



Geology and Geophysics Disciplinary Group  
College of Earth, Ocean and Atmospheric Sciences  
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February 3, 2016

Dr. Ed Ray  
President, Oregon State University

Dear President Ray;

The undersigned faculty of the Geology and Geophysics disciplinary group within CEOAS support the Marine Studies Initiative as part of the University's Strategic Plan 3.0 and recognize the economic importance of the MSI to the Oregon coastal community. Nevertheless, as Earth Science experts, we wish to express concern about plans to place the MSI building in the tsunami inundation zone. In the future, an offshore subduction earthquake of magnitude  $>8$  is bound to occur, and would produce ground liquefaction, subsidence, and tsunami inundation at the planned MSI site at HMSC. This would threaten lives, damage buildings, and hobble the research capacity of this flagship Institute. In order to avoid putting students, staff, the public and the institution at risk, we urge you to request a full and independent technical analysis of alternative sites outside of known tsunami flooding zones.

As Oregon's leading science and technology research and educational institution, we have a special responsibility to address societal problems with state-of-the-art and forward-looking solutions based on the best research. New understanding of the science and attendant risks to infrastructure, human life and the economy from great megathrust earthquakes often leads seismic- and tsunami-specific building codes by many years. In light of our current knowledge of the expected inundation of HMSC during such an event, we are concerned that construction of the laboratory and classroom building in the current plan, as presented at a meeting on January 7, 2016 in Newport, includes unnecessary exposure to the hazard of a major tsunami. Consideration of an alternate site nearby outside of the tsunami inundation zone could enhance the connection between the MSI and the Oregon Coast Community College, and would fulfill the promise in the MSI Strategic Plan to consider such options and their potential for long-term safety and cost savings.

The current HMSC campus was established before the risk of a large earthquake and tsunami on the Cascadia subduction zone was widely recognized, and the existing structures are ageing and constructed to standards that do not meet current seismic codes. Given the inevitable need to eventually replace or move the existing facilities, consideration of an alternate site for the MSI facility can be viewed with this long-term need in mind. We believe that OSU, as a public institution with faculty expertise in community resilience and in earthquake/tsunami science and engineering, should hold itself to a high standard regarding public safety and accountability, even if this requires going beyond current building codes. Development of the MSI provides OSU with a unique opportunity to lead sustainable development by providing Oregonians with a safe and forward-looking model for coastal development.

Yours sincerely,

[signed on the following page]

Signed digitally, in alphabetical order:

Peter Clark	Professor
Jessica Craveling	Asst. Professor
John Dilles	Professor
Gary Egbert	Professor
Chris Goldfinger	Professor
David Graham	Professor
Anita Grunder	Professor, Assoc. Dean for Academic Programs
Rob Harris	Professor
Adam Kent	Professor
Eric Kirby	R.S. Yeats Assoc. Professor of Earthquake Geology and Active Tectonics
Anthony Koppers	Professor
Vern Kulm	Professor Emeritus
Mitch Lyle	Professor (Senior Research)
Jennifer McKay	Asst. Professor (Senior Research)
Andrew Meigs	Professor
Alan Mix	Professor
John Nabelek	Professor
Adam Schultz	Professor
Shanaka de Silva	Professor
Frank Tepley	Assoc. Professor
Anne Trehu	Professor
Kaplan Yalcin	Senior Instructor and Program Director
Bob Yeats	Professor Emeritus

cc/ Ron Adams, Jack Barth, Steven Clark, Bob Cowen, Michael Goodwin, Roy Haggerty, Patrick Hughes, Cindy Sagers