



**Oregon State**  
**University**

**College of Earth, Ocean, and  
Atmospheric Sciences**

Oregon State University  
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1/30/2025

Dear Members of the OPAC STAC:

I am writing to nominate myself to join the Oregon Ocean Policy Advisory Council Science and Technical Advisory Committee. I am an assistant professor in the Geography and Geospatial program in the College of Earth, Ocean, and Atmospheric Sciences at Oregon State University. As a social scientist that studies coastal community resilience to chronic and acute hazards, I am well-equipped to serve on this committee. My transdisciplinary research explores how human, built, and natural systems can lead to uneven impacts of realized and potential disasters. I have served as a PI, Co-PI, or senior personal on several high-impact research projects related to Oregon coastal community resilience including “Envisioning Oregon’s Coastal Futures” (Oregon Sea Grant;) and its successor, the “Cascadia Coastlines and Peoples Hazard Research Hub” (Cascadia CoPes Hub; National Science Foundation), and “Co-Creating a Community Participatory Resilience Model for Oregon Coastal Hazards” (Oregon Sea Grant). My research into how coastal residents and communities understand and adapt to coastal hazards has found that coastal residents who face daily marginalization due to their race, ethnicity, immigration status, and/or gender and sexuality face additional vulnerabilities when disasters strike due to their reliance on a limited number of community assets that they rely on. Using community participatory mapping methods to identify the location of these community assets, we are then able to model the impacts of “islanding” that coastal communities may experience after a Cascadia Subduction Zone earthquake and tsunami due to the loss of local and regional road connectivity.

My work requires a deep level of community engaged research with coastal community members, community-based organizations, Tribes, and government agencies at all levels from local to federal. I have an extensive network of community partners and practitioners whom I collaborate with to co-produce new knowledge toward building adaptive capacity in Oregon’s coastal communities. My fellow researchers and I have been honored for our community-engaged research through the 2023 Oregon State University Community Engagement Team Research Award and the 2024 W.K. Kellogg Foundation Community Engagement Scholarship Award.

I am confident that my participation in the STAC will provide additional expertise through a social science lens regarding relevant topics such as coastal resilience, acute and chronic hazards, and Indigenous knowledge systems, as well as community outreach and engagement. Thank you for your consideration.

Sincerely,

*Jenna H. Tilt*

Jenna H. Tilt

Assistant Professor, College of Earth, Ocean, and Atmospheric Sciences, OSU

**JENNA H. TILT, Ph.D.**  
**CURRICULUM VITAE**

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**PROFESSIONAL PREPARATION**

**EDUCATION**

Ph.D. Social Sciences, College of Forest Resources, University of Washington	2007
Graduate Certificate in Urban Ecology, University of Washington	2007
M.S. Social Sciences, College of Forest Resources, University of Washington	2001
B.S. Environmental History, <i>cum laude</i> , Utah State University	1998

**ACADEMIC APPOINTMENTS**

<b>College of Earth, Ocean, and Atmospheric Sciences, Oregon State University</b>	Corvallis, OR
Assistant Professor (Tenure Track)	2022-current
Senior Instructor	2021-2022
<i>Held jointly with Assistant Professor (Senior Research) position</i>	
Assistant Professor (Senior Research)	2015-2022
<i>Held jointly with Instructor and Senior Instructor positions</i>	
Faculty Research Associate	2009-2015
<i>Held jointly with Instructor position</i>	
Instructor	2008-2021
<i>Held jointly with Faculty Research Associate and Assistant Professor (Senior Research) positions</i>	

**PUBLICATIONS: 2022-2025 (29 total publications) (\*graduate student or postdoc)**

**Currently Under Review**

\*Mah, A.Y.J., Tilt, J.H., Blockstein, J., Fox, N., Rashid, N., Meslhe, A. Identification of community assets and vulnerabilities: A survey of coastal Oregonian's priorities for natural hazard preparedness *International Journal of Disaster Risk Reduction*. *Under Review*

\*Meselhe, A., \*Sanderson, D., Cox, D., and **Tilt, J.H.** Human-centered connectivity and transportation network recovery following a Cascadia Subduction Zone Earthquake and Tsunami. *Sustainable and Resilient Infrastructure*. *Under Review*

**Tilt, J.H.**, Ellsworth, L., \*Schmidt, A., Gough, M., and \*Amstutz, E. Using Fuzzy Logic to Develop a Localized Social Vulnerability Assessment for Wildland-Urban Interface Communities. *International Journal of Disaster Risk Reduction*. *Under Review*

**2025**

Schmidt, A., Ellsworth, L., **Tilt, J.H.**, \*Thiel, A., and \*Hiner, N. (2025). Long-term Tracking of Recovery of Built Infrastructure after Wildfires with Deep Network Topologies. *Neural Computing and Application*.

**2024**

\*Blockstein, J., **Tilt, J.H.**, Botello, B. (2024). Daily vulnerability and disaster resilience: A case study of preferred community assets and social capital for Latinx coastal residents. *Disaster Prevention and Management*. 10.1108/DPM-02-2024-0048

Uslu, S., Kaur, D., Rivera, S., Durrresi, A., Babbar-Sebens, M., and **Tilt, J.H.** (2024). A trustworthy and responsible decision-making framework for resource management in food-energy-water nexus: A control-theoretical approach. *Transactions on Intelligent Systems and Technology*. doi.org/10.1145/3660640

Kolesar, S., Ruggiero, P., Tullos, D., **Tilt, J.H.**, Tilt, B., and Thompson, B. (2024). Co-Producing Knowledge for Coastal Hazards: Lessons from Oregon Sea Grant SEED-LEAF program. *Oceanography*, 37(1): 19-25. <https://www.jstor.org/stable/27301077>

\*Cunya L.A.G, Babbar-Sebens, M., Tullos, D., and **Tilt, J.H.** (2024). Attitudes toward moving or staying and buying flood insurance to face varied flood threats in a floodplain community. *International Journal of Disaster Risk Reduction*. doi.org/10.1016/j.ijdr.2024.104432

**Tilt, J.H.**, Babbar-Sebens, M., Kolagani, N., Naren, U.S., Ramadas, M., and Gorripati, R. (2024). A community engaged approach to understanding a hyper-localized Food, Energy, and Water Nexus in rural India. *Journal of Water Resources Planning and Management*. doi.org/10.1061/JWRMD5.WRENG-6154 [

### **2023**

\*Fox, N., **Tilt, J.H.**, Ruggiero, P., \*Stanton, K., and Bolte, J. (2023). Toward equitable coastal community resilience: The Great East Japan Earthquake and the Cascadia Subduction Zone. *Coastal Futures*, 1(e36). doi.org/10.1017/cft.2023.24

\*Applegate, J.D and **Tilt, J.H.** (2023). Using content and comparative analysis to contextualize the criteria for urban resiliency planning from international and US cities perspectives. *Frontiers in Environmental Science*, 11. doi.org/10.3389/fenvs.2023.1103115

\*Stanton, K., and **Tilt, J.H.** (2023). Building resilient Oregon coastal communities: Reimagining critical facilities through Latinx Sense of Place. *International Journal of Disaster Risk Reduction*, 87. doi.org/10.1016/j.ijdr.2023.103600

\*Schmidt, A., Ellsworth, L.M., **Tilt, J.H.**, and Gough, M. (2023). Application of Deep Convolutional Networks for Improved Risk Assessments of Post-Wildfire Drinking Water Contamination. *Machine Learning with Applications*, 11. doi.org/10.1016/j.mlwa.2023.100454

### **2022**

**Tilt, J.H.**, Mondo, H., Giles, N., Rivera, S., and Babbar-Sebens, M. (2022). Demystifying the fears and myths: The co-production of a regional food, energy, water (FEW) nexus conceptual model. *Environmental Science and Policy*, 13: 69-82. doi.org/10.1016/j.envsci.2022.02.011

\*VanRiper, F., Russel, K., Tillias, D., **Tilt, J.H.** and Laporte, J. (2022). Container-based sanitation in urban Haiti: How can it improve human rights as a component of citywide inclusive sanitation? *H2Open*, 5(1): 135-152. doi.org/10.2166/h2oj.2022.037

\*Schmidt, A., Ellsworth, L.M., **Tilt, J.H.**, and Gough, M. (2022). Predicting conditional maximum contaminant level exceedance probabilities for drinking water after wildfires with Bayesian regularized network ensembles. *Machine Learning with Applications*, 7, 100227. doi.org/10.1016/j.mlwa.2021.100227

\*Cunya L.A.G, **Tilt, J.H.** Babbar-Sebens, M., and Tullos, D. (2022). Perceived risk and preferences of response and recovery actions of individuals living in a floodplain community. *International Journal of Disaster Risk Reduction*, 67, 102645. doi.org/10.1016/j.ijdr.2021.102645

## **GRANT AND CONTRACT SUPPORT (2018-2025)**

2024-2025. Building Inclusive Multihazard Evacuation Map Prototypes for Coastal Communities: A pilot program. J.H. Tilt (PI). Cascadia CoPes Hub (NSF). \$45,000

2023-2025. Co-creating a Community Participatory Resilience Model for Oregon Coastal Hazards; J.H. Tilt (PI). Oregon Sea Grant. \$240,000

2023-2026. Enabling Interdisciplinary Wildfire Research for Community Resilience. E. Fischer (PI), J.H. Tilt (co-PI). NSF. \$250,000

2023-2026. Persist, adapt, or transform: What drives WUI community recovery after wildfires? L. Ellsworth (PI), J.H. Tilt (co-PI). \$498,641

2022-2023. Creating Inclusive Coastal Hazard Awareness Pilot Program. F.Ometa-Schult (PI), J.H. Tilt (co-PI). Cascadia CoPes Hub (NSF). \$50,000

2021-2026. Large-Scale CoPe: The Cascadia Coastlines and People Hazard Research Hub. P. Ruggiero (PI), J.H.Tilt (Senior Personnel and Social Science Lead). NSF. \$18,896,138

2020-2024. Sensor Technology for Improved Wildland Urban Interface (WUI) Fire Resilience. E. Fischer (PI), J.H. Tilt (co-PI). Alfred P. Sloan Foundation. \$1,486,404

2018-2024. Envisioning a Resilient Oregon Coast: Co-developing alternative futures for adaptation planning and decision-making. P. Ruggiero (PI), J.H. Tilt (co-PI). Oregon Sea Grant. \$850,000

## **OUTREACH AND ENGAGEMENT EVENTS FOR GENERAL PUBLIC**

- 2024 Tsunami Evacuation Wayfinding Training and Community Wildfire Recovery Discussion. Sponsored by Cascadia CoPes Hub, OSU Extension, and Lincoln County Emergency Management. Lincoln City, Oregon. 30 community participants.
- 2024 Tsunami Evacuation Wayfinding and Emergency Go-Bag Training. Sponsored by Cascadia CoPes Hub, OSU Extension, and Arcoiris Cultural Center. Newport, Oregon. 40 community participants.
- 2024 Tsunami Evacuation Wayfinding and Emergency Go-Bag Training. Sponsored by Cascadia CoPes Hub and Consejo Hispano. Warrenton, Oregon. 20 community participants.
- 2023 Tsunami Evacuation Wayfinding and Emergency Go-Bag Training. Sponsored by Cascadia CoPes Hub and Consejo Hispano. Seaside, Oregon. 20 community participants.
- 2023 Tsunami Evacuation Wayfinding and Emergency Go-Bag Training for the MesoAmerican (Mam) Community. Sponsored by Cascadia CoPes Hub, OSU Extension, and Arcoiris Cultural Center. Newport, Oregon. 50 community participants.

## **AWARDS**

- 2024 W.K. Kellogg Foundation Community Engagement Scholarship Award. Oregon Coastal Futures Project. Ruggiero, P., Bolte, P., Corcoran, P., Cox, D., Dundas, S., Olmeta-Schult, F., and **Tilt, J.H.**
- 2023 OSU Community Engagement Team Research Award for the Oregon Coastal Futures Project. Ruggiero, P., Bolte, P., Corcoran, P., Cox, D., Dundas, S., Olmeta-Schult, F., and **Tilt, J.H.**
- 2021 The Anita L. Grunder Award for Excellence in Undergraduate Teaching (CEOAS)