

# WASAFE

Washington State Safety Assessment Facility Evaluators

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FEBRUARY 2022

# Who is WAsafe?

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Coalition of four NGOs:

- Washington Association of Building Officials (WABO)
- Structural Engineers Association of Washington (SEAW)
- American Society of Civil Engineers, Seattle Section (ASCE Seattle)
- American Institute of Architects, Washington Council (AIA-WA)



# What does WAsafe do?

Assist local building officials with building safety assessments following a disaster (earthquake, flood, storm)

- Develop a group of qualified volunteer Building Safety Evaluators (BSEs)
- Provide WAsafe BSE training
- Maintain roll of volunteers

Assist WA State EMD in calling up and dispatching volunteers to where they are needed in large events

- Share/distribute resources





# What are building safety assessments?

Evaluators assess whether buildings can be safely occupied

- Goal: allow people to reoccupy safe buildings

Internationally-recognized process to conduct assessments and communicate results to building owners, the public, and local authorities (ATC-20 or ATC-45)

- Red/yellow/green placards



**INSPECTED**  
LAWFUL OCCUPANCY PERMITTED

This structure has been inspected (as indicated below) and no apparent structural hazard has been found.

Inspected Exterior Only  
 Inspected Exterior and Interior

Report any unsafe condition to local authorities; reinspection may be required.

Inspector comments: \_\_\_\_\_

Facility Name and Address: \_\_\_\_\_

Date: \_\_\_\_\_  
Time: \_\_\_\_\_  
(Caution: Aftershocks since inspection may increase damage and risk.)

This facility was inspected under emergency conditions for: \_\_\_\_\_ (Jurisdiction)

Inspector ID / Agency: \_\_\_\_\_

**RESTRICTED USE**

Caution: This structure has been inspected and found to be damaged as described below.

Entry, occupancy, and lawful use are restricted as indicated below.

Do not enter the following areas: \_\_\_\_\_  
 Brief entry allowed for access to contents: \_\_\_\_\_  
 Other restrictions: \_\_\_\_\_

Facility name and address: \_\_\_\_\_

Date: \_\_\_\_\_  
Time: \_\_\_\_\_  
(Caution: Aftershocks since inspection may increase damage and risk.)

This facility was inspected under emergency conditions for: \_\_\_\_\_ (Jurisdiction)

Inspector ID / Agency: \_\_\_\_\_

**Do Not Remove, Alter, or Cover this Placard until Authorized by Governing Authority**

**UNSAFE**  
DO NOT ENTER OR OCCUPY  
(THIS PLACARD IS NOT A DEMOLITION ORDER)

This structure has been inspected, found to be seriously damaged and is unsafe to occupy, as described below.

Do not enter, except as specifically authorized in writing by jurisdiction. Entry may result in death or injury.

Facility Name and Address: \_\_\_\_\_

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

This facility was inspected under emergency conditions for: \_\_\_\_\_ (Jurisdiction)

Inspector ID / Agency: \_\_\_\_\_

# Why is WAsafe needed?

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Loma Prieta EQ (Bay Area, 1989) – San Francisco

- > 150,000 buildings impacted
- SF building department => 30 inspectors, 15 engineers



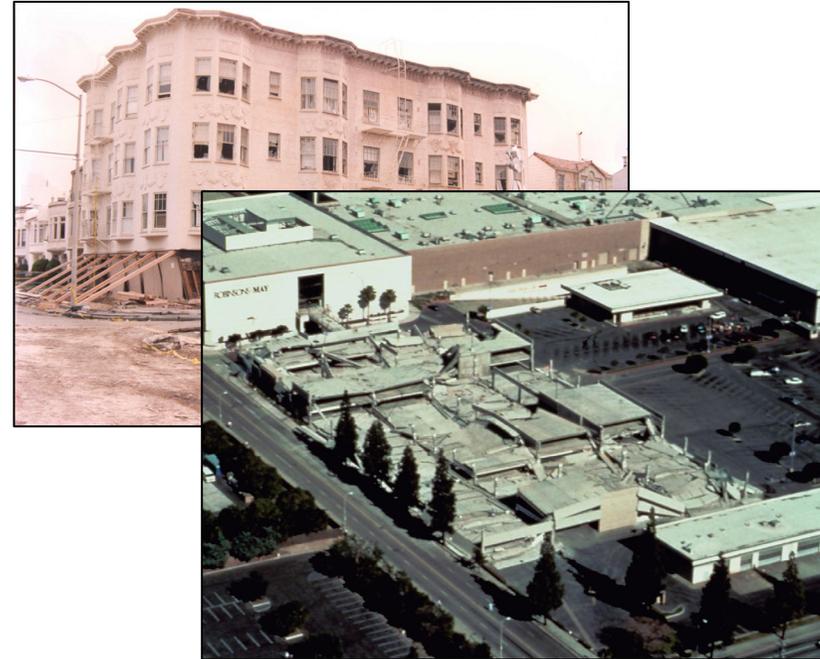
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## Northridge EQ (LA basin, 1994)

- 7,000 buildings unsafe to occupy (red)
- 22,000 buildings restricted use (yellow)
- 22,000 homeless



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## Tohoku EQ (Japan, 2011) – City of Sendai

- ~8900 buildings
- 85% evaluated in 3½ weeks
- 20-25 teams/day (estimated need)
- 1500+ buildings unsafe to occupy (red)



# Why is WAsafe needed?

## Nisqually EQ (South Puget Sound, 2001)

- Seattle response
  - 10 in-house inspection teams initially
  - 15 volunteer architects/engineers
  - 400 buildings evaluated w/in first week, 1500 w/in one month
  - Private engineering firm hired to take over in 3<sup>rd</sup> week



# WAsafe Integration with WA EMD

MOU recognizes WAsafe as a resource within WA

**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.”

# WAsafe Integration with WA EMD

MOU recognizes WAsafe as a resource

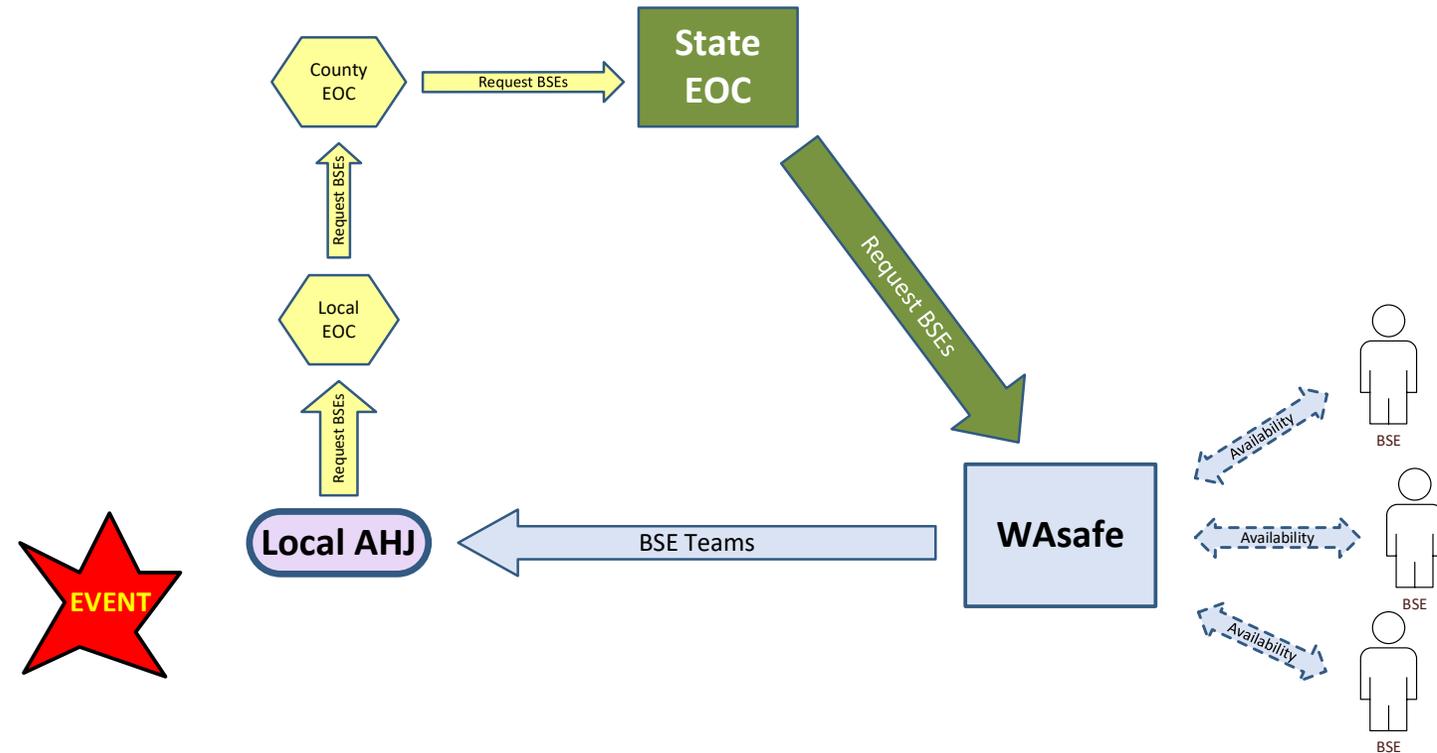
WAsafe included in SEOC ESF-3 CEMP

- SEOC to contact WAsafe to initiate resource requests and deployments of building safety evaluators (BSEs)

 <b>Public Works &amp; Engineering</b> Emergency Support Function (ESF) 3			
Response Mission Area			
Core Capability	Critical Task I.D.	Activity/Action	State Agency / Organization
Infrastructure Systems	1	Provides trained personnel to conduct post-earthquake safety analysis of Department of Enterprise Services facilities and state-owned buildings as available	DES
Infrastructure Systems	1	Evaluate dam infrastructure to determine if an emergency condition exists and take subsequent action to mitigate the hazard to the dam and the potential consequences of dam failure	ECY
Infrastructure Systems	1, 2	Provides initial damage assessment and estimates of state-owned facilities if able as a member of Preliminary Disaster Assessment (PDA) teams	DES, MIL (NG), WSDOT
Infrastructure Systems	1, 2	Participate in Public Works (PW) teams to conduct inspections of state and local facilities	DES, MIL (NG), WSDOT, DNR
Infrastructure Systems	1, 2	Contact the Washington Safety Assessment Facilities Evaluators (WAsafe) coordinators to initiate resource requests and deployments of building safety assessors.	MIL (EMD), DES
Infrastructure Systems	1, 2	Provide assessment and condition reports for flood control facilities such as dams.	ECY
Infrastructure Systems	1, 2	Assist in determining the operating status of wastewater collection and treatment systems. Onsite technical assistance may be available.	ECY
Infrastructure Systems	2	Provide technical assistance to operators of wastewater collection and treatment systems addressing abnormal events; and/or returning to normal operations.	ECY, DOH



# WAsafe Process Flow







# WAsafe and Local Authorities Having Jurisdiction (AHJs)

Only the local AHJ has authority to post buildings (RCW 19.27.031/WAC 51-50-003)



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- Must be deputized by the AHJ

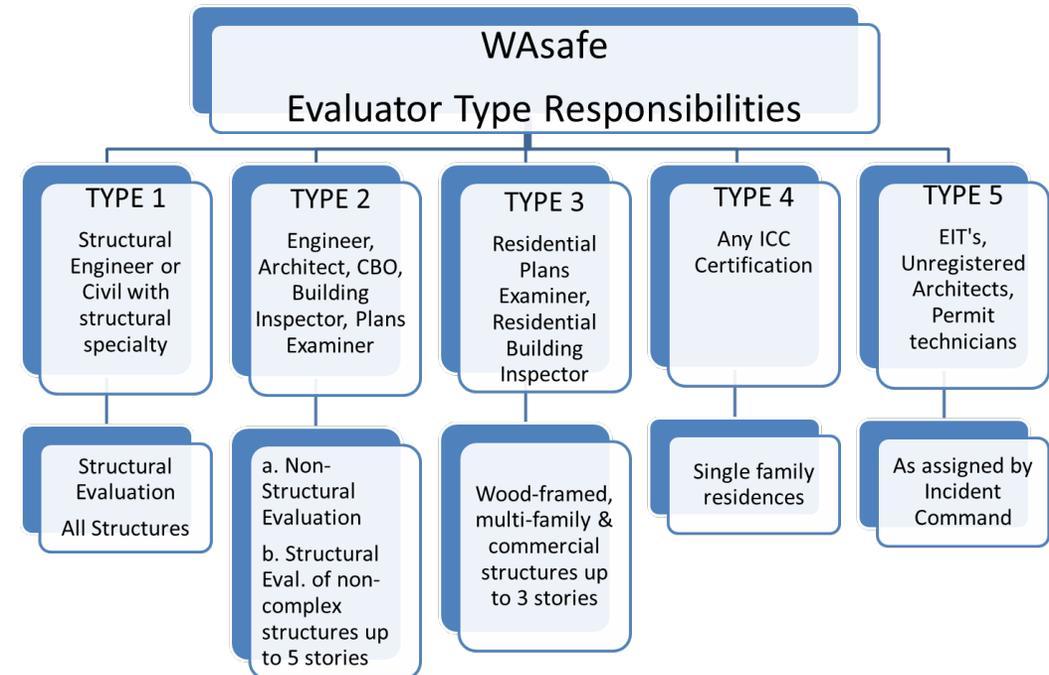


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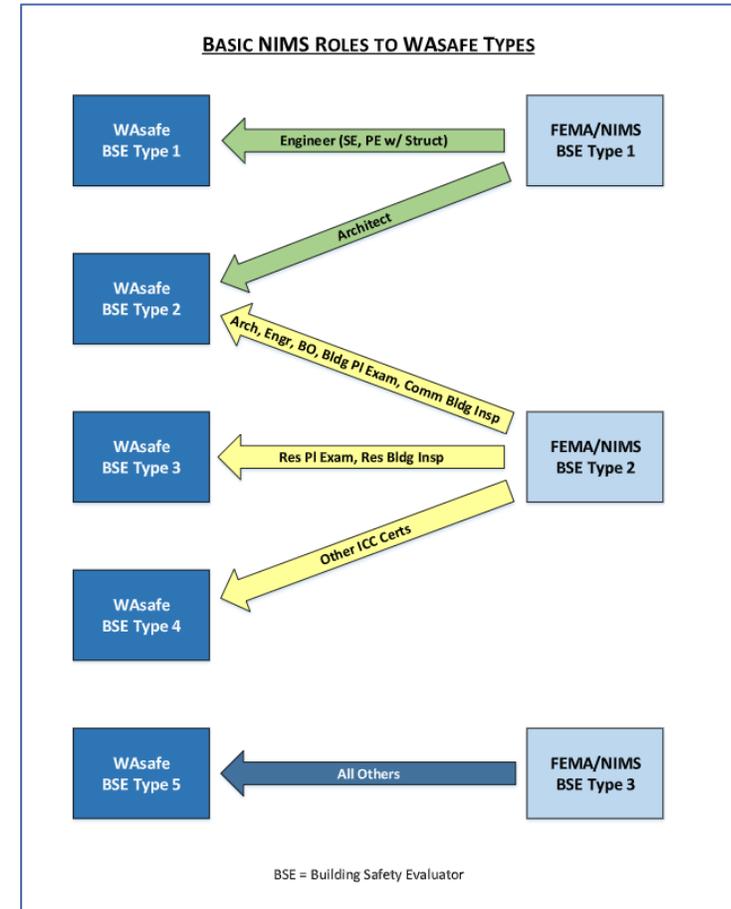


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  - NIMS-qualified BSEs can be integrated into WAsafe system





# Gaps and Needs

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## Test communications

- AHJ request → WAsafe
  - Procedural/information gaps?
- Organized exercises

## Build Visibility/Awareness

- Emergency managers
- Building Officials



# Gaps and Needs

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## Recruiting & Training

- WAsafe Coordinators
  - SEOC Foundations training class
  - WAserv database system
  - East of Cascades involvement
- On-site Coordinators
  - FEMA Post-Disaster Building Safety Evaluation Strike Team Leader
  - FEMA Post-Disaster Building Safety Evaluation Strike Team Technical Supervisor
- Refresher training

## Funding

- Part-time volunteers
- WABO funding heavy administrative support (including badge materials)
- Training proceeds/honoraria donations
- Est. \$10-15K/year ongoing administrative costs
- WAsafe Coalition website development

# WASAFE

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**QUESTIONS?**