

TSUNAMI PREPAREDNESS CHECKLIST
FOR K-12 SCHOOL ADMINISTRATORS AND PRINCIPALS ¹

A Product of EERI's School Earthquake Safety Initiative, Tsunami Safety Subcommittee

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Introduction

Like most natural hazards, tsunami preparedness involves considerations of facility design and structural performance, as well as occupant behavior before, during, and after a hazard event. In U.S. public schools, responsibilities for these dimensions of emergency preparedness are assigned to different levels of a bureaucracy, although there are areas of overlap. Effective outreach to K-12 schools by advocates and professionals depends on knowing the areas of responsibility exercised at each level.

In general, tsunami safety advocates will want to begin by contacting administrators at *the school district level*: district superintendents and senior managers. This is the level at which decisions about facilities are made: funding, maintenance and renovation, long-term plans for construction or replacement. It is also the level at which district-wide policies regarding safety and preparedness are developed and implemented: School Emergency Operations Plans (EOPs), Natural Hazard Mitigation Plans, etc. Tsunami awareness begins here.

It is individual schools, however, that must face the risk of tsunami inundation and must execute the response to a tsunami if they are located within the ASCE 7-16 Tsunami Design Zone, a state-designated inundation or locally-designated evacuation zone. *School-level leaders* – principals and the teachers and staff who work for them – exercise significant control over safety drills and bear the responsibility for site specific responses to natural hazards including earthquakes and tsunami. Further, they are the professionals responsible for the care of children in an emergency until family reunification can occur.

Tsunami awareness outreach must engage both the district and the local contact points. The following preliminary checklists identify key areas of responsibility and pose key questions for decision-makers at both levels.

¹ This document was prepared by Edward Wolf based on guidance contained in FEMA P-1000, *Safer, Stronger, Smarter: A Guide to Improving School Natural Hazard Safety* (FEMA, forthcoming).

For Superintendents and Key District-Level Staff (facilities directors, emergency managers, etc. If you are a principal, see page 5)

A. School building location

- *Are any of your schools exposed to shore hazards (e.g., storm surge)?*
- *Are any of your schools located within a mapped tsunami inundation zone or evacuation zone?*
- *Are you familiar with tsunami inundation or evacuation maps for your area?*
- *Have you authorized the public display of tsunami inundation or evacuation maps in any of your schools?*
- *Have you discussed school locations and natural hazard exposure with local emergency managers?*

B. School building condition

- *Have your schools been evaluated for earthquake performance? Are you confident that safe exit is possible from schools in mapped tsunami hazard areas?*
- *For schools in mapped tsunami hazard areas without immediate access to high ground, have you considered relocation or upgrading the building or school site with vertical evacuation features?*
- *Is building condition a priority in district capital planning?*

C. Facilities planning

- *Do you have a long-range facilities plan for the district?*
- *Do you plan to seek a school bond measure within the next five years?*
- *Is safety likely to be a priority in a future bond measure?*
- *Will any planned new schools be located within a mapped tsunami inundation or evacuation zone?*

- *Are any of your school's candidates for vertical evacuation improvements?*

D. School roles in emergency response

- *Have you discussed school-specific considerations with local emergency managers?*
- *Do any of your lower-elevation facilities serve as designated emergency earthquake shelters?*
- *Do these lower-elevation facilities have options for tsunami-safe evacuation such as vertical evacuation areas?*
- *Are these facilities equipped to serve an evacuation function?*
- *Are designated shelter or assembly areas equipped with disaster supply caches? If so, who is responsible for maintaining and stocking these caches?*
- *Have you discussed shelter and/or supply cache needs with local emergency managers and/or other local partners?*

E. Safety drill protocols

- *Which safety drills are district schools required to practice? How often?*
- *Have you ever conducted tsunami evacuation drills? At the school level? At the district level?*
- *Does the district participate in statewide or national drills like the Great ShakeOut?*
- *Are parents and guardians invited to participate in safety drills?*
- *Is the district familiar with the TsunamiReady® program? Have you sought this recognition?*

F. Status of emergency plans

- *Has your school district prepared an Emergency Operations Plan and trained district staff to implement the plan?*

- *Does the plan address earthquake response? Tsunami response?*
- *Has your school district prepared a Natural Hazard Mitigation Plan (NHMP) approved by your state emergency management agency and by FEMA?*
- *Does your NHMP include a section on tsunami hazard?*
- *Have you used your NHMP as a basis for application for federal mitigation grant funds?*

G. Tsunami-specific awareness

- *Are you familiar with tsunami education resource information available through the National Tsunami Hazard Mitigation Program (NTHMP)?*
- *Do you understand the difference between distant and local tsunamis?*
- *Do you know the natural warning signs for local tsunamis?*
- *Do you know the system of alerts for distant tsunamis used by the U.S. Tsunami Warning Centers?*
- *Are your schools equipped with emergency radios (e.g., NOAA Weather Radio) that are left on and operational?*

For School Principals

A. School location and hazard exposure

- *Is your school located within or near a mapped tsunami inundation or evacuation zone?*
- *Are you aware of your exposure to local or distant tsunamis?*
- *Do you display a tsunami evacuation map or brochure in a public area of the school?*

B. Safety drills

- *Do you conduct regular earthquake and tsunami safety drills?*
- *Does your school participate in statewide drills like the Great ShakeOut?*
- *Do you encourage parents and guardians to participate in school safety drills?*

C. Familiarity with local first responders and emergency response

- *Have you discussed emergency response and evacuation from your school with a local emergency manager?*
- *Have you discussed shelter needs for your students and staff with local first responders or emergency managers?*

D. Evacuation protocols & practice

- *Do you have a protocol in place for school-wide evacuation in event of a tsunami?*
- *Have you practiced school-wide evacuation in event of a tsunami? Have you practiced for both local and distant source tsunamis?*
- *Do teachers and staff know the evacuation routes they are intended to follow? Are these routes safe, clear, and easy to follow? Are alternative routes available in case primary routes are blocked by earthquake damage?*

- *Have you used an evacuation drill to calculate the time needed for the student body to reach an assembly area on safe ground?*

E. Refuge or assembly location(s)

- *Has a refuge or assembly area been designated for your school?*
- *Is there a secondary assembly area if the first proves inaccessible?*
- *Are the routes to your assembly area(s) safe under all foreseeable circumstances?*

F. Tsunami-specific awareness

- *Do you understand the difference between distant and local tsunamis?*
- *Do you know the natural warning signs for local tsunamis?*
- *Do you know the system of alerts for distant tsunamis used by the U.S. Tsunami Warning Centers?*
- *Is your school equipped with an emergency radio (e.g., NOAA Weather Radio) that is left on and operational? Is your office staff familiar with its use?*

G. Information displayed in public areas

- *Does your school display tsunami evacuation maps or brochures in visible public locations?*
- *If your district has been recognized as TsunamiReady®, does your school display a TsunamiReady® sign at a public entrance to the school?*

H. Communications protocols and equipment

- *Do you have protocols in place for communication with parents and guardians in the event of a distant tsunami alert received during the school day?*
- *Do you have protocols in place for communicating tsunami hazard to teachers and staff?*

I. Family reunification protocols

- *Do your family reunification protocols include “in case of tsunami” provisions? Do these protocols take both local and distant tsunami circumstances into account?*
- *Have you designed protocols to avoid putting family members in danger as they seek to retrieve their children?*
- *Have you communicated assembly or refuge locations to families?*

J. Classroom environment, supplies and teacher training

- *Have your classrooms and other spaces been evaluated for non-structural falling hazards? Have these hazards been mitigated?*
- *Are your classrooms equipped with emergency supplies and/or GoKits?*
- *If there are emergency supplies or GoKits, do your teachers and students carry them during evacuation drills?*

K. Relationship of earthquake and tsunami hazards

- *Are you aware that an earthquake of any strength is always a sign of local tsunami risk, and requires immediate evacuation?*
- *Do any Drop, Cover, and Hold On earthquake safety drills that you conduct also include emphasis on the tsunami hazard that would follow a local earthquake?*