Advocacy for Tsunami Mitigation and Preparedness for U.S. Schools along the Pacific Rim

**SESI Tsunami Subcommittee Members:**
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- Barry Welliver, BHW Engineers
- Heidi Tremayne, EERI

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Overview & Goals

Support schools with tsunami hazard by providing them access to experts and sharing best practices for tsunami risk mitigation.

- Phase 1 (complete): Identify Schools with Tsunami Risk. 196 at-risk schools identified in Washington, Oregon, California, Alaska and Hawaii using ASCE Tsunami Design Zones and state evacuation maps.
- Phase 2 (ongoing): Collaborate with State Tsunami Program managers on outreach and mitigation for identified schools at risk.

Funding provided by the Coastal Zone Foundation
PHASE I: Identifying Schools exposed to tsunami hazard

- Initial list of schools in tsunami hazard zone was developed using the ASCE 7 Tsunami Design Zone

- List compared with existing state tsunami evacuation maps
  - Washington: Combination of Scenario 1A (Walsh et al 2000) and L1 scenario from WDNR.
  - Oregon: Evacuation Zone (XXL Line) from DOGAMI.
  - California: The state maximum hazard zone from CGS.
  - Hawaii: The new Extreme Tsunami Evacuation Zone

- Resulted in a reduction in the number of schools on the list.
196 Schools exposed to tsunami hazard

<table>
<thead>
<tr>
<th>State</th>
<th>Public Schools</th>
<th>Private Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Washington</td>
<td>18</td>
<td>1</td>
</tr>
<tr>
<td>Oregon</td>
<td>14</td>
<td>2</td>
</tr>
<tr>
<td>California</td>
<td>52</td>
<td>4</td>
</tr>
<tr>
<td>Alaska</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Hawaii</td>
<td>69</td>
<td>32</td>
</tr>
</tbody>
</table>

- We have spreadsheet lists and map of these schools for each state.
- Next Steps: locating any missing charter or private schools, and estimating the number of students in each school.
Washington
Public Schools – 18: Private Schools - 1
Oregon

Public Schools - 14: Private Schools - 2
California
Public Schools – 52 : Private Schools - 4
Newport/Huntington Beach
Alaska
Public Schools - 4
# Hawaii Counties

<table>
<thead>
<tr>
<th>County</th>
<th>Public Schools</th>
<th>Private Schools</th>
<th>Total Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Honolulu</td>
<td>50</td>
<td>18</td>
<td>39,000</td>
</tr>
<tr>
<td>Maui</td>
<td>6</td>
<td>9</td>
<td>6,330</td>
</tr>
<tr>
<td>Hawaii</td>
<td>6</td>
<td>4</td>
<td>2,034</td>
</tr>
<tr>
<td>Kauai</td>
<td>7</td>
<td>1</td>
<td>2,021</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>69</strong></td>
<td><strong>32</strong></td>
<td><strong>49,385</strong></td>
</tr>
</tbody>
</table>
Downtown Honolulu
Haleiwa
The subcommittee members will work with each state’s tsunami program manager to provide information to schools in the tsunami zone.

We do not want to duplicate or contradict efforts already underway at the local level, but hope to augment those efforts wherever possible.

If you are a tsunami mitigation professional in any of the US West Coast states, and would like to be involved, please contact Heidi Tremayne (heidi@eeri.org)
Acknowledgements

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