform inspection and maintenance, problems can develop that can lead to failure. While many dams have storage volumes small enough that failures have little or no repercussions, dams with large storage amounts can cause significant flooding downstream.

- n. Dam failures are the result of any one or a combination of the following causes:
 - i. Overtopping of the embankment due to inadequate spillway capacity, which is the leading cause of dam failures.
 - ii. Internal erosion caused by embankment or foundation seepage or piping.
 - iii. Improper maintenance, including failure to remove trees, repair internal seepage problems, replace lost material from the cross section of the dam and abutments, or maintain gates, valves, and other operational components.
 - iv. Improper design, including the use of improper construction materials and construction practices.
 - v. Improper operation, including the failure to remove or open gates or valves during high flow periods.
 - vi. Failure of upstream dams on the same waterway that result in overtopping.
 - vii. Landslides into reservoirs, which cause surges that result in overtopping.
 - viii. High winds, which can cause significant wave action and result in substantial erosion.
 - ix. Earthquakes, which typically cause deformation and longitudinal cracks along the crest, weakening the entire structure, may eventually lead to sliding, internal erosion, and piping of the embankment. In concrete dams the damaged is mainly in the form of cracks or separation of joints.
- o. A dam failure at any regulated dam could present an offsite flood hazard and could affect the response of emergency support functions including transportation, communications, water and sewer facilities, firefighting, mass care, health and medical, search and rescue, hazardous materials, energy, law enforcement, emergency traffic management, animal response capabilities, as well as business and industry.
- p. A dam failure at any of Ohio's large or high-risk dams could have adverse effects on the state's infrastructure. Infrastructure that could be affected by a dam failure may include: transportation arteries (interstates, state highways, rail lines, airports); communications, (telephones lines and stations, and broadcast media); public works and engineering outlets (water treatment, sewer, and waste water facilities); firefighting resources (hydrants, tanks, and refill locations); shelters; health and medical facilities (hospitals, emergency medical service stations, healthcare facilities, and cemeteries); hazardous material sites (above ground and underground storage units, pipelines, and landfills); energy providers (electric facilities, distribution lines, and generating stations); law enforcement facilities; animal care facilities (zoos, poultry farms, and family pets, an estimated 60 percent of residents located in the state have pets, thus requiring some form of sheltering or assistance); special needs

requirements (schools, day care, prisons, public recreational areas, transient populations; and governments (local, state, and federal).

8. Levees

a. There are many levees in the State of Ohio, and the total linear mileage, location, and condition of the state's levees, and the population and property they protect, are in the process of being measured and assessed. This assessment includes the creation and application of levee inventory and inspection procedures.

b. Levee Structure Classification

i. Class I - Probable loss of human life, structural collapse of at least one residence or one commercial or industrial business.

ii. Class II - Disruption of a public water supply or wastewater treatment facility, or other health hazards; flooding of residential, commercial, industrial, or publicly owned structures; flooding of high-value property; damage or disruption to major roads including but not limited to interstate and state highways, and the only access to residential or other critical areas such as hospitals, nursing homes, or correctional facilities as determined by the chief; damage or disruption to railroads or public utilities.

iii. Class III - Property losses including but not limited to rural buildings not otherwise described in this rule; damage or disruption to local roads including but not limited to roads not otherwise listed as major roads in this rule.

iv. Class IV - Levee having a height of not more than three feet; losses restricted mainly to the levee, owner's property and rural lands.

c. Because watercourses do not adhere to political boundaries and actions, and performance of one levee system impacts communities downstream and on the other side of a river, data collection on the location and condition of levees must be conducted in a consistent and comprehensive manner across the state.

d. Since 2006, the U.S. Army Corps of Engineers (USACE) has been developing a National Levee Database for the approximately 14,000 levee miles within its jurisdiction, including the State of Ohio. In 2009, the USACE launched a major effort to perform detailed engineering inspections on the levees in their program and populate their National Levee Database (NLD), a key component of their Levee Safety Program.

e. The USACE and FEMA are working to integrate levee data collected by FEMA's National Flood Insurance Program (NFIP) into the NLD, which will increase the total number of miles of levee systems in the NLD and add important data points about those levees. Current authorities allow the USACE to include information voluntarily submitted by other entities in the NLD, but provide no authority to conduct inventory, inspection or data collection on levees outside their programs.

- f. The NLD is a geospatially-enabled relational database. It was designed to include attributes of levees and floodwalls relevant to design, construction, operations, maintenance, repair, inspections, and potential for failure. It requires data on certain minimum attributes to ensure nationwide consistency, but also includes many additional, optional fields useful for affecting levee management decisions at a local or regional level. The NLD contains population data, which will allow for the assessment of the potential life loss and economic and property consequences of any overtopping or breach. Tools being developed for the NLD will allow stakeholders, such as state and local agencies and levee owners/operators, to load, view, modify, and share project-related data, documentation, and information.

III. ASSUMPTIONS

- A. In the event of a large water retention structure failure that affects Ohio, OHIO EMA through the Executive Director will request that the Governor declare a State of Emergency.
- B. A failure of a Class I dam or levee may destroy infrastructure and may quickly exceed state and local response resources.
- C. A significant amount of external response resources may be required for a large dam or levee failure.
- D. Damaged primary and secondary roads may not be functional for many weeks or months.
- E. Damage to transportation, communication, and other infrastructure systems may isolate communities, creating virtual islands within inundation areas.
- F. Affected local governments and individuals will be prepared to meet their own emergency needs during the first three days following a dam failure.
- G. For large dam or levee failures, OHIO EMA will facilitate and coordinate the access of external resources via the Emergency Management Assistance Compact and federal-level resources.
- H. Established mutual aid agreements will be executed to the extent possible.
- I. Shelters identified for use during other natural disasters may not be available in the impacted area. Sheltering locations may need to be moved outside the impacted area.
- J. Considerations for emergency sheltering and evacuations will include additional populations (such as tourists, vacationers, and transients) in the state during the emergency response effort.

IV. CONCEPT OF OPERATIONS

A. General

1. OHIO EMA is responsible for developing, coordinating, and maintaining this Plan.
2. Dam and levee owners and local municipalities are responsible for immediately notifying the state and counties at risk if unsafe conditions are detected or likely.
3. ODNR is responsible for ensuring that dam and levee Emergency Action Plans and Emergency Preparedness Plans (EPPs) direct facility owners to contact appropriate authorities (local EMAs, law enforcement, ODNR, etc.) in the event of a water retention structure emergency, and that these plans define the roles and responsibilities of emergency response agencies.
4. In coordination with the Ohio EOP's Emergency Support Functions #1 (Transportation), #6 (Mass Care) and #8 (Public Health and Medical Services), local jurisdictions are responsible for executing evacuation and sheltering operations in response to dam and levee failures.

B. Warning

1. Alert and Notification
 - a. Alert and Notification procedures are designed to inform and instruct the populace in evacuation planning zones, and to notify federal, state and local emergency response forces. Commercial telephone systems are the primary means for alerting agencies and response elements in the event of a dam or levee failure. These systems are expected to be operational during the initial stages of the emergency to allow notification.
 - b. State and Local Emergency Managers Notification
 - i. Alert and Notification of State and Local Government: Each dam owner (dam owner/private) is responsible for notifying their LEOC of a dam failure. The dam owner's Emergency Action Plan (EAP) and/or Emergency Preparedness Plan (EPP) describes in detail procedures for notification of specific state and local emergency management organizations.
 - ii. Once an emergency and/or potential failure emergency is confirmed at a dam or levee, the owner will make internal notification, and notify affected counties' LEOCs and the Division
 - iii. The State EOC may be activated if a dam or levee failure is imminent or has occurred or if a potentially hazardous situation is developing that might result in a dam or levee failure.

- iv. An activation of the State EOC as a result of a dam or levee failure may include the deployment of OHIO EMA state liaisons and/or subject matter experts to the county EOCs in affected counties, as well as to the impacted dam or levee.
- v. Affected county EOCs may activate if a dam or levee failure is imminent or has occurred.

C. Security

1. If a dam or levee failure is imminent or has occurred, State law enforcement resources may be requested to assist local law enforcement with the sealing off of anticipated inundation areas as deemed appropriate. State resources are coordinated through the State of Ohio's Emergency Support Function #13 (Law Enforcement) through the State of Ohio's Emergency Operations Center (State EOC).
2. OSHP will coordinate with ODOT and local law enforcement to develop ingress and egress points and controlled access points based on evacuation and rerouting traffic management plans.
3. The ODNR, in coordination with OSHP, will coordinate the clearance of waterways/boat landings and the unauthorized access to areas downstream from the dam, levee or the secure area.
4. A credible terrorist threat may require increased security if a dam or levee failure is imminent or has occurred.
5. Lakes and recreational areas along an impacted river may be patrolled by ODNR to prevent water transportation access downstream from a failed dam.
6. OSHP and ODNR law enforcement personnel may assist dam or levee owner security personnel with the control of access to a failed dam and surrounding areas.

D. Evacuation

1. General
 - a. After determining that a dam or levee has failed or that a failure is imminent, the dam owner, Ohio EMA and County EOCs in affected counties will coordinate operations for a precautionary, limited evacuation of areas closest to, or just below, the dam or levee.
 - b. If practical, a conference call will be initiated from the State EOC between affected counties, activated ESFs and state agencies, and facility owner(s) to determine possible evacuation recommendations, EAS message times, and if available, siren activation times.

- c. If conditions deteriorate gradually, affected counties may ask for an immediate recommendation from responsible authorities to evacuate specified areas.

2. Evacuation Zones

Dam failure evacuation zones will generally follow the outline of expected inundation areas. The purpose of evacuation zones is to allow affected residents to determine: 1) If their home is in an inundation area; 2) If transportation nodes will be affected; and 3) The direction in which they will need to move to avoid flooding. These evacuation zones separate the inundation area into areas and include the following objectives:

- a. They must be describable over radio/TV media to public.
- b. If possible, they must be based upon easily identifiable roadways or natural features for boundary identification.
- c. The inundation areas are based on the most recent dam break analysis, contracted by the dam owner, if applicable which are available from the Division, the dam owner, or the county EMA. In some cases, not all of the zones are expected to be inundated and boundaries and descriptions are general in nature due to geographic feature limitations.

3. Traffic Management

- a. Routes around the inundation area will be established using roadblocks, traffic control points and/or diversion points to facilitate the flow of traffic and ensure traffic is routed correctly and safely.
- b. Special Evacuation Requirements
 - i. Evacuees who do not have transportation and confined persons who require special transportation may be provided transportation via local EOC operations, if available. State-level assistance will be provided as available.
 - ii. Priority of evacuation assistance may be given to those facilities that have been classified as highly vulnerable, including schools, day-care facilities, resident health care facilities and hospitals
 - iii. Consideration may be given to evacuating schools and resident care facilities in advance of a general population evacuation. For example, consideration may be given to evacuating all schools in the inundation area even though a mandatory evacuation order is limited to selected evacuation zones.
 - iv. Licensed facilities are required to develop and coordinate evacuation plans with local government.

- v. State and county corrections organizations will develop and coordinate plans with local government to relocate prisoners.
- vi. Re-entry into an inundation area may not be allowed immediately after the floodwaters recede. Re-entry will be granted only after state and local emergency management officials determine that hazardous conditions no longer exist. After a final decision is made by local officials that re-entry is possible, an announcement will be made from the State EOC.

E. Sheltering

- 1. Shelters are important elements in the evacuation process during a dam or levee failure.
- 2. Shelters will provide a place for registration, feeding, sheltering, and distribution of information.
- 3. In the event of an evacuation due to a dam or levee failure, the American Red Cross (ARC) and/or other local agencies will open shelters in the affected county, outside of the inundation area, or in a Host (receiving) County if necessary.
- 4. ARC and Salvation Army mobile feeding units may be requested to support feeding at selected shelters.

V. ASSIGNMENT OF RESPONSIBILITIES

A. Ohio Emergency Management Agency (Ohio EMA)

- 1. Coordinate and assist in the identification of infrastructure priorities for dam or levee failure aerial reconnaissance.
- 2. Assist state agencies with facilities located in-or-near inundation areas in developing plans to relocate and ensure continuity of operations.
- 3. Coordinate with federal, state, and local agencies to provide assistance in support of dam and levee failure operations.
- 4. Assist in the establishment of communications and coordinate assistance with the Federal Energy Regulatory Commission (FERC) and U.S. Army Corps of Engineers, and other agencies as required.
- 5. Coordinate emergency information for public release through ESF-15 (Public Information) in the State EOC.
- 6. Facilitate the activation of mutual aid agreements with federal agencies, other states, private industry and relief organizations, and between local governments.

7. Provide regular information updates through the State EOC to impacted jurisdictions.
8. Prepare and disseminate public information through appropriate news media.

B. Ohio Environmental Protection Agency (OEPA)

1. Assist in addressing the recovery needs of hazardous waste facilities and other public infrastructure (water treatment plants, orphan drums, etc.) that have been impacted by an inundation resulting from a dam or levee failure.

C. Ohio Department of Natural Resources (ODNR)

1. During a dam failure, activate an advisory team and provide a liaison to the State EOC.
2. Following a dam failure, assist in conducting an evaluation of the failure and related damage.
3. Assist in the clearing of watercraft, swimmers and other users of lakes and downstream waterways in the inundation area.
4. Patrol lakes and recreational areas to prevent access downstream from the dam.
5. Assist in determining when it is safe for re-entry into flooded or threatened areas.

D. United States Army Corps of Engineers (USACE)

1. Following a failure of a Corps project structure, conduct evaluations of federal dam and levee conditions, related potential or actual damages, and determine improvement methods.
2. Patrol lakes and recreational areas to prevent access downstream from failed federal dams or levees.
3. Assist in determining when it is safe for re-entry into flooded or threatened areas.

E. Ohio Department of Transportation (ODOT)

1. In conjunction with county law enforcement authorities, develop and coordinate evacuation and traffic management plans.
2. Coordinate and implement procedures to route traffic (pedestrian, private and commercial vehicles, rail, etc.) around larger metropolitan areas.

F. Ohio State Highway Patrol (OSHP)

1. In coordination with ESF-13 support agencies and appropriate local authorities, assist in developing plans for the implementation of a secure area around the inundation area.
2. In coordination with county and other appropriate local authorities, assist in the development and coordination of evacuation and traffic management operations.
3. Assist in the provision of investigative and crime scene services if a dam or levee breach is determined to be by intentional means (terrorist acts).
4. Assist in the coordination of additional assets through activation of the LERP.
5. Assist in the relocation of prisoners who are located in the inundation area.
6. Assist in determining when it is safe for re-entry into flooded or threatened areas.

G. Ohio Department of Rehabilitation and Correction (ODRC)

1. Assist in the relocation of prisoners who are located in the inundation area.
2. Assist local governments with prisoner transport.

H. American Red Cross (ARC)

1. Assist in the identification of shelters and develop plans to support shelter and mass feeding operations as the result of a failure at any dam or levee in Ohio.

I. The Salvation Army (TSA)

1. Assist in the identification of shelters and develop plans to support shelter and mass feeding operations as the result of a failure at any dam or levee in Ohio.

J. Ohio Volunteer Agencies Active in Disasters (Ohio VOAD)

1. Assist in the identification of shelters and develop plans to support shelter and mass feeding operations as the result of a failure at any dam or levee in Ohio.