



Washington State Safety Assessment Facility Evaluators

# OPERATIONS MANUAL

For

## WAsafe Coalition

(Washington State Safety Assessment Facility Evaluators)

POST-DISASTER EMERGENCY PROGRAM FOR  
BUILDING SAFETY EVALUATIONS



January 12, 2021



# **WAsafe Coalition Operations Plan for Post Disaster Emergency Volunteer Building Safety Evaluations**

## **TABLE OF CONTENTS**

	<b>Page</b>
Executive Summary.....	5
Purpose.....	7
Adoption.....	7
Terminology.....	8
Introduction.....	10
Emergency Procedures.....	12
1. Local Jurisdictions.....	12
2. Washington State Emergency Operations Center (SEOC) and Emergency Support Function 3 - Public Works and Engineering (ESF-3)	12
3. WAsafe Coordinators.....	13
Disaster Response Field Operations.....	15
1. WAsafe Responder Onboarding.....	15
2. Evaluation Assignments.....	15
3. WAsafe Building Safety Evaluations.....	16
4. WAsafe On-site Leadership.....	16
5. Briefing the Authority Having Jurisdiction.....	16
6. Additional Supplies or Equipment.....	17
7. Priorities of Evaluations.....	17
8. Evaluation of Buildings.....	17
9. Building Safety Evaluation Placards and Forms.....	17

## **FIGURES**

	<b>Page</b>
Figure 1      WAsafe BSE Types and Qualifications.....	18
Figure 2      WAsafe Mobilization and Deployment Decision Tree.....	19

## APPENDICES

		<b>Page</b>
Appendix I	Evaluation Deployment Playbook.....	20
Appendix II	WAsafe/WA EMD Region Map.....	31
Appendix III	WAsafe Coordinator List.....	32
Appendix IV	Sample Forms and Placards .....	33
	Figure IV-A: ATC-20 Rapid Evaluation Safety Assessment Form	34
	Figure IV-B: ATC-20 Detailed Evaluation Safety Assessment Form	35
	Figure IV-C: ATC-20 Inspected Placard (Green)	37
	Figure IV-D: ATC-20 Restricted Use Placard (Yellow)	38
	Figure IV-E: ATC-20 Unsafe Placard (Red)	39
	Figure IV-F: Summary of Inspections Log Form	40
Appendix V	Recommended Individual Equipment List.....	41
Appendix VI	WAsafe/WA EMD Memorandum of Understanding.....	43

## **EXECUTIVE SUMMARY**

The Washington State Safety Assessment Facility Evaluators Coalition (WAsafe) is an alliance of professional organizations whose primary mission is to assist local communities by performing visual evaluations for post-disaster building safety. Evaluations are performed by authorities or WAsafe Responders in accordance with Applied Technology Council document ATC 20, *Procedures for Post-earthquake Safety Evaluation of Buildings*, or ATC-45, *Field Manual: Safety Evaluation of Buildings After Windstorms and Floods*, as appropriate for the type of incident.

In addition to authorized state or local government personnel, qualified volunteers who serve as WAsafe Responders in accordance with RCW 38.52, perform visual safety evaluation of buildings. WAsafe Responders will be deployed through the Washington State Emergency Operations Center (SEOC) and local emergency management departments, in the execution of their responsibilities with respect to the use of qualified volunteers.

WAsafe Responders work under the direction of the local Emergency Operations Center (LEOC) and Authority Having Jurisdiction for building safety (AHJ). In Washington State, the AHJ is usually the local building official. All WAsafe Responders are required to be registered as volunteers for the local jurisdiction or the Washington State Emergency Management Division (WA EMD) under the authority of WAC 118-04. Upon deployment to the local jurisdiction, WAsafe Responders must also be deputized by the AHJ to allow for official authorization to post building safety placards.

Based on visual evaluations, WAsafe Responders will complete an evaluation form and post buildings with placards indicating the level of safety as described in ATC-20/ATC-45. Additional posting requirements should be determined by the AHJ and included in the operational briefing provided by the AHJ. Placards posted by deputized WAsafe Responders carry the authority of the AHJ.

The scope of WAsafe Responders' work is limited to the safety evaluation of buildings under the direction of the AHJ. In the event of a disaster, there will be an obvious need to evaluate other types of structures, such as bridges and pipelines. Those having the responsibility for construction and maintenance of other types of structures are expected to perform their own safety evaluations. Procedures for evaluating those other structures are not covered in this Manual.

In accordance with the National Incident Management System (NIMS) and WAsafe's Memorandum of Understanding with WA EMD, each level of government and WAsafe play interconnected roles in the Building Safety Evaluation process. Local jurisdictions have primary responsibility for:

- determining the need for resources;
- requesting those resources through the State Emergency Operations Center (once all local resources have been exhausted);
- registering WAsafe Responders as Volunteer Emergency Workers in accordance with WAC 118-04;

- deputizing WAsafe Responders to act on behalf of the AHJ; and
- providing logistical support and coordination for the WAsafe Responders during their deployment.

The State Emergency Operations Center (SEOC) is responsible for:

- processing resource requests for post-disaster building safety assessments and issuing mission assignment numbers;
- serving as the LEOC's initial point-of-contact for requests for WAsafe resources in a statewide emergency;
- coordinating with the WAsafe Coordinator-in-Charge to fulfill building safety assessment resource requests; and
- providing logistical and coordination support.

In an emergency that is not statewide, the local or county EOC must obtain a mission number from the State, but they will otherwise be responsible for the duties listed under the SEOC above.

WAsafe provides coordination of WAsafe resources with SEOC and LEOCs through the WAsafe Coordinator-in-Charge. Upon request of the LEOC, or at the discretion of the Coordinator-in-Charge, WAsafe may provide a WAsafe On-site Coordinator when the number of responders or incident complexity warrants additional on-site assistance with coordination and management of the WAsafe responders.

Finally, WAsafe Responders provide on-site assistance in evaluating the safety of buildings for the purposes of expediting re-entry and protecting community safety by restricting entry to hazardous buildings until adequate mitigation measures are in place to protect the public.

Working in concert, WAsafe and all levels of government are better prepared to respond to and recover from disasters affecting the built environment. This Operations Manual provides further details on the activation and deployment of WAsafe volunteer resources in the aftermath of a disaster.

### **PURPOSE**

This plan establishes procedures for the use of WAsafe-enrolled volunteer architects, professional engineers, building officials, plans examiners, building inspectors, and other qualified volunteers in the event of an earthquake or other natural disaster, as established in RCW 38.52 and WAC 118-04.

### **ADOPTION**

This Operations Plan was first adopted by the WAsafe Steering Committee on January 12, 2021.

## TERMINOLOGY

The following is intended to help explain words, phrases, and acronyms used in this Manual.

**Applied Technology Council 20 (ATC-20):** The procedures described in the report, *Procedures for Post-Earthquake Safety Evaluation of Buildings* (1989), an Addendum to that report, and *ATC 20-1 Field Manual: Postearthquake Safety Evaluation of Buildings*, Second Edition (2004), all published by the Applied Technology Council. Also used to refer to a formal training in post-earthquake building safety evaluations.

**Applied Technology Council 45 (ATC-45):** The procedures described in *Field Manual: Safety Evaluation of Buildings after Windstorms and Floods*, published by the Applied Technology Council (2005). Also used to refer to a formal training in safety evaluations of buildings following a windstorm or flood.

**Authority Having Jurisdiction (AHJ):** The local building official or other appropriate authority having jurisdiction over building safety.

**Building Safety Evaluation (BSE):** The procedures used to determine building safety and resulting in posted placards on damaged buildings.

**Coordinator-in-Charge (CIC):** See WAsafe Coordinator(s)-in-Charge.

**Emergency Management Assistance Compact (EMAC):** Federal interstate Emergency Management Assistance Compact allowing for state-to-state disaster assistance.

**Emergency Worker:** Any person who is registered with a local emergency management organization or State Emergency Management Division (WA EMD) for the purpose of engaging in authorized emergency management activities or is an employee of the state of Washington or any political subdivision thereof who is called upon to perform emergency management activities. See WAC 118-04 and RCW 38.52.010(11).

**Emergency Support Function 3 – Public Works and Engineering (ESF-3):** An Emergency Support Function (ESF) is a functional group in Washington State’s Comprehensive Emergency Management Plan (CEMP). WAsafe operates inside the scope of ESF 3 – Public Works and Engineering. For additional details about the CEMP and ESFs, see the Emergency Management Division’s website: <https://mil.wa.gov/plans>.

**Local Emergency Operations Center (LEOC):** Facility where emergency operations during an emergency are managed in any county, city or town. For the purposes of this manual the term LEOC includes the management and staff operating within the facility.

**Mutual Aid:** The sharing of resources between local jurisdictions within the State of Washington. Mutual aid agreements at the state and local level specify the terms and conditions under which agencies lend assistance across jurisdictional boundaries.

**National Incident Management System (NIMS):** Federal Emergency Management Agency (FEMA) systems and processes for how government, nongovernmental organizations and the private sector to work together in incident responses. See NIMS website: <https://www.fema.gov/emergency-managers/nims>.

**Placard:** Notice posted on buildings by authorized evaluators that indicate the safety evaluation classification of the building, as well as other relevant information.



**Post:** The act of affixing a safety evaluation placard on a building following an incident.

**Revised Code of Washington (RCW):** The compilation of all permanent laws enacted by the Washington State Legislature, now in force in the State of Washington.

**State Emergency Operations Center (SEOC):** Facility where emergency operations during an emergency are managed by the Washington State Emergency Management Division (WA EMD). For the purposes of this manual, the term SEOC includes the management and staff assigned to the facility.

**Volunteer Emergency Worker:** An emergency worker who is not receiving or expecting compensation from the state or any local government. See RCW 38.52.180(5)(a).

**Washington Administrative Code (WAC):** The codified regulations of the executive branch issued by authority of statutes and arranged by subject or agency.

**WAsafe Building Safety Evaluator (WAsafe BSE):** A WAsafe-enrolled volunteer emergency worker trained to conduct Rapid or Detailed Evaluations of buildings, in accordance with ATC-20 and ATC-45 guidance.

**Washington Safety Assessment Facility Evaluators Coalition (WAsafe):** The coalition of professional organizations established to train, coordinate, and dispatch volunteers to perform building safety evaluations under the direction of the AHJ.

**WAsafe Coordinators:** WAsafe designated representatives providing coordination between the WAsafe BSEs, the LEOC, and SEOC. Coordination includes communications, mobilization, and dispatch of WAsafe Responders.

**WAsafe Coordinator(s)-in-Charge (CIC):** The Coordinator(s)-in-Charge manages the WAsafe response and acts as the single point(s) of contact for the SEOC or LEOC.

**WAsafe On-site Leader:** The WAsafe designated individual(s) providing on-site administrative and logistical support for Building Safety Evaluation Teams deployed in the field.

**WAsafe Responder:** A WAsafe BSE or WAsafe On-site Coordinator deployed by the SEOC or LEOC to assist in perform safety evaluations of buildings and posting placards under the direction of the AHJ.

**Washington State Emergency Management Division (WA EMD):** The Washington military department, emergency management division.

## INTRODUCTION

Communities in Washington State are subject to a variety of hazards with the potential for significant damage to the built environment. Earthquakes, floods, windstorms, fires, explosions, and landslides have all impacted the homes and businesses of communities around the State. Determining the extent of damage and the potential risks involved in occupying buildings after such disasters is crucial to providing safe shelter in the immediate aftermath as well as the timely restoration of critical infrastructure and key resources necessary for community resilience.

The Washington State Safety Assessment Facility Evaluators coalition (WAsafe) was formed in response to the need for trained, experienced building safety evaluators to assist impacted local jurisdictions in their response and recovery efforts. The WAsafe program is a collaborative effort involving the Washington Association of Building Officials (WABO), Structural Engineers Association of Washington (SEAW), American Institute of Architects, Washington Council (AIA-WA), American Society of Civil Engineers, Seattle Chapter (ASCE Seattle), Washington Department of Health (WA DOH), and the Emergency Management Division of the Washington Military Department (WA EMD).

WAsafe volunteers work under the direction of the local Authority Having Jurisdiction (AHJ) over building safety. All volunteers are required to be registered as emergency workers for the local jurisdiction or under WA EMD according to WAC 118-04 [Last Update: 12/28/00]. Upon deployment to the local jurisdiction or local EOC, the volunteers must be deputized by the AHJ.

The scope of WAsafe Responders' work is limited to the safety evaluation of buildings under the direction of the AHJ. In the event of a disaster, there will be an obvious need to evaluate other types of structures. Those having the responsibility of construction and maintenance for other types of structures are expected to perform their own safety evaluations. For example:

- The Washington Department of Transportation and local Public Works departments will inspect State highways, roads and bridges.
- The inspection of utility lines, pipelines, sewage and water lines and systems, railroads and airports will be the responsibility of their respective owners/managers.
- The U.S. Army Corps of Engineers and the Washington Department of Natural Resources will inspect dams and reservoirs.

Initial work on the WAsafe concept began following the passage of HB 1406 the Washington *Intrastate Building Safety Mutual Aid System* which was passed by the Washington Legislature in July 2011. In 2014, WA EMD sponsored a full-day workshop, which validated the need to organize volunteers to perform building safety evaluations and was the basis for establishing the WAsafe program. In the ensuing years, the coalition was formed, a steering committee established, and the program was developed with the input of coalition members, partner organizations, and stakeholder and public comments collected through presentations at public meetings, conferences, and professional training events. In addition, similar already-established programs such as the State of California's Safety Assessment Program (SAP) and the State of Missouri's Structural Assessment and Visual Evaluation (SAVE) Coalition informed the WAsafe program. The WAsafe development effort resulted in the signing of a Memorandum of Understanding (MOU) between the WAsafe Coalition and WA EMD in April 2018.

In accordance with the MOU, WAsafe now provides specialized training and certification for Building Safety Evaluators (BSEs) and coordinates with the Washington State Emergency Operations Center (SEOC) on the deployment of volunteer evaluator resources to assist local government jurisdictions with building safety evaluations following damaging incidents. As of December 2020, WAsafe had built a robust cadre of approximately 250 trained, credentialed evaluators with expertise in engineering, architecture, and building inspection who can be drawn on to provide valuable assistance to local communities affected by disasters.

This Operations Manual describes a framework for the notification, activation, deployment, and release of WAsafe volunteer resources. It describes relationships and communications between local and State Emergency Operations Centers and the WAsafe Coalition during an emergency incident. It is intended to support the processes and procedures used for conducting visual evaluations, and the placarding and reporting procedures used for communicating information on the damage sustained by evaluated buildings, and limits on building occupancy caused by such damage, if any, as described in ATC-20 and ATC-45.

This Manual further provides guidance to local Emergency Operations Centers (LEOCs) on the capabilities of WAsafe building safety evaluators and the equipment, documents, information, and materiel required for building safety evaluation operations. The Manual was designed to integrate WAsafe operations into Emergency Operations Center organizational structures through the National Incident Management System (NIMS) and Washington State Emergency Support Function 3 – Public Works and Engineering as described in the State’s Comprehensive Emergency Management Plan.

The Manual describes the roles and responsibilities of WAsafe responders: the building safety evaluators (BSEs), on-site coordinators, and coordinators who liaise between the SEOC, LEOC and the BSEs during activations of the WAsafe system in an emergency. It describes the qualifications and capabilities of the five Types of evaluators established in the program. It also describes the WAsafe regional coordinator concept of operations which mirrors the Homeland Security Regions established by WA EMD.

Finally, through appendices and figures it provides graphic descriptions of the response framework, checklists, forms, and equipment lists that provide further guidance and resources for response organization reference during events requiring building safety evaluations and WAsafe Responders. A WAsafe Evaluation Deployment Playbook is provided in Appendix I as an abbreviated guide for emergency managers and authorities having jurisdiction to use during an emergency response.

## EMERGENCY PROCEDURES

These procedures are to be used by local jurisdictions, Washington State Emergency Operations Center (SEOC), and WAsafe during an emergency response. These procedures assume that WAsafe Responders will be registered as Temporary Emergency Workers under the provisions of [WAC 118-04-80\(3\)](#). [Statutory Authority: Chapter [38.52](#) RCW. WSR 01-02-053, § 118-04-080, filed 12/28/00, effective 1/28/01; WSR 93-23-005 (Order 93-08), § 118-04-080, filed 11/4/93, effective 12/5/93.]

- 1. LOCAL JURISDICTIONS.** Local jurisdictions will:
  - A. Assess the extent and severity of the damage and determine the need for qualified volunteers to perform building safety assessments.
  - B. Request and obtain a Mission Number from Washington State Emergency Operations Center (SEOC).
  - C. Submit a resource request to SEOC detailing assistance needed:
    - i. How many and "Types" of building safety evaluators needed. See Figure 1, WAsafe BSE Types and Qualifications. Initial estimates of the number of BSEs needed can be based on rapid evaluations for 10-12 sites per two-person team in an eight-hour day, assuming the sites are in the same general vicinity. Estimates can also be made on the basis of approximately 30 minutes per evaluation plus travel time to sites.
    - ii. Estimated duration of deployment. Depending on the scale of the event, a minimum duration of five successive days is anticipated for large-scale events, plus two additional days for travel.
    - iii. Any other necessary information. Other information may include: number of buildings and types of buildings to be evaluated (e.g., office, residential, nursing homes, multi-family, schools, clinics or hospitals, strip malls, churches, temporary shelters); and building construction types and materials (e.g., multi-story, wood frame apartments; steel frame office towers, tilt-up concrete warehouses).
  - D. Designate and provide directions to the location where WAsafe Responders are to deploy/report.
  
- 2. WASHINGTON STATE EMERGENCY OPERATIONS CENTER (SEOC) AND EMERGENCY SUPPORT FUNCTION 3 - PUBLIC WORKS AND ENGINEERING (ESF-3).** SEOC and ESF-3 should:
  - A. Initiate coordination with WAsafe by contacting any WAsafe Coordinator when SEOC or ESF-3 receives a request for WAsafe responders. See Figure 2 for a flow chart of these activities.
  - B. Inform the WAsafe Coordinator that a request for building safety evaluators has been received, and provide other necessary information including:
    - i. Type of event (earthquake, flood, fire, landslide, windstorm, etc.), and any associated hazards such as fire, landslide, seiche, or tsunami.
    - ii. Location of event or requesting LEOC.
    - iii. Number and type of WAsafe resources needed.

- iv. Approximate deployment duration. Depending on the scale of the event, a minimum duration of 5 successive days is anticipated for large events, plus two additional days for travel.
  - C. Coordinate with the WAsafe Coordinator-in-Charge to prioritize volunteer allocations if multiple jurisdictions are requesting resources, or there are insufficient WAsafe volunteers to meet the request.
  - D. Authorize deployment of volunteers and inform the WAsafe Coordinator-in-Charge of the following:
    - i. The Mission Number, deployment location and/or meeting place, check-in information, available surface transportation routes in the affected area, or alternate methods of transportation.
    - ii. The requesting jurisdiction and names, locations, and contact information of officials to be contacted upon arrival at the local jurisdiction or LEOC.
    - iii. Minimum duration of volunteers' mobilizations.
  - E. Repeat the above actions as needed throughout the emergency response.
- 3. WAsafe COORDINATORS:** In parallel and in coordination with LEOC or SEOC operations, WAsafe will contact and dispatch WAsafe Responders. See Figure 2 for a flow chart of these activities.
- A. After a disaster, or after a WAsafe Coordinator is contacted by SEOC (or ESF-3), all available WAsafe Coordinators will convene a meeting to select one or two Coordinator(s)-in-Charge (CICs) of WAsafe's response and assign responsibilities. The number of CICs needed will depend on the scope and complexity of the emergency. If two CICs are required, they will arrange the division of labor between themselves. The CICs will act as single point(s) of contact for the LEOCs and SEOC. The remaining Coordinators will assist the CICs in fulfilling the request(s). (See 3.D below.)
  - B. If possible, a WAsafe Coordinator distant from the region impacted by the disaster should be selected as the CIC. See Appendix II for WAsafe Coordinator Regions.
  - C. The CIC is responsible for managing the WAsafe response and serves as the primary contact with the SEOC and LEOC. The other available WAsafe Coordinators are expected to assist in performing the tasks in 3.D below.
  - D. The WAsafe Coordinators will:
    - i. Use the WAserv database to request WAsafe BSE availability and identify appropriate WAsafe BSEs to meet the request.
    - ii. Contact the WAsafe BSEs who respond to the WAserv request to verify their availability for assignment.
    - iii. Inform SEOC of the number of WAsafe Responders available and coordinate location(s) to where the WAsafe Responders are to be dispatched.
    - iv. Inform all WAsafe Responders of the Mission Number, deployment location or meeting place, and other pertinent information described in Section 2 above.

- v. If requested by the AHJ or LEOC, designate WAsafe BSEs to be the On-Site Coordinator for each jurisdiction.
- vi. Coordinate with the AHJ or LEOC to fulfill requests for resources that aren't specifically listed in the WAsafe BSE Types in Figure 1 below, but can be fulfilled by WAsafe BSEs, such as NIMS resource types.
- vii. Keep a record of contacts made and WAsafe Responders dispatched.
- viii. Keep SEOC updated on status of WAsafe Responders.
- ix. Coordinate with the AHJ to track the WAsafe Responders until they are released by the AHJ and return to home base. In most cases, home base will be the WAsafe Responder's residence.

## DISASTER RESPONSE FIELD OPERATIONS

- 1. WAsafe RESPONDER ONBOARDING.** Upon the WAsafe Responders' arrival at an assigned jurisdiction, the AHJ or LEOC will:
  - A. Register each WAsafe Responder as a Volunteer Emergency Worker, under their assigned Mission Number, with the local jurisdiction's emergency management department.
  - B. Assign each WAsafe Responder an Evaluator ID number to be used on forms and placards.
  - C. Deputize the WAsafe Responders. It is recommended this be done by the AHJ.
  - D. Brief the WAsafe Responders on:
    - i. The evaluation forms to be used, the jurisdiction's posting policies, and where to obtain the forms;
    - ii. Assignments of structures (or areas) to be evaluated, including location maps, building information, etc.
    - iii. Safety precautions and potential or existing hazards to be aware of;
    - iv. An information list from the jurisdiction for the use of the WAsafe Responders with the primary AHJ contact phone number, and phone numbers and locations of first aid stations, emergency shelters, police, fire, building department, and other information the AHJ deems important.
    - v. Instructions regarding media inquiries and jurisdictional policies;
    - vi. Procedures for reporting in at the beginning and end of each day;
    - vii. Procedures for filing expense reports, if the AHJ is reimbursing expenses;
    - viii. Housing accommodations and eating arrangements, if provided;
    - ix. Procurement and refilling of supplies, equipment and PPE (if provided) related to the assigned tasks. Issuance of supplies, equipment, and PPE shall include directions for checking equipment and supplies back to the jurisdiction.
  - E. Assign responders to teams in accordance with Item 2 below.
  - F. Provide supplies and equipment related to the assigned tasks, including building safety evaluation placards and forms. See Appendix IV for examples. Other organizations recommend a mix of 90 green, 20 yellow, and 20 red placards for each team.
  
- 2. EVALUATION ASSIGNMENTS.** For safety reasons, evaluation teams are expected to consist of two or more members. Teams and assignments are at the direction of the AHJ. Upon request of the AHJ, the WAsafe On-Site Leader may assist the AHJ regarding assigning WAsafe responders to work that is consistent with the WAsafe types or their professional qualifications and physical capability. See also Item 4 below.

- 3. WAsafe BUILDING SAFETY EVALUATIONS.** WAsafe responders' primary assignment will be to perform rapid visual evaluations of buildings as determined by the AHJ.
- A. Visual evaluations will be documented using the Rapid or Detailed Evaluation Forms, as described in ATC-20 or ATC-45 as appropriate for the type of disaster, hereinafter referred to as ATC-20/45, or the AHJ's forms. Detailed Evaluations will only be performed at the direction of the AHJ.
  - B. Based on visual evaluations, buildings will be posted with placards indicating the damage category as described in ATC-20/45. Posting of placards by WAsafe Responders who were deputized by the AHJ carries the authority of the AHJ. Additional requirements as to posting procedures will be determined by the AHJ.

- 4. WAsafe ON-SITE LEADERSHIP.** The AHJ or LEOC may request one or more WAsafe On-site Leaders to provide on-site administrative and logistical support for building safety evaluation teams.

The WAsafe On-Site Leader's primary role is to assist the AHJ with assigning WAsafe Responders to work that is consistent with the WAsafe Types or their professional qualifications and physical capability. The WAsafe On-Site Leader should be informed of all WAsafe Responder evaluation assignments made by the AHJ. The WAsafe On-site Leader may also be able to:

- A. Provide guidance on ratios of placard types, team equipment needs.
  - B. Assist with setting priorities for building safety evaluations.
  - C. Provide administrative support for building safety evaluation teams as directed by the AHJ.
  - D. Assist with managing staffing for building safety evaluation teams including:
    - i. Assisting the AHJ to make deployment decisions for building safety evaluation teams.
    - ii. Coordinating building safety evaluation team activities within the NIMS Incident Command System (ICS) structure.
    - iii. Advising WAsafe Responders on operational safety during field operations in coordination with the incident Safety Officer and safety briefing.
  - E. At the specific request and acknowledgment of the AHJ, serve in a NIMS Post-Disaster Building Safety Evaluation Strike Team Technical Supervisor role, or assist in identifying an appropriate individual to serve in the role.
- 5. BRIEFING THE AUTHORITY HAVING JURISDICTION.** Upon completion of the rapid evaluations of buildings, the WAsafe Responders may be asked to brief the AHJ or the WAsafe On-site Leader. Briefing topics may include structural and habitability conditions of evaluated buildings, and posting results and conditions. WAsafe Responders are not expected to offer opinions relating whether or not a particular building should be demolished



or repaired, although they can do so if asked by the AHJ. However, the evaluations performed may not provide sufficient information to justify such an opinion except for obvious conditions.

- 6. ADDITIONAL SUPPLIES OR EQUIPMENT.** If an evaluation team requires more supplies or equipment, the request should be made to the AHJ. The AHJ can pass the request along to the LEOC or Incident Commander if necessary.
- 7. PRIORITIES OF EVALUATIONS.** The AHJ is expected to establish the priorities for building safety evaluations.
- 8. EVALUATION OF BUILDINGS.** WAsafe Responders are expected to perform visual evaluation of buildings in general accordance with the ATC-20/45 evaluation procedures.
  - A. While the AHJ may specifically request WAsafe Responders to perform Detailed Evaluations, the vast majority of the evaluations expected to be performed are Rapid Evaluations.
  - B. If a team determines that a building poses an imminent threat to life or adjacent property, the team should immediately notify the AHJ.
- 9. BUILDING SAFETY EVALUATION PLACARDS AND FORMS**
  - A. WAsafe Responders are expected to ensure that all sections of any posted placards and the Rapid or Detailed Evaluation Form have been completed.
  - B. WAsafe Responders are expected to enter the locally-assigned Evaluator ID number (not their names) on each report form and placard so the evaluator can be identified by the AHJ in the event that questions arise.
  - C. WAsafe Responders are expected to turn in forms at the end of each day. All photos and sketches should be attached to the report or uploaded to a site designated by the AHJ. Photos taken while conducting evaluations belong to the AHJ as part of the public record. However, it is not the intent of this Manual to restrict future use of the photos by the responder.

### **FIGURE 1: WAsafe BSE Types and Qualifications**

How to use this table:

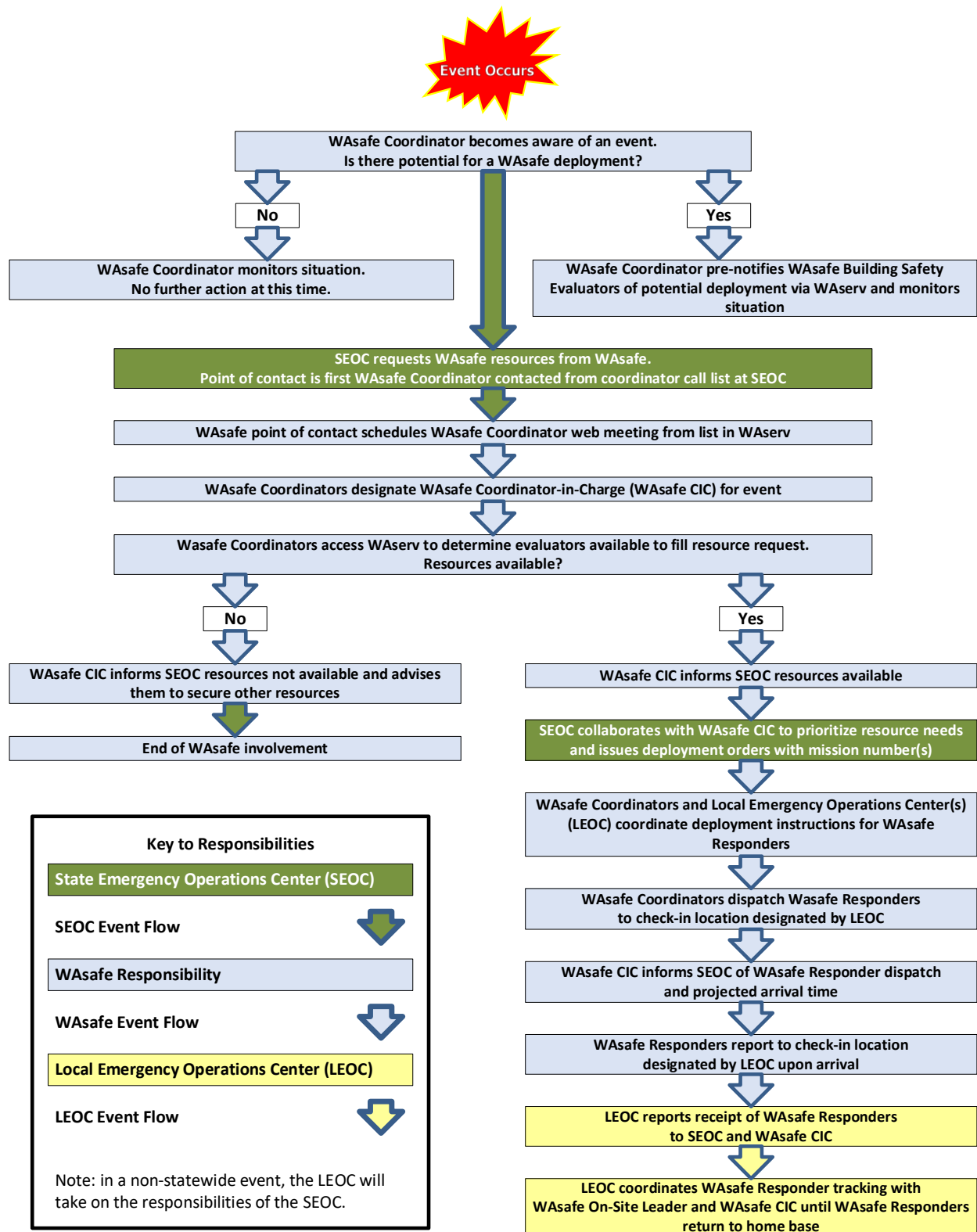
- The duties and limitations for WAsafe Responders are intended as guidelines; actual assignments may vary, depending on the event and personnel, and the needs of the AHJ.
- When enrolling in WAsafe, volunteers will request a Type designation based on their minimum qualifications.

<b>Type</b>	<b>Anticipated Duties/Limitations</b>	<b>Minimum Qualifications</b>
<b>1</b>	Structural evaluation only: all buildings, including multi-family and commercial buildings over 5 stories and buildings with complex structural systems	<ul style="list-style-type: none"> <li>• Registered structural engineer or civil engineer with structural specialty</li> <li>• WAsafe BSE training class</li> </ul>
<b>2</b>	a. Non-structural evaluation: all single family residential, multi-family and commercial buildings b. Structural evaluation: single family residential, multi-family and commercial buildings up to 5 stories with non-complex structural systems	<ul style="list-style-type: none"> <li>• Certified Building Plans Examiner, Commercial Building Inspector, or Building Official; Registered Architect or Registered Engineer</li> <li>• WAsafe BSE training class</li> </ul>
<b>3</b>	Wood-framed single family residential, multi-family and commercial buildings up to 3 stories	<ul style="list-style-type: none"> <li>• Certified Residential Building Plans Examiner or Residential Building Inspector</li> <li>• WAsafe BSE training class</li> </ul>
<b>4</b>	Single family residential buildings and associated accessory structures	<ul style="list-style-type: none"> <li>• Any ICC Certification</li> <li>• WAsafe BSE training class</li> </ul>
<b>5</b>	As assigned by Building Official or Incident Command	<ul style="list-style-type: none"> <li>• EITs, unlicensed architects, permit technicians</li> <li>• Relevant experience</li> <li>• WAsafe BSE training class</li> </ul>

Notes:

- Type 1 WAsafe Responders can also perform structural evaluations for all Types, and non-structural evaluations for Types 3 and 4.
- Type 2 includes non-structural evaluations such as habitability and egress.
- Type 2 Engineers can only perform structural evaluations unless specifically qualified to perform complex non-structural evaluations.
- Type 2 evaluators can also perform structural and non-structural evaluations for Types 3 and 4.
- WAsafe Coordinators and WAsafe On-Site Leaders will be required to take additional training on this Manual. WAsafe Coordinators-in-Charge must take the WA EMD SEOC Foundations class. FEMA online trainings IS-100, -230, and -700 are prerequisites to taking the SEOC Foundations class.
- A NIMS Post-Disaster BSE Technical Supervisor has additional minimum requirements.
- In lieu of a WAsafe BSE training class, Cal OES SAP or ATC-20/45 training will be accepted for first-time enrollment in WAsafe, provided the BSE also passes a WAsafe-specific training module.

**FIGURE 2: WAsafe Mobilization and Deployment Decision Tree**



**Appendix I - Evaluation Deployment Playbook**



Washington State Safety Assessment Facility Evaluators

**WAsafe Building Safety Evaluation System**

**Evaluation  
Deployment  
Playbook**

**For Local and State Emergency Operations Plans**

**This Playbook serves as Appendix I to the WAsafe Operations Manual**



January 12, 2021

## INTRODUCTION

The Washington State Safety Assessment Facility Evaluators Coalition (WAsafe) is an alliance of professional organizations whose primary mission is to assist local communities by performing visual evaluations for post-disaster building safety. Evaluations are performed in accordance with Applied Technology Council document ATC 20, *Procedures for Post-earthquake Safety Evaluation of Buildings*, or ATC-45, *Safety Evaluation of Buildings After Wind Storms and Floods*, as appropriate for the type of incident.

WAsafe Responders are qualified emergency volunteers as established in RCW 38.52, who will perform visual safety evaluation of buildings. WAsafe Responders will be deployed through the Washington State Emergency Operations Center (SEOC) and local emergency management departments, in the execution of their responsibilities with respect to the use of qualified volunteers.

WAsafe Responders work under the direction of the local Emergency Operations Center (LEOC) and Authority Having Jurisdiction for building safety (AHJ). In Washington State, the AHJ is usually the local building official. All WAsafe Responders are required to be registered as volunteers for the local jurisdiction or the Washington State Emergency Management Division (WA EMD) under the authority of WAC 118-04. Upon deployment to the local jurisdiction, WAsafe Responders must also be deputized by the AHJ to allow for official authorization to post building safety placards.

Based on visual evaluations, WAsafe Responders will complete an evaluation form and post buildings with placards indicating the level of safety as described in ATC-20/ATC-45. Additional posting requirements should be determined by the AHJ and included in the operational briefing provided by the AHJ. Placards posted by deputized WAsafe Responders carry the authority of the AHJ.

The scope of WAsafe Responders' work is limited to the safety evaluation of buildings under the direction of the AHJ. In the event of a disaster, there will be an obvious need to evaluate other types of structures, such as bridges and pipelines. Those having the responsibility for construction and maintenance of other types of structures are expected to perform their own safety evaluations.

This Playbook is intended as a resource for local, regional and State Emergency Operations Centers, (EOCs) and local Authorities having Jurisdiction for building safety. It describes the responsibilities of governmental agencies and WAsafe Responders when WAsafe resources are deployed on an incident.

## TERMINOLOGY

The following is intended to help explain words, phrases, and acronyms used in this Manual..

**Applied Technology Council 20 (ATC-20):** The procedures described in the report, *Procedures for Post-Earthquake Safety Evaluation of Buildings* (1989), an Addendum to that report, and *ATC 20-1 Field Manual: Postearthquake Safety Evaluation of Buildings, Second Edition* (2004), all published by the Applied Technology Council. Also used to refer to a formal training in post-earthquake building safety evaluations.

**Applied Technology Council 45 (ATC-45):** The procedures described in *Field Manual: Safety Evaluation of Buildings after Windstorms and Floods*, published by the Applied Technology Council (2005). Also used to refer to a formal training in safety evaluations of buildings following a windstorm or flood.

**Authority Having Jurisdiction (AHJ):** The local building official or other appropriate authority having jurisdiction over building safety.

**Building Safety Evaluation: (BSE)** The procedures used to determine building safety and resulting in posted placards on damaged buildings.

**Coordinator-in-Charge (CIC):** See WAsafe Coordinator(s)-in-Charge.

**Emergency Management Assistance Compact (EMAC):** Federal interstate Emergency Management Assistance Compact allowing for state-to-state disaster assistance.

**Emergency Worker:** Any person who is registered with a local emergency management organization or State Emergency Management Division (WA EMD) for the purpose of engaging in authorized emergency management activities or is an employee of the state of Washington or any political subdivision thereof who is called upon to perform emergency management activities. See WAC 118-04 and RCW 38.52.010(11).

**Emergency Support Function 3 – Public Works and Engineering (ESF-3):** An Emergency Support Function (ESF) is a functional group in Washington State’s Comprehensive Emergency Management Plan (CEMP). WAsafe operates inside the scope of ESF 3 – Public Works and Engineering. For additional details about the CEMP and ESFs, see the Emergency Management Division’s website: <https://mil.wa.gov/plans>

**Local Emergency Operations Center (LEOC):** Facility where emergency operations during an emergency are managed in any county, city or town. For the purposes of this manual the term LEOC includes the management and staff operating within the facility.

**Mutual Aid:** The sharing of resources between local jurisdictions within the State of Washington. Mutual aid agreements at the state and local level specify the terms and conditions under which agencies lend assistance across jurisdictional boundaries.

**National Incident Management System (NIMS):** Federal Emergency Management Agency (FEMA) systems and processes for how government, nongovernmental organizations and the private sector to work together in incident responses. For more information, see the NIMS website: <https://www.fema.gov/emergency-managers/nims>.

**Placard:** Notice posted on buildings by authorized evaluators that indicate the safety evaluation classification of the building, as well as other relevant information.

**Post:** The act of affixing a safety evaluation placard on a building following an incident.

**Revised Code of Washington (RCW):** The compilation of all permanent laws enacted by the Washington State Legislature, now in force in the State of Washington.

**State Emergency Operations Center (SEOC):** Facility where emergency operations during an emergency are managed by the State Emergency Management Division. For the purposes of this manual, the term SEOC includes the management and staff assigned to the facility.

**Volunteer Emergency Worker:** An emergency worker who is not receiving or expecting compensation from the state or any local government. See RCW 38.52.180(5)(a).

**Washington Administrative Code (WAC):** The codified regulations of the executive branch issued by authority of statutes and arranged by subject or agency.

**WAsafe Building Safety Evaluator (WAsafe BSE):** A WAsafe-enrolled volunteer emergency worker trained to conduct Rapid or Detailed Evaluations of buildings in incident areas, in accordance with ATC-20 and ATC-45 guidance.

**Washington Safety Assessment Facility Evaluators Coalition (WAsafe):** The coalition of professional organizations established to train, coordinate, and dispatch volunteers to perform building safety evaluations under the direction of the AHJ.

**WAsafe Coordinators:** WAsafe designated representatives providing coordination between the WAsafe BSEs, the LEOC, and SEOC. Coordination includes communications, mobilization, and dispatch of WAsafe Responders.

**WAsafe Coordinator(s)-in-Charge (CIC):** The Coordinator(s)-in-Charge manages the WAsafe response and acts as the single point(s) of contact for the SEOC or LEOC.

**WAsafe On-site Leader:** The WAsafe designated individual(s) providing on-site administrative and logistical support for Building Safety Evaluation Teams deployed in the field.

**WAsafe Responder:** A WAsafe BSE or WAsafe On-site Coordinator deployed by the SEOC or LEOC to assist in perform safety evaluations of buildings and posting placards under the direction of the AHJ.

**Washington State Emergency Management Division (WA EMD):** The Washington military department, emergency management division.

### **EMERGENCY RESPONSE AGENCY RESPONSIBILITIES**

**(For sequence of operations, see WAsafe Mobilization and Deployment Flowchart below)**

#### **Local Jurisdiction (see also Disaster Response Field Operations section below):**

1. Assess the extent and severity of damage and determine the need for qualified volunteers.
2. Obtain a mission number from SEOC.
3. Submit a resource request to SEOC detailing the assistance needed. See WAsafe BSE Types and Qualifications, below. The requests should include the number and types of building safety evaluators needed, and the estimated duration of deployment. Requests may include any other necessary information, such as number and types of buildings to be evaluated, and building construction types and materials.
4. Designate and provide directions to the location where WAsafe Responders are to report.
5. Onboard WAsafe Responders including:
  - a. Register WAsafe Responders as Volunteer Emergency Workers under the auspices of the AHJ, and assign them an Evaluator ID number.
  - b. Deputize WAsafe Responders to authorize evaluations and postings on behalf of the AHJ.
  - c. Conduct a briefing for WAsafe Responders to inform them of assignments and jurisdictional policies and procedures.
  - d. Coordinate WAsafe Responder food and lodging during deployment, if it is being provided.
6. Provide placards, forms and other supplies as needed by WAsafe Responders.
7. Provide other reasonable information and assistance as requested by the WAsafe Coordinator-in-Charge (CIC) or WAsafe On-site Leader

#### **WA Emergency Management Division (State Emergency Operations Center (SEOC) /ESF-3 Desk**

1. Serve as initial point of contact for local emergency operations center (LEOC) requests for WAsafe Building Safety Evaluation (WAsafe BSE) resources.
2. Contact any WAsafe Coordinator listed on the official WAsafe Coordinators List (Appendix III). Inform them that a request for building safety evaluators has been received, and provide the following information:
  - Type of event (earthquake, flood, fire, landslide, windstorm, etc.), and any associated hazards such as fire, landslide, seiche, or tsunami.
  - Location of event or requesting LEOC(s).
  - Number and type of WAsafe resources needed.
  - The approximate deployment duration.
3. Provide instructions on where to deploy them.
4. Coordinate with the WAsafe CIC on prioritizing assignments when multiple jurisdictions are requesting resources, or there are insufficient WAsafe Responders to meet the request.



5. Coordinate deployment of WAsafe Responders by informing the WAsafe CIC of the following:
  - Mission number, deployment location, check-in instructions, available surface transportation routes in the affected area, or alternate methods of transportation.
  - The requesting jurisdiction and names, locations, and contact information of officials to be contacted upon arrival at the local jurisdiction or LEOC.
  - Minimum duration of volunteers' mobilizations.

#### **WAsafe Coordinator Initial Contact:**

1. The WAsafe Coordinator initially contacted by the SEOC will convene a meeting of available WAsafe Coordinators to select one or two Coordinator(s)-in-Charge as determined appropriate for the event, and begin coordination activities. When possible, the Coordinator-in-Charge should be from an area unaffected by the event.

#### **WAsafe Coordinator-in-Charge (CIC)**

1. The WAsafe CIC manages the WAsafe response, and serves as the primary contact with the SEOC and LEOC.

#### **WAsafe Coordinators**

1. Upon formal request for resources from the SEOC, the WAsafe Coordinators will utilize the WAserve database (WA Dept. of Health) to request WAsafe BSE availability and identify appropriate personnel to fill the request.
2. Verify WAsafe BSEs who respond to the WAserv request of their availability for deployment.
3. Maintain records of contacts made and volunteers dispatched.
4. Notify dispatched WAsafe Responders of the mission number, deployment location or meeting place, and other pertinent information related to deployment logistics.
5. If requested by the AHJ or LEOC, designate WAsafe BSEs to be the On-Site Leader for each jurisdiction.
6. Coordinate as necessary, and communicate with the SEOC regarding dispatching WAsafe Responders, and updates on their status.
7. Coordinate with the AHJ on tracking the WAsafe Responders until they have returned to their home base.

#### **WAsafe On-site Leadership**

The AHJ or LEOC may request one or more WAsafe On-Site Leaders to provide on-site administrative and logistical support for BSE Teams. The BSE On-Site Leader may be able to:

1. Assist the AHJ with volunteer assignments consistent with BSE Evaluator Typing, professional qualifications, and physical capabilities.
2. Provide guidance on resource needs including placards, forms, communications, safety, etc.
3. Provide administrative support to BSE teams as requested by the AHJ

4. Assist with setting priorities for building safety evaluations
5. Manage staffing for BSE teams in coordination with the AHJ and LEOC
6. Assist the AHJ in making deployment decisions for BSE Teams
7. Coordinate BSE Team activities within the Incident Command Structure in the LEOC.

## **DISASTER RESPONSE FIELD OPERATIONS**

### **Registration and Deputization of WAsafe Responders by the AHJ or LEOC**

Upon arrival at an assigned jurisdiction, WAsafe Responders must be:

1. Registered as a Volunteer Emergency Workers with the LEOC under the mission number assigned by the SEOC.
2. Assigned an Evaluator ID number by the AHJ or LEOC. This number will be used by the WAsafe Responder on forms and placards instead of their name.
3. Deputized by the local AHJ (Building Official or other appropriate authority with jurisdiction over building safety) to give the WAsafe Responders the authority to post building safety evaluation placards under the authority of the AHJ.

### **Briefing of Volunteers by the AHJ**

Prior to beginning field work, WAsafe Responders shall be briefed by the local AHJ on:

1. Evaluation forms to be used, the jurisdictions posting policies, and where to obtain the forms.
2. Assignments of structures (or areas) to be evaluated, including location maps, building information, etc.
3. Safety precautions and potential or existing hazards to be aware of.
4. An information list from the jurisdiction for the use of the WAsafe Responders with the primary AHJ contact phone number, and phone numbers and locations of first aid stations, emergency shelters, police, fire, building department, and other information deemed important by the jurisdiction.
5. Instructions regarding media inquiries and jurisdictional policies.
6. Procedures for reporting at the beginning and end of each day.
7. Procedures for filing expense reports.
8. Housing accommodations and eating arrangements, if provided
9. Procurement of supplies, equipment, and PPE as well as directions for returning these resources to the jurisdiction at the end of the shift or incident as applicable.

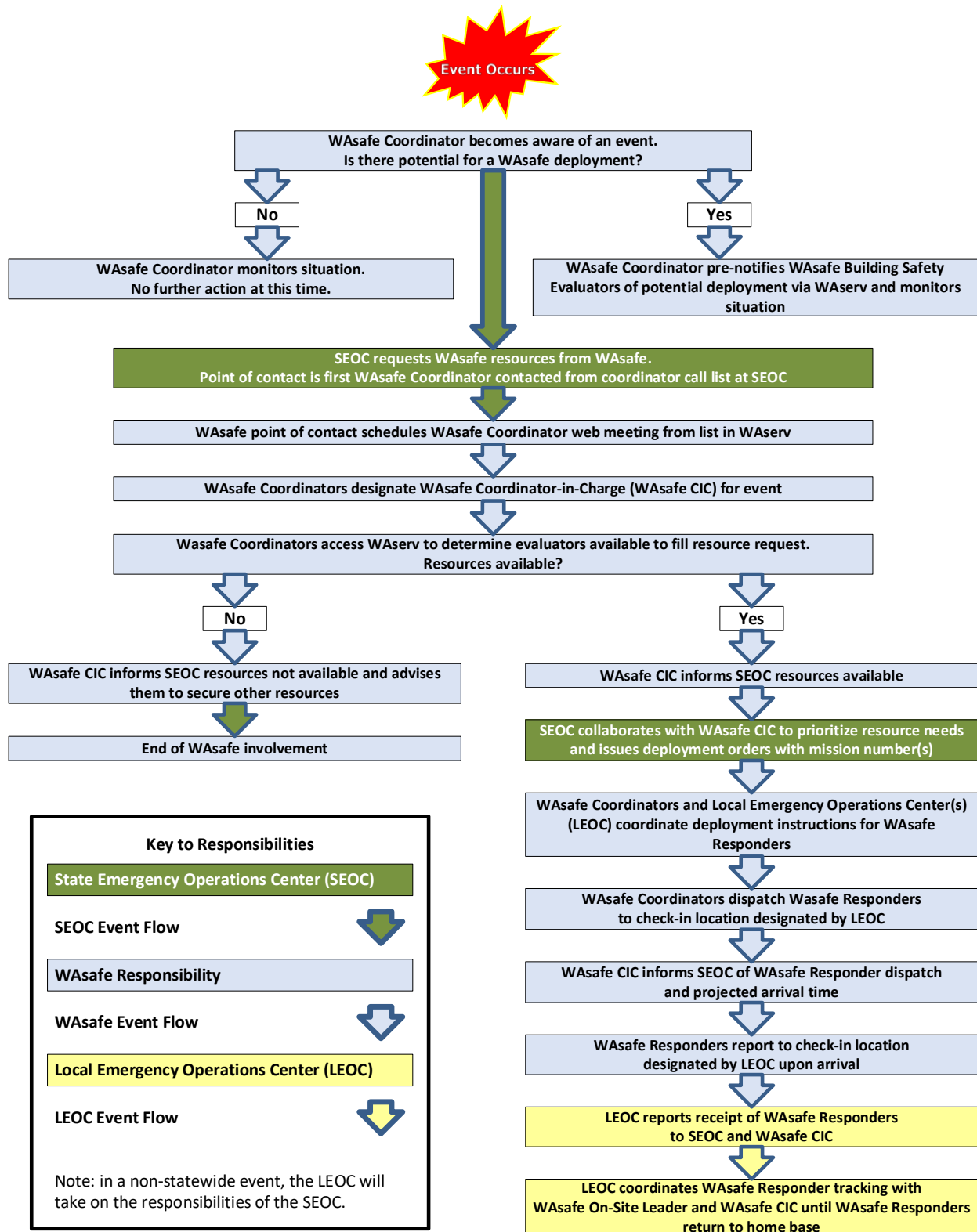
### **Evaluation Assignments by the AHJ**

For safety reasons, evaluation teams must consist of two or more members and are assigned under the direction of the AHJ. The WAsafe On-Site Leader may assist the AHJ regarding assignment of personnel in accordance with WAsafe BSE Types and professional qualifications and physical capability. The WAsafe On-Site Leader and/or WAsafe Coordinator-in-Charge may also be available to assist the AHJ and/or LEOC with prioritizing safety evaluations, and other duties listed in the WAsafe Operations Manual.

### **Briefing the Authority Having Jurisdiction by WAsafe Responders**

Upon completion of the rapid evaluations of buildings, the WAsafe Responders may be asked to brief the AHJ or the WAsafe On-site Leader. Briefing topics may include structural and habitability conditions of evaluated buildings, and posting results and conditions. WAsafe Responders are not expected to offer opinions relating to whether or not a particular building should be demolished or repaired, although they can do so if asked by the AHJ. However, the evaluations performed may not provide sufficient information to justify such an opinion except for obvious conditions.

## WAsafe Mobilization and Deployment Flowchart



## WAsafe BSE Types and Qualifications

How to use this table:

- The duties and limitations for WAsafe Responders are intended as guidelines; actual assignments may vary, depending on the event and personnel, and the needs of the AHJ.
- When enrolling in WAsafe, volunteers will request a Type designation based on their minimum qualifications.

<b>Type</b>	<b>Anticipated Duties/Limitations</b>	<b>Minimum Qualifications</b>
<b>1</b>	Structural evaluation only: all buildings, including multi-family and commercial buildings over 5 stories and buildings with complex structural systems	<ul style="list-style-type: none"> <li>• Registered structural engineer or civil engineer with structural specialty</li> <li>• WAsafe BSE training class</li> </ul>
<b>2</b>	c. Non-structural evaluation: all single family residential, multi-family and commercial buildings d. Structural evaluation: single family residential, multi-family and commercial buildings up to 5 stories with non-complex structural systems	<ul style="list-style-type: none"> <li>• Certified Building Plans Examiner, Commercial Building Inspector, or Building Official; Registered Architect or Registered Engineer</li> <li>• WAsafe BSE training class</li> </ul>
<b>3</b>	Wood-framed single family residential, multi-family and commercial buildings up to 3 stories	<ul style="list-style-type: none"> <li>• Certified Residential Building Plans Examiner or Residential Building Inspector</li> <li>• WAsafe BSE training class</li> </ul>
<b>4</b>	Single family residential buildings and associated accessory structures	<ul style="list-style-type: none"> <li>• Any ICC Certification</li> <li>• WAsafe BSE training class</li> </ul>
<b>5</b>	As assigned by Building Official or Incident Command	<ul style="list-style-type: none"> <li>• EITs, unlicensed architects, permit technicians</li> <li>• Relevant experience</li> <li>• WAsafe BSE training class</li> </ul>

Notes:

- Type 1 WAsafe Responders can also perform structural evaluations for all Types, and non-structural evaluations for Types 3 and 4.
- Type 2 includes non-structural evaluations such as habitability and egress.
- Type 2 Engineers can only perform structural evaluations unless specifically qualified to perform complex non-structural evaluations.
- Type 2 evaluators can also perform structural and non-structural evaluations for Types 3 and 4.
- WAsafe Coordinators and WAsafe On-Site Leaders will be required to take additional training on this Manual. WAsafe Coordinators-in-Charge must take the WA EMD SIOC Foundations class. FEMA online trainings IS-100, -230, and -700 are prerequisites to taking the SIOC Foundations class.
- A NIMS Post-Disaster BSE Technical Supervisor has additional minimum requirements.
- In lieu of a WAsafe BSE training class, Cal OES SAP or ATC-20/45 training will be accepted for first-time enrollment in WAsafe, provided the BSE also passes a WAsafe-specific training module.

## Appendix II – WAsafe/WA-EMD Region Map

WAsafe has coordinators representing the nine Washington State Homeland Security Regions. Coordinators represent the organizations that make up WAsafe, namely WABO, SEAW, AIA Washington and ASCE Seattle Section.



**Appendix III – WAsafe Coordinator list**

TBD



## **Appendix IV – Sample Forms and Placards**

The figures in this appendix are sample forms and placards that can be duplicated for use in an emergency response. Figures IV-A through IV-E can also be downloaded from the ATC website: <https://www.atcouncil.org/atc-20>.

Placards should be copied onto appropriately-colored card stock, after inserting the jurisdiction's name in the places noted on the samples. Forms and placards should be copied in advance of an emergency response.

### **List of figures:**

Figure IV-A: ATC-20 Rapid Evaluation Safety Assessment Form

Figure IV-B: ATC-20 Detailed Evaluation Safety Assessment Form

Figure IV-C: ATC-20 Inspected Placard (Green)

Figure IV-D: ATC-20 Restricted Use Placard (Yellow)

Figure IV-E: ATC-20 Unsafe Placard (Red)

Figure IV-F: Summary of Inspections Log

**Figure IV-A: ATC-20 Rapid Evaluation Safety Assessment Form**

<b>ATC-20 Rapid Evaluation Safety Assessment Form</b>				
<b>Inspection</b>				
Inspector ID: _____	Inspection date and time: _____		<input type="checkbox"/> AM <input type="checkbox"/> PM	
Affiliation: _____	Areas inspected: <input type="checkbox"/> Exterior only <input type="checkbox"/> Exterior and interior			
<b>Building Description</b>				
Building name: _____	<input type="checkbox"/> Wood frame		<input type="checkbox"/> Concrete shear wall	
Address: _____	<input type="checkbox"/> Steel frame		<input type="checkbox"/> Unreinforced masonry	
_____	<input type="checkbox"/> Tilt-up concrete		<input type="checkbox"/> Reinforced masonry	
Building contact/phone: _____	<input type="checkbox"/> Concrete frame		<input type="checkbox"/> Other: _____	
Number of stories above ground: _____ below ground: _____	<b>Primary Occupancy</b>			
Approx. "Footprint area" (square feet): _____	<input type="checkbox"/> Dwelling		<input type="checkbox"/> Commercial	<input type="checkbox"/> Government
Number of residential units: _____	<input type="checkbox"/> Other residential		<input type="checkbox"/> Offices	<input type="checkbox"/> Historic
Number of residential units not habitable: _____	<input type="checkbox"/> Public assembly		<input type="checkbox"/> Industrial	<input type="checkbox"/> School
	<input type="checkbox"/> Emergency services		<input type="checkbox"/> Other: _____	
<b>Evaluation</b>				
Investigate the building for the conditions below and check the appropriate column.				<b>Estimated Building Damage</b> (excluding contents)
<b>Observed Conditions:</b>	<b>Minor/None</b>	<b>Moderate</b>	<b>Severe</b>	<input type="checkbox"/> None
Collapse, partial collapse, or building off foundation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 0-1%
Building or story leaning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 1-10%
Racking damage to walls, other structural damage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 10-30%
Chimney, parapet, or other falling hazard	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 30-60%
Ground slope movement or cracking	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 60-100%
Other (specify) _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 100%
Comments: _____				
<b>Posting</b>				
Choose a posting based on the evaluation and team judgment. <i>Severe</i> conditions endangering the overall building are grounds for an Unsafe posting. Localized <i>Severe</i> and overall <i>Moderate</i> conditions may allow a Restricted Use posting. Post INSPECTED placard at main entrance. Post RESTRICTED USE and UNSAFE placards at all entrances.				
<input type="checkbox"/> <b>INSPECTED</b> (Green placard) <input type="checkbox"/> <b>RESTRICTED USE</b> (Yellow placard) <input type="checkbox"/> <b>UNSAFE</b> (Red placard)				
Record any use and entry restrictions exactly as written on placard: _____				
_____				
<b>Further Actions</b> Check the boxes below only if further actions are needed.				
<input type="checkbox"/> Barricades needed in the following areas: _____				
_____				
<input type="checkbox"/> Detailed Evaluation recommended: <input type="checkbox"/> Structural <input type="checkbox"/> Geotechnical <input type="checkbox"/> Other: _____				
<input type="checkbox"/> Other recommendations: _____				
Comments: _____				
_____				

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Permission is granted for unlimited, non-exclusive, non-commercial use and distribution of ATC evaluation forms, provided that this Copyright Notice appears on all copies and the Applied Technology Council name shall not be used in any advertising or publicity of Licensee product. Permission is further subject to the following conditions: (1) Licensee does not reprint, repackage or offer this form for sale or license; and (2) no material gain or financial profit is to be made from any sale or license of this form. Placards may be used without restrictions for their intended use as building postings. All rights not specifically granted to Licensee are herein reserved by ATC.

**Figure IV-B: ATC-20 Detailed Evaluation Safety Assessment Form**

<b>ATC-20 Detailed Evaluation Safety Assessment Form</b>				
<b>Inspection</b> Inspector ID: _____ Affiliation: _____ Inspection date and time: _____ <input type="checkbox"/> AM <input type="checkbox"/> PM	<b>Final Posting</b> from page 2 <input type="checkbox"/> Inspected <input type="checkbox"/> Restricted Use <input type="checkbox"/> Unsafe			
<b>Building Description</b> Building name: _____ Address: _____ Building contact/phone: _____ Number of stories above ground: _____ below ground: _____ Approx. "Footprint area" (square feet): _____ Number of residential units: _____ Number of residential units not habitable: _____	<b>Type of Construction</b> <input type="checkbox"/> Wood frame <input type="checkbox"/> Steel frame <input type="checkbox"/> Tilt-up concrete <input type="checkbox"/> Concrete frame <input type="checkbox"/> Concrete shear wall <input type="checkbox"/> Unreinforced masonry <input type="checkbox"/> Reinforced masonry <input type="checkbox"/> Other: _____  <b>Primary Occupancy</b> <input type="checkbox"/> Dwelling <input type="checkbox"/> Other residential <input type="checkbox"/> Public assembly <input type="checkbox"/> Emergency services <input type="checkbox"/> Commercial <input type="checkbox"/> Offices <input type="checkbox"/> Industrial <input type="checkbox"/> Other: _____ <input type="checkbox"/> Government <input type="checkbox"/> Historic <input type="checkbox"/> School			
<b>Evaluation</b> Investigate the building for the conditions below and check the appropriate column. There is room on the second page for a sketch.				
	Minor/None	Moderate	Severe	Comments
<b>Overall hazards:</b>				
Collapse or partial collapse	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Building or story leaning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Other _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Structural hazards:</b>				
Foundations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Roofs, floors (vertical loads)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Columns, pilasters, corbels	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Diaphragms, horizontal bracing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Walls, vertical bracing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Precast connections	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Other _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Nonstructural hazards:</b>				
Parapets, ornamentation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Cladding, glazing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Ceilings, light fixtures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Interior walls, partitions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Elevators	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Stairs, exits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Electric, gas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Other _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Geotechnical hazards:</b>				
Slope failure, debris	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Ground movement, fissures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Other _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>General Comments:</b> _____				

Continue on page 2



**Figure IV-C: ATC-20 Inspected Placard (Green)**

<h1>INSPECTED</h1> <h2>LAWFUL OCCUPANCY PERMITTED</h2> <p>This structure has been inspected (as indicated below) and no apparent structural hazard has been found.</p> <p><input type="checkbox"/> Inspected Exterior Only <input type="checkbox"/> Inspected Exterior and Interior</p> <p>Report any unsafe condition to local authorities; reinspection may be required.</p> <p>Inspector Comments: _____ _____ _____</p> <p>Facility Name and Address: _____ _____ _____</p> <p>Date _____ Time _____</p> <p><b>(Caution: Aftershocks since inspection may increase damage and risk.)</b></p> <p>This facility was inspected under emergency conditions for: _____ (Jurisdiction)</p> <p>Inspector ID / Agency _____ _____ _____</p> <p><b>Do Not Remove, Alter, or Cover this Placard until Authorized by Governing Authority</b></p>
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**Figure IV-D: ATC-20 Restricted Use Placard (Yellow)**

<h1>RESTRICTED USE</h1>	Date _____
	Time _____
<b>Caution:</b> This structure has been inspected and found to be damaged as described below: _____ _____	<b>(Caution:</b> Aftershocks since inspection may increase damage and risk.)
<b>Entry, occupancy, and lawful use are restricted as indicated below:</b> <input type="checkbox"/> Do not enter the following areas: _____ <input type="checkbox"/> Brief entry allowed for access to contents: _____ <input type="checkbox"/> Other restrictions: _____	This facility was inspected under emergency conditions for: _____ (Jurisdiction)
Facility name and address: _____ _____ _____	Inspector ID / Agency _____ _____ _____
<b>Do Not Remove, Alter, or Cover this Placard until Authorized by Governing Authority</b>	

**Figure IV-E: ATC-20 Unsafe Placard (Red)**

<h1>UNSAFE</h1> <p><b>DO NOT ENTER OR OCCUPY (THIS PLACARD IS NOT A DEMOLITION ORDER)</b></p> <p>This structure has been inspected, found to be seriously damaged and is unsafe to occupy, as described below:</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p><b>Do not enter, except as specifically authorized in writing by jurisdiction. Entry may result in death or injury.</b></p> <p>Facility Name and Address:</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>Date _____</p> <p>Time _____</p> <p>This facility was inspected under emergency conditions for:</p> <p>_____</p> <p>(Jurisdiction)</p> <p>Inspector ID / Agency</p> <p>_____</p> <p>_____</p> <p>_____</p> <p><b>Do Not Remove, Alter, or Cover this Placard until Authorized by Governing Authority</b></p>
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## **Appendix V – Recommended Individual Equipment List**

### ***Recommended Equipment for Personal Safety of Evaluators and for field deployment***

The following is a list of recommended equipment for WAsafe Responders. It is based on the ATC Field Manuals and lists from the National Institute of Environmental Health Sciences (NIEHS, 2019) and U.S. Department of Labor Occupational Safety and Health Administration (OSHA, 2019). Items should be adjusted for specific incidents and situations.

### **Go-kit items – each responder should have and bring with him/her when deployed**

#### **Protection and safety items**

- Cell phone with charger
- High visibility safety vest
- NIOSH N-95 masks, or respirator
- Earplugs
- Gloves - Durable and disposable
- Headlamp with extra batteries (60 lumen +)
- Hand sanitizer or hand wipes
- Hard hat
- Steel toe/shank work boots
- Insect repellent
- Magnetic compass
- Rain gear and rubber boots (if rain and mud are issues)
- Safety glasses (fits over glasses) - not goggles
- Safety whistle (wear around neck)
- Small first aid kit
- Sunscreen
- Water container or canteen
- Water purification tablets (only if there is a 'boil water' notice for potable water – do not try to purify flood water with these!)
- Dog Biscuits

#### **Field work items**

- Backpack with lock (most things can be put in this)
- Clipboard
- ATC-20 and ATC-45 field manuals
- Paper or notebook
- Waterproof Pouch (Ziploc style 10.5" x 13.5")
- WAsafe ID card with lanyard
- Waterproof marking pens
- Waterproof writing pens or pencils

**Necessary personal items**

- Credit card, and/or cash
- Device chargers
- Extra clothing and towels
- Personal hygiene supplies
- Personal identification (driver's license is OK)
- Over the counter medications (Tylenol, anti-diarrhea, etc.)
- Prescription medication for at least the length of stay plus two days
- Sleeping bag and inflatable mattress, depending on whether tents will be used or not.

**Suggested items that may be considered**

- Binoculars (to observe conditions too high or remote to see easily)
- Digital Camera with spare batteries (GPS labelling preferred)
- Global positioning system (GPS) unit with charger and/or batteries
- Reading materials for after-hours
- Small battery-powered radio for after-hours
- Shower slippers, if in a tent or camping setting
- Swiss army knife or multi-tool
- Tape measure
- Waterproof paper or notebook

## **Appendix VI – WAsafe/WA EMD Memorandum of Understanding**

### **MEMORANDUM OF UNDERSTANDING**

Between

AMERICAN INSTITUTE OF ARCHITECTS WASHINGTON COUNCIL  
STRUCTURAL ENGINEERS ASSOCIATION OF WASHINGTON  
WASHINGTON ASSOCIATION OF BUILDING OFFICIALS  
AMERICAN SOCIETY OF CIVIL ENGINEERS, SEATTLE SECTION

And

THE WASHINGTON STATE MILITARY DEPARTMENT –  
EMERGENCY MANAGEMENT DIVISION

#### **Mobilizing Volunteer Safety and Facility Assessment Evaluators for Structure Condition Evaluation Surge**

This Memorandum of Understanding (MOU) between the American Institute of Architects Washington Council (AIA-Washington), the Structural Engineers Association of Washington (SEAW), the Seattle Section of the American Society of Civil Engineers (ASCE), and the Washington Association of Building Officials (WABO), hereinafter referred to jointly as WAsafe, and the Washington State Military Department – Emergency Management Division (EMD) identifies the expectations and procedures of WAsafe and EMD for mobilizing WAsafe volunteers as Emergency Workers through the Emergency Support Function 3 (ESF-3) at the State Emergency Operations Center (SEOC) under direction of the SEOC Operations Section Chief.

Washington Safety Assessment and Facilities Evaluators (WAsafe), is a coalition formed by AIA-Washington, SEAW, Seattle Section of ASCE, and WABO for the purpose of training and organizing a group of volunteer safety assessment and facilities evaluators. For the purposes of this MOU, these volunteer evaluators are referred to as “WAsafe volunteers.”

Both WAsafe and EMD view local jurisdictions’ building permitting agencies as critical organizations for communities to effectively respond to and recover quickly from emergencies and disasters. Support of local building permitting organizations in disasters includes sufficient staffing to provide rapid structural condition evaluations for the community.

The specific issue addressed in this MOU is the mobilization of WAsafe volunteers as emergency workers to support a structure condition evaluation surge effort in response to a catastrophic incident. Over the past years WAsafe has worked with EMD to understand application of the Emergency Worker Program as authorized in RCW 38.52, the Emergency Management Act, and established under the Washington Administrative Code (WAC) 118-04.-100. WAsafe's function is to provide qualified emergency workers that can be mobilized to provide assistance during emergencies/disasters in Washington State.

The Emergency Worker Program allows for the SEOC to register and mobilize WAsafe volunteers as emergency workers when needed during large scale disasters. WAsafe volunteers are currently

available from the following two sources in Washington State if it becomes necessary for them to be mobilized as emergency workers in response to a catastrophic incident:

- (1) WAsafe volunteers who are currently registered as emergency workers with local jurisdictions outside the impacted area; and
- (2) Other WAsafe volunteers not currently registered as emergency workers who can be identified and registered under the authority of The Adjutant General and the State EMD Director by the SEOC through ESF-3, and deployed where required through local emergency management agencies.

Both categories of WAsafe volunteers described above can currently be used to augment staffing of local jurisdictions' building permitting agencies impacted by a catastrophic incident. Further, in the extreme event of a disaster beyond local control, the Governor may assume direct operational control of local emergency management functions under RCW 38.52.050(1), in which case volunteer structure condition evaluators, including WAsafe volunteers, may be deployed under direct state control by the SEOC through the SEOC ESF-3.

EMD and WAsafe agree that WAsafe/ESF-3 representatives serving in the SEOC during emergencies can, under direction of the SEOC Operations Section Chief, mobilize and deploy WAsafe volunteers registered as emergency workers under a valid mission number issued by EMD to support a structure condition evaluation surge through local emergency management agencies if required by the incident.

Additionally, WAsafe will continue to maintain a set of volunteer emergency response coordinators in support of providing communities with WAsafe volunteers, and will continue to provide training for local building permitting agencies and WAsafe volunteers. Finally, WAsafe will maintain a database of qualified WAsafe volunteers through the Washington State Emergency Registry of Volunteers in cooperation with, and with the assistance of, the Washington State Department of Health.

American Institute of Architects Washington Council Mark Cork, AIA, LEED AP, President <b>CONTACT INFORMATION REDACTED</b>	Washington Military Department Bret D. Daugherty, Major General The Adjutant General <b>CONTACT INFORMATION REDACTED</b>
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AMERICAN INSTITUTE OF  
ARCHITECTS WASHINGTON COUNCIL

WASHINGTON MILITARY  
DEPARTMENT

Mark Cork  
President

Bret D. Daugherty  
The Adjutant General

(signed) \_\_\_\_\_

(signed) \_\_\_\_\_

12/31/2018

JANUARY 3, 2019

Date

Date

Structural Engineers Association of Washington Siri Ashworth, P.E., S.E., President <b>CONTACT INFORMATION REDACTED</b>	Washington Association of Building Officials C. Ray Allshouse, AIA, CBO, President <b>CONTACT INFORMATION REDACTED</b>
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STRUCTURAL ENGINEERS  
ASSOCIATION OF WASHINGTON

WASHINGTON ASSOCIATION OF  
BUILDING OFFICIALS

Siri Ashworth  
President

C. Ray Allshouse  
President

(signed) \_\_\_\_\_

(signed) \_\_\_\_\_

January 3, 2019

January 10, 2019

Date

Date

American Society of Civil Engineers,  
Seattle Section  
Eset Alemu, PE, CFM, M.ASCE  
**CONTACT INFORMATION  
REDACTED**

AMERICAN SOCIETY OF CIVIL  
ENGINEERS, SEATTLE SECTION

Eset Alemu  
Seattle Section President

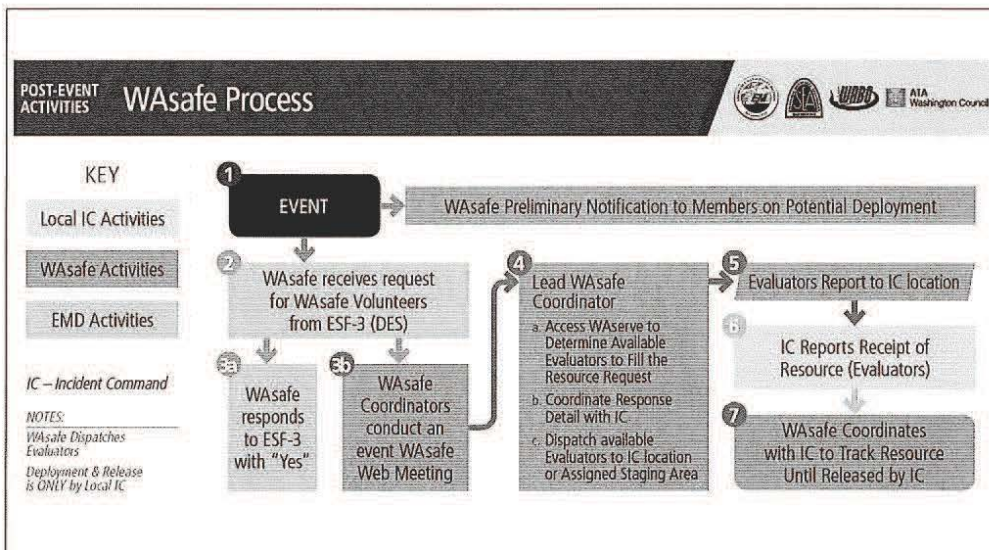
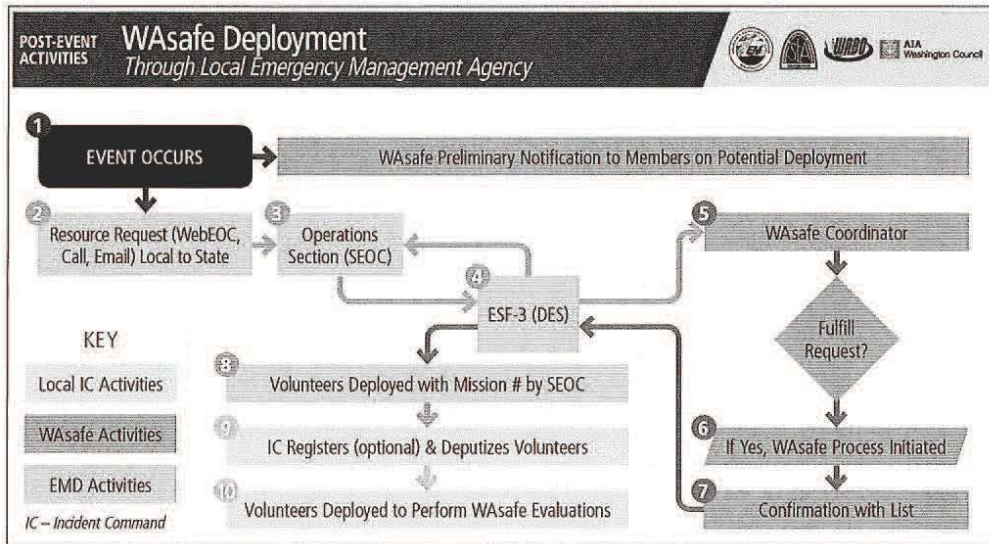
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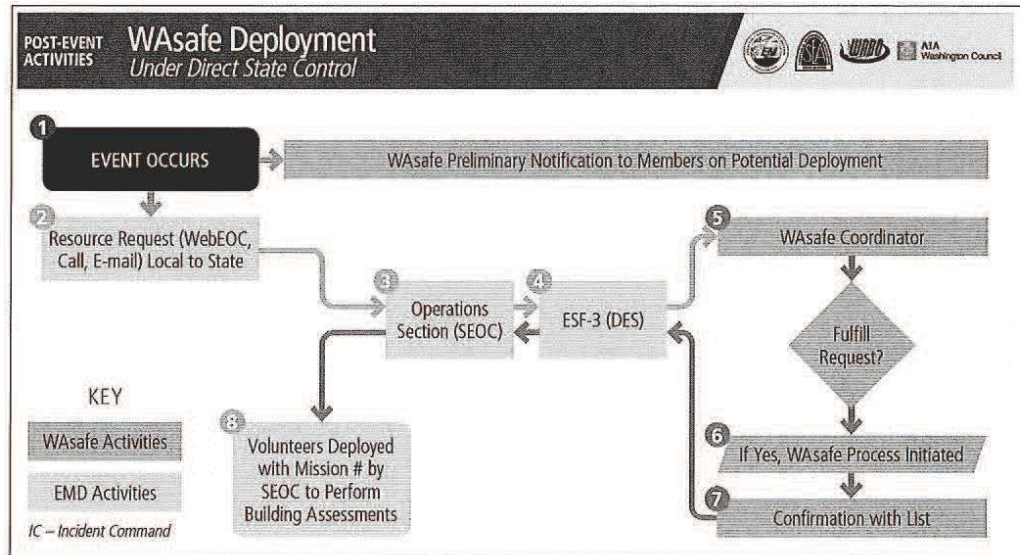
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1/8/2019

Date

**APPENDIX A – WAsafe/EMD POST-EVENT CONCEPT OF OPERATIONS**





**APPENDIX B – WASAFE PRE-EVENT ACTIVITIES**





**APPENDIX C – WASAFE RESOURCE TYPES**

<b>TYPE</b>	<b>DUTIES/LIMITATIONS</b>	<b>MINIMUM QUALIFICATIONS</b>
<b>1</b>	<ul style="list-style-type: none"> <li>Structural evaluation only: Multi-family and commercial structures over 5 stories and complex structures</li> </ul>	<ul style="list-style-type: none"> <li>Registered civil or structural engineer</li> <li>Cal OES SAP or WAsafe SAT or ATC-20/45</li> </ul>
<b>2</b>	<ul style="list-style-type: none"> <li>Non-structural evaluation: all multi-family and commercial structures</li> <li>Structural evaluation: Multi-family and commercial structures up to 5 stories</li> </ul>	<ul style="list-style-type: none"> <li>Certified Building Plans Examiner, Commercial Building Inspector, Building Inspector, Registered Architect, or Certified Building Official</li> <li>Cal OES SAP or WAsafe SAT or ATC-20/45</li> </ul>
<b>3</b>	<ul style="list-style-type: none"> <li>Wood-framed, multi-family and commercial structures up to 3 stories</li> </ul>	<ul style="list-style-type: none"> <li>Certified Residential Plans Examiner or Building Inspector</li> <li>Cal OES SAP or WAsafe SAT or ATC-20/45</li> </ul>
<b>4</b>	<ul style="list-style-type: none"> <li>Single family residences</li> <li>Accessory structures</li> </ul>	<ul style="list-style-type: none"> <li>Any ICC Certification</li> <li>Cal OES SAP or WAsafe SAT or ATC-20/45</li> </ul>
<b>5</b>	<ul style="list-style-type: none"> <li>As assigned by IC</li> </ul>	<ul style="list-style-type: none"> <li>EITs, Unlicensed Architects</li> <li>Relevant Experience</li> <li>Cal OES SAP or WAsafe SAT or ATC-20/45</li> </ul>

**APPENDIX D – EMD and WASAFE CONTACTS**

Effective as of December 12, 2018

**EMD Response Section Manager:**

Chris D. Utzinger, MS

CONTACT INFORMATION  
REDACTED

**WAsafe:**

Joyce Lem, P.E., S.E., WAsafe Chair

CONTACT INFORMATION  
REDACTED

Paul A. Brallier, P.E., S.E., WAsafe Vice-Chair

CONTACT INFORMATION  
REDACTED

Jonathan C. Siu, PE, SE, WAsafe Secretariat

CONTACT INFORMATION REDACTED

Tara Jenkins, Executive Director  
Washington Association of Building Officials

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