



Annex A: Emergency Support Function #1 – Transportation Infrastructure

April 2019

Coordinating Agency

Hamilton County Engineer's Office

Supporting Agencies

Hamilton County Communications Center
Hamilton County Emergency Management & Homeland Security Agency
Hamilton County Planning + Development
Hamilton County Sheriff's Office
City of Cincinnati Department of Public Services
City of Cincinnati Emergency Communications Center
Ohio Department of Transportation
U.S. Coast Guard Marine Safety Detachment – Cincinnati

Introduction

Purpose

The purpose of Emergency Support Function (ESF) #1 – Transportation Infrastructure is to establish how activities related to transportation routes and infrastructure will be coordinated during and after disasters to meet the emergency needs of Hamilton County, OH. This ESF describes the operational components as well as roles and responsibilities of the agencies necessary to fulfill the duties of ESF #1.

Scope

ESF #1 serves to coordinate activities related to transportation routes and infrastructure in Hamilton County during the response and recovery phases of the emergency management cycle. During and shortly after the incident, ESF #1 is responsible for the assessment of damages to transportation infrastructure, the development of alternate transportation routes, and the identification of potential transportation resources in support of Logistics Coordination Support Section in the Hamilton County Emergency Operations Center (EOC) and in support of Incident Command as requested.

Activities of ESF #1 include monitoring and reporting the status of and damage to transportation infrastructure as a result of an incident, developing alternate transportation solutions that can be implemented when existing systems of infrastructure are damaged, unavailable, or overwhelmed, coordinating the restoration and recovery of transportation systems and infrastructure and supporting evacuation and re-entry operations.

Situation

In addition to the Hamilton County Emergency Operations Plan (EOP) Basic Plan, this annex is based on the following information:

- The 2019 Hamilton County Threat & Hazard Identification and Risk Assessment has identified Major Transportation Incidents as one of the hazards that could affect Hamilton County.
- In addition to being a standalone hazard, a major transportation incident could be a cascading hazard as a result of another hazard (e.g. Severe Winter Storm).
- Within Hamilton County including air, rail, waterways, roads and public transportation:



- Lunken Airport
 - Located on 1,140 acres east of downtown Cincinnati
 - Serves corporate, private and charter aircraft
- Cincinnati/Northern Kentucky (CVG) International Airport
 - Located in Boone County, Kentucky
 - Sits on 7,500 acres and is the 8th largest cargo airport in North America
 - In 2017 CVG flew over 7.8 million passengers on 150,000 flights
 - Peak travel days has 180 daily flights



- The Indiana & Ohio Railway
 - Tracks from south central Hamilton County through the central, eastern, and northeastern portions of the county
 - Operates a classification yard in the City of Norwood
- Central Railroad Company of Indiana
 - Tracks along the southern edge of the county from the Indiana border to south central Hamilton County, where it meets the Indiana & Ohio Railway
- Cincinnati Eastern Railroad
 - A short line railroad that has tracks between Mariemont in eastern Hamilton County out to the eastern border of the county
- CSX Transportation
 - Tracks along the southern edge of the county from the Indiana border and through central Hamilton County north into Butler County
 - Operates a large classification yard in Queensgate (Cincinnati)
- Norfolk Southern Railway Company
 - Tracks from south central Hamilton County, through the central and into northern and eastern parts of the county
 - Operates large classification yards in Queensgate and Sharonville
- National Railroad Passenger Corporation (AMTRAK)
 - Runs on CSX Transportation tracks in central Hamilton County from Butler County to Kentucky
 - One passenger train travels these tracks six days a week



- Ohio River
 - Commercial, Passenger, and Recreational water traffic
 - Anderson Ferry from Delhi Twp. to Constance, KY
 - Average of 500 vehicles per day
- Great Miami River, Little Miami River, and Whitewater River



- U.S. Interstates
 - I-71, I-74, I-75, I-275, and I-471
- U.S. Highways
 - US-22, US-25, US-27, US-42, US-50, US-52, and US-127
- Ohio State Routes
 - SR-3, SR-4, SR-32, SR-125, SR-126, SR-128, SR-264, SR-561, and SR-562



- Southwest Ohio Regional Transit Authority (SORTA)
 - Metro fixed route bus service
 - Provides 17 million rides per year
- Transit Authority of Northern Kentucky (TANK)
 - Operates the Southbank Shuttle which connects northern Kentucky with Cincinnati
- Cincinnati Bell Connector
 - 3.6-mile loop in downtown Cincinnati with 18 stations

Assumptions

Planning requires assumptions based on statistics, history, behavior patterns and likely future trends. The following assumptions were made as consideration for ESF #1:

- Transportation agencies will work within their existing city, county, or regional plans and partnership agreements to meet the transportation needs of disasters.
- Any hazard may severely damage the transportation infrastructure and interrupt transportation services. Most localized transportation activities may be hampered by lack of surface transportation infrastructure.
- The damage to the transportation infrastructure may influence the means and accessibility level for relief services and supplies.
- Disaster response, which requires transportation routes, may be difficult to coordinate effectively during the immediate post-disaster period.
- Clearing of access routes will permit a sustained flow of emergency relief, although localized distribution patterns may be disrupted for a significant period.
- There may be a need to obtain clearance through secured areas for transport needs during a disaster.

Concept of Operations

Emergency Support Function (ESF) #1 – Transportation Infrastructure consists of five broad activities in relation to the Hamilton County Emergency Operations Plan. These activities are:

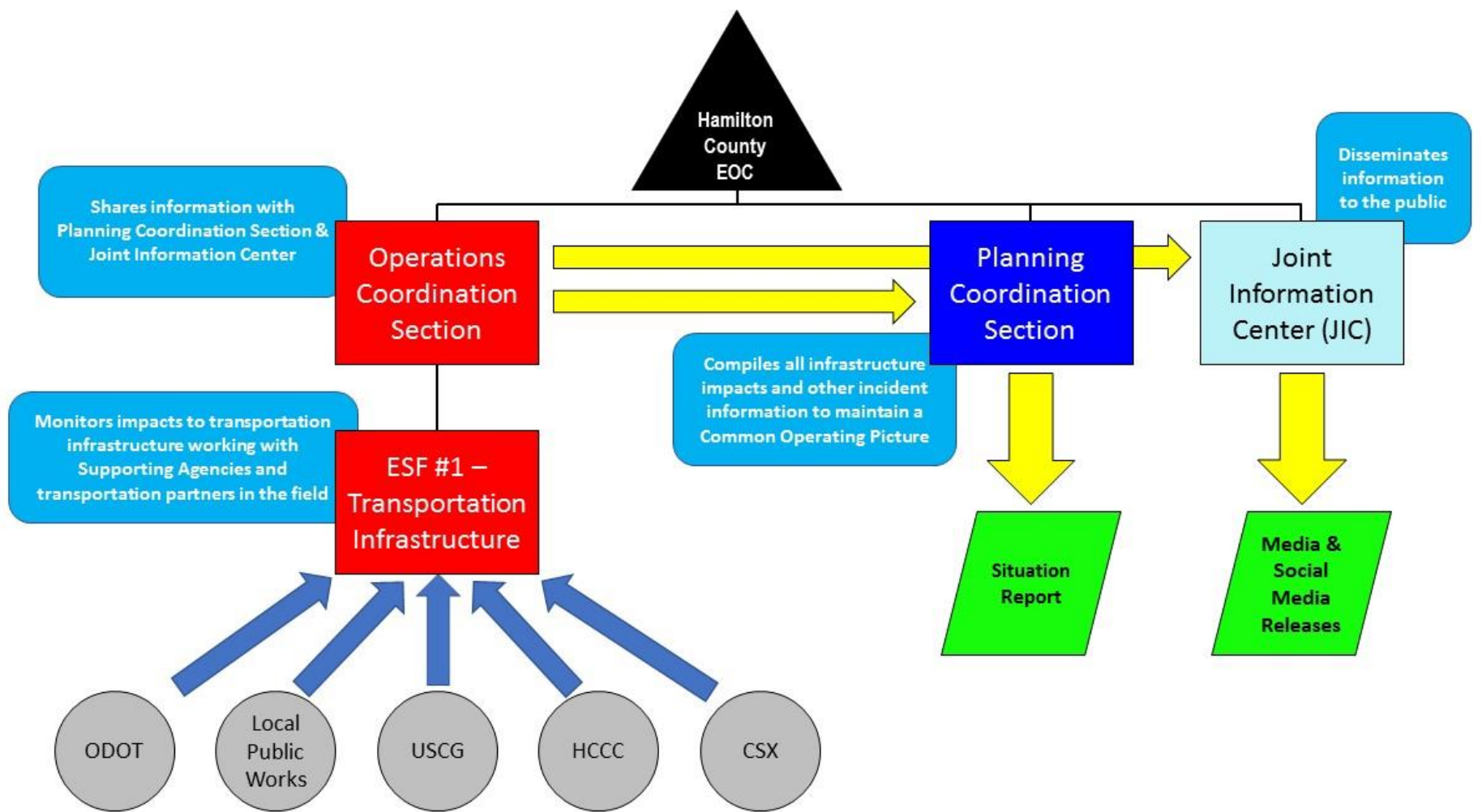
ESF #1 Activities	
1.	Monitoring and Reporting Transportation Infrastructure Impacts
2.	Coordinating Damage Assessment for Transportation Infrastructure
3.	Developing Alternative Transportation Systems
4.	Coordinating Restoration and Recovery for Transportation Infrastructure
5.	Supporting Evacuation and Re-entry Operations

Monitoring and Reporting Transportation Infrastructure Impacts

Many of the hazards that occur within Hamilton County will affect the transportation infrastructure within Hamilton County. While overall incident monitoring is the responsibility of the Hamilton County Emergency Management & Homeland Security Agency, when the Hamilton County EOC is activated, ESF #1 is tasked with monitoring the status of transportation infrastructure and the impacts from the hazard.

The Coordinating Agency should work with the Supporting Agencies and other transportation partners to monitor impacts to the transportation infrastructure. This includes reporting to the EOC closures of any roads, bridges, highways, rail lines, airports, navigable waterways, and public transportation systems. ESF #1 should work with those agencies responsible for the infrastructure to determine not only the closure, but reason for the closure, and if available, an estimation on how long the closure will exist.

Upon discovering any impacts to the transportation infrastructure, ESF #1 should report this information to the Planning Section for inclusion in Situation Reports and GIS Maps, and the Public Information Officer and Joint Information Center (if active). ESF #1 should also work to ensure that any partner agencies that are reporting transportation infrastructure impacts, such as the OHGO website managed by the Ohio Department of Transportation, is reporting consistent information.



The diagram above depicts how ESF #1 gathers information and shares it within the EOC. ESF #1 would work with its Supporting Agencies and other partners to monitor impacts to the transportation infrastructure. The Operations Coordination Section Chief will ensure the information gathered by ESF #1 is shared in the EOC. The Planning Coordination Section can display the information within the EOC and in reports, such as the Situation Report. The Joint Information Center and ESF #15 – Emergency Public Information will use the information to inform the public.

Coordinating Damage Assessment for Transportation Infrastructure

Damage assessment should begin as soon as the area is safe for Damage Assessment Teams (DATs) to get in the area, per the *Hamilton County Damage Assessment Plan (2016)*. However, the focus of damage assessment is usually first on impacted homes and businesses, with public sector damage assessed either concurrently or shortly thereafter.

During large-scale disasters however, it is important to conduct comprehensive damage assessment to both the private and public sectors. As ESF #1 receives reports of impacts to the transportation infrastructure, this information should be shared with the Damage Assessment Unit in the Planning Coordination Section of the EOC, if activated. The Damage Assessment Unit, which is coordinated by Hamilton County Planning + Development, can direct assessors to review the full impact to transportation infrastructure. This will allow the EOC to understand the full scope of the disaster impacts and will allow local jurisdictions to begin the process of completing the appropriate forms required for Public Assistance.

Developing Alternative Transportation Systems

Because transportation systems and infrastructure may be impacted by disasters, it is important to develop alternatives that will allow for the transportation of people, goods, equipment or animals both during and after a disaster.

Within Hamilton County, this means that ESF #1 is tasked with finding alternative transportation routes or locations directly related to transportation. ESF #1 is **NOT** responsible for the movement of people, goods, equipment or animals, though they may assist in those efforts.

The manner in which ESF #1 will develop alternative transportation systems will vary depending on the incident impacts. For example, if an area is impacted so extensively that the normal routes for entering are inaccessible, ESF #1 will be tasked with finding or creating alternative routes. This could take the form of coordinating with ESF #3 to remove debris from previously identified routes, or this could mean using dirt and gravel to create a temporary route into the area.

ESF #1 may also help identify transportation resources to support the Logistics Section. One example of this would be to identify dump trucks to move personnel through flooded streets in order to do welfare checks for residents that are cut off by flooding. Another example would be to identify local transportation companies that may be able to provide a bus to deploy responders from the Staging Area to the Area of Operations.

Coordinating Restoration and Recovery for Transportation Infrastructure

Following the incident, ESF #1 will work with local and state partners to identify and prioritize the restoration of transportation infrastructure. This will include identifying routes into and out of the affected area and prioritizing opening of major arteries within Hamilton County. ESF #1 will work with the Ohio Department of Transportation on determining the status of restoration for the interstates and other state routes and will work with the engineer or public works departments within the affected jurisdictions to determine the status of local routes.

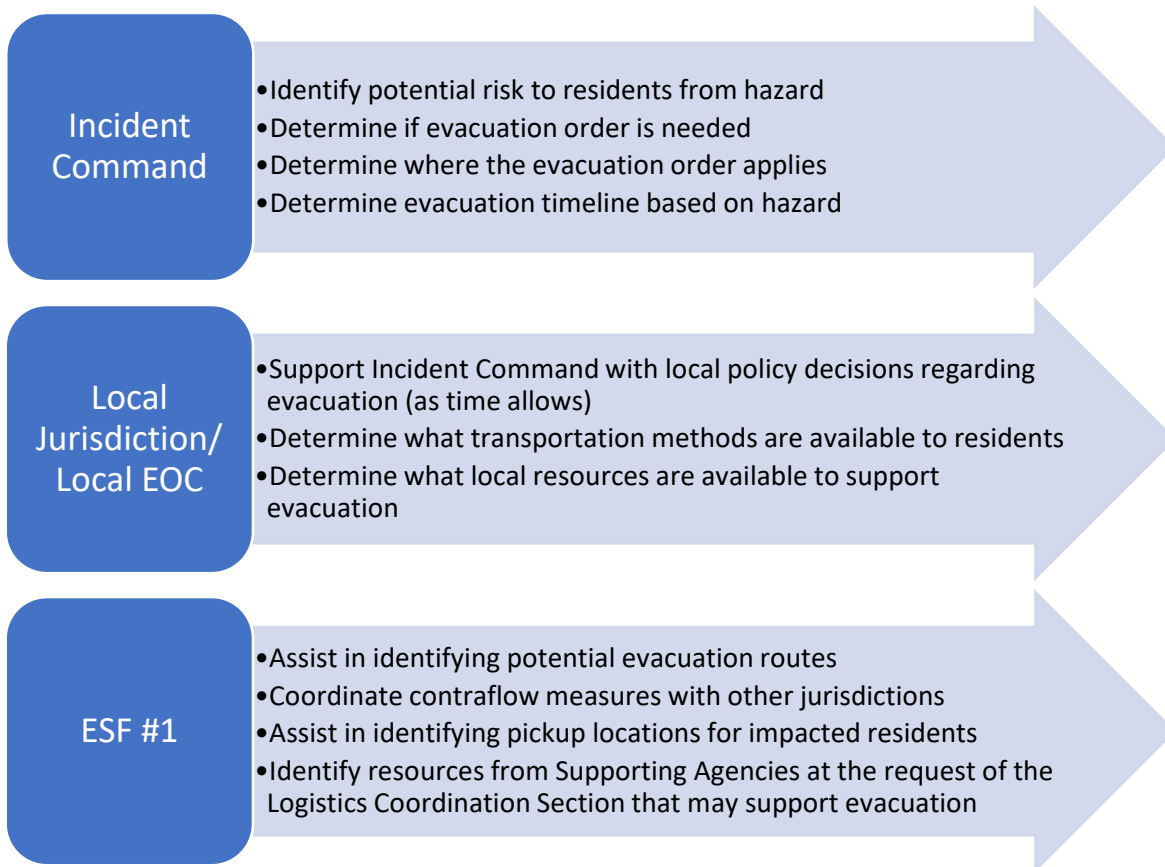
The Coordinating Agency for ESF #1 will also provide subject matter expertise with regard to completing the appropriate Public Assistance forms with regards to transportation infrastructure. If the Coordinating Agency for ESF #1 is aware of any other opportunities for recovery funding that may be applied to transportation infrastructure, they will share that information with the impacted jurisdictions.

Supporting Evacuation and Re-entry Operations

On-scene Incident Commanders (IC) are responsible for making evacuation decisions related to a specific incident, especially when the timeliness of such decisions is a matter of immediate life safety. The Incident Commanders are supported by the local jurisdiction which supports operations through local resources

and policy decisions. When the Hamilton County EOC is active, ESF #1 can support local evacuation actions, especially when those actions will require coordination with other jurisdictions.

A breakdown of responsibilities for support evacuation operations can be found below:



When the evacuation order has been lifted, ESF #1 will be tasked with supporting re-entry operations, including identifying transportation routes for the population to return, and determining a tiered schedule for re-entry into the affected areas if required.

FEMA's Core Capabilities – ESF #1

- **Supply Chain Integrity & Security** – Restoring the methods of transportation between nodes is a central component of this Core Capability. Because of the number of industries within the County and its location within the national infrastructure, the restoration of transportation infrastructure and development of alternative transportation systems is a key task for ensuring Supply Chain Integrity & Security.
- **Critical Transportation** – Providing access to transportation infrastructure for response priority objectives is one of the most important components of this ESF. Because this ESF addresses both transportation infrastructure and evacuation and re-entry, this ESF addresses the Critical Transportation Core Capability more than any other.
- **Infrastructure Systems** – Transportation infrastructure is one of the critical infrastructures identified within Hamilton County. Efficiently restoring and revitalizing the transportation infrastructure can greatly enhance the County's ability to restore and revitalize other critical infrastructure systems.
- **Logistics & Supply Chain Management** – The ability to deliver essential commodities, equipment and services in support of impacted communities is largely dependent on the transportation infrastructure. ESF #1 will work closely with the Logistics Support Section within the EOC to ensure this Core Capability can be addressed.

Organization and Assignment of Responsibilities

The Hamilton County Engineer's Office (HCEO) has the primary responsibility for the transportation functions in Hamilton County. The HCEO will serve as the coordinating agency for this ESF.

Coordinating Agency Responsibilities

Hamilton County Engineer's Office will:

1. Coordinate the activities of Support Agencies within ESF #1 to fulfill operational objectives.
2. Direct the activities of the ESF #1 in conjunction with assistance from ESFs at the local, State, or Federal levels as applicable.
3. Collaborate with other Coordinating Agencies to ensure an effective response between ESFs.
4. Designate sufficient representatives (no less than three) to support/staff 24-hour operations at the Hamilton County EOC. The Hamilton County EMHSA will maintain listings of these personnel, 24-hour contact information, and directions for contacting them in the event of communication outages.
5. Develop and train all staff responsible for implementing ESF #1 on standard operating procedures.
6. Share ESF #1 activity information with appropriate EOC personnel.
7. Prioritize ESF #1 operational strategies in alignment with the EOC and on scene objectives.
8. Identify temporary alternative transportation solutions to be implemented when primary systems or routes are unavailable or overwhelmed.
9. Establish and maintain operational awareness of transportation activities through direct communications links with transportation units in the field and/or their appropriate coordinating agencies (other county agencies with transportation, private transport companies, liaisons, etc.).
10. Provide and or coordinate County Engineer resources such as traffic control devices, signage, lights, etc., as necessary throughout the county.
11. Coordinate with the Hamilton County Sheriff's Office and local law enforcement to clear and maintain clearance of evacuation routes.
12. Conduct transportation disaster impact and needs assessments.
13. Receive, manage, and track resource requests for ESF #1 in accordance with established resource management procedures.
14. Coordinate with ESF #15 – Emergency Public Information for the inclusion of appropriate information for public dissemination.
15. Provide longer-term coordination of the restoration and recovery of the affected transportation systems and infrastructure if required.
16. Assist in the development of the After Action Report. This report is a detailed, written analysis of the strengths and weaknesses of county-level emergency response and short-term recovery activities based upon extensive research of the event and interviews with participating assessment, response, and short-term recovery personnel.

Supporting Agencies Responsibilities

Hamilton County Communications Center will:

1. Routinely document and share information related to the status of transportation systems and infrastructure with the Coordinating Agency. This action may be completed remotely.
2. Support the removal of vehicles blocking the evacuation routes away from the traffic lanes and ensure that motorists are not left stranded in inoperable vehicles.
3. Coordinate with ESF #1 and ESF #15 to manage the information on ODOT controlled Dynamic Message Signs related to transportation.

Hamilton County Emergency Management and Homeland Security Agency will:

1. Maintain a list of public works contacts for the different jurisdictions within Hamilton County.

Hamilton County Planning + Development will:

1. Provide the Coordinating Agency with damage assessment information obtained from the local jurisdictions regarding impacts to transportation systems and infrastructure.
2. Support damage assessment of transportation infrastructure as outlined in the *Hamilton County Damage Assessment Plan* (2016).

Hamilton County Sheriff's Office will:

1. Activate traffic control along evacuation routes including use of traffic control devices.
2. Establish ingress and egress controls to restrict unauthorized people and vehicular traffic from entering the evacuated area including perimeter controls along interstates and state routes in coordination with the Ohio State Highway Patrol.
3. Establish security at transfer/pick-up points where the evacuating public will congregate to control traffic and maintain order.
4. Ensure the removal of vehicles blocking the evacuation routes away from the traffic lanes and ensure that motorists are not left stranded in inoperable vehicles.

City of Cincinnati Department of Public Services may:

1. Provide personnel to support/staff 24-hour operations at the Hamilton County EOC. Maintain listings of these personnel, 24-hour contact information, and directions for contacting them in the event of communication outages.
2. Provide personnel from the City of Cincinnati ESF #1 to concurrently serve as the Hamilton County ESF #1 Coordinating Agency.

City of Cincinnati Department of Transportation & Engineering will:

1. Provide information to ESF #1 regarding the status of any potential impacts to the Cincinnati Municipal Lunken Airport.

City of Cincinnati Emergency Communications Center will:

1. Routinely document and share information related to the status of transportation systems and infrastructure with the Coordinating Agency. This action may be completed remotely.

Ohio Department of Transportation:

1. Will provide information to ESF #1 regarding the impact to state-managed roads, highways and bridges.
2. Will coordinate with ESF #1 on any contraflow issues that may impact state-managed roads and highways.
3. May provide resources from the State that are not being utilized in other counties.

U.S. Coast Guard Marine Safety Detachment – Cincinnati will:

1. Provide information to ESF #1 regarding the impact to the Ohio River and Great Miami River and the ability for them to serve as a navigable waterway.

References

Hamilton County Emergency Management and Homeland Security Agency. (2016). *Hamilton County Damage Assessment Plan*.