

# Standard Operating Procedure (SOP) for Environmental Emergency Response

Maryland Department of Health and Mental Hygiene

Environmental Health Bureau

April 2017

## TABLE OF CONTENTS

- I. Introduction
  - a. Purpose
  - b. Department of Health and Mental Hygiene Responsibilities
- II. Statutory and Regulatory Authorities
- III. Functional Roles, Statutes, and Governance
- IV. Standard Operating Procedure under Extraordinary Response
- V. Standard Operating Procedure under Environmental Emergency Response
  - a. Consultation Role
  - b. Operational Role
- VI. Threat-Risk Analysis
  - a. Threat Alert and Notification
  - b. Preparation and Response: Alert or Warning
- VII. ESF-8
- VIII. Termination of ESF-8
- IX. Standard Operating Procedure for Statewide Emergency Response
- X. Suspected Intentional Contamination, Tampering and Bioterrorism Investigation
- XI. After Action Report/Improvement Plan
- XII. Decision Makers in an Environmental Emergency Response
- XIII. Roles of Decision Makers in an Environmental Emergency Response
- XIV. Appendix
  - a. Flow Chart for Activation for Environmental Emergency Response
  - b. Maryland ESF-8 Activation and Response Framework

## **I. Introduction**

This document will act in conjunction with the Memorandum of Understanding (MOU) between the Maryland Department of the Environment (MDE) and the Maryland Department of Health and Mental Hygiene (DHMH). It is the objective of DHMH and MDE, in collaboration with Maryland's local health departments and county environmental agencies, to implement these responsibilities with a recognition that there are programmatic activities within each agency that have a significant impact on the functions of the other. It is a further objective of DHMH and MDE to coordinate these activities to maintain the efficiency and effectiveness of environmental and public health service delivery in Maryland.

In this document, we refer to conditions outside of normal operating procedures under which we would initiate an:

- 1. Extraordinary response**
- 2. Environmental emergency response**
- 3. Statewide emergency response**

### **A. Purpose**

The purpose of this policy is to outline the role of all units within the Environmental Health Bureau (EHB) in DHMH, explain what criteria are needed for EHB to initiate in an extraordinary response, environmental emergency response, and a statewide emergency response, and define how ESF-8 is utilized and/or stopped in environmental emergency responses. More information on related agreements and supporting documents between DHMH and MDE may be found in the MOU.

### **B. Department of Health and Mental Hygiene Responsibilities**

DHMH's responsibilities are stated more broadly as the investigation of "the causes of disease and, particularly, the causes of epidemics (Md. Code Ann., Health-General § 18-101)." In the area of surveillance, DHMH has responsibility for the surveillance of diseases due to communicable agents, carcinogens, and toxic substances.

## **II. Statutory and Regulatory Authorities**

1. State of Maryland:
  - a. Annotated Code of Maryland, Public Safety Article, § 14-101, et. seq.
  - b. Executive Order 01.012005.09, The State of Maryland Adoption of the National Incident Management System.
2. Local Environmental Health
  - a. Various authorities are delegated to Local Environmental Health Authorities by the Secretaries of DHMH and MDE. Some local health officials also have specific statutory authorities granted directly to them in the Annotated Code of Maryland, Health-General and Environment Articles. Local environmental health officials also respond to county and municipal ordinances.

3. Communications and Strategic Planning
  - a. Md. Code Ann., State Finance and Procurement Article Title 3, Subtitle 10, Managing for Results
  
4. Data Management
  - a. Md. Code Ann. Health-General §§4-302-306 (confidentiality and disclosures)
  - b. Md. Code Ann. Health-General §§18-103 (reports and information related to communicable diseases)
  - c. Md. Code Ann. Health-General §§18-104 (information related to cancers that are caused by carcinogens and the incidence of those cancers)
  - d. Md. Code Ann. Health-General §§18-105 (information about diseases that are caused by toxic substances and the incidence of those diseases)
  - e. Md. Code Ann. Health-General §§18-201 (disease reports by physicians)
  - f. Md. Code Ann. Health-General §§18-202 (disease reports by hospitals and lodging facilities) and
  - g. Md. Code Ann. Health-General §§18-205 (disease reporting by laboratories)
  - h. Md. Code Ann. General Provisions § 4-329(b) (privacy of information related to medical and psychological information)
  
5. Legal Representation
  - a. Md. Code Ann., Health-General §18-101 – Investigations into causes of disease and mortality. COMAR 10.19.04

### **III. Functional Roles, Statutes, and Governance**

DHMH is authorized by the Governor and Legislature to adopt regulations to address environmental health concerns, under the authority of the Health-General and Environment articles. In addition, DHMH works separately with MDE, which acts under Environmental articles. Refer to MOU for more information.

### **IV. Standard Operating Procedure under Extraordinary Response**

The criteria for EHB to initiate in an extraordinary response is when an event 1) exceeds the local jurisdictions resources and/or requires substantial resources, 2) is a statewide/multi-jurisdictional issue, 3) EHB staff/resources are insufficient to meet next operational period, and/or 4) MDE activates; will ascertain an EHB Extraordinary Response.

The event must not have an immediate threat to life and/or health to be considered an extraordinary response.

### **V. Standard Operating Procedure under Environmental Emergency**

The criteria for EHB to initiate in an emergency is when an emergency 1) exceeds the local jurisdictions resources and/or requires substantial resources, 2) is a statewide/multi-jurisdictional issue, 3) EHB

staff/resources are insufficient to meet next operational period, and/or 4) MDE activates; will ascertain an EHB Environmental Emergency Response

The event must have an immediate threat to life and/or health to be considered an Environmental Emergency Response.

## A. Consultation Role

EHB will provide technical assistance and consultation for other agencies and will work with local environmental health directors and health officers. EHB will assist local environmental health authorities, when appropriate, in communicating with local and state elected officials and coordinate a unified approach to infrastructure maintenance and workforce development for environmental health at the state and local levels.

If EHB exceeds criteria set as described above, Prevention and Health Promotion Administration (PHPA) will be activated and assist EHB with consultation process. If PHPA exceeds criteria described above, DHMH will be activated and assist EHB with consultation process.

## B. Operational Role

EHB will be initiated in an operational role if 1) the State Emergency Operations Center (SEOC) is activated, DHMH and all agencies will be activated. 2) An environmental-health related event has significant repercussions in the EHB program (i.e. medical waste, occupational health and safety) and will affect the operations and/or resources of EHB. 3) An event disrupts normal operations of a program that solely EHB directs, such as youth camps, tanning beds, swimming pools/spas, and/or food protection/licensing.

## VI. Threat Risk Analysis

Maryland utilizes NIMS compliant and NRF suggested approaches to all threat risk assessment and hazard identification. Risks and threats are analyzed at the lowest jurisdictional level upward as risk or potential of threat increases. Assessment is carried out by way of a tier system that allows for specific intervention at all levels of a threat and/or threat analysis. Using the Maryland Tier system ensures an Incident Command System (ICS) structure is applied to the preparation, response, and recovery operations of incident mitigation.

The Tier System consists of six levels or tiers:

- Tier 1: Individual Health Care Facility Response
- Tier 2: Jurisdiction Response
- Tier 3: Intrastate Regional Response
- Tier 4: State Response
- Tier 5: Interstate Response
- Tier 6: Federal Response

## A. Threat Alert and Notification

The decision to implement this plan in a phased and tiered manner will be based on specific threats to the public health. DHMH will be alerted to such threats through various channels.

## B. Preparation and Response: Alert or Warning

Based on information from a variety of possible sources including a citizen report, a reported outbreak, or a warning from law enforcement, the Secretary of DHMH, in collaboration with the Governor's office, will determine whether it is necessary for DHMH to go on a public health alert and whether a public health emergency exists.

An alert of a threatened or actual emergency can also be assumed from warnings by the perpetrators or unexplained disruption or failure of a computer network, telecommunications system, or Internet service.

The United States Government Interagency Domestic Terrorism Concept of Operations Plan (CONPLAN) establishes a range of threat levels determined by the FBI that serves to frame the nature and scope of the Federal response. This classification scheme is used in this PHMOP and has been modified only where necessary to delineate the State's perspective.

Each threat level provides for an escalating range of actions that will be implemented concurrently for crisis and consequence management. Specific actions will take place, which are synchronized to each threat level, ensuring that all agencies are operating jointly with consistent executed plans. Federal and State governments will notify and coordinate with local municipalities, as necessary. These threat levels are described below:

**Minimal Threat** - Received threats do not warrant actions beyond normal liaison notifications or placing assets or resources on a heightened alert (agencies are operating under normal day-to-day conditions).

**Potential Threat** - Intelligence or an articulated threat indicates a potential for a terrorist incident. However, this threat has not yet been assessed as credible.

**Credible Threat** - A threat assessment of 'credible' indicates that the potential threat is real, and confirms the involvement of a weapon of mass destruction in the developing terrorist incident. Intelligence will vary with each threat, and will impact the level of the response. At this threat level, the situation requires tailoring response actions to use resources needed to anticipate, prevent, and/or resolve the crisis. The crisis management response will focus on law enforcement actions and is predominantly concerned with preventing and resolving the threat. The consequence management response will focus on contingency planning and pre-positioning of tailored resources, as required. A credible threat increases in significance when the presence of an explosive device or weapon of mass destruction is confirmed or when intelligence and circumstances indicate a high probability that a device exists. In this case, the threat has developed into a weapon of mass destruction terrorist situation requiring an immediate response to identify, acquire, and plan the use of State and Federal resources to augment regional and local authorities in lessening or averting the potential consequence of a terrorist use of a weapon of mass destruction.

**Weapons of Mass Destruction Incident** - A weapon of mass destruction terrorism incident has occurred which requires an immediate response to identify, acquire, and plan the use of State and Federal resources to augment regional and local authorities in response to limited or major consequences of a terrorist use or employment of a weapon of mass destruction. This incident may have resulted in mass casualties. The response is primarily directed toward public safety and welfare and the preservation of human life.

For more information on the Emergency Time Sequence of Response, refer to the DHMH EMERGENCY SUPPORT FUNCTION 8: PUBLIC HEALTH AND MEDICAL SERVICES OPERATIONS PLAN Version 2.2

## **VII. ESF – 8**

The activation of ESF-8 in DHMH assumes that certain environmental conditions or situations may prevail as a result of the emergency event:

1. Although a primary hazardous event may not initiate a public health or medical emergency, secondary events stemming from the initial event may do so.
2. Disruption of sanitation services and facilities, loss of power and massing of people in shelters may increase the potential for disease and injury.
3. A disaster may exceed the resources of the local public health and medical community and state and federal emergency resources may be required.
4. A public health, medical or other hazardous event may result in risk to general health, including but not limited to: traumatic injury, mental health concerns, food poisoning, contamination of water supplies, and communicable disease.
5. It may become necessary to evacuate acute and long-term care facilities because of damage and/or threat due to an incident.
6. In the event of a major catastrophic, hazardous threat, or major public health and medical emergency incident, available resources may become overwhelmed

ESF-8 is further activated in EHB when EHB exceeds the criteria (4) criteria identified in the operational role.

## **VIII. Termination of ESF-8**

After an event, return to standard performance will commence once formal stand-down procedures have been put in place and ESF-8 has been deactivated by the decision makers.

## **IX. Suspected Intentional Contamination, Tampering and Bioterrorism Investigations**

Any EHB staff who receive consumer complaints or any other reports in which intentional contamination, product tampering or bioterrorism is alleged, suspected or confirmed will immediately contact the Director of the Environmental Health Bureau or designee and provide all available information concerning the event.

The EHB Director or designee will contact the complainant/contact and collect all necessary information regarding the event. The EHB Director or designee will review the available information and determine next steps for the investigation. Possible outcomes at this point would include:

1. Complaint or interview does not appear to be a valid report of intentional contamination, tampering, or bioterrorism.
2. Information supplied by the complainant/contact is sufficient to determine that an act of intentional contamination, tampering, or bioterrorism has possibly occurred. The EHB Director or designee will immediately brief the EHB staff and following a brief review alert the appropriate law enforcement personnel. The EHB Director will be responsible for maintaining

updated contact information for law enforcement partners and for determining the appropriate agency(ies) to notify.

## **X. Standard Operating Procedure for Statewide Emergency Response**

The Maryland Emergency Management Act, found in the Annotated Code of Maryland, Public Safety Article, § 14-101, et. seq., prescribes the authority and implications of a declaration of a state of emergency by the Governor. The Governor may declare a state of emergency to exist whenever the Governor finds an emergency has developed or is impending due to any cause. The state of emergency is declared by executive order or proclamation. The Governor's declaration of a state of emergency provides for the expeditious provision of assistance to local jurisdictions included in the declaration, including use of the Maryland National Guard. [1]

## **XI. After-Action Report/Improvement Plan**

1. After-Action Report (AAR)
  - a. During any major public health, medical or other major emergency event, information regarding the outcomes, effects, and impact of the event are recorded. When the state of emergency is declared ended, DHMH OP & R, MEMA SEOC, and other responding agencies develop an AAR.
  - b. The purpose of the AAR is to delineate those decisions, actions and events that helped to effectively mitigate the emergency incident; identify methods and protocols requiring revision, those that should be retained, and areas of improvement. This portion of the AAR constitutes the assessment of the overall emergency event mitigation process. Upon completion of this phase of the report, an improvement strategy and plan is developed and acted upon via testing and/or emergency preparedness exercise drills utilizing scenarios from the incident.
  - c. All AAR's are Department of Homeland Security Exercise Evaluation Program (HSEEP) compliant.
  - d. The report includes a summary of the incident, review of the response process, and an improvement plan (IP).
2. Improvement Plan (IP)
  - a. The improvement plan is a formal document that lists responsible entities to be accountable for agreed upon improvement to a response process within a designated time frame. The IP should include a clear description of recommendations for improvement and the responsible party (ies) identified for facilitating those improvements.

## **XII. Decision Makers in an Environmental Emergency Response**

The persons identified below would assist in events pertaining to the operations of EHB. If EHB is assuming a consultative role, only the Director of the Environmental Health Bureau is needed.

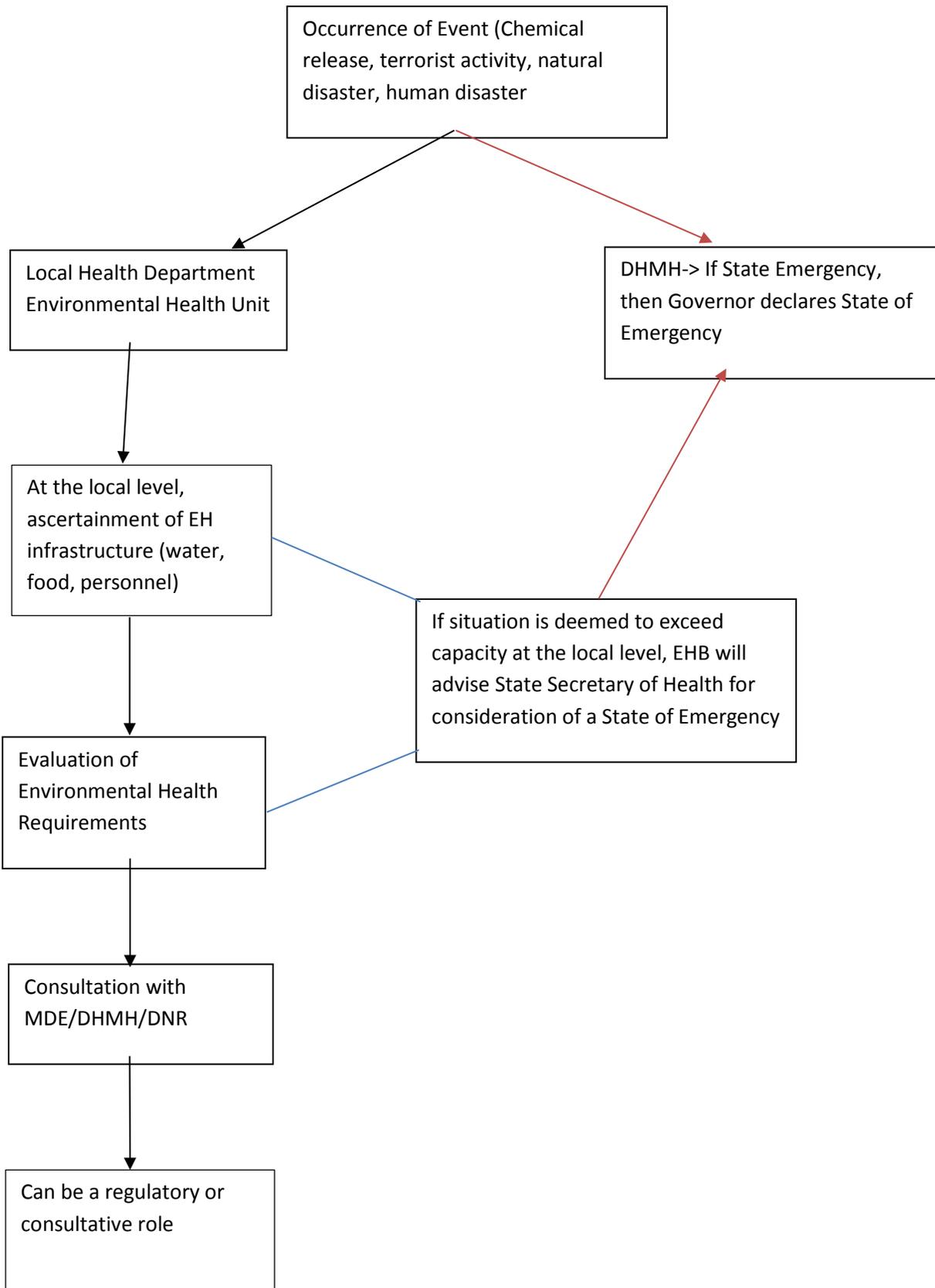
Director of the Environmental Health Bureau  
Deputy Directory of the Environmental Health Bureau  
Chief of Food Protection  
Chief of Healthy Homes and Community Services  
Chief of Administration in EHB  
Chief of Injury Prevention/Sexual Assault Prevention

When an emergency 1) exceeds the local jurisdictions resources and/or requires substantial resources, 2) is a statewide/multi-jurisdictional issue, 3) staff/resources are insufficient to meet next operational period EHB will consult with PHPA. If PHPA exceeds criteria described above, DHMH will be activated and assist EHB.

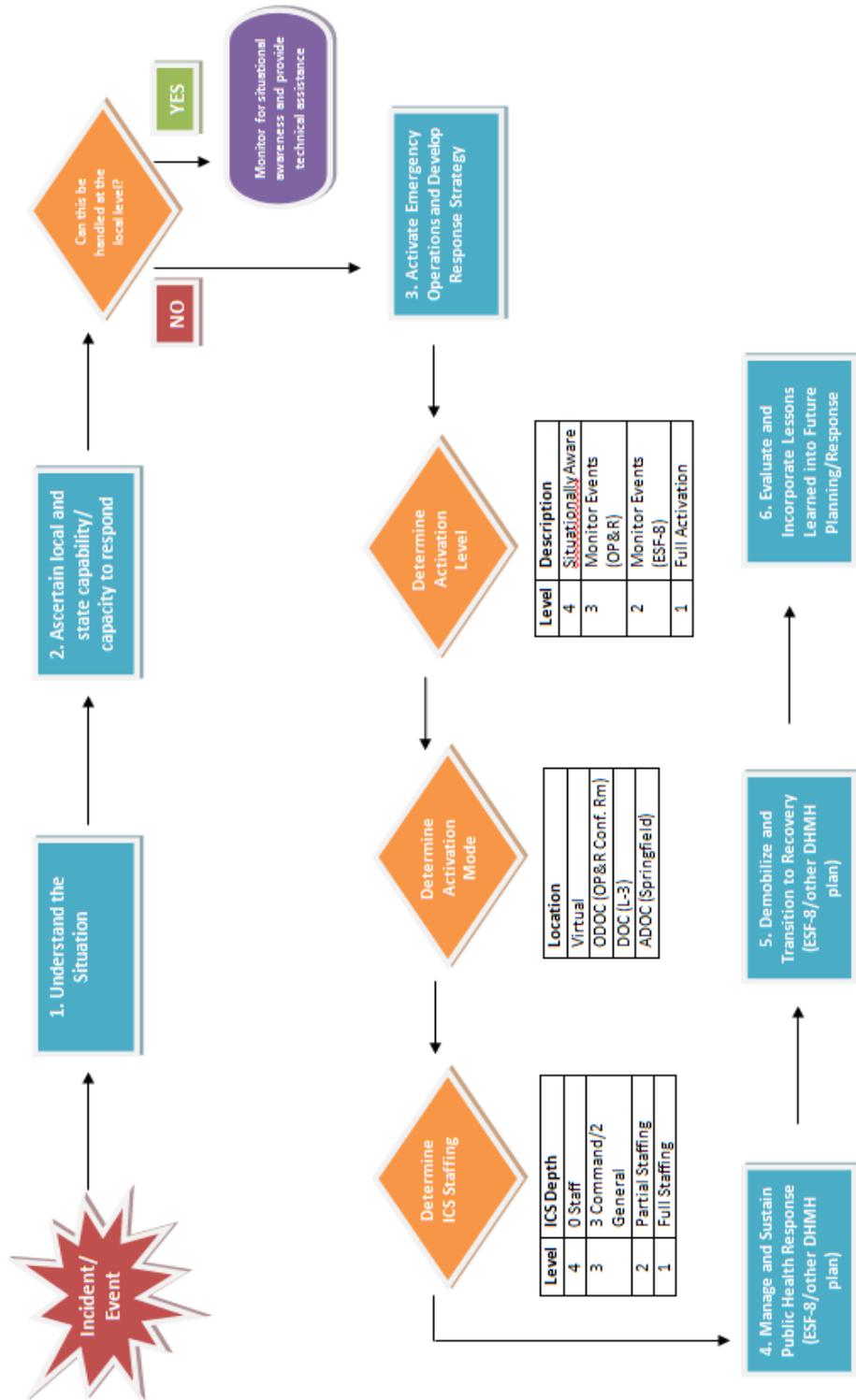
## **XIII. Roles of Decision Makers in an Environmental Emergency Response**

ESF-8 is activated by Director of EHB, Director of PHPA or Director of DHMH depending on the size and severity of environmental emergency response. ESF-8 is deactivated when EHB, PHPA, or DHMH may assume normal operations.

### Flow Chart for Activation for Environmental Emergency Response



# Maryland ESF-8 Activation and Response Framework



## **1. Understand the Situation (DHMH Leadership)**

- Classify the issue (e.g. natural disaster, terrorist event, disease outbreak/cluster, environmental hazard)
- Activate internal notification protocol
- Consult agency leadership, subject matter experts from within the Department , and outside stakeholders
- Review current plans, protocols, procedures, and best practice pertinent to the issue
- Determine information gaps and assessments needed to evaluate options

## **2. Ascertain local and state capability/capacity to respond (DHMH Leadership)**

- Is this a statewide/multi-jurisdictional issue or a local issue?
- Can this issue be contained/ameliorated at the local level? At the state level?
- Are outside resources needed above and beyond everyday issues? Can ESF-8 secure these resources?
- Have triggers from the Maryland ESF-8 (or supporting DHMH response plans/protocols) been triggered?
- Has MEMA increased its activation level?
- Have local or federal partners (e.g. LHDs, CDC, HHS ASPR, USDA) increased their activation level?
- Are there extenuating circumstances which require enhanced DHMH posture?

## **3. Activate Emergency Operations and Develop Response Strategy (DHMH Leadership)**

- What Activation Level is needed?
- What Activation Mode is needed?
- What is the ICS Staffing model?
- Create and disseminate the Incident Action Plan and other pertinent operational documents

## **4. Manage and Sustain Public Health Response (ICS Incident Management Team)**

- Use the Maryland ESF-8 plan and/or supporting DHMH response plans/protocols
- Continue to consult agency leadership, subject matter experts from within the Department, and outside stakeholders
- Conduct regular communications with partners to ensure situational awareness
- Mobilize resources and conduct emergency operations

## **5. Demobilize and Transition to Recovery Operations (ICS Incident Management Team)**

- Assess resources and return to normal operations
- Transition to the Public Health and Healthcare Services Recovery Support Function plan to support recovery operations

## **6. Evaluate and Incorporate Lessons Learned into Future Planning/Response (ICS Incident Management Team /DHMH Leadership Team)**

- Conduct a Hotwash and create an After-Action Report/Improvement Plan
- Use lessons learned to update planning and for future response as appropriate

## **CITATIONS**

Office of Emergency Management & Homeland Security (2013). *Emergency Operations Plan*. Montgomery County: Montgomery County Health Department.

Office of Food Protection (2017). *Standard Operating Procedures Manual; SMAarRRT Response and Activation Phases and Procedures*. Baltimore City: Department of Health and Mental Hygiene.

Office of Food Protection (2017). *Standard operating Procedures Manual; Suspected Intentional Contamination, Tampering and Bioterrorism Investigation Guidelines*. Baltimore City: Department of Health and Mental Hygiene.

Maryland Department of the Environment and Maryland Department of Health and Mental Hygiene (2014). *Memorandum of Understanding*. Baltimore City: MDE and DHMH.