

You and your team members are advisors to the Mayor of Hilo, Hawaii. The year is 2023. You have just learned that an earthquake of 6.5 on the moment magnitude scale has occurred off the coast of Lumaco in the same area that the 1960 Valdivia earthquake with a 9.5 moment magnitude scale occurred. The 1960 earthquake, you may recall, resulted in massive destruction of Hilo (\$24 million in 1960 dollars) and 61 people died. The Pacific Tsunami Warning Center has issued a Tsunami Warning. You and your team recall, however, that in 2010, an earthquake of the magnitude of 8.8 occurred very close to the 1960 earthquake and resulted in minimal damage to Hilo, Hawaii. Back in 2010, your predecessor had mandated a Tsunami Evacuation, costing business owners thousands with only minimal damage and no loss of life. The 2010 mayor was not re-elected in large part due to his decision to mandate a mass evacuation. All indications are that a tsunami will more likely than not hit Hilo, the impact of that tsunami, however, is unknown -- it could be 1 foot or it could be the size of the 1960 tsunami, which was 37 feet in some places. The Pacific Tsunami Warning Center cannot provide you with additional predictions or details at this time, however, they have noted that tsunamis appear to be increasing in size due to increased ocean temperatures and increases in sea levels due to global warming. You have not seen any significant sea level rise in the Hilo area.

Recommend a course of action to the mayor and provide one policy justification using Stern's risk management approach and one policy justification from one of the following: ERM, precautionary principle, no regrets principle.

Two weeks have passed since the Tsunami Warning scare. The Mayor comes to you and your team members and wants recommendations on how to make Hilo less vulnerable to tsunamis in the future. Using Barnett's resiliency theory, what is at least one suggestion you could make to decrease the city's vulnerability.

Be prepared to share your findings with your classmates.