

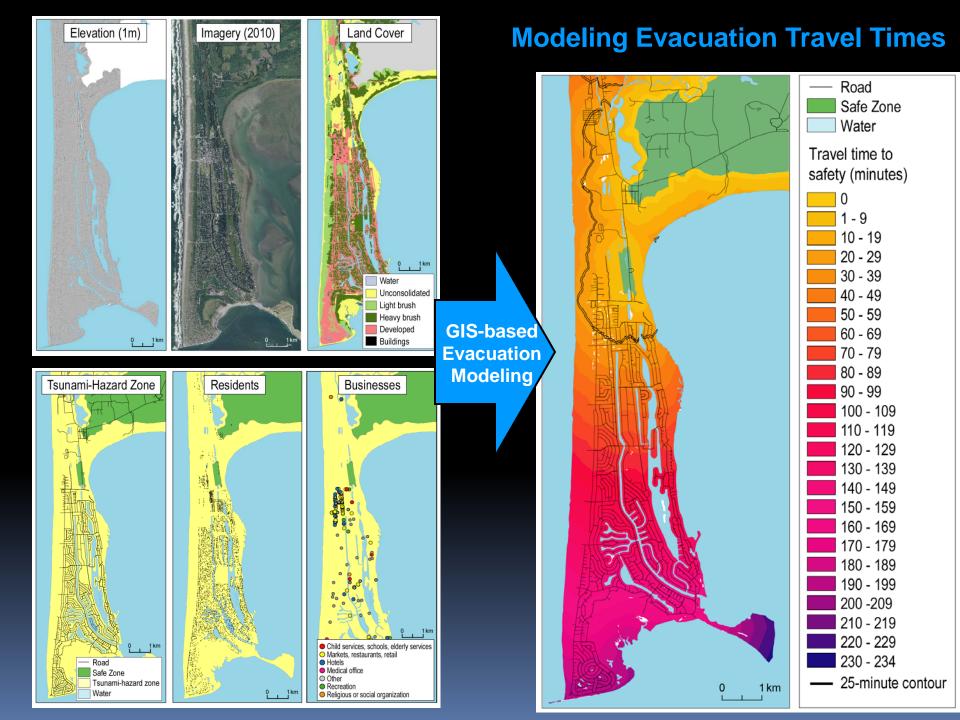


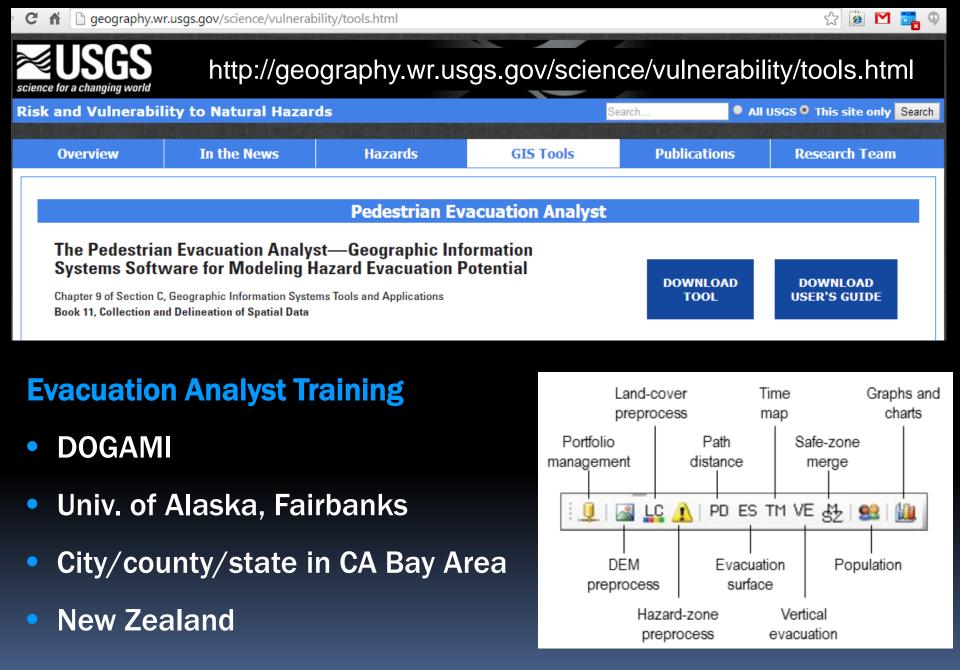
Getting Out of Harm's Way

FY16 tsunami evacuation research at the USGS

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U.S. Department of the Interior U.S. Geological Survey





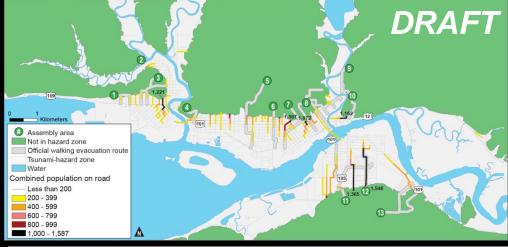
Community clusters of tsunami vulnerability

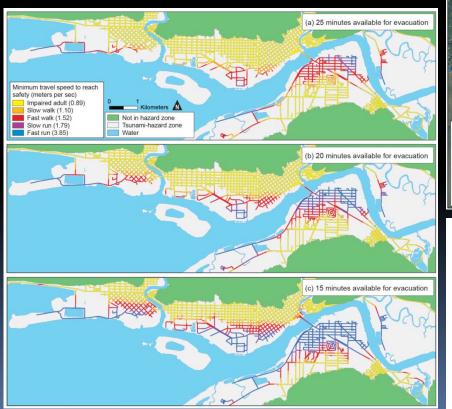


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28. Raymond CALIFORNIA Unincorporated Moderate number Tsunami education	28. Raymond	CALIFORNIA		Moderate number	Tsunami education
29. South Bend Grays Harbor Co. of residents Evacuation training			Grays Harbor Co.		
30. Long Beach 70. Del Norte Co. Long Beach Unincorporated in hazard zones Vertical-evacuation	30. Long Beach	· · · · · · · · · · · · · · · · · · ·		in hazard zones	Ŭ
31. Ilwaco 71 Arcata Pacific Co. and high shelters are funder			Pacific Co.	and high	
32. Pacific Co. 72 Fureka Ocean Shores ground not	32. Pacific Co.		Ocean Shores		shellers or reluges
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33. Astoria before wave arrival	33. Astoria	ro. Humbolat oo.			L
34. Warrenton					
35. Gearhart					
36. Seaside • Number of people in hazard zones	36. Seaside	 Number of peop 	le in hazard zon	es	
 37. Cannon Beach Type of residents in hazard zones 	37. Cannon Beach				
29. Clateon Co	38. Clatsop Co.	••			
• Number of people with insufficient time to evacuate (slow walk)					•

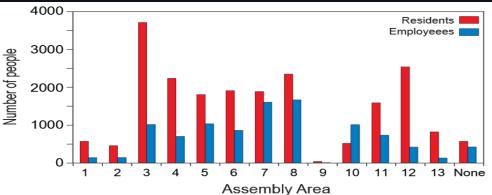
time to evacuate (slow walk) • Number of people with insufficient time to evacuate (fast walk)

Modeling evacuation pathways and population demand at assembly areas

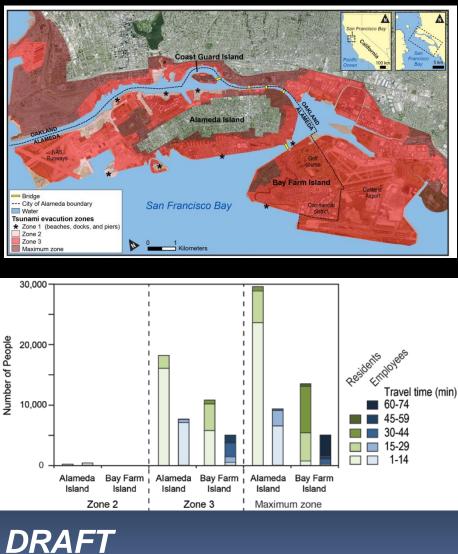


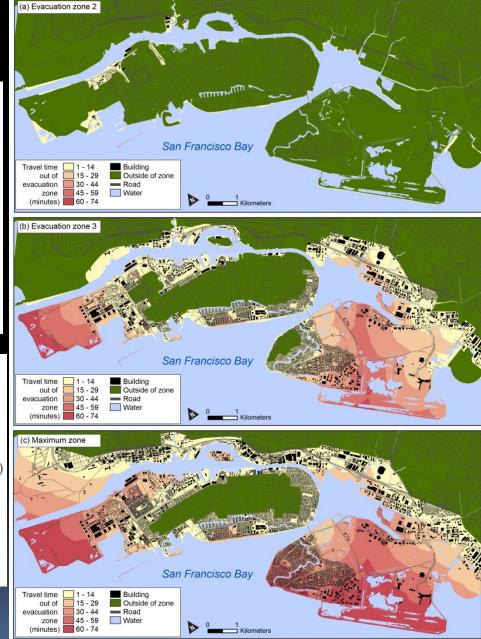






Evacuation modeling for CA Tsunami Playbooks

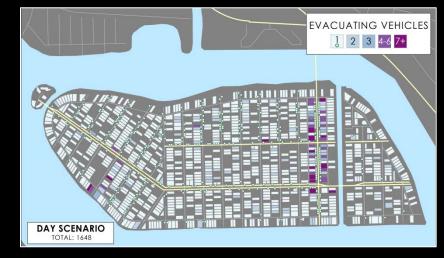




Road hotspot indices for improving vehicular evacuations

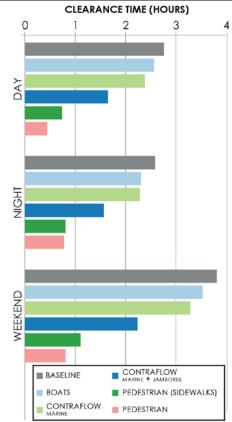


Multi-modal evacuation modeling on Balboa Island



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Planned work

Multi-model evacuation modeling for the northern shore of Oahu



Evacuation mitigation alternatives in American Samoa

