

# PSU Living Lab Program: Project Profile Form

## FORM INSTRUCTIONS

*Please review*

- Please maintain the heading structure of this form for accessibility.
  - If you are not already in contact with a member of the Living Lab team, please notify [livinglab@pdx.edu](mailto:livinglab@pdx.edu) with your desire to pitch, participate in, or support a Living Lab project.
  - If you are PSU staff pitching a project, contact [livinglab@pdx.edu](mailto:livinglab@pdx.edu) to begin working with a member of the Living Lab team to complete this profile form. The completed form will be used by the Living Lab team to recruit participants.
  - For faculty and students interested in participating in a project that already has a completed profile: email [livinglab@pdx.edu](mailto:livinglab@pdx.edu) to discuss your interest!
  - Whether you are pitching a project or participating in a project, please review the Disclaimer information below.
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## PARTICIPATION DISCLAIMER

By agreeing to participate in a Living Lab project, you (staff, student, or faculty):

1. Grant the Living Lab program at Portland State University (PSU) the non-exclusive right to, without changes to the content, copy, display, and distribute the content created as part of this Living Lab project and to make this work available online.
2. As per PSU policy, consent to being photographed (if your name will not be used in connection with the likeness\*). If you do not wish to be photographed, you can choose to opt-out so as not to be within the camera's range.

\*If you will be identified, or would like to be, an additional consent/release form is required.

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## PROJECT OVERVIEW

*Briefly describe the vision and purpose of this project.*

### Project title

Developing a PSU Natural Hazard Mitigation Plan

### Project overview

The purpose of this project or series of projects is to develop a FEMA-approved Natural Hazard Mitigation Plan (NHMP) for PSU. Both the process to develop this plan and the final plan itself are critical aspects of PSU's emergency management responsibilities and present an opportunity for PSU to approach this work with an equity lens. The final plan will serve as an addendum to the City of Portland's NHMP. As described in this project profile, the work to develop an NHMP can be accomplished through incremental projects over time or be tackled as a whole (e.g. by a single course, capstone/thesis/workshop, or group of students).

### Intended time period for project and/or date when project pitched

This project was initially pitched in 2018 and is still open to participants.

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## PROJECT PARTNERS

*Who is the staff and departmental partner or audience for this project?*

### Project Contact(s) & Title(s) & Full Department Name(s):

Emma Stocker, Assistant Director of Emergency Management

### Email(s):

Emma.Stocker@pdx.edu

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## PROJECT INFORMATION

Indicate all themes that apply to this project by placing an X next to reach relevant theme:

Energy    Water    Purchasing    Waste    Food     Land Use     Transportation     Climate Action     Social  
 Community Wellbeing    Other: (please describe)

## **Project Background & Context**

*What challenge, opportunity, or need does this project relate to or fill? Include or comment on how this project builds on prior work.*

Hazard mitigation is the effort to reduce loss of life and property by lessening the impact of disasters. Mitigation is most effective when implemented under a comprehensive, long-term mitigation plan. State and local governments (cities and counties) engage in hazard mitigation planning to identify risks and vulnerabilities associated with natural disasters, and develop long-term strategies for protecting people and property from future hazard events.

PSU's Emergency Management office works to prepare the PSU community, programs, and resources for a range of emergencies including natural hazards, human threats, and technological hazards. This work includes formalizing a number of plans and procedures, a process that requires PSU and community stakeholder involvement, as well as an assessment of PSU's assets, vulnerabilities, and opportunities for improvement.

Developing a hazard mitigation plan would enable PSU to:

- Increase education and community awareness around threats, hazards, and vulnerabilities;
- Identify structural or operational vulnerabilities and vulnerable communities in the context of natural hazards;
- Incorporate equity into emergency management and planning;
- Build internal and external partnerships for risk reduction;
- Identify long-term, broadly-supported strategies for risk reduction;
- Align risk reduction with other PSU strategic and operational objectives;
- Identify implementation approaches that focus resources on the greatest risks and vulnerabilities;
- Communicate priorities to potential sources of funding; and
- Fulfill a condition for receiving certain types of non-emergency disaster assistance from FEMA.

## **Contribution to Sustainability at PSU**

*Describe how the project supports PSU's and/or your departments' sustainability goals and plans.*

This project seeks to strengthen the connection between Mitigation and Sustainability at PSU, and complements work occurring in the Campus Sustainability Office to address resiliency and adaptation in PSU's climate action work. Natural hazard mitigation challenges us to identify ways to reduce the impact of a hazard before it occurs. Climate change presents us with new or changing hazards: more severe winters, hotter summers, more forest fires and smoke, etc. Sustainability planning encourages us to reduce our contribution to climate change. A mitigation plan would synthesize these efforts by assessing the vulnerabilities to specific climate hazards and changes to our operations or built environment that could reduce the impact of these already occurring and likely to intensify climate hazards.

The link between sustainability and hazard mitigation goes beyond climate hazards. Integrated hazard mitigation can protect the built environment from damage and restore habitat and ecological systems. For example, a LEED-certified building damaged in an earthquake may no longer meet LEED requirements if it needs major reconstruction. Hazard Mitigation would encourage building for seismic resilience as a way to avoid earthquake damage and subsequent repair costs. It is important to connect sustainability and mitigation to avoid conflicts. For example, sustainability goals may result in a passive cooling approach. But mitigation planning would identify passive cooling (windows that open automatically) as a problem during wildfire season when outdoor air quality is poor.

Mitigation is also included in the PSU Strategic Plan, which calls for the development and implementation of a comprehensive emergency plan. A comprehensive emergency plan includes not only the operational (response and continuity) and recovery aspects, but mitigation and prevention as well. Successful mitigation can help to reduce the impact of disasters, thereby aiding in a quick recovery.

Lastly, there is a monetary value to hazard mitigation. A 2005 study by the Multihazard Mitigation Council (MMC) shows that each dollar spent on mitigation saves an average of \$4.00 in response and recovery costs, with positive benefit-cost ratios for all hazard types studied.

## Outline of Project Details

*Describe tasks and activities involved in the project. Common tasks include research or literature review; data collection; design, proposal, and recommendations development, and more.*

This project is anticipated to include the following work / activities that can be completed as a whole by one project group or in smaller individual projects. or phases.

Research (applicable to all groups, if project divided): develop understanding and expertise regarding hazard mitigation planning, including:

- Review of resources aimed at guiding NHMP development (from FEMA)
- Review of examples and supporting plans (PSU Climate Action Plan and others)

Stakeholder engagement and data collection: gather information (could include interviews, quantitative analysis, mapping, etc) in order to:

- Develop a community profile
- Identify, explain, and develop mitigation strategies for hazards and risks relevant to PSU

Recommendations and draft development: compilation and assessment of information collected:

- Development of recommended mitigation actions
- Drafting plan / writing

Plan approval, adoption, and sharing: assist with formalization of the plan:

- Help move plan through approval process
- May include presentations to internal and external stakeholders

## Anticipated Outcomes

*Describe the desired outcomes of this project, including qualitative and quantitative outcomes.*

The ultimate goal at the end of all stages of this project will be a complete NHMP for PSU.

## Required Deliverables

*Indicate specific deliverables, such as photographs; prototypes; etc. All Living Lab projects require a written and verbal form of communicating project process and outcomes.*

The NHMP should include, at least, the following sections:

- Community profile
- Hazard Identification and Risk Assessment (with sections for each hazard addressed)
- Mitigation Strategy
- Description of the planning process, including plan maintenance
- Any appendices (data, maps, documentation, etc.)

## Ideal Project Start and Completion Date

*Indicate the optimal timeline for the project, including any time-sensitive aspects.*

Anytime; this project can be completed over one or several terms.

## Special Considerations

*List special equipment, liability considerations, access restrictions, etc.*

NA

## Potential Information Sources

*Specify documents, links, literature, contacts or other sources to inform project work.*

- [City of Portland 2016 NHMP](#)
- [Multnomah County NHMP](#)
- [State of Oregon NHMP](#)
- [Multnomah County Climate Change Preparation Strategy](#)

- [Multnomah County Climate Change Preparation Strategy: Risk and Vulnerability Assessment](#)
- [Code of Federal Regulations, Part 201, \(regarding Mitigation Planning\)](#)
- [FEMA: Hazard Mitigation Planning Resources](#)
- [University of Oregon Natural Hazard Mitigation Plan](#)
- [Oregon Partnership for Disaster Resilience \(via University of Oregon\)](#)

### **Student & Faculty Qualifications**

*Describe desired experience, background and skills that project participants should have in order to successfully complete the project.*

- Interest in emergency management, planning, disaster/hazard resilience
- This project is probably best suited as a group project, or a capstone or masters level project.
- Strong writing, analytical, and presentation skills are important
- Helpful skills could include mapping and / or graphic design

### **Budget & funding (if any)**

*List known funding sources, and/or projected resource needs for the project.*

PSU Emergency Management can provide basic administrative support such as support of meeting logistics if needed, any printing / mailing costs, etc. There is not, at this time, budget allocated for mapping other kinds of media.