METHOD OF PREPARATION

Tsunami inundation modeling was performed by the University of Southern California (USC) Tsunami Research Center based on their Emergency Management Planning (EMP) effort for the State of California. The modeling was performed as part of the mid-term evaluation of the EMP effort. The modeling process described herein is one of the strategies used for the EMP effort, and it was designed to be used by local and regional planning agencies to better understand the risks of tsunami inundation for their area. The tsunami inundation modeling was based on the FEMA TOPOGRID Jacob’s algorithm, which allows for new generation of a complete bathymetry and topography model that can be used for flood characteristics model (CIA 1993). This model was used by USC to generate the initial modeling for the EMP effort. The model was validated and refined by local and regional planning agencies to better understand the risks of tsunami inundation for their area. The validation process included field measurements and data analysis to ensure the accuracy and reliability of the model. The model was then used to generate the final inundation modeling for the EMP effort.

References:

California Emergency Management Agency (2009), California State Tsunami Hazard Mitigation Plan.

STATE OF CALIFORNIA ~ COUNTY OF SONOMA

TSUNAMI INUNDATION MAP FOR EMERGENCY PLANNING

February 15, 2009

38°22'30"N 123°0'0"W

SCALE 1:24,000

Source: USC

Table 1: Tsunami sources modeled for the Sonoma County coastline.

<table>
<thead>
<tr>
<th>Source</th>
<th>Magnitude</th>
<th>Magnitude Extension</th>
<th>Source Description</th>
<th>Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>1952 Kamchatka Earthquake</td>
<td>M9.0</td>
<td>X</td>
<td>Cascadia Subduction Zone #3</td>
<td>X</td>
</tr>
<tr>
<td>2004 tsunami</td>
<td>M9.0</td>
<td>X</td>
<td>Cascadia Subduction Zone #3</td>
<td>X</td>
</tr>
<tr>
<td>2012 tsunami</td>
<td>M8.9</td>
<td>X</td>
<td>Central Aleutians Subduction Zone #1</td>
<td>X</td>
</tr>
<tr>
<td>2014 tsunami</td>
<td>M8.9</td>
<td>X</td>
<td>Central Aleutians Subduction Zone #1</td>
<td>X</td>
</tr>
<tr>
<td>2017 tsunami</td>
<td>M8.9</td>
<td>X</td>
<td>Central Aleutians Subduction Zone #1</td>
<td>X</td>
</tr>
</tbody>
</table>

PURPOSE OF THIS MAP

This tsunami inundation map was prepared to assist states and counties in identifying their tsunami hazard. It is intended to support coastal emergency planning efforts. The map does not represent the actual potential tsunami inundation extent for any specific event. The map is intended to be used as a tool for planning, and it does not represent the actual potential tsunami inundation extent for any specific event. The map is intended to be used as a tool for planning, and it does not represent the actual potential tsunami inundation extent for any specific event.

The inundation map has been compiled with best current information available. The map is intended for local jurisdictional, coastal evacuation planning uses only. This map, and the information presented herein, is not a legal document. This tsunami inundation map was prepared to assist cities and counties in identifying their tsunami hazard. It is intended for local jurisdictional, coastal evacuation planning uses only. This map, and the information presented herein, is not a legal document.

DISCLAIMER

The California Emergency Management Agency (CalEMA), the University of Southern California (USC), and the California Geological Survey (CGS) make no representation or warranty, express or implied, with respect to any claim by any user or any third party on account of or arising from circumstances for any direct, indirect, special, incidental or consequential damages with respect to the use of the tsunami inundation map.

The map and/or intended use of the tsunami inundation map is for local jurisdictional, coastal evacuation planning use only. This map, and/or intended use of the tsunami inundation map, is not a legal document. This tsunami inundation map was prepared to assist cities and counties in identifying their tsunami hazard. It is intended for local jurisdictional, coastal evacuation planning uses only. This map, and the information presented herein, is not a legal document.

Please refer to the following websites for additional information on the construction and/or intended use of the tsunami inundation map:

State of California Emergency Management Agency, California Statewide Tsunami Information:
http://www.calema.ca.gov/infopages/10069399210577684716gcalifornia-statewide-tsunami-information.html

State of California Coastal & Beach Planning:
http://coastal.ca.gov/index.html

National Oceanic and Atmospheric Administration (NOAA) Center for Tsunami Research (MOST model):

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