
The Mitigation Action Plan

Appendix C. Public Engagement Materials

PUBLIC ENGAGEMENT STRATEGY



The Mitigation Action Plan

Community Engagement Plan

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- Attachment 1. Copy of Survey Responses
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EXECUTIVE SUMMARY

This community engagement plan outlines the Community Engagement Strategy for the City of Portland's 2016 Mitigation Action Plan (MAP) development process. The City has invested significant resources in facilitating public participation to ensure that the MAP reflects the relevant needs of the community. This document proposes a number of activities to be undertaken over the next few months as part of the MAP development process. A number of recommendations are also made to ensure continued community engagement following the adoption of the MAP. These recommendations include creation of an E-portal and an online risk atlas, multi-lingual support for planning documents and surveys, hazard mitigation exhibits, increased coordination with other bureaus and civic organizations, and the hazard mitigation ambassador program.

1. INTRODUCTION

This community engagement plan provides a framework for public participation in the 2016 Mitigation Action Plan (MAP) development process. The City of Portland believes in the importance of public participation, and has invested significant resources to ensure that this process benefits from a wide range of perspectives from all stakeholders.

BOX-1: COMMUNITY ENGAGEMENT STRATEGY GOALS

1. Reach out to all stakeholders, specifically those that live in higher risk areas.
2. Create authentic opportunities for stakeholders to influence the planning process
3. Make use of existing community outreach capacities and networks.
4. Partner with local organizations
5. Promote activities that meet the Disaster Mitigation Act (DMA) and Community Rating System (CRS) outreach requirements;
6. Propose activities that can be included in the MAP

2. PUBLIC INVOLVEMENT PRINCIPLES

The City of Portland has a history of promoting community engagement and participation in all areas of local policy making. It is one of the handful of cities in the United States that have intentionally adopted a programs to consult and partner with communities in all aspects of local policy making. The Office of Equity and Human Rights was established within the City Government “to promote equity and

reduce disparities based on race and disability within City Government.” Also, a number of other departments and agencies have developed numerous programs to promote stakeholder engagement.

All city departments and local agencies in Portland strive to incorporate the Portland City Council's 2010 Public Involvement Principals in their policy making efforts.

BOX-2: NEED FOR PUBLIC PARTICIPATION

Effective public involvement in local planning and policy development:

1. Results in City decisions that effectively respond to the needs and priorities of the community.
2. Makes community members and community resources as part of the solution.
3. Involves the whole community – especially those that have not participated in the past.
4. Spreads knowledge of and support for public policies and programs.
5. Keeps government accountable.

3. STAKEHOLDER INVOLVEMENT IN HAZARD MITIGATION PLANNING PROCESS

The Planning team listed and prioritized key stakeholders at the beginning of the planning process. The Portland Bureau of Emergency Management reached out to each of these stakeholders through emails and phone calls with invitation to participate as a steering committee member.

BOX-3: KEY TERMS

Community, refers to all residents of the City of Portland or those who work and play here.

Stakeholders, refer to people, groups, or businesses with an interest in findings and projects in the MAP. Stakeholders include residents; community groups; business owners; local, state and federal agencies; elected officials; visitors; neighboring communities; and others.

Engagement, is any two-way communication between the local government and stakeholders.

The Steering Committee guides the planning process for the MAP and promotes equity in building Portland's resilience to natural hazards. Members of the Steering Committee represent a cross-section of views and interests across Portland. By including diverse interests, the Steering Committee hopes to strengthen the planning effort and to build support for hazard mitigation activities across stakeholder groups. The Steering Committee provides guidance and leadership, oversees the planning process, and is the point of contact for local governments, neighborhoods, and community groups interested in the plan update. The Steering Committee members work with the planning team and other city officials to ensure that all Portlanders have equal access to projects that reduce their risk from natural hazards.

The Portland Bureau of Emergency Management coordinated two equity training sessions for the members of the Steering Committee and other stakeholders during the beginning of the plan update process. These sessions introduced attendees to key issues of equity in local policy making, especially in hazard mitigation planning.

4. CHALLENGES TO EFFECTIVE STAKEHOLDER INVOLVEMENT

To identify challenges to community engagement in the MAP process, the planning team conducted in person and phone interviews with 41 stakeholders. Ten members of Portland Neighborhood Associations were interviewed, 22 people representing community groups, and random visitors to local cafes in the city. Information about interviewees is kept private. It is not shared with city staff or in this report. The planning team conducted semi-structured interviews with a few questions, which allowed for free flow of conversation. Comments were recorded and grouped to show patterns. These interviews happened before the December 2015 floods in Portland. The floods may have changed some responses.

Interview responses were recorded and analyzed for patterns. The results are summarized below:

- Some communities of color and immigrant groups distrust the government.
- Respondents expressed the need to have multilingual notifications and other public outreach material. Interviewees want notifications and outreach materials in multiple languages. Many community members do not understand English very well and do not receive notifications in time. This results in more confusion and distrust.
- Most interviewees from community groups said they were burnt out on participation in city programs. Over the past few years, time commitment to local government public outreach programs has increased significantly for community groups. Each of the respondents said they participated in at least two ongoing outreach programs or committees.
- Members of the neighborhood associations wanted to participate in the MAP process, but were unsure how much influence they could have. They felt the process of hazard mitigation planning required technical expertise beyond their skills. They worried that getting involved in this process would take away time from other initiatives that they had already committed to.
- Most respondents from café interviews said they appreciated that the city started community engagement programs to promote public participation.
- Most respondents felt that there were other important issues that needed to be addressed, and hazard mitigation was low in their order of priority.
- Most respondents see earthquakes as the greatest risk, and said they do not feel prepared. They would like the City to provide more information and resources to help residents prepare for an earthquake.

BOX-4: INTERVIEW QUESTIONS

1. How involved is the organization in the hazard mitigation planning process?
2. What do they think a Hazard Mitigation Plan is?
3. What groups do they think should be involved and why?
4. What constituency/ groups can they speak about or know about?
5. Do they think these groups are aware of the hazard risks they face?
6. What are the major concerns of these groups?
7. How do they think, we can involve these groups?
8. What are existing social network mechanisms are they aware of?
9. What role can their organization, or groups they know of, play?
10. Are you involved in any other community outreach program of the city? If so, which ones?

5. RECOMMENDATIONS

Community engagement and outreach strategies in this section are designed to achieve the following three objectives:

1. Encourage public participation during the MAP development process (Section 5.1).
2. Facilitate continued engagement with local residents after adoption of the MAP (Section 5.2).
3. Promote effective cooperation and coordination between the local government and civil society organizations to promote an integrated framework for community engagement (Section 5.3).

5.1 COMMUNITY ENGAGEMENT AND OUTREACH ACTIVITIES

| Community Engagement and Outreach Activity – 1: Stakeholder Participation Review | |
|---|---|
| Suggested Timeframe: | February 2016 |
| Format: | Self-Evaluation by the Planning Team |
| Duration: | 2 hrs. |
| Rationale: | After a few months of involvement in the same way (steering committee in this case), the stakeholder interest can start to wane. Attendance at the meetings decreases, and discussions tend to divert without contributing to the MAP development process. By doing a mid-course self-check, the planning team may re-activate participation, and if needed, reach out to more stakeholders who have yet not been involved. |
| Description of the Activity: | Planning team reassess participation in the steering committee and identify any stakeholders that may have dropped out or not yet participated in the update process. |
| Outcomes: | This activity will reveal the gaps in stakeholder representation that may cause problems or delay in formal adoption of the plan. |
| Follow-up Activities: | The project coordinator to reach out to the unrepresented stakeholders and encourage them to participate in the steering committee meetings. |
| Measures of Performance: | Number of unrepresented stakeholders contacted. |

| Community Engagement and Outreach Activity – 2: Community Hazard Mitigation Survey | |
|---|--|
| Suggested Timeframe: | February- April 2016 |
| Format: | Mailed, Online, and Targeted |
| Duration: | 3 months |
| Rationale: | The planning team should create opportunities for general public to be involved in the planning process. While many members of the public may not be technical experts, they can be a useful resource in identifying critical assets, problem areas, describe past events and provide ideas for continued community engagement. A Natural Hazard Mitigation Survey can help share information about the plan update and assess public awareness of risks. |
| Description of the Activity: | <p>A Public Hazard Mitigation Survey should be conducted by the planning team. The survey should seek to collect information on how informed the public is about local hazard risks, their perception of their own risks, and how important they think hazard mitigation is. This survey should be multilingual and widely distributed in the community. Suggestions for survey distribution include:</p> <ul style="list-style-type: none"> • Permanent online link to be displayed on local government website, and partner community organization web pages. • Paper surveys and collection boxes at neighborhood coalition office, and important local government offices. • Distribution of survey at local community events. • Survey kiosks at local popular grocery stores, and cafes. |
| Outcomes: | This activity will increase transparency of the planning process, build trust, and provide information about public preferences and attitudes towards hazard mitigation. |
| Follow-up Activities: | The collected data should be formatted and organized in an easily usable format (spreadsheets). Planning team should analyze data to find level of public awareness about local hazards, suggestions for public engagement, perceived risk from natural hazards, and their experiences with hazards. This dataset should be maintained by the local government to be a baseline for later surveys. |
| Measures of Performance: | Number of surveys conducted. |

| Community Engagement and Outreach Activity – 3: Planning for Real – Risk Assessment & Policy Development Focus Groups | |
|--|--|
| Suggested Timeframe: | Mar-April 2016 |
| Format: | Focus Groups (10, in 8 neighborhood coalitions, and 2 special interest groups) |
| Duration: | 3-4 hrs. for each event depending on participation and venue availability (Open House) |
| Rationale: | The planning team should risk assessment findings and encourage the community to help develop hazard mitigation policies that match community priorities. |
| Description of the Activity: | <p>Planning for real is a hands-on focus group method that allows for participation by all attendees. Large format maps depicting risk areas are mounted on a horizontal table. The map station shows participants the extent and degree of hazard risks the community faces. The planning team introduces the risk assessment, and provides a brief overview of possible hazard mitigation activities (often based on FEMA and CRS guidance documents). Participants are then asked to place suggestions for the community on cards or flags placed on the map. Each exercise can have 5- 15 people per map station.</p> <p>Hazard risk computer workstations manned by local technical experts can be used instead of maps. The planning team should partner with the Portland's neighborhood coalitions to implement these exercises. Partnering with the neighborhood coalitions will add legitimacy to the process, build trust, and strengthen existing networks between the local government and the community. The Planning team should also partner with local community organizations to do similar workshops with two special interest groups – immigrant and refugee community or coalition of communities of color. The planning team may explore options for partnering with IRCO (Immigrant and Refugee Community Organization) and Communities of Color for implementation of these exercises.</p> |
| Outcomes: | This activity will help communicate hazards risks to the community and increase public awareness of risk. It will also help collect information on community preferences for specific hazard mitigation actions to be included in the MAP. |
| Follow-up Activities: | The planning team should use the information collected from these workshops for updating risk analysis and generating hazard mitigation priorities. |
| Measures of Performance: | Number of attendees in each 'Planning for Real' activity. |

| Community Engagement and Outreach Activity – 4: Draft MAP Review & Feedback | |
|--|--|
| Suggested Timeframe: | Jul 2016 |
| Format: | <p>Online</p> <p>Public Brochures (distributed through local government agencies, partner organizations, and neighborhood associations)</p> <p>Hazard Mitigation Displays (at City Hall, and Neighborhood Coalition Centers)</p> <p>MAP Town Hall Meetings (5 Town Hall Meetings)</p> |
| Duration: | 30 days (based on FEMA guidelines) |
| Rationale: | The preceding engagement and outreach activities will significantly contribute to plan development, there should also be a way for the public to give feedback on the whole draft plan document. This will help identify omissions or inappropriate policies that may place disproportionate burden on specific community groups or neighborhoods. |
| Description of the Activity: | <p>The planning team should collect feedback from communities on the draft plan. These four types of activities should be conducted during the 30-day comment period.</p> <ul style="list-style-type: none"> • Online: The City should post the full draft report, an executive summary, and a slide deck of key points online for reviewing and download. There should be a place on the website for comments. • Public Brochures: These should include a summary of outcomes of local risk assessments, summary of public engagement activities, and key hazard mitigation policies in the plan. The brochure should also refer to the webpage where the plan documents are available, and give a location where people can submit and comment on the draft plan. These could be distributed through government agencies, neighborhood associations, and local community organizations. • Hazard Mitigation Displays: The planning team should create Hazard Mitigation displays at key places in the community. The displays could be placed at the City Hall and at the neighborhood coalition offices. The displays could be in form of free standing 3D displays showing hazard risks through photos and text. They should show the benefits of the proposed hazard mitigation policies. • MAP Town Hall Meetings: It is proposed that the City officials and the planning team should partner with Neighborhood coalitions and community organizations to host hazard mitigation town hall meetings where local residents can ask questions about the MAP. This forum gives residents a chance for direct responses to their questions. Venues should match “Planning for Real” sites if possible. There should be 5 town hall meetings |
| Outcomes: | This activity will help collect feedback on the draft MAP and give residents a chance to influence the final plan. |
| Follow-up Activities: | The planning team should collect the feedback and respond to the comments as quickly as possible. |
| Measures of Performance: | Number of activities completed. Number of attendees. Quality of feedback received. |

| Community Engagement and Outreach Activity – 5: Draft MAP Review & Feedback | |
|--|---|
| Suggested Timeframe: | Post Adoption Plan Rollout. Annual Review thereafter. |
| Format: | Online (continuous) Hazard Mitigation Annual Review Town Hall Meeting (in partnership with Neighborhood Coalitions, and communities) |
| Duration: | 60-90 mins each. |
| Rationale: | Community engagement and outreach activities should continue after the plan is adopted to keep the public informed about hazards risks, continue to build support for implementation of mitigation projects, and prepare for the next plan update. These activities will also help build on the good will and public interest created the planning phase. |
| Description of the Activity: | <p>These activities should be continued after the plan adoptions.</p> <ul style="list-style-type: none"> • Online: Maintain a permanent webpage that hosts the digital copy of the MAP and document future planning activities. The webpage should also provide contact information for local agencies and departments involved in implementation of hazard mitigation activities. • Hazard Mitigation Annual Review Town Hall Meeting: City staff should partner with local neighborhood coalitions and civic organizations to host annual plan review town hall meetings. Rollout event should be planned within a month of formal plan adoption. At least one annual event should be planned in the following years. In these meeting the planning team should discuss the following: <ul style="list-style-type: none"> ○ Update historical events record with any events in the past year. ○ Review community profile and individual community assessments for each hazard and note any major changes or mitigation projects that have changed vulnerability. ○ Note accomplishments and current mitigation projects. ○ Record status of all action items in the MAP as projects are completed and as new needs or issues are identified. ○ Address updated Comprehensive Plans and other city plans - how can the two plans be coordinated to make them work for each other? ○ Incorporate additional hazard risk assessments as funding allows. |
| Outcomes: | This activity improves transparency in the MAP implementation process. It will also help maintain interest for engagement and outreach in the next update. |
| Follow-up Activities: | The planning team should prepare annual progress reports and make them available on the permanent website. |
| Measures of Performance: | Number of activities completed. Number of attendees. |



Figure 1. Community Engagement and Outreach Strategy

5.2 COORDINATED AND COOPERATIVE ENGAGEMENT

The city of Portland has an established history of effective community engagement and stakeholder participation in local policy making through its bureaus, and offices. Each of these administrative units continually undertakes programs and outreach activities. At the same time, Portland is home to a large number of civic organizations that have taken on the leadership role in advancing interests of their stakeholders in local policy making. A list of these stakeholders as identified through stakeholder mapping exercise is included in Attachment 1.

The MAP development process can take advantage of these partnerships by directly engaging with these stakeholder networks in the plan making process. Specifically, it is recommended that existing groups and networks be engaged to solicit their views on the following:

- Identification of specific vulnerable groups within the community.
- Assessment of risk awareness among the various communities.
- Identification of preferred means of capacity building and outreach to enhance risk awareness and participation in the planning process.
- Identification and prioritization of hazard mitigation activities to be included in the MAP.
- Identification and training of Hazard Mitigation Ambassadors

In order to leverage existing community linkages and partnerships during the MAP development process, a brief survey of local bureaus and community organizations was conducted to identify ongoing programs and initiatives. The original survey responses are included in Attachment 1. Table 1 summarizes the various programs/activities/events identified by respondents as possible avenues for outreach as well as continued engagement following the adoption of the MAP.

Table 1. Opportunities for Community Engagement and Outreach

| # | Program/ Activity/ Event | Contact Person | Email |
|----|--|-------------------------|--|
| 1 | Small Business Sustainability Workshop for Local Entrepreneurs | City of Portland | danielle.butsick@portlandoregon.gov |
| 2 | Residential Education and Engagement Master Recycler Program Community Collection Events | Lauren Norris | lauren.norris@portlandoregon.gov |
| 3 | Sustainability at Work | Megan Shuler | megan.shuler@portlandoregon.gov |
| 4 | Recycling and Composting Program Multifamily Waste Reduction Program | Jill Kolek | jill.kolek@portlandoregon.gov |
| 5 | Green Team | Greg Supriano | greg.supriano@portlandoregon.gov |
| 6 | BPS Community Involvement for Comp Plan | Sara Wright | sara.wright@portlandoregon.gov |
| 7 | BPS District Liaisons, Central City, and River Plan | Deborah Stein - Manager | deborah.stein@portlandoregon.gov |
| 8 | PF&R (Portland Fire & Rescue) All-Hazards Large Incident and Disaster Response Plan | Don Russ - PF&R | don.russ@portlandoregon.gov |
| 9 | East Portland Action Plan | Lore Wintergreen | lore.wintergreen@portlandoregon.gov |
| 10 | NAMCO, National Association of Minority Contractors | Nate McCoy | nate@namc-oregon.org |
| 11 | Urban League of Portland | Nkenge Johnson | NHJ@ulpdx.org |
| 12 | SEI (Self Enhancement Inc.) | Tony Hopson | tonyh@selfenhancement.org |
| 13 | NAYA (Native American Youth and Family Center) | Loretta Kelly | lorettak@nayapdx.org |
| 14 | Wisdom of the Elders | Rose High Bear | raven@wisdomoftheelders.org |
| 15 | APANO (Asian Pacific Network of Oregon) | Joseph Santos-Lyons | joseph@apano.org |
| 16 | CCC Community and Economic Development Committee (including climate and environmental justice) | Maggie Tallmadge | maggie@coalitioncommunitiescolor.org |
| 17 | Climate Justice Collaborative | Cary Watters | cary@coalitioncommunitiescolor.org |
| 18 | PAALF (Portland African American Leadership Forum) Environmental Justice Workgroup | Solamon Ibe | s.ibe@hotmail.com |
| 19 | Sunday Parkways Summer events on the Columbia Slough Multnomah Days at Multnomah Village Portland Farmer's Market | Megan Callahan | Megan.Callahan@portlandoregon.gov |

5.3 BROADER COMMUNITY ENGAGEMENT AND OUTREACH

Community engagement is a continuous process, and requires multiple means of facilitating two-way communication with the citizens. This section highlights a number of important ways to facilitate meaningful community engagements.

5.3.1 E-engagement: Online Risk Atlas & E-Portal

It is recommended that an online spatial risk atlas be hosted on the hazard mitigation website. The atlas will contain socio-economic data along with risk overlays to inform public about the likely hazard risks they face in their neighborhoods. Additional resources for specific mitigation actions, and opportunities for participation in the planning process can also be made available through this website. The interactive web based platform should also an interactive annotation tool for users to post flags, highlight and comment on specific locations on the map. This mapping interface can be developed in partnership with existing low cost mapping initiative underway in the other departments/bureaus at the

city. A screenshot of a similar application developed by Institute for Hazard Mitigation and Planning at University of Washington in partnership with Texas A & M University, Galveston is shown in Figure 2.

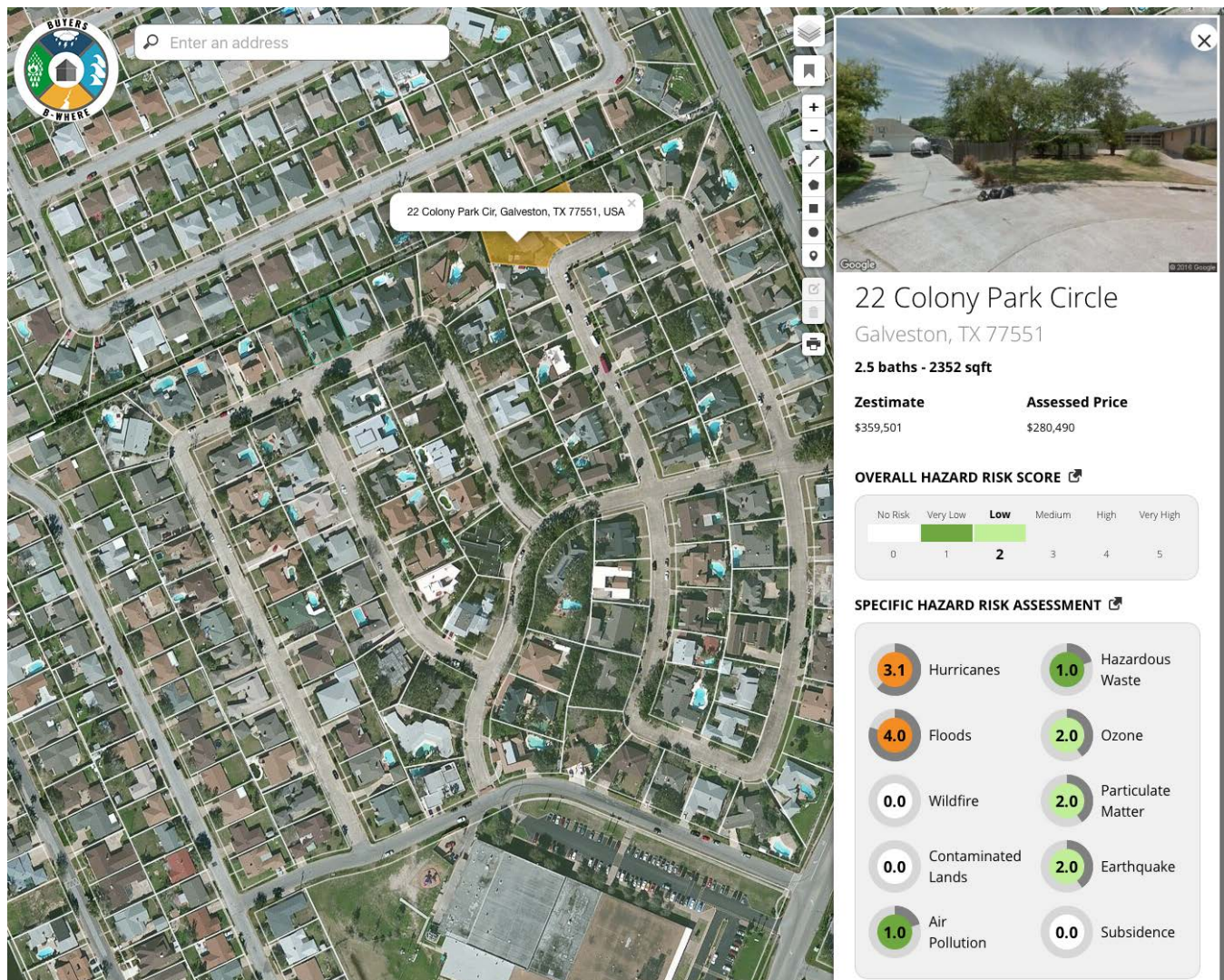


Figure 2. Screenshot of Sample Online Mapping Interface

Presently, the city does have a number of online mapping platforms to share spatial and census data. These include:

- MetroMap (<https://gis.oregonmetro.gov/metromap/>)
- Racial equity atlas (<http://regionalequityatlas.org/programs/regional-equity-atlas/equity-atlas-20-mapping-tool>)
- Portland Maps (<https://www.portlandmaps.com>).

While each of these online interface does provide significant data, the ability for users to download and analyze spatial datasets is very limited. Further, none of the online mapping platform accessed at the time of the writing of this report provided hazard risk information at the neighborhood level or linked to possible hazard mitigation information. It is therefore recommended that additional hazard mitigation related information and data be made available either through existing or a new online mapping interface.

The E-portal that will host the online risk atlas can also be designed to include hazard mitigation, and other hazard risk awareness resources for the local stakeholders. Presently, there are a number of hazard mitigation, risk awareness, and disaster preparation documents available online from the city website as well as federal website such as ready.gov. Given the diversity of stakeholders (and associated languages) in Portland, it is recommended that the city actively consider making these resources available online in multi-lingual format.

In addition to the online atlas there a number of other opportunities for engaging with the community using online platforms. The following updates are recommended to the existing Portland Bureau of Emergency Management hazard mitigation homepage:

- To provide updated information about all meetings and events proposed to be conducted as part of the planning process.
- Online questionnaires and surveys can be posted on this website to allow users to access and responds.
- Live Chat Events can be scheduled on this website to allow stakeholders who are unable to participate in steering committee meeting to interact with the planning team to provide feedback and comments.
- A feedback and comments tool can be created specifically to allow people to respond to the issues and concerns specifically for hazard mitigation planning.
- Facebook, twitter and other social media outlets can be utilized to connect with people and stakeholders.

5.3.2 Multilingual Support for Planning Documents and Surveys

A number of participants in the surveys conducted during the preparation of this engaging strategy indicated that a significant number of the residents did not understand English that well. It is therefore recommended that the planning team partner with local civic organizations that represent these minority groups and seek their assistance in conversion of planning documents and surveys into other formats. This will enable a boarder range of stakeholders to access, understand and participate in the planning process. Past experiences reveal that multi-language support is critical in diverse communities that are undergoing significant demographic changes. Lack of access to understandable documents and other outreach material is likely to further alienate communities that have traditionally been excluded from earlier public consultation process.

5.3.3 Hazard Mitigation Exhibits

Exhibits and displays are an effective way of making relevant information accessible to the public at a relatively lower cost. These locations can also serve as the nodes for further distribution of documents, surveys and materials. Over time stakeholders start to visit these locations regularly to seek out specific information regarding new projects and outreach activities. It is therefore strongly recommended that the planning team and the city consider installation of such displays at prominent locations such as the city hall and the neighborhood coalition offices. These displays can be used to provide regular updates on the hazard mitigation planning process, planned activities, and can also serve as nodes for conducting smaller public meetings events as needed. These displays will be particularly useful for public review of the draft plan, and continued engagement following the plan adoption.

5.3.4 Increased participation of Other Bureaus and Offices in Stakeholder Meetings

As highlighted earlier it is often not possible for the stakeholders to distinguish between hazard mitigation priorities and general development concerns. Stakeholders often tend to bring up a variety of concerns (often not necessarily connected to hazard mitigation planning) during steering committee meetings and the other events. It is possible that if these concerns are ignored citing lack of direct connection with hazard mitigation planning, it is likely to result in increased community distrust. It is therefore recommended that representatives from other bureaus, specifically Development services, Environmental services, Office of Equity and Human rights, Planning and Sustainability, and Housing Bureau be invited to these meetings and be allowed to respond to concerns related to their department. At a minimum, a procedure for recording all concerns be established, and forwarded to relevant bureaus for response. These responses could then be shared through email or directly with the stakeholders.

5.3.5 Hazard Mitigation Ambassador Program

The city of Portland is home to a large number of diverse stakeholder civil society organizations that are actively involved and embedded within their respective communities. These existing networks provide an effective means for the continued engagement with the local stakeholders not only during the MAP development process but also after the adoption of the plan. It is therefore recommended that the city consider establishment of a Hazard Mitigation Ambassador program. The primary goal of this program will be to identify and train individuals from diverse community groups about risk awareness, and minimization through effective mitigation actions. These individuals can also be trained to assist community members in preparation of household level emergency response plans, and other disaster mitigation activities, as well as resources to help community members become prepared for other hazard threats. These hazard mitigation ambassadors would serve as the vital link between the city and the community in case of any hazard event, and assist citizens in undertaking appropriate response actions as advocated by the city. Overtime it is expected that the role of these community ambassadors can be diversified to include organization and coordination of other community outreach activities in their community.

Community Engagement Plan

Attachment 1. Copy of Survey Responses

Survey of City Bureaus and Offices

Dear Respondent,

As you may know, Portland Bureau of Emergency Management is in the process of updating the city's Natural Hazard Mitigation Plan (NHMP). The plan outlines a strategy for reducing Portland's risk from natural hazards. Having a FEMA-approved plan also makes the City of Portland eligible for federal grants that can help strengthen city assets and improve community resilience before and after a disaster. Information about the project can be found at the project website here:

<https://www.portlandoregon.gov/pbem/naturalhazard>

We are asking for information about programs and outreach activities at your bureau or office to find opportunities for resource sharing and collaborative community engagement. We think it's important to team up whenever possible, and we want to find ways we can support each other in our outreach efforts. By working together, we think we can reach more people in more meaningful ways.

Feel free to share this with your colleagues who may also be able to provide relevant information.

Question 1: Which city bureau or office are you associated with?

BPS- Sustainability Education and Assistance

Question 2: Prior to receiving this survey, had you heard about the Natural Hazard Mitigation Plan (NHMP) update process?

☐ Yes

☒ No

Question 3: Would you like to receive more information about the NHMP plan update?

☐ Yes

☒ No

Please provide your contact information:

Preferred Email:

Telephone:

Question 4: Please list any community outreach and engagement programs at your bureau or office that we might be able to work together on. If known, please provide the contact information of the key person to contact for each of these programs.

| # | Name of the program/activity/event | Contact Person | Email | Tel. |
|---|--|---------------------------------------|-------------------------------------|--------------|
| 1 | Example: Small Business Sustainability Workshop for local entrepreneurs to share sustainable practices May 15, 2016 | Danielle Butsick, City of Portland | danielle.butsick@portlandoregon.gov | 503-823-3926 |
| 2 | Residential Education and Engagement: • Outreach for the curbside collection system to encourage composting, recycling and proper disposal of hazardous material | Lauren Norris | lauren.norris@portlandoregon.gov | |
| 3 | Sustainability at Work: * Assist 1,000 businesses annually to improve sustainability practices; certify 50 businesses annually through Sustainability at Work certification | Megan Shuler | megan.shuler@portlandoregon.gov | |
| 4 | Event Recycling and Composting Program Assist and provide equipment to 30 large and 100+ small- to medium-sized events to increase waste diversion at | Jill Kolek | jill.kolek@portlandoregon.gov | |
| 5 | Master Recycler Program: * Train 90 community volunteers on waste reduction and prevention, communications and behavior change * Manage 1,400 Master Recycler | Lauren Norris | lauren.norris@portlandoregon.gov | |
| 6 | Community Collection Events Partner with Neighborhood Coalitions, Metro and community organizations to host 45+ collection events annually. | Lauren Norris | lauren.norris@portlandoregon.gov | |
| 7 | Multifamily Waste Reduction Program: *Provides assistance to 50,000 MF units and 175 property managers, owners and companies annually. * Develops infrastructure policies that | Jill Kolek | jill.kolek@portlandoregon.gov | |
| 8 | | | | |
| 9 | | | | |
| | | | | |

Survey of City Bureaus and Offices

Dear Respondent,

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Feel free to share this with your colleagues who may also be able to provide relevant information.

Question 1: Which city bureau or office are you associated with?

Portland Housing Bureau

Question 2: Prior to receiving this survey, had you heard about the Natural Hazard Mitigation Plan (NHMP) update process?

☒ Yes

☐ No

Question 3: Would you like to receive more information about the NHMP plan update?

☒ Yes

☐ No

Please provide your contact information:

Preferred Email:

Telephone:

Question 4: Please list any community outreach and engagement programs at your bureau or office that we might be able to work together on. If known, please provide the contact information of the key person to contact for each of these programs.

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|---|---|---|--|---|
| 1 | Example: Small Business Sustainability Workshop for local entrepreneurs to share sustainable practices May 15, 2016 | Danielle Butsick, City of Portland | danielle.butsick@portlandoregon.gov | 503-823-3926 |
| 2 | East Portland Action Plan | lore wintergreen | lore.wintergreen@portlandoregon.gov | 503 823-4035 |
| 3 | NAMCO, National Association of Minority Contractors | Nate McCoy | nate@namc-oregon.org | |
| 4 | Urban League of Portland | Nkenge Johnson, President and CEO | Nkenge Harmon Johnson <NHJ@ulpdx.org> | 503 280-2600 |
| 5 | SEI, Self Enhancement Inc. | Tony Hopson, President | tonyh@selfenhancement.org | 503 249-1721 |
| 6 | Self Enhancement Inc. Housing Programs | Libra Forde | libraf@selfenhancement.org | 503 972-3687 office, or 808 372-9240 cell |
| 7 | NAYA Native American Youth and Family Center | Loretta Kelly | lorettak@nayapdx.org | 503 288-8177 |
| 8 | Wisdom of the Elders | Rose High Bear | raven@wisdomoftheelders.org | 503 775-4014 |
| 9 | APANO Asian Pacific Network of Oregon | Joseph Santos-Lyons Exec. Dir. or Duncan Hwang Associate Director | joseph@apano.org or duncan@apano.org | 971 340-4861 |

Survey of City Bureaus and Offices

Dear Respondent,

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<https://www.portlandoregon.gov/pbem/naturalhazard>

We are asking for information about programs and outreach activities at your bureau or office to find opportunities for resource sharing and collaborative community engagement. We think it's important to team up whenever possible, and we want to find ways we can support each other in our outreach efforts. By working together, we think we can reach more people in more meaningful ways.

Feel free to share this with your colleagues who may also be able to provide relevant information.

Question 1: Which city bureau or office are you associated with?

BDS

Question 2: Prior to receiving this survey, had you heard about the Natural Hazard Mitigation Plan (NHMP) update process?

☒ Yes

☐ No

Question 3: Would you like to receive more information about the NHMP plan update?

☐ Yes

☒ No

Please provide your contact information:

Preferred Email:

Telephone:

Question 4: Please list any community outreach and engagement programs at your bureau or office that we might be able to work together on. If known, please provide the contact information of the key person to contact for each of these programs.

| # | Name of the program/activity/event | Contact Person | Email | Tel. |
|---|--|---------------------------------------|-------------------------------------|--------------|
| 1 | Example: Small Business Sustainability Workshop for local entrepreneurs to share sustainable practices May 15, 2016 | Danielle Butsick, City of Portland | danielle.butsick@portlandoregon.gov | 503-823-3926 |
| 2 | Green Team | Greg Supriano | greg.supriano@portlandoregon.gov | 503-823-7351 |
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Survey of City Bureaus and Offices

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Question 2: Prior to receiving this survey, had you heard about the Natural Hazard Mitigation Plan (NHMP) update process?

☒ Yes

☐ No

Question 3: Would you like to receive more information about the NHMP plan update?

☒ Yes

☐ No

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Preferred Email:

Telephone:

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| # | Name of the program/activity/event | Contact Person | Email | Tel. |
|---|--|---------------------------------------|-------------------------------------|--------------|
| 1 | Example: Small Business Sustainability Workshop for local entrepreneurs to share sustainable practices May 15, 2016 | Danielle Butsick, City of Portland | danielle.butsick@portlandoregon.gov | 503-823-3926 |
| 2 | BPS Community Involvement for Comp Plan | Sara Wright | sara.wright@portlandoregon.gov | 503-823-7728 |
| 3 | BPS District Liaisons, Central City, and River Plan | Deborah Stein - Manager | deborah.stein@portlandoregon.gov | 823-6991 |
| 4 | | Leslie Lum - North Portland | leslie.lum@portlandoregon.gov | 503-823-7896 |
| 5 | | Nan Stark - Northeast Portland | nan.stark@portlandoregon.gov | 503-823-3986 |
| 6 | | Marty Stockton - Southeast Portland | marty.stockton@portlandoregon.gov | 503-823-2041 |
| 7 | | Joan Frederiksen - West Portland | joan.frederiksen@portlandoregon.gov | 503-823-3111 |
| 8 | | Troy Doss - Central City | troy.doss@portlandoregon.gov | 503-823-5857 |
| 9 | | Sallie Edmunds - River Team | sallie.edmunds@portlandoregon.gov | 503-823-6950 |

Survey of City Bureaus and Offices

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Feel free to share this with your colleagues who may also be able to provide relevant information.

Question 1: Which city bureau or office are you associated with?

Portland Fire & Rescue

Question 2: Prior to receiving this survey, had you heard about the Natural Hazard Mitigation Plan (NHMP) update process?

☐ Yes

☒ No

Question 3: Would you like to receive more information about the NHMP plan update?

☒ Yes

☐ No

Please provide your contact information:

Preferred Email: don.russ@portlandoregon.gov

Telephone: 503 816-5590

Question 4: Please list any community outreach and engagement programs at your bureau or office that we might be able to work together on. If known, please provide the contact information of the key person to contact for each of these programs.

| # | Name of the program/activity/event | Contact Person | Email | Tel. |
|---|--|---------------------------------------|-------------------------------------|--------------|
| 1 | Example: Small Business Sustainability Workshop for local entrepreneurs to share sustainable practices May 15, 2016 | Danielle Butsick, City of Portland | danielle.butsick@portlandoregon.gov | 503-823-3926 |
| 2 | PF&R All-Hazards Large Incident and Disaster Response Plan | Don Russ - PF&R | don.russ@portlandoregon.gov | 503 816-5590 |
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Survey of Community Organizations

Dear Respondent,

As you may know, Portland Bureau of Emergency Management is in the process of updating the city's Natural Hazard Mitigation Plan (NHMP). The plan outlines a strategy for reducing Portland's risk from natural hazards. Having a FEMA-approved plan also makes the City of Portland eligible for federal grants that can help strengthen city assets and improve community resilience before and after a disaster. Information about the project can be found at the project website here:

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Feel free to share this with your colleagues who may also be able to provide relevant information.

Question 1: Which organization/s are you associated with?

Coalition of Communities of Color

Question 2: Prior to receiving this survey, had you heard about the Natural Hazard Mitigation Plan (NHMP) update process?



Yes



No

Question 3: Would you like to receive more information about the NHMP plan update?



Yes



No

Please provide your contact information:

Preferred Email: Maggie@coalitioncommunitiescolor.org

Telephone: 781-697-0021

Question 4: Please list any community outreach and engagement programs at your organization that we might be able to work together on. If known, please provide the contact information of the key person to contact for each of these programs. (Add rows as required.)

| # | Name of the program/activity/event | Contact Person | Email | Tel. |
|---|--|------------------|--------------------------------------|--------------|
| 1 | Example: Youth Environmental Justice Program, ongoing monthly meetings every third Wednesday | Danielle Butsick | danielle.butsick@portlandoregon.gov | 503-823-3926 |
| 2 | CCC Community and Economic Development Committee (including climate and EJ) - First Thursday of each month | Maggie Tallmadge | maggie@coalitioncommunitiescolor.org | 781-697-0021 |
| 3 | Climate Justice Collaborative meeting with policy leads - First Thursday of each month | Cary Watters | cary@coalitioncommunitiescolor.org | |
| 4 | PAALF EJ Workgroup - Third Friday of each month | Solamon Ibe | s.ibe@hotmail.com | |
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Survey of Community Organizations

Dear Respondent,

As you may know, Portland Bureau of Emergency Management is in the process of updating the city's Natural Hazard Mitigation Plan (NHMP). The plan outlines a strategy for reducing Portland's risk from natural hazards. Having a FEMA-approved plan also makes the City of Portland eligible for federal grants that can help strengthen city assets and improve community resilience before and after a disaster. Information about the project can be found at the project website here:

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We are asking for information about programs and outreach activities at your organization to find opportunities for resource sharing and collaborative community engagement. We think it's important to team up whenever possible, and we want to find ways we can support each other in our outreach efforts. By working together, we think we can reach more people in more meaningful ways.

Feel free to share this with your colleagues who may also be able to provide relevant information.

Question 1: Which organization/s are you associated with?

East Portland Neighborhood Office

Question 2: Prior to receiving this survey, had you heard about the Natural Hazard Mitigation Plan (NHMP) update process?



Yes



No

Question 3: Would you like to receive more information about the NHMP plan update?



Yes



No

Please provide your contact information:

Preferred Email:

Telephone:

Question 4: Please list any community outreach and engagement programs at your organization that we might be able to work together on. If known, please provide the contact information of the key person to contact for each of these programs. (Add rows as required.)

| # | Name of the program/activity/event | Contact Person | Email | Tel. |
|---|---|--------------------------|-------------------------------------|--------------|
| 1 | Example: Youth Environmental Justice Program, ongoing monthly meetings every third Wednesday | Danielle Butsick | danielle.butsick@portlandoregon.gov | 503-823-3926 |
| 2 | "Taste of Parkrose" event | Historic Parkrose | | |
| 3 | Festival of Nations | Division Midway Alliance | | |
| 4 | Rosewood Initiative Events | Rosewood Initiative | | |
| 5 | The Slavic Festival in Ventura Park | Galina Nekrova | | |
| 6 | 82nd Ave. of the Roses Parade, end of April | | | |
| 7 | Cambodian Lao Thai Burmese New Years' Festival at Glenhaven Park, end of April | | | |
| 8 | National Night Out Community Fairs/Movie in the Park | Barb Klinger, The Rovers | | |
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Survey of City Bureaus and Offices

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As you may know, Portland Bureau of Emergency Management is in the process of updating the city's Natural Hazard Mitigation Plan (NHMP). The plan outlines a strategy for reducing Portland's risk from natural hazards. Having a FEMA-approved plan also makes the City of Portland eligible for federal grants that can help strengthen city assets and improve community resilience before and after a disaster. Information about the project can be found at the project website here:

<https://www.portlandoregon.gov/pbem/naturalhazard>

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Feel free to share this with your colleagues who may also be able to provide relevant information.

Question 1: Which city bureau or office are you associated with?

Bureau of Environmental Services (BES)

Question 2: Prior to receiving this survey, had you heard about the Natural Hazard Mitigation Plan (NHMP) update process?

☒ Yes

☐ No

Question 3: Would you like to receive more information about the NHMP plan update?

☐ Yes

☒ No

Please provide your contact information:

Preferred Email:

Telephone:

Question 4: Please list any community outreach and engagement programs at your bureau or office that we might be able to work together on. If known, please provide the contact information of the key person to contact for each of these programs.

| # | Name of the program/activity/event | Contact Person | Email | Tel. |
|---|--|--|-------------------------------------|--------------|
| 1 | Example: Small Business Sustainability Workshop for local entrepreneurs to share sustainable practices May 15, 2016 | Danielle Butsick, City of Portland | danielle.butsick@portlandoregon.gov | 503-823-3926 |
| 2 | Sunday Parkways: East Portland (May 15) Southeast (Aug 21) Sellwood-Milwaukie (Oct 2) | Megan Callahan, Public Affairs Manager | Megan.Callahan@portlandoregon.gov | 503-823-4759 |
| 3 | Summer events on the Columbia Slough: Regatta (Aug 7) Explorando (June 11) Aquifer (Sept 17) | Megan Callahan, Public Affairs Manager | Megan.Callahan@portlandoregon.gov | 503-823-4759 |
| 4 | Multnomah Days at Multnomah Village (Aug 20) | Megan Callahan, Public Affairs Manager | Megan.Callahan@portlandoregon.gov | 503-823-4759 |
| 5 | Arbor Day at the Portland Farmer's Market (April 30) | Megan Callahan, Public Affairs Manager | Megan.Callahan@portlandoregon.gov | 503-823-4759 |
| 6 | "Life in the Floodplain", Oct. 8th at Zenger Farm | Kate Carone, BES | kate.carone@portlandoregon.gov | 503-823-5569 |
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Community Engagement Plan

Attachment 2. Key Stakeholders & Networks

KEY STAKEHOLDERS & NETWORKS

Within the City of Portland, there are service (non-profit) organizations affiliated with different ethnic, racial, economic and other sub-populations that have historically lacked a voice in development and implementation of government policy and programs. Many of these organizations have experience conducting public engagement with their constituencies to develop and implement their own programs. There likely are opportunities for the PBEM to collaborate with and learn from these organizations for how best to engage their constituents. The following information identifies organizations that may provide collaboration and describes each organizations mission, constituency and organization partners. We also identify program areas that may lend themselves to collaboration with PBEM hazard mitigation planning.

Organization: African American Chamber of Commerce of Oregon¹

Mission: To enhance, educate and empower the African American business and professional community in the Oregon and Southwestern Washington district. To identify and provide avenues for mentoring, professional growth and business development for small business owners and entrepreneurs. To develop and enhance outreach and assistance programs to youth in the areas of business, law, and personal responsibility.

Community Served: The African American Chamber serves the African American business and professional community in the Oregon and Southwestern Washington district.

Programs: The Chamber offers assistance, mentoring and referrals, through a vast network of associates and members, to assistance interested parties in starting, developing or expanding businesses. The Chamber also provides education scholarships, job postings and contract bid postings.

Partners: The Chamber's members are involved and committed volunteers who serve on a diverse range of commissions, boards, and committees connecting all socio-economic levels and racial communities. Whether it is business, education, legal, economic development, arts, social justice, housing, or health issue.

Potential Opportunities for Collaboration: Potential opportunity for communication with the African American business community. Hazard mitigation themes of community and business resilience may be of interest to members of the organization.

¹ African American Chamber, 2015. Web site accessed Dec. 7, 2015. <http://blackchamber.info/>.

Organization: African American Health Coalition, Inc. ²

Mission: To promote health and improve wellness among Oregon's African American community through health education, advocacy and research.

Community Served: Oregon's African American community

Programs: Chronic Disease Self-Management Program elderly 60+ years of age, National Diabetes Prevention Program for high risk individuals, Educational Program to Increase Colorectal Cancer Screening, Cover Oregon Insurance Enrollment Assistance, Diabetes Self-Management Program, Racial and Ethnic Approaches to Health, Spice it Up Healthy Eating Program and the Wellness within Reach that is focused on physical activity.

Partners: The African American Health Coalition, Inc. is sponsored by Moda Health, United Way, new Seasons Market, Providence Health & Services, Spirit Mountain Casino, Legacy Health, Family Care Health Plans, Novo Nordisk, M.J.M. Murdock Charitable Trust, Oregon Health & Science University, Safeway, Fred Meyer, the Collins Foundation, Multnomah County Health Department and MacDonalds.

Potential Opportunities for Collaboration: Potential opportunity to communicate with African American adults. The hazard mitigation theme of safety may be of interest to members of the organization.

Organization: Asian Pacific American Network of Oregon (APANO) ³

Mission: The Asian Pacific American Network of Oregon is a statewide, grassroots organization, uniting Asians and Pacific Islanders to achieve social justice. We use our collective strengths to advance equity through empowering, organizing and advocating with our communities.

Community Served: Asians and Pacific Islanders

Programs: APANO program work is focused on community organizing, leadership development and training, policy advocacy, Civic Engagement, cultural Work and the jade district.

Partners: Partners of APANO in Oregon include The Asian Council of Eugene & Springfield, Chinese American Citizens Alliance, Chinese Consolidated Benevolent Association, COFA Alliance National Network, DisOrient Film Festival, Korean American Coalition of Oregon, Living Islands, Micronesian Islander Community, Mien Professionals Network, Oregon Marshallese Community, Philippine American Chamber of Commerce and Zomi Association of US.

Potential Opportunities for Collaboration: Potential opportunity to collaborate on outreach to Asian and Pacific Islander communities (Primarily younger adult population). Civic engagement, resilience, leadership development/training are APANO work areas that may have synergy with hazard mitigation.

² African American Health Coalition, Inc., 2015. Website accessed Dec. 7, 2015. <http://aaahc-portland.org/>.

³ APANO, 2015. Web site accessed Dec. 3, 2015. <http://www.apano.org/>.

Organization: Asian Health & Service Center⁴

Mission: To be the bridge between Asian and American cultures and build a harmonious community.
Vision: To reduce health inequity and improve health care quality for all Asians.

Community Served: Asian Americans (demographic dominant client base 40 to 80 years of age)

Programs: Arts and cultural community engagement, health education and support, healthcare services, research and studies related to health in Asian American community and Chinese immersion preschool.

Partners: American Association of Retired Persons, American Cancer Society, Avon Breast Health Outreach Program, City of Beaverton, Coalition of Community Health Clinics, Children's Community Clinic, Gilead Sciences, Mercy & Wisdom Healing Center, Multnomah County Health Department, National College of Natural Medicine (NCCM), Native American Rehabilitation Association of the Northwest (NARA), North By Northeast Clinic, National Institutes of Health (NIH), Northwest Health Foundation, Novartis Pharmaceuticals, OHSU Richmond Clinic, Old Town Clinic: with Central City Concern Health Services, Orange County Asian and Pacific Islander Community Alliance, Oregon Health Authority (OHA), Oregon Health & Science University (OHSU), OHSU Family Center at Richmond, Outside In Medical Clinic, PACS Family Health Center, Portland State University, Providence Health & Services, Rosewood Family Health Center, Susan G. Komen for the Cure, SW Community Health Center, The Wallace Medical Concern, United Way of the Columbia-Willamette, Washington County Health & Human Services and West Burnside Chiropractic Clinic.

Potential Opportunities for Collaboration: Potential opportunity to reach older Asian American population. The hazard mitigation theme of safety may be of interest to members of the organization.

Organization: Audubon, Portland⁵

Mission: Audubon Society of Portland promotes the understanding, enjoyment, and protection of native birds, other wildlife, and their habitats.

Community Served: Local environmental community and the Pacific Northwest

Programs: Birding publications and information, education classes and camps, Wildlife Care Center, sanctuaries, and habitat and species conservation and restoration.

Potential Opportunities for Collaboration: Could potentially collaborate with outreach to environmental community. Members may be interested in impact mitigation strategies may have on wildlife or mitigation strategies that could also benefit wildlife and environmental education.

Organization: Black Parent Initiative⁶

Mission: The Black Parent Initiative (BPI) educates and mobilizes the parents and caregivers of Black and multi-ethnic children to ensure they achieve success.

Community Served: Families of Black and multi-ethnic children

⁴ Asian Health & Service Center, 2015. Web site accessed Dec. 4, 2015. <http://www.ahscpdx.org/>.

⁵ Audubon Portland, 2015. Web site accessed Dec. 4, 2015. <http://audubonportland.org/>.

⁶ BPI, 2015. Web site accessed Dec. 4, 2015. <http://thebpi.org/>.

Programs: Parent University focuses on:

- Literacy: home-based support for improved child reading and comprehension
- Culturally Specific Parenting: home-based discipline; home based/school advocacy
- Advocacy: cultivating parent advocates
- And, the Together We Can program provides:
 - Intensive Home Visiting: relationship-based; focus on safety, stability, and personal growth
 - Group Services: personal growth, consciousness, and connection

Potential Opportunities for Collaboration: Potential opportunity for outreach to African American and mixed race families with children. The hazard mitigation theme of safety may be of interest to members of the organization.

Organization: Center for Intercultural Organizing⁷

Mission: The Center for Intercultural Organizing is a diverse, grassroots organization working to build a multi-racial, multicultural movement for immigrant and refugee rights.

Community Served: Multi-racial, multicultural immigrants and refugees

Programs: The Center for Intercultural Organizing has four focus areas.

Community Education-The Center educates immigrants, refugees and U.S.-born allies on pressing community issues and strengthens and supports existing efforts to bring visibility to immigrant and refugee struggles.

Civic Engagement and Policy Advocacy-Our civic engagement program provides a pathway for immigrants and refugees to participate in democratic processes through training programs, hands-on projects and collective action that produce concrete improvements in their lives.

Organizing and Mobilization-CIO assists immigrant and refugee community members in building the organizing skills necessary to impact policies that affect them and to work collaboratively, mobilizing diverse constituencies.

Intergenerational Leadership Development-CIO develops new leaders through a signature yearlong leadership development program, through strategic trainings, and through on-the-ground leadership positions within our campaigns.

Potential Opportunities for Collaboration: Potential opportunity to collaborate with Community Engagement and Civic Engagement programs.

Organization: Coalition of Communities of Color⁸

Mission: The Coalition of Communities of Color (CCC) addresses the socioeconomic disparities, institutional racism and inequity of services experienced by our families, children and communities; and to organize our communities for collective action resulting in social change to obtain self-determination, wellness, justice and prosperity.

⁷ CIO, 2015. Web site accessed Dec. 4, 2015. <http://www.interculturalorganizing.org/>.

⁸ CCC, 2015. Web site accessed Dec. 4, 2015. <http://www.coalitioncommunitiescolor.org/>.

Community Served: Coalition of Communities of Color (CCC) is an alliance of culturally-specific community based organizations with representation from the following communities of color: African, African American, Asian, Latino, Native American, Pacific Islander, and Slavic.

Programs: The CCC implements culturally-responsive data and research projects to build an important knowledge base from which to educate and to advocate. Bridges is a leadership development initiative with houses six culturally-specific leadership development programs led by CCC member organizations. Bridges' programs provide ongoing support through leadership placements, mentorship and community networking. The CCC also conducts policy analysis and advocacy to advance policies in Oregon that have the best potential to improve outcomes for communities of color. This program area includes the Education Justice Initiative that creates better outcomes for all students by removing barriers facing students of color, and Community & Economic Development work that focuses on anti-displacement and environmental justice.

Partners: IRCO Africa House, IRCO Asian Family Center, Asian and Pacific American Network of Oregon, Center for Intercultural Organizing, El Centro Milagro, Hacienda Community Development Corporation, Immigrant and Refugee Community Organization (IRCO), Latino Network, KairosPDX, Native American Youth and Family Center (NAYA Family Center), Portland African American Leadership Forum, Portland Community Reinvestment Initiatives, Inc., Portland Youth and Elders Council, Self Enhancement, Inc., Slavic Community Center, Slavic Network of Oregon, Urban League of Portland, Verde and VOZ Workers' Rights Education Project.

Potential Opportunities for Collaboration: The staff could provide insight on how best coordinate with partner organizations.

Organization: Disability Rights Oregon⁹

Disability Rights Oregon (DRO) is a non-profit law office that provides advocacy and legal services to people with disabilities who have an issue related to their disability and that falls within DRO's goals and priorities.

Mission: To promote and defend the rights of individuals with disabilities.

Community Served: People with disabilities who have an issue related to their disability and that falls within DRO's goals and priorities.

- Goals:
 - Stopping Abuse and Neglect,
 - Providing Full Access to Community Participation,
 - Removing significant access barriers in public places with emphasis on barriers in education, transportation and the courts
 - Monitoring the increase in the supply of accessible housing through policy work
 - Providing information about reasonable accommodations for tenants to prevent homelessness and isolation.
 - Enforcing anti-discrimination laws
 - Working to achieve full participation in the electoral process including registering to vote and casting a ballot
 - Getting and Maintaining Quality Community Support Services

⁹ Disability Rights Oregon, 2015. Web site accessed Dec. 4, 2015. <https://droregon.org/>.

- Getting a Free & Appropriate Education for Children
- Other Very Important Issues That Promote the Mission of DRO & That Are Approved by the Executive Director

Potential Opportunities for Collaboration: DRO may be able to provide insight on how best engage individuals with disabilities in HMP update process. They may also be able to provide inputs in development of appropriate hazard mitigation strategies

Organization: East Portland Neighborhood Office (East Portland Action Plan)¹⁰

The East Portland Neighborhood Office (EPNO) is part of the City of Portland's Office of Neighborhood Involvement.

EPNO acts as a hub for these independent organizations in their work; providing organizing assistance, support in navigating the city's processes, funding opportunities, material resources (meeting space, event equipment, copies, etc), and more.

The East Portland Action Plan (EPAP), a group affiliated with the EPNO, was convened for the specific task of providing leadership and guidance to public agencies and other entities on how to strategically address community-identified issues and allocate resources to improve livability and prevent displacement in East Portland. East Portland is defined by the East Portland Neighborhood Office (EPNO) coalition area.

Goals: To enhance community involvement in efforts to improve neighborhood livability, a sense of community, public safety, organizational and self-empowerment at the neighborhood level, and to implement the goals of The Five Year Plan to Strengthen Community Involvement in Portland.

Community Served: EPNO serves about 25% of the City's population, spread across about 20% of the City's landmass. EPNO exists to support community organizations, community members, and the thirteen neighborhood associations of East Portland as they strengthen their communities and work with local government and other organizations.

Programs: The EPAP has identified strategies and action items for each of the following subject areas:

Housing and Development Policies, Commercial and Mixed Use, Transportation, Public Infrastructure and Utilities, Parks and Open Space. Natural Areas and Environment, Economic Development and Workforce Training, Education Infrastructure and Programs, Public Safety, Housing Assistance and Safety-net Services, Community Building, and Equity. There are working committees staffed by volunteers for several of these subject areas.

Potential Opportunities for Collaboration: With PEMB resource/staff support, EPAP/EPNO staff could provide guidance for effectively engaging community members. In addition, may be able to partner with EPAP members to engage the community through EPAP's monthly general meetings and through digital and print media. Other Portland District Coalitions may be able to provide similar access to their communities.

¹⁰ EPNO, 2015. Web site accessed Dec. 3, 2015. <http://eastportland.org/>.

Organization: Ecumenical Ministries of Oregon's Russian Oregon Social Services¹¹

Mission: To successfully integrate Russian-speaking immigrants and refugees into Oregon and southwest Washington communities by providing services that increase independence, enable economic self-sufficiency, and improve mental and physical well-being.

Community Served: Russian Oregon Social Services (ROSS) was established by Ecumenical Ministries of Oregon (EMO) in 1994 to serve the needs of Russian-speaking refugees and immigrants. More than 100,000 Russian-speaking refugees and immigrants from the former Soviet Union currently reside in the Portland metro area, and the numbers are expected to increase.

Programs: ROSS provides the following services:

- 24-hour crisis response.
- Individual and family crisis counseling.
- One-on-one advocacy, crisis intervention, support safety planning.
- Assistance obtaining stalking orders and restraining orders and filing out other forms and documents.
- Accompaniment to hospitals for forensic medical exams (for clients).
- Accompaniment to court and assistance communicating with police and District Attorney's Office.
- Assistance accessing immigration legal services.
- Domestic violence and sexual assault victims' support groups.
- Assistance applying for crime victims compensation.
- Assistance applying for public benefits.
- Assistance with temporary and transitional housing.
- Mentorship program for survivors of domestic violence and sexual assault.
- Information and referrals.
- Community orientation.
- Assistance obtaining dental services.
- Translation and interpretation services (for clients).
- Cross-cultural education (for other service providers).

Potential Opportunities for Collaboration: May be able to provide guidance on how to effectively conduct outreach to the Russian speaking population, recommendations on translation services and access to the community network.

Organization: El Programa Hispano-Catholic Charities¹²

Mission: El Programa Hispano's mission is threefold: to increase self-sufficiency within the Latino community, to empower individuals to achieve a better quality of life and to promote mutual understanding and respect among cultures.

Community Served: low-income Latinos in the Portland metro area

¹¹ ROSS, 2015. Web site accessed Dec. 3, 2015. <http://www.emoregon.org/ross.php>.

¹² El Programa Hispanico, 2015. Web site accessed Dec. 3, 2015.
http://www.catholiccharitiesoregon.org/services_latino_services.asp.

Programs: El Programa Hispano offers a wide variety of services for low-income Latino families, including a low-income taxpayer clinic, food stamp assistance, anti-poverty services, skill building classes and outreach to the elderly. Project UNICA assists Spanish-speaking women, men and adolescents affected by domestic violence and sexual assault. El Programa Hispano also offers case management, educational activities, and support groups to Latino parents with children ages birth to five years. El Programa Hispano provides academic support, advocacy, skill building, mentoring, tutoring and recreation to Latino students; as well as family engagement services to Latino parents in Multnomah County school districts.

Potential Opportunities for Collaboration: May be able to provide guidance for outreach to the low income Latino community and access to their network. Safety

Organization: Hacienda Community Development Corporation (CDC) ¹³

Mission: Hacienda CDC is a Latino Community Development Corporation that strengthens families by providing affordable housing, homeownership support, economic advancement and educational opportunities.

Community Served: Low income Latino community

Programs: The Community Economic Development Department provides culturally-specific education and skill-building programs for adult Latinos. Through a variety of programs, including micro-enterprise development, small business training, adult financial education, and workforce development programs, the department makes a long-term impact by increasing the income and assets of Hacienda residents and the broader Latino community.

The Asset Management department seeks to strengthen the performance of the organization's existing housing assets, strengthen the health of our communities through robust on-site services for residents and anticipate and plan for the asset management needs of existing and future properties.

The Housing Development department oversees the construction of new housing, office and commercial space.

Hacienda CDC serves approximately 300 members of the youth resident population through three major **Programs:** Portland Niños, Expresiones, and Avanzamos. The programs offer a variety of important academic and social support services to children from birth to 9th Grade. Hacienda CDC also provides home ownership counseling through its Homeownership Support Program. Services are provided to families and individuals buying their first homes as well as to those who are at risk of losing their homes to foreclosure.

Potential Opportunities for Collaboration: Hacienda CDC may be able to provide guidance on outreach to the Latino community and access to it network. The organization may also be interested as a stakeholder of housing infrastructure in the community.

¹³ Hacienda CDC, 2015. Web site accessed Dec. 3, 2015. <http://www.haciendacdc.org/>.

Organization: Home Forward¹⁴

Home Forward promotes, operates and develops affordable housing that engenders stability, self-sufficiency, self-respect and pride in its residents and represents a long-term community asset. Home Forward strives to be a community leader to create public commitment, policy and funding to preserve and develop affordable housing.

Mission: The mission of Home Forward is to assure that the people of the community are sheltered, with a special responsibility to those who encounter barriers to housing because of income, disability or special need.

Community Served: those who encounter barriers to housing because of income, disability or special need. Home Forward is a public corporation serving all of Multnomah County, including the cities of Gresham, Fairview, Portland, and Troutdale, and other East County communities.

Programs: Home Forward programs are divided into three major areas: apartment communities, rent assistance and support services. As the largest provider of affordable housing in Oregon, Home Forward offers a variety of housing options to low-income individuals and families: more than 6,000 apartments to rent, including approximately 1,980 units of public housing, and approximately 9,390 Section 8 rent assistance vouchers. Home Forward services include the GOALS (Greater Opportunities to Advance, Learn and Succeed) program that provides Home Forward participants with ways to set and reach their goal of becoming self-sufficient through five years of dynamic supportive services, and partners with programs such as the Portland YouthBuilders where low income youth aged 17-24 are paid to finish school, learn a trade, and plan for their future and the NAYA Family Center offers services relating to health, housing, nutrition, education, transportation and other services.

Partners: Home Forward partners with more than 100 community agencies in the public, nonprofit and private sectors. The services provided by our community partners include financial services, education, substance abuse and youth programs, job training and life skills.

Potential Opportunities for Collaboration: Home Forward could provide guidance and or assistance with outreach to low-income residents of Portland. In addition, as a manager of facilities in the area, the organization may be interested in direct engagement as a stakeholder in the HMP update process.

Organization: Immigrant & Refugee Community Organization (IRCO) ¹⁵

Mission: IRCO's mission is to promote the integration of refugees, immigrants and the community at large into a self-sufficient, healthy and inclusive multi-ethnic society.

Community Served: Immigrant and refugee communities

Programs: IRCO focuses on removing barriers to self-sufficiency and helping individuals and families thrive, by providing more than 100 culturally and linguistically specific social services, from employment, vocational training and English language learning, to community development, early childhood and parenting education, youth academic support and gang prevention. To better provide these services IRCO established the IRCO Asian Family Center in 1994 and the IRCO Africa House in 2006.

¹⁴ Home Forward, 2015. Web site accessed Dec. 4, 2015. <http://www.homeforward.org/>.

¹⁵ IRCO, 2015. Web page accessed Dec. 4, 2015. <http://www.irco.org/>.

Potential Opportunities for Collaboration: IRCO could provide guidance and or collaborate with outreach to refugee and immigrant communities. There may be an opportunity to conduct community engagement activities at or collaborate with their established community centers.

Organization: Impact NW -Southeast Multicultural Services Center¹⁶

Impact NW's Seniors and Adults with Disabilities services and Energy Assistance program are offered through its Southeast Multicultural Services Center.

Mission: Impact NW's mission is to help people prosper through a community of support.

Community Served: Annually, more than 1,500 individuals are supported by Impact NW's Seniors and Adults with Disabilities Services programs.

Programs: Impact NW's Seniors & Adults with Disabilities Services program gives clients the tools and support they need to be healthy, happy, and active, and to live at home safely. Programs include connecting community volunteers to isolated seniors, in-home care coordination, transportation to shopping and medical appointments, money management and legal services, and on-site meal services. The Southeast Multicultural Senior Center provides an activity hub where seniors gather for meals, games, celebrations and friendship.

Potential Opportunities for Collaboration: Impact NW could provide outreach guidance and potentially could collaborate with outreach to seniors through the Southeast Multicultural Services Center.

Organization: JOIN¹⁷

Mission: JOIN exists to support the efforts of homeless individuals and families to transition out of homelessness into permanent housing.

Community Served: JOIN efforts are directed at individuals sleeping outside or in their car in the Portland Metro area. Service provision is not dependent on age, gender, ethnicity, sexual identity, specific diagnosis or identifiable issues.

Programs: JOIN's outreach program engages homeless individuals to identify and overcome their barriers to housing. The retentions program works with newly placed households to get the support they need to succeed in their housing long-term. The JOIN Day Center provides critical basic day services such as hygiene facilities, laundromat vouchers, referral information, clothing, conversation and a refuge from the weather. And the Immersion program helps people for the greater community learn about homelessness.

Potential Opportunities for Collaboration: JOIN could provide could provide insight on how to serve the homeless during and after a disaster.

¹⁶ Impact NW, 2015. Web page accessed Dec. 4, 2015. <http://impactnw.org/>.

¹⁷ JOIN, 2015. Web page accessed on December 7, 2015. <http://joinpdx.org/>.

Organization: Latino Network¹⁸

Mission: Latino Network provides transformative opportunities, services, and advocacy for the education, leadership and civic engagement of our youth, families and communities.

Community Served: Latino children and families

Programs: The Latino Network focus on early childhood education, family and youth engagement, transformative youth opportunities and civic leadership.

Potential Opportunities for Collaboration: The Latino Network could provide guidance for outreach to the Latino community. Also, there may be opportunities for collaborative public engagement.

Organization: Native American Youth & Family Center (NAYA) ¹⁹

Mission: To enhance the diverse strengths of our youth and families in partnership with the community through cultural identity and education.

Community Served: Self-identified Native Americans, infant to Elder, from across the Portland, Oregon, metropolitan area

Programs: NAYA provide educational services, cultural arts programming, and direct support to reduce poverty to the Portland Metropolitan Area Native American community. In addition, NAYA supports civic engagement and advocacy by convening the Portland Indian Leaders Roundtable, fostering leadership through the Oregon LEAD cohort, hosting the Portland Youth and Elders Council and holding forums to engage the community and gather input on programming. NAYA also registers voters and educates their community about the importance of being civically engaged.

Partners: Member of the Coalition of Communities of Color

Potential Opportunities for Collaboration: NAYA could provide guidance for conducting outreach to Portland's Native American population. And, they may be willing to collaborate with community engagement.

Organization: Oregon Food Bank²⁰

Mission: Oregon Food Bank works to eliminate hunger and its root causes.

Community Served: People in Oregon lacking the resources to reliably secure food for a healthy life.

Programs: OFB works with a cooperative, statewide network of partner agencies to distribute emergency food to hungry families. We fight hunger's root causes through public policy advocacy, nutrition and garden education and work to strengthen community food systems.

Partners: 953 partner organizations in Oregon and SW Washington

Potential Opportunities for Collaboration: The Oregon Food Bank may be able to provide guidance for working with partner organizations and outreach to the low income population. They may also be

¹⁸ Latino Network, 2015. Web page accessed on December 7, 2015. <http://www.latnet.org/>.

¹⁹ NAYA, 2015. Web page accessed on December 6, 2015. <http://www.oregonfoodbank.org>.

²⁰ Oregon Food Bank, 2015. Web page accessed on December 6, 2015. <http://www.oregonfoodbank.org>.

willing to provide access to their network. The Oregon Food Bank likely is interested in risks to food supply and access, and mitigation actions that help secure food supply and access.

Organization: Oregon Health and Science University, Oregon Office of Disability and Health (OODH) ²¹

Mission: To prevent secondary conditions and improve the health and quality of life of Oregonians with disabilities through improved access to health care facilities, public health programs, and effective health promotion and wellness programs.

Community Served: Oregonians with disabilities

Programs: OODH provides healthy lifestyle, breast cancer awareness, emergency preparedness and health care access education and outreach to people with disabilities and service providers. In addition, OODH conducts research on the health, wellbeing and risk factors of adolescents and adults with disabilities in Oregon.

Potential Opportunities for Collaboration: OODH can provide guidance on how to make public engagement accessible to people with disabilities, and may be willing to collaborate with outreach to these individuals. OODH likely is also interested in potential risks from natural hazards to people with disabilities and mitigation action items that would reduce these risks.

Organization: Portland African American Leadership Forum²²

Mission: The Portland African American Leadership Forum (PAALF) leverages the power of our community's combined resources to advance the vision of a connected thriving, resilient Black Community.

Community Served: African Americans

Programs: PAALF convenes African American leaders around a public policy agenda that impacts the community in the areas of housing & economic development, education, health, and civic engagement/leadership.

Potential Opportunities for Collaboration: PAALF could provide guidance for outreach to the African American community and may be willing to collaborate with public engagement.

Organization: Portland Community Reinvestment Initiatives (PCRI) ²³

Mission: Preserve, expand and manage affordable housing in the City of Portland and provide access to, and advocacy for, services for residents.

Community Served: Low income families and adults

²¹ OODH, 2015. Web page accessed on December 6, 2015. <http://www.ohsu.edu/xd/research/centers-institutes/institute-on-development-and-disability/public-health-programs/oodh/oodh.cfm>.

²² Portland African American Leadership Forum, 2015. Web page accessed December 10, 2015. <http://aalfnw.org/portland/>

²³ PCRI, 2015. Web page accessed December 10, 2015. <http://www.pcrihome.org/>

Programs: PCRI focuses on preserving and managing affordable, high quality, scattered site, single family homes; expanding and managing their portfolio of small multiplexes; and acquiring/developing multi-family housing to preserve affordable housing choices in the community.

Potential Opportunities for Collaboration: PCRI could provide guidance and or assistance with outreach to low-income residents of Portland. In addition, as a manager of facilities in the area, the organization may be interested in direct engagement as a stakeholder in the HMP update process.

Organization: REACH CDC²⁴

REACH is a nonprofit affordable housing development and property management company

Mission: REACH's mission is to provide quality, affordable housing for individuals, families and communities to thrive.

Community Served: Low income community.

Programs: REACH owns and manages a portfolio of 2,073 units of affordable housing located across the metropolitan region, including properties in Multnomah, Washington, and Clark Counties (state of Washington). The portfolio includes new and renovated plexes, apartment buildings and mixed-use developments.

REACH provide a range of programs focused on housing success and financial stability such as eviction prevention, financial education, employment and career support, and access to emergency food and clothing. In addition, REACH's Community Builders Program provides free volunteer-powered home repairs for low income elderly and disabled homeowners, as well as families with children living in the home experiencing some type of home health hazard (i.e. lead poisoning, radon, mold, etc.).

Potential Opportunities for Collaboration: REACH could provide guidance and or assistance with outreach to low-income residents of Portland. In addition, as a manager of facilities in the area, the organization may be interested in direct engagement as a stakeholder in the HMP update process.

Organization: Slavic Community Center of NW²⁵ (information in Russian on Web site)

Community Served: Slavic community in Portland

Potential Opportunities for Collaboration: The Slavic Community Center of NW could provide guidance and or collaborate with outreach to Slavic community in Portland.

²⁴ REACH CDC, 2015. Web page accessed December 10, 2015. <http://reachcdc.org/>

²⁵ Slavic Community Center of NW, 2015. Web page accessed December 9, 2015. <http://slavicfamily.org/>

Organization: Urban League of Portland²⁶

Mission: The Urban League of Portland's mission is to empower African Americans and others to achieve equality in education, employment, health, economic security and quality of life.

Community Served: African Americans and other people of color in the region.

Programs: The Urban League of Portland's programs include a distinctive blend of direct services, organizing, outreach, and advocacy. They offer workforce services, community health services, summer youth programming, senior services, meaningful civic engagement opportunities, and powerful advocacy.

Potential Opportunities for Collaboration: The Urban League Portland could provide guidance on outreach to African Americans and communities of color. In addition, there may be the opportunity to collaborate with their Diversity and Civic Leadership V.O.I.C.E. (Voice Our Importance through Community Engagement) Project, which is a series of forums to provide information, raise awareness and to provide the community with a voice on issues and decision-making in the city and region.

Organization: Verde²⁷

Mission: Verde serves communities by building environmental wealth through social enterprise, outreach and advocacy.

Community Served: Low income communities of Portland

Programs: Verde's Social Enterprise work employs and trains low-income adults, creates contracting opportunities for minority-owned and woman-owned businesses and brings environmental assets to low-income neighborhoods.

Verde Outreach works to address the divide that exists between sustainability and low-income communities. Verde and partners bring new environmental investments to the Cully Neighborhood by creating an EcoDistrict. Through Policy Advocacy, Verde and partners create a policy framework that empowers low-income people and people of color to drive environmental resources into their neighborhoods, in response to existing community needs. Other policy focused work includes Clean Energy Works Oregon and Portland Bike Share.

Partners: Hacienda CDC and NAYA

Potential Opportunities for Collaboration: Verde will likely be interested in the potential impacts of natural hazards in the communities that they work and interested in how their projects could help build resilient communities.

²⁶ Urban League of Portland, 2015. Web page accessed December 9, 2015. <http://www.ulpdx.org/>.

²⁷ Verde NW, 2015. Web page accessed December 9, 2015. <http://www.verdenw.org/>.

PUBLIC SURVEY



Portland Natural Hazard Mitigation Plan (NHMP)

Survey Distribution Plan

Introduction and Purpose

As part of Portland's 2016 Natural Hazard Mitigation Plan update, a public survey will be used to inform action item development and prioritization, as well as inform the planning team how best to communicate with the public about natural hazard risks and risk reduction. The survey will help meet FEMA requirements for public involvement, earn points for the National Flood Insurance Program (NFIP) Community Rating System (CRS), as well as advance the City of Portland's equity objectives. It will reach a broad cross-section of the Portland population, with an emphasis on the populations most vulnerable to natural hazard risks – economically disadvantaged populations, communities of color, those with limited English proficiency, immigrants or refugees, and others who are historically underrepresented in government activities or experience greater likelihood of negative consequences from natural hazard events.

The NHMP survey will be launched Monday February 1st, 2016 and will remain open at a minimum through the close of the 2016 NHMP plan update. Initial results will be compiled April 3rd, 2016 to inform action item development, plan content, and outreach strategies. It will be distributed online in English, Spanish, Chinese, Russian, Ukrainian, and Vietnamese, through translation provided by Oregon Translation, LLC. It includes questions intended to gather information about how Portlanders think about preparedness and reducing risk from natural hazards; questions to collect demographic information, such as income level, ethnic identification, household structure; and questions to identify the respondents' country of birth and language spoken at home. Data is also collected related to how the respondent learned about the survey and whether he or she would like to be contacted with additional related information.

Web Survey

The web survey will be provided through Survey Gizmo at the following link.

<http://sgiz.mobi/s3/Portland-Preparedness-Survey>

The QR Code below will also be used to direct people to the survey.



The public will be directed to PBEM's website at <http://www.portlandoregon.gov/pbem> through a variety of outreach methods, to be discussed below. PBEM's main webpage will host the link to the web survey.



Social Media –

The web survey will be distributed via a variety of online social media. PBEM's social media networks to be used include:

- Facebook
- Twitter
- NextDoor

PBEM will also request that its bureau partners share the survey link through their social media networks as well. PBEM will work with Public Information Officers at Portland Fire & Rescue, Portland Police, Portland Water Bureau, and Portland Parks and Recreation.

Survey Cards –

The following will be printed on quarter-sheet postcards to be distributed in strategic locations throughout Portland.



Cards will be placed at computer terminals in all Multnomah County libraries in Portland. Libraries at which the survey cards will be distributed include:

- St. Johns Library
- Kenton Library
- North Portland Library
- Capitol Hill Library
- Northwest Library
- Albina Library
- Central Library
- Hillsdale Library
- Sellwood-Moreland Library
- Woodstock Library
- Belmont Library
- Hollywood Library



- Gregory Heights Library
- Holgate Library
- Rockwood Library
- Midland Library

Cards will also be placed at computer terminals in Portland State University Library and Portland Community College Library.

Other locations throughout Portland to distribute survey cards will be identified as time and resources allow. Possible locations include schools, grocery stores, and the Lloyd Center Mall. If practical and cost-effective, cards may be distributed in water bills through coordination with the Portland Water Bureau.

Flyers –

Flyers with information about the survey will be displayed at strategic locations, where survey cards are not cost-effective or practical. Locations where flyers may be displayed include schools, grocery stores, and major employers in Portland. See flyer in Appendix A.

Email Distribution –

A link to access the survey via PBEM's website will be distributed via email to the following groups:

- NHMP steering committee
- NHMP stakeholders distribution list
- NET distribution list
- All Neighborhood Coalition Offices

Along with the survey link, a flyer in PDF format will be attached to emails for printing and distribution. Steering committee members, NHMP stakeholders, NETs, and Neighborhood Coalition Offices will be asked to share the survey within their networks. If possible, the link and flyer will also be emailed out via the Portland Parks survey distribution list.

Newsletters and Print Media –

To the extent publication deadlines align with the timing of the NHMP Preparedness Survey, notices will be published in the Northwest Examiner and Southwest News via Portland's Crime Prevention Communications Program.

Notices may be placed in city newsletters including the Portland Water Bureau newsletter and Office of Equity and Human Rights newsletters, as possible.

News Media –

During the week of February 1st, 2016 through February 5th, 2016, local news stations will be contacted regarding the survey through a brief press release. Interviews and information will be provided to support news coverage of the survey. The public will be encouraged to participate and will be offered the opportunity to be entered in a prize drawing for preparedness kits and emergency gear. Possible networks include:



- KBOO
- KOIN
- OPB
- Univision/Spanish Radio
- Slavic Family Media

In-Person Outreach –

NHMP Steering Committee members will be encouraged to hold focus groups to discuss the NHMP survey, in order to give an opportunity for constituents to ask questions and provide real-time feedback. PBEM staff will be available to support these efforts as scheduling and resources allow.

PBEM staff will promote the survey at meetings and events, including Parents for Preparedness, Public Involvement Advisory Committee (PIAC), and other community events as possible.

PBEM staff will participate as a vendor at the Portland Fix-It-Fair on February 20th, 2016. Three to five PBEM iPads will be available at the PBEM booth, with which attendees will be encouraged to take the survey. At least 50 paper copies of the survey will be printed and made available at the event. Paper copies will have the information links written out.

Paper Survey

Paper surveys will be printed in English and in all five translated languages. The number of printed copies will depend on opportunities to distribute. Printed surveys will include PBEM contact information in a highly visible place so that participants know who to call with questions or to arrange for the completed survey to be collected. Paper surveys will be distributed at the events/groups below, as well as others as opportunities allow.

- East Portland Action Plan (EPAP) General Meeting – March 23rd, 2016 6:30pm – 8:30pm (Spanish)
- Portland Fix-it-Fair – February 20th, 2016 (All Day)
(All languages available)
- APANO
(Vietnamese, Chinese)
- IRCO Russian/Slavic Coalition – Civic Engagement Steering Committee every 3rd Monday from 7:00pm-9:00pm. March 15th, 2016. Contact: Oleg Kubrakov, olegk@mail.irco.org
(Russian, Ukrainian)
- IRCO Asian Family Services
(Vietnamese, Chinese)
- Fubonn Supermarket, SE 82nd Avenue (Monday – Sunday 9am to 8pm), Contact: 503-517-8899
- Slavic Church Emmanuel
(Russian, Ukrainian)
- St. John the Baptist Ukrainian Orthodox Church
(Russian, Ukrainian)
- Vietnamese Community of Oregon





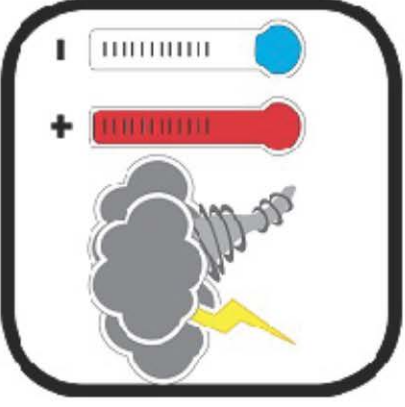
(Vietnamese)

Where paper surveys are left on site to be distributed over a period of time, a locking drop box placarded with PBEM contact information will be provided for returned surveys. During events or meetings where PBEM staff remain on site, paper surveys will be collected real-time if possible. Participants who do not complete their survey at the time of distribution will be encouraged to make arrangements with PBEM staff via phone or email to have the completed survey collected at a public location.

PBEM staff will manually input data received via paper survey into the web-based survey. If comments are received in languages other than English, Oregon Translation Services, LLC will be contracted to translate the surveys. Intervals at which surveys are translated will depend upon the number of surveys requiring translation.




Appendix A – Survey Flyer







How do you prepare?

Help us make Portland ready. Win prizes. Tell us how you prepare here:


www.portlandoregon.gov/pbem

By taking 10 minutes to complete the Portland Preparedness Survey, you'll help City of Portland offices prioritize projects aimed at reducing our risk from natural hazards. You can also be entered to win prizes, including a \$150 emergency kit, and other cool preparedness gear!

русский

Tiếng Việt

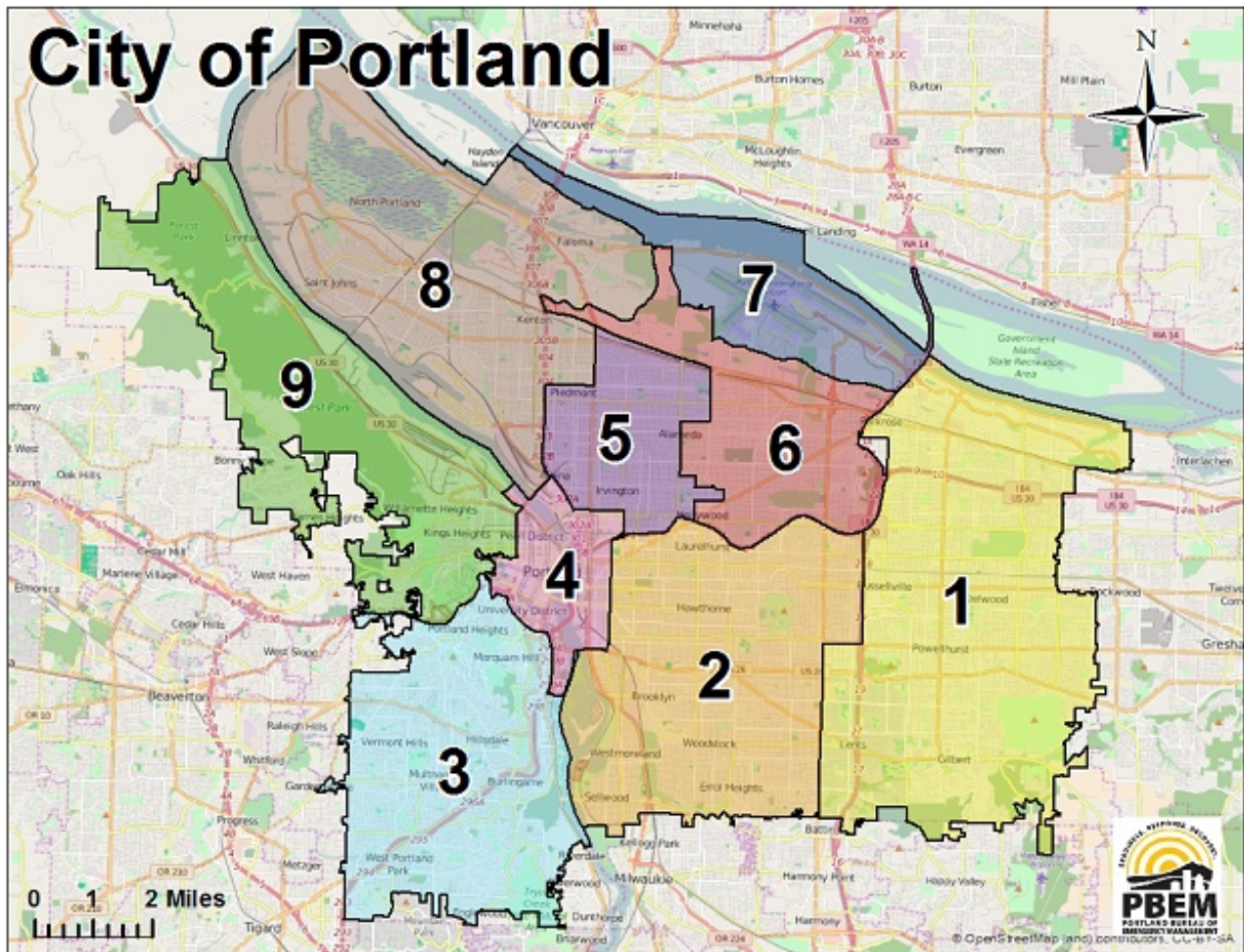
Español

український

中文

Portland Preparedness Survey

Natural Hazards and You



Zoomable map here: <http://arcg.is/1NV6tl3>.

1. Where do you live?

Area 1 - East Portland
Area 2 - Southeast
Area 3 - Southwest
Area 4 - Central City/Downtown
Area 5 - Northeast
Area 6 - Central Northeast
Area 7 - Airport
Area 8 - North Portland
Area 9 - West/Northwest
Outside of Portland

Where outside of Portland do you live?

How long have you lived in Portland?

0-5 Years
6-10 Years
11-20 Years
21-25 Years
>25 Years

2. Where in Portland do you and your family spend most of your time (school or work)? *Select all that apply.*

- ☐ Area 1 - East Portland
- ☐ Area 2 - Southeast
- ☐ Area 3 - Southwest
- ☐ Area 4 - Central City/Downtown
- ☐ Area 5 - Northeast
- ☐ Area 6 - Central Northeast
- ☐ Area 7 - Airport
- ☐ Area 8 - North Portland
- ☐ Area 9 - West/Northwest
- ☐ Other

3. Select the three (3) natural hazards you worry about most.

To follow links for more information, right click link and select "open in new tab".



Earthquake

Click [here](#) for more information about earthquakes.



Flood

Click [here](#) for more information about floods.



Severe Weather

Click [here](#) for more information about severe weather.



Wildfire

Click [here](#) for more information about wildfire.



Landslide

Click [here](#) for more information about landslides.



Dam Failure

Click [here](#) for more information about dam failure.



Drought

Click [here](#) for more information about drought.



Volcano

Click [here](#) for more information about volcanos.



Space Weather

Click [here](#) for more information about space weather.



Other

4. What other natural hazards do you worry about?

5. Have you experienced any of the hazards above?

☐ Yes

☐ No

6. Can you tell us about your experience?

7. Have you done any of these things to make you and your family safer?
To follow links for more information, right click link and select "open in new tab".

- ☐ I buy flood insurance for my home. *More information [here](#).*
- ☐ I buy earthquake insurance for my home. *More information [here](#).*
- ☐ I strengthened my home against earthquakes. *More information [here](#).*
- ☐ I clear debris from my storm drains. *More information [here](#).*
- ☐ I plant drought-resistant plants. *More information [here](#).*
- ☐ I secure my water heater, book cases, or other objects that could fall in an earthquake. *More information [here](#).*
- ☐ I maintain a "defensible space" clear of vegetation and flammable material. *More information [here](#).*
- ☐ I elevated my home or utilities above potential flood levels. *More information [here](#).*
- ☐ I make decisions about where to live based on natural hazard risks. *More information [here](#).*
- ☐ I use fire-resistant landscaping around my home. *More information [here](#).*
- ☐ I regularly trim trees near my house or near power lines. *More information [here](#).*
- ☐ I haven't done any of these.
- ☐ Other

8. Have you done any of these things to be prepared for an emergency?
To follow links for more information, right click link and select "open in new tab".

- ☐ I work with my neighbors on emergency preparedness. More information [here](#).
- ☐ I have registered for Public Alerts in my preferred language. Go to [PublicAlerts.org](#) to register.
- ☐ I know where my neighborhood BEECN is. Find your neighborhood BEECN [here](#).
- ☐ I have an emergency kit at home. More information [here](#).
- ☐ I have an emergency kit in my car. More information [here](#).
- ☐ My household has an emergency plan. More information [here](#).
- ☐ I have an emergency plan for my pets. More information [here](#).
- ☐ I have received emergency training. More information [here](#).
- ☐ I have an emergency source of power. More information [here](#).
- ☐ I have emergency food and water. More information [here](#).
- ☐ I have an emergency contact outside of the area. More information [here](#).
- ☐ I know where I would go in an emergency. More information [here](#).
- ☐ I have money saved for emergency use. More information [here](#).
- ☐ I haven't done any of these.
- ☐ Other

9. Do any of these things make it hard for you to prepare your family for emergencies?

- ☐ I don't have the money.
- ☐ I have more important things to worry about.
- ☐ Thinking about preparedness is just too overwhelming.
- ☐ I'm too busy.
- ☐ I don't know what I need to do.
- ☐ I'm not sure what my risks are.
- ☐ Other

10. Natural hazards can cause damage that makes it hard to carry out our daily lives. Select three (3) things that would impact you most.

- ☐ Bridge closure
- ☐ Loss of public transportation
- ☐ Internet outage
- ☐ Power outage
- ☐ Telephone outage
- ☐ Grocery store closure
- ☐ Water system damage
- ☐ Sewer system damage
- ☐ Road closure
- ☐ Damage to fuel and natural gas infrastructure
- ☐ Hospital or clinic closure
- ☐ Local business closure
- ☐ School or daycare closure
- ☐ Government office closure
- ☐ Other

11. What are the three (3) most important things the City of Portland government offices should do to reduce the risk from natural hazards?

- ☐ Provide more information to the public about natural hazards.
- ☐ Strengthen public buildings.
- ☐ Reduce development in known hazardous areas.
- ☐ Restore natural floodplains and open space.
- ☐ Build or improve man-made protections (levees for example).
- ☐ Strengthen infrastructure such as bridges, sewer lines, and water pipes.
- ☐ Increase safety requirements for building permits.
- ☐ Collect more data and information about hazard areas.
- ☐ Help citizens reduce their individual natural hazard risks.
- ☐ Other

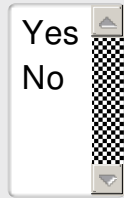
About You

12. How many people are in your household?

13. Do you own or rent your home?

- ☐ Own
- ☐ Rent
- ☐ Other

14. Were you born in another country?



Yes
No

15. Where were you born?

16. Do you speak English at home?

☐ Yes

☐ No

17. What language do you prefer?

- ☐ Spanish
- ☐ Vietnamese
- ☐ Russian
- ☐ Chinese
- ☐ Romanian
- ☐ Ukrainian
- ☐ Japanese
- ☐ Somali
- ☐ Arabic
- ☐ Laotian
- ☐ Other

18. What is your age?

19. Do you have a physical or mental disability?

- ☐ No
- ☐ Yes

20. How many people in your home work to provide for the family?

21. Would you consider your household income low, middle, or high?

- ☐ Low
- ☐ Middle
- ☐ High

22. How do you identify yourself by race or ethnicity?

23. Are you a trained Community Emergency Response Team/Neighborhood Emergency Team member?

- ☐ Yes
- ☐ No

24. How did you find out about this survey?

- ☐ Library
- ☐ Social Media (Facebook, Twitter, NextDoor)
- ☐ Neighborhood Association
- ☐ City Website
- ☐ Radio/News Coverage
- ☐ Friend, Family Member, or Colleague
- ☐ Email
- ☐ Other

Prizes!

25. What is your email address or phone number?

This survey is completely anonymous, but if you want to be entered in our prize drawing to win free preparedness kits and emergency gear, we need to be able to contact you. The raffle drawing will be held on April 11, 2016.

26. Would you like us to contact you with related information and training opportunities?

- ☐ Yes
- ☐ No

Thank You!

Thank you for telling us about how you think about preparedness! The information you provided will help us prioritize projects, and lets us know how best to share information with you. Visit our website here: www.portlandoregon.gov/pbem for more information.



Report for Portland Preparedness Survey

There were 2,970 responses to the public survey between February and April of 2016. Key results are summarized below.

Geographic Representation and Residency Tenure

Survey responses were received from all risk reporting areas and from individuals who live outside of Portland. 75.5 percent of all respondents indicated that they live within Portland.

When non-residents are excluded, the percent of responses from risk reporting areas is representative of the estimated population in some cases; however, there are some areas with under- and over-representation. Over-represented areas included: Northeast, Southeast and Southwest. Under-represented areas include: Central City/Downtown and East Portland. The remaining reporting areas were within 1 percent of the estimated population. See the table below for more information.

| Risk Reporting Area | Estimated Population | Estimated Percent of Population | Percent of Survey Responses (excluding outside of Portland) |
|-----------------------|----------------------|---------------------------------|---|
| Airport | 2,674 | 0.4% | 0.2% |
| Central City/Downtown | 37,987 | 6.2% | 3.6% |
| Central Northeast | 47,644 | 7.8% | 7.1% |
| East Portland | 148,712 | 24.2% | 9.6% |
| West/Northwest | 26,875 | 4.4% | 4.9% |
| North Portland | 68,047 | 11.1% | 12.1% |
| Northeast | 57,842 | 9.4% | 15.9% |
| Southeast | 153,952 | 25.1% | 32.6% |
| Southwest | 70,262 | 11.4% | 13.8% |

The majority of respondents who live in Portland have lived in the City for 11 or more years (62 percent). 26 percent of respondents indicated that they have lived in the City for more than 25 years.

The top three areas where all survey respondents indicated that they and their families spend the most time include: Central City/Downtown (42 percent), Southeast (34 percent) and Southwest (25 percent). When non-Portland residents are excluded the top three areas indicated include Central City/Downtown (43 percent), Southeast (40 percent), Southwest and Northeast (about 25 percent each).

Demographics

72 percent of Portland resident respondents self-identified as middle income and 13 percent identified their household as low income. According to American Community Survey (ACS) estimates, approximately 12 percent of Portland families are surviving on incomes below the federal poverty line.

When non-Portland residents are excluded 99 percent of respondents indicated that they speak English at home. Only 9 respondents indicated that they preferred languages other than English. The ACS estimates that limited English speaking households make up approximately 4 percent of Portland households.

72 percent of Portland respondents indicated that they own their home, while 27 percent indicated that they rent their home. The ACS estimates that 43 percent of the housing units in the City are renter occupied.

Approximately 9 percent of respondents indicated that they have physical or mental disability. According to U.S census estimates 8.5 percent of Portland residents under age 65 have a disability. 13 (about 7 percent) of respondents indicating that they had a disability also indicated that they were 65 years of age or older.

Respondents were able to enter their own racial identity rather than choosing from pre-determined options. Approximately 79 percent of respondents indicated that they identified as white/Caucasian or Anglo. According to ACS estimates, 78 percent of the Portland population is white.

Hazards of Concern

For Portland residents, the top three hazard of concern selected were: earthquake (96 percent), severe weather (51 percent) and drought (34 percent). Dam failure (3.9 percent) and space weather (8 percent) were the least likely to be selected. The top three hazards remain the same when non-Portland residents are included.

53 percent of Portlanders indicated that they had experienced one of the hazard of concern.

Thoughts on Preparedness and Mitigation

Portlanders indicated that they have made efforts to reduce risk to their families. Portlanders clear storm drains (50 percent), have made non-structural retrofits, such as securing a water heaters (42 percent), and have planted drought-resistant plants (33 percent). Only 6 percent of Portlanders indicated that they have purchased flood insurance, while 27 percent indicated that they have purchased earthquake insurance. 17 percent of Portlanders indicated that they had not done any of the options indicated. There were a large number of respondents who indicated that they had not taken these measures because they rent or live in apartment buildings or condominiums.

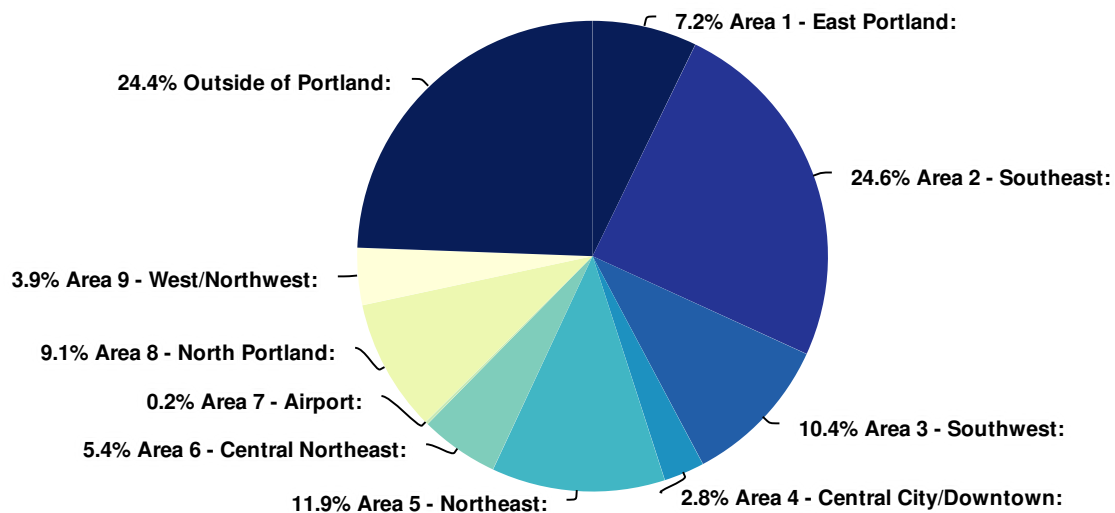
The top three things Portlanders have done to prepare for a natural hazard event include: obtained emergency food and water (58 percent), have an emergency kit at home (54 percent) and registered for public alerts (46 percent). Only 10 percent of respondents indicated that they had done nothing to prepare. When non-Portland residents are included, the results are similar.

Portlanders indicated the top three reasons for not preparing for emergencies included: lack of money (40 percent), being too busy (34 percent) and preparing being too overwhelming (32 percent).

Portlanders indicated that power outage (67 percent), water system damage (65 percent) and bridge closures (43 percent) would impact them the most. Responses were similar when all survey respondents are included.

Portlanders selected strengthen infrastructure such as bridges, sewer lines and water pipes (85 percent), strengthen public buildings (44 percent), and help citizens reduce their individual natural hazard risks (36 percent) as the three most important things that the City of Portland government could do to reduce risk from natural hazards. Strengthening schools was also commonly mentioned.

1. Where do you live?



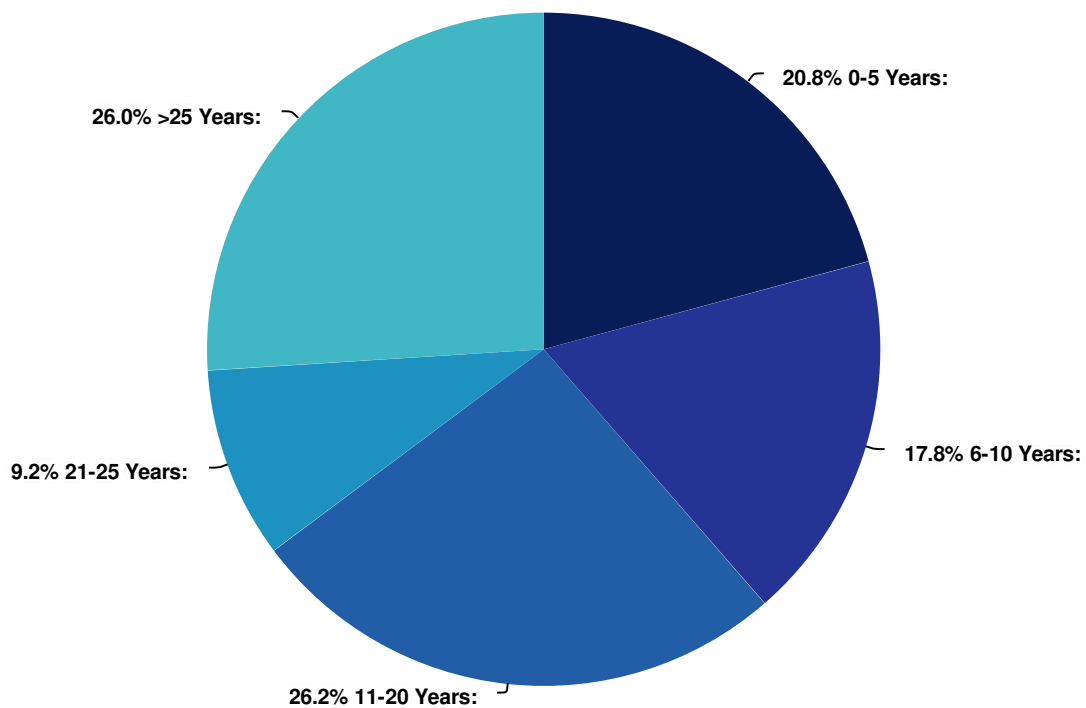
| Value | Percent | Count |
|--------------------------------|---------|-------|
| Area 1 - East Portland | 7.2% | 215 |
| Area 2 - Southeast | 24.6% | 730 |
| Area 3 - Southwest | 10.4% | 309 |
| Area 4 - Central City/Downtown | 2.8% | 83 |
| Area 5 - Northeast | 11.9% | 354 |
| Area 6 - Central Northeast | 5.4% | 161 |
| Area 7 - Airport | 0.2% | 5 |
| Area 8 - North Portland | 9.1% | 270 |
| Area 9 - West/Northwest | 3.9% | 116 |
| Outside of Portland | 24.4% | 723 |
| Total | | 2,966 |

2. Where outside of Portland do you live?

Areas outside of Portland commonly mentioned include:

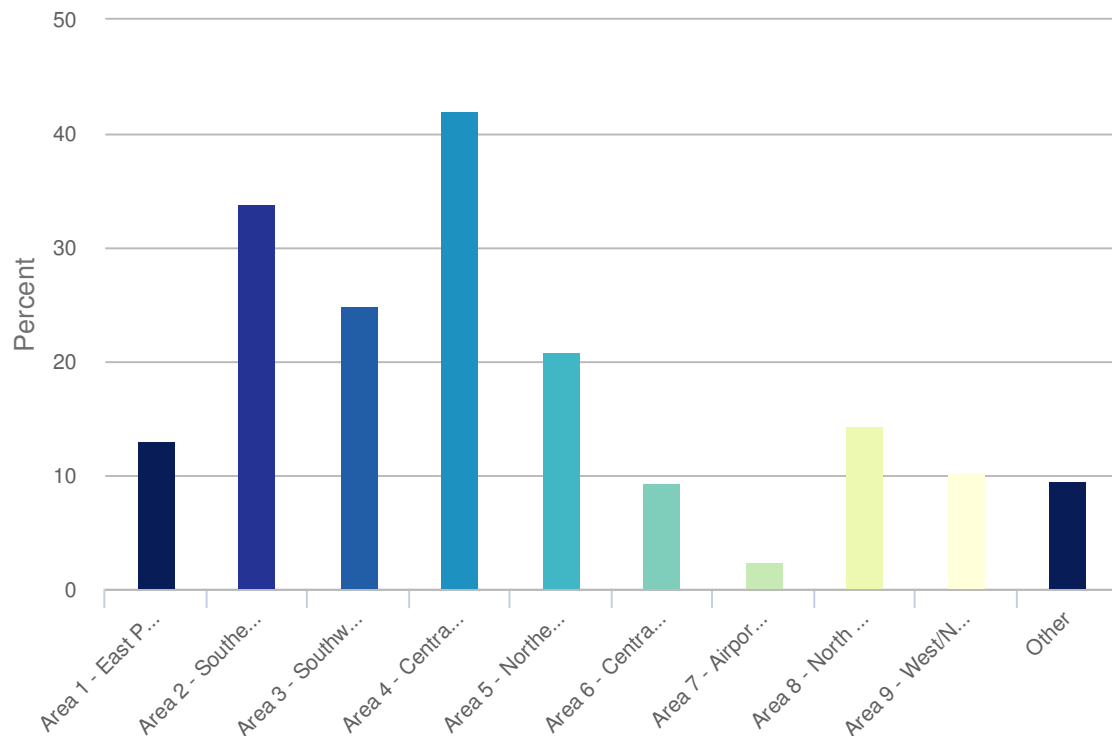
- Beaverton,
- Hillsboro,
- Tigard,
- Gresham,
- Milwaukie,
- Vancouver,
- Oregon City,
- Happy Valley,
- Lake Oswego,
- West Linn,
- Aloha,
- Tualatin,
- Sherwood,
- Troutdale,
- Fairview,
- Clackamas County,
- Gladstone,
- Newberg,
- Washington County,
- Camas,
- Cedar Hills,
- Forest Grove,
- Sandy, and
- Wilsonville.

3. How long have you lived in Portland?



| Value | Percent | Count |
|-------------|---------|-------|
| 0-5 Years | 20.8% | 436 |
| 6-10 Years | 17.8% | 374 |
| 11-20 Years | 26.2% | 550 |
| 21-25 Years | 9.2% | 192 |
| >25 Years | 26.0% | 544 |
| Total | | 2,096 |

4. Where in Portland do you and your family spend most of your time (school or work)? Select all that apply.

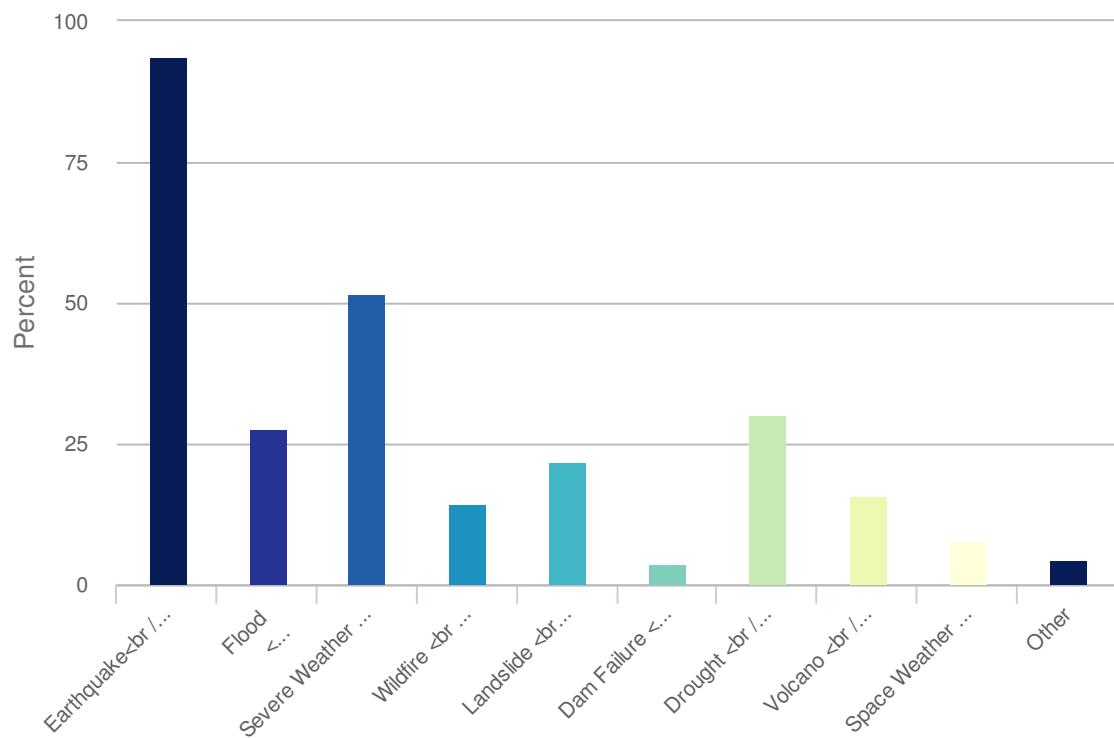


| Value | Percent | Count |
|--------------------------------|---------|-------|
| Area 1 - East Portland | 13.1% | 404 |
| Area 2 - Southeast | 33.9% | 1,044 |
| Area 3 - Southwest | 25.0% | 769 |
| Area 4 - Central City/Downtown | 42.0% | 1,294 |
| Area 5 - Northeast | 20.8% | 639 |
| Area 6 - Central Northeast | 9.3% | 286 |
| Area 7 - Airport | 2.4% | 75 |
| Area 8 - North Portland | 14.4% | 442 |
| Area 9 - West/Northwest | 10.3% | 317 |
| Other | 9.5% | 291 |

Other areas commonly mentioned include:

- Beaverton,
- Vancouver,
- Hillsboro,
- Tigard,
- Milwaukie,
- Gresham,
- Oregon City,
- Lake Oswego,
- Hillsboro, and
- Clackamas County.

5. Select the three (3) natural hazards you worry about most.



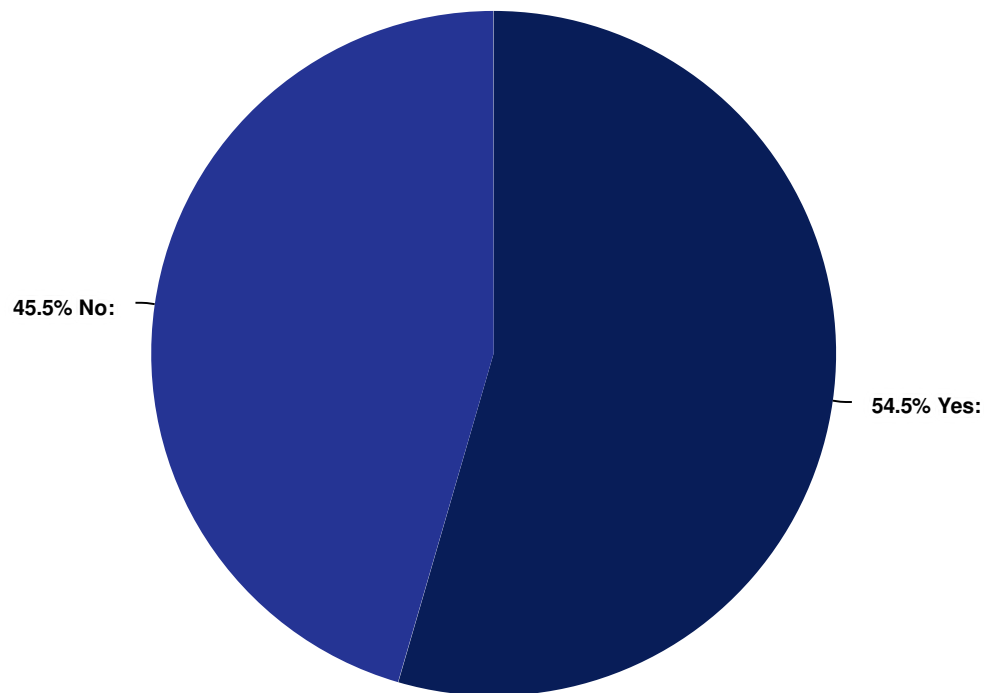
| Value | Percent | Count |
|--|---------|-------|
| Earthquake <i>Click here for more information about earthquakes.</i> | 94.0% | 2,862 |
| Flood <i>Click here for more information about floods.</i> | 27.6% | 839 |
| Severe Weather <i>Click here for more information about severe weather.</i> | 51.7% | 1,575 |
| Wildfire <i>Click here for more information about wildfire.</i> | 14.3% | 434 |
| Landslide <i>Click here for more information about landslides.</i> | 21.9% | 666 |
| Dam Failure <i>Click here for more information about dam failure.</i> | 3.6% | 110 |
| Drought <i>Click here for more information about drought.</i> | 30.2% | 919 |
| Volcano <i>Click here for more information about volcanos.</i> | 15.6% | 474 |
| Space Weather <i>Click here for more information about space weather.</i> | 8.0% | 243 |
| Other | 4.6% | 141 |

6. What other natural hazards do you worry about?

Other hazards commonly mentioned include:

- climate change,
- tsunami,
- falling trees,
- hazardous material spill/industrial accident,
- loss of electricity,
- economic collapse,
- pandemics,
- radon,
- sinkholes,
- poor air quality, and
- man-made disasters.

7. Have you experienced any of the hazards above?



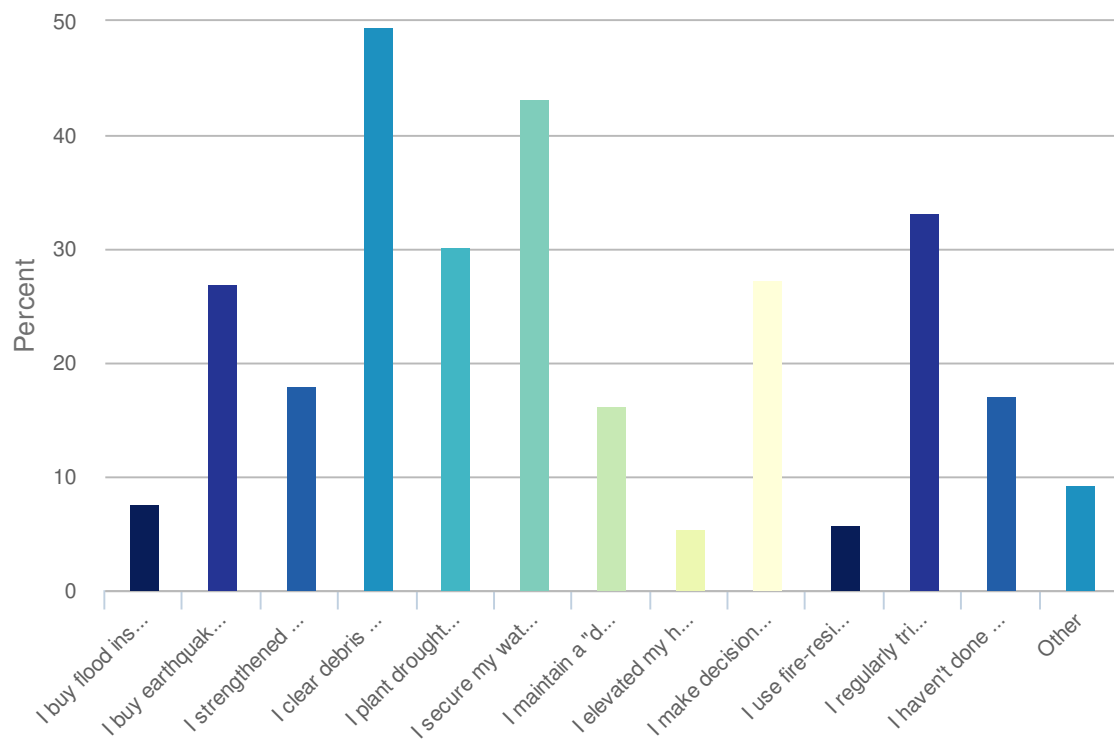
| Value | Percent | Count |
|-------|---------|-------|
| Yes | 54.5% | 1,660 |
| No | 45.5% | 1,386 |
| Total | | 3,046 |

8. Can you tell us about your experience?

The vast majority of responses included hazards experienced living, working or vacationing elsewhere. For Portland experienced hazards, respondents most commonly referenced severe weather, earthquakes and flooding. Power outages, difficulty driving/commuting in severe weather, basement flooding and falling trees were commonly mentioned impacts. Many respondents mentioned the following:

- Earthquakes in California or elsewhere
- Portland “Spring Break Quake”
- Minor earthquakes in Portland
- 1996 Floods in Portland
- Eruption of Mt. St. Helens
- Ice storms
- Basement flooding due to severe weather/storms
- Columbus Day storms
- Small-scale nuisance flooding
- Water use restrictions from drought
- Power outages from severe weather/winter weather
- Difficulty driving/commuting in winter weather
- Landslides during the 1996 flood
- Tornadoes, mostly experienced elsewhere
- Hurricanes in other locations
- Wildfire, mostly experienced elsewhere
- Extreme temperatures (heat)
- Downed trees
- High winds
- Flooding in general or experienced elsewhere
- Small landslides in Portland
- Flooding in Johnson Creek, and
- Extreme cold.

9. Have you done any of these things to make you and your family safer? To follow links for more information, right click link and select "open in new tab".

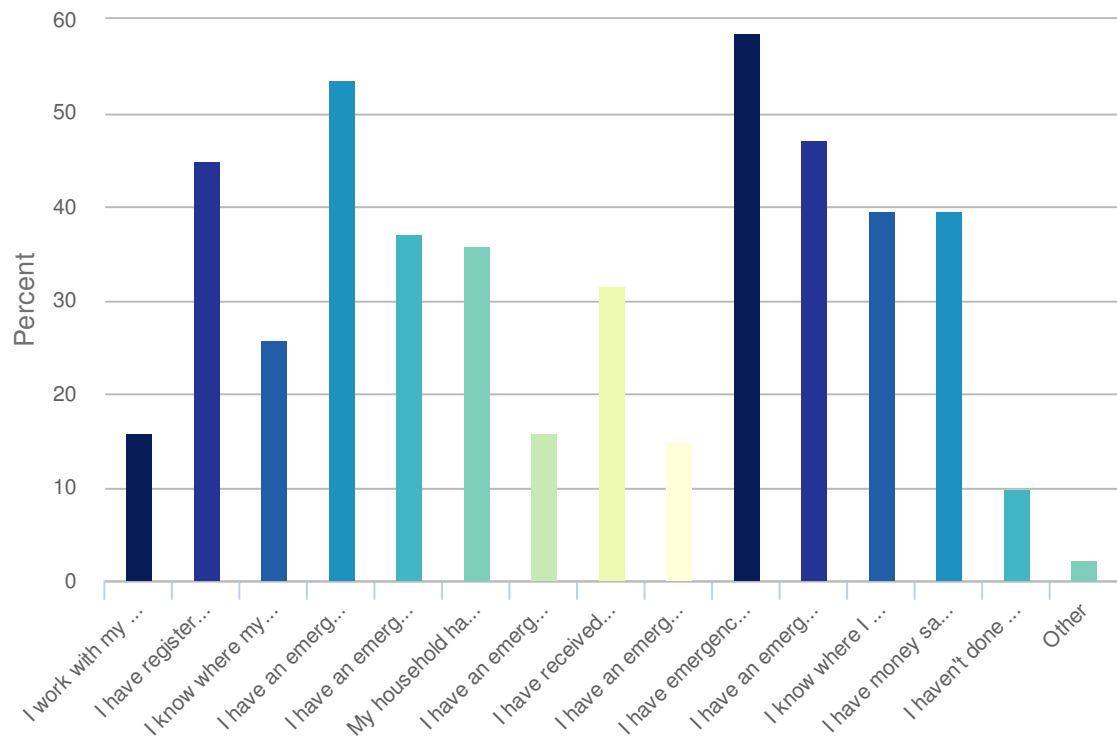


| Value | Percent | Count |
|--|---------|-------|
| I buy flood insurance for my home. <i>More information here.</i> | 7.6% | 232 |
| I buy earthquake insurance for my home. <i>More information here.</i> | 27.0% | 825 |
| I strengthened my home against earthquakes. <i>More information here.</i> | 18.0% | 551 |
| I clear debris from my storm drains. <i>More information here.</i> | 49.5% | 1,514 |
| I plant drought-resistant plants. <i>More information here.</i> | 30.2% | 924 |
| I secure my water heater, book cases, or other objects that could fall in an earthquake. <i>More information here.</i> | 43.3% | 1,323 |
| I maintain a "defensible space" clear of vegetation and flammable material. <i>More information here.</i> | 16.2% | 496 |
| I elevated my home or utilities above potential flood levels. <i>More information here.</i> | 5.5% | 168 |
| I make decisions about where to live based on natural hazard risks. <i>More information here.</i> | 27.3% | 835 |
| I use fire-resistant landscaping around my home. <i>More information here.</i> | 5.8% | 178 |
| I regularly trim trees near my house or near power lines. <i>More information here.</i> | 33.2% | 1,016 |
| I haven't done any of these. | 17.1% | 523 |
| Other | 9.4% | 286 |

The vast majority of the comments related to living in an apartment, being a renter or preparing an emergency kit (addressed in the subsequent question). Common responses included:

- I live in an apartment/condo or rent
- Water capture systems, such as rain barrels
- Improved drainage around home, and
- Located/modified gas shutoff valves.

10. Have you done any of these things to be prepared for an emergency? To follow links for more information, right click link and select "open in new tab".

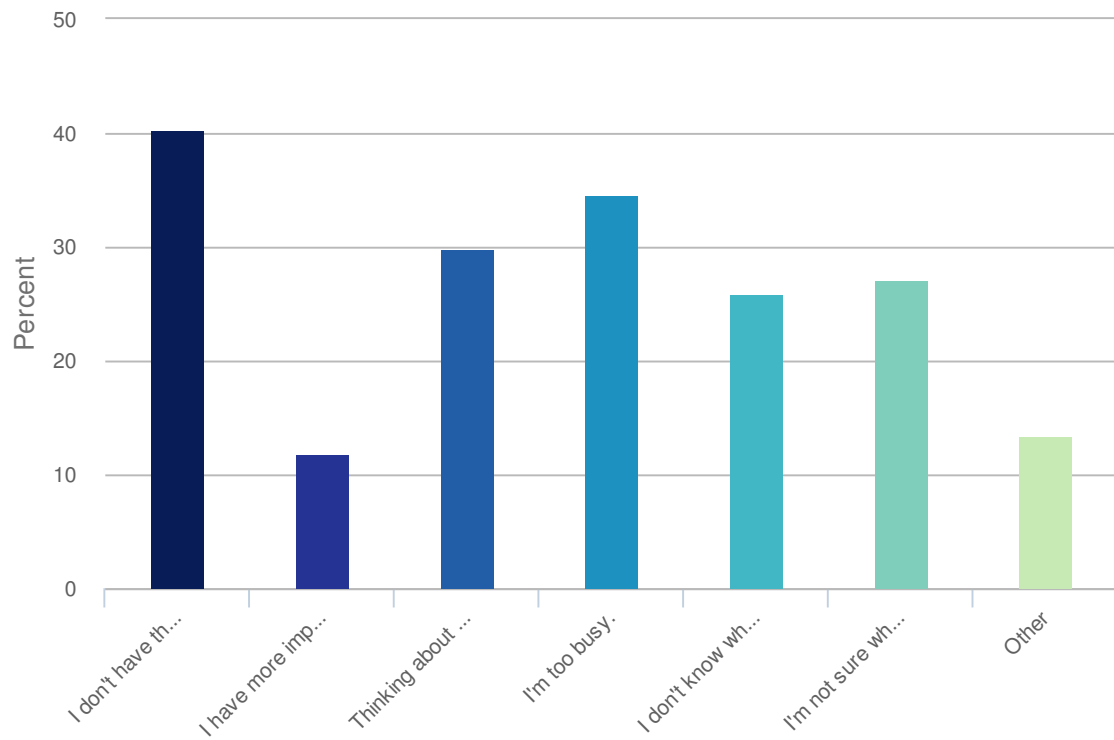


| Value | Percent | Count |
|---|---------|-------|
| I work with my neighbors on emergency preparedness. More information here . | 15.9% | 488 |
| I have registered for Public Alerts in my preferred language. Go to PublicAlerts.org to register. | 45.0% | 1,381 |
| I know where my neighborhood BEECN is. Find your neighborhood BEECN here . | 25.7% | 788 |
| I have an emergency kit at home. More information here . | 53.6% | 1,642 |
| I have an emergency kit in my car. More information here . | 37.2% | 1,141 |
| My household has an emergency plan. More information here . | 35.9% | 1,101 |
| I have an emergency plan for my pets. More information here . | 15.9% | 489 |
| I have received emergency training. More information here . | 31.6% | 969 |
| I have an emergency source of power. More information here . | 14.9% | 457 |
| I have emergency food and water. More information here . | 58.6% | 1,797 |
| I have an emergency contact outside of the area. More information here . | 47.2% | 1,448 |
| I know where I would go in an emergency. More information here . | 39.5% | 1,212 |
| I have money saved for emergency use. More information here . | 39.6% | 1,213 |
| I haven't done any of these. | 10.0% | 306 |
| Other | 2.3% | 71 |

Other common responses included:

- Emergency kit at work
- NET/CERT volunteer
- Emergency communication system (e.g. ham radio), and
- Participate in drills.

11. Do any of these things make it hard for you to prepare your family for emergencies?

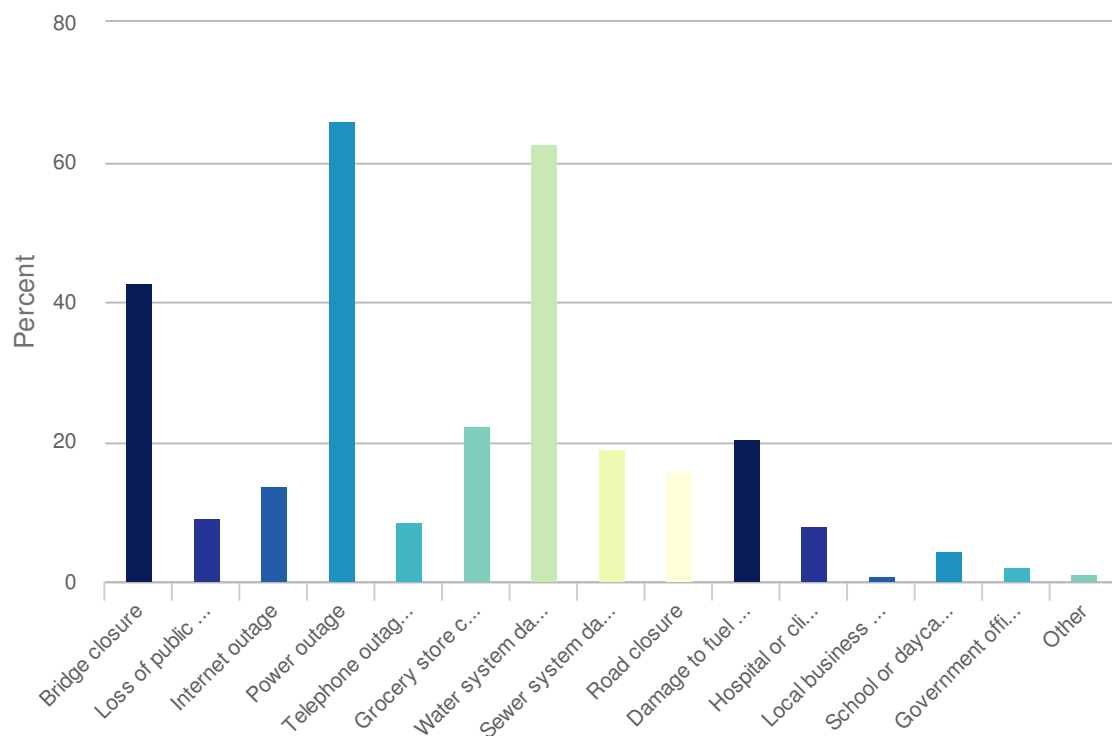


| Value | Percent | Count |
|---|---------|-------|
| I don't have the money. | 40.3% | 997 |
| I have more important things to worry about. | 11.8% | 293 |
| Thinking about preparedness is just too overwhelming. | 29.8% | 739 |
| I'm too busy. | 34.6% | 857 |
| I don't know what I need to do. | 25.9% | 641 |
| I'm not sure what my risks are. | 27.2% | 674 |
| Other | 13.4% | 332 |

Other common responses included:

- Procrastination
- Laziness
- Denial
- Disability/elderly
- Don't have room or a secure place to store items
- Don't own home or live in an apartment building
- Difficulty retrofitting older homes
- Lack of people taking it seriously (friends/family/neighbors)
- Have started preparations, but have not completed them
- Have not prioritized it
- Lack of urgency
- Issues regarding rotation of food/medicine/water etc.
- Unsure how to address some issues related to planning/preparing
- Issues regarding preparations for pets
- Uncertainty/unknowns

12. Natural hazards can cause damage that makes it hard to carry out our daily lives. Select three (3) things that would impact you most.

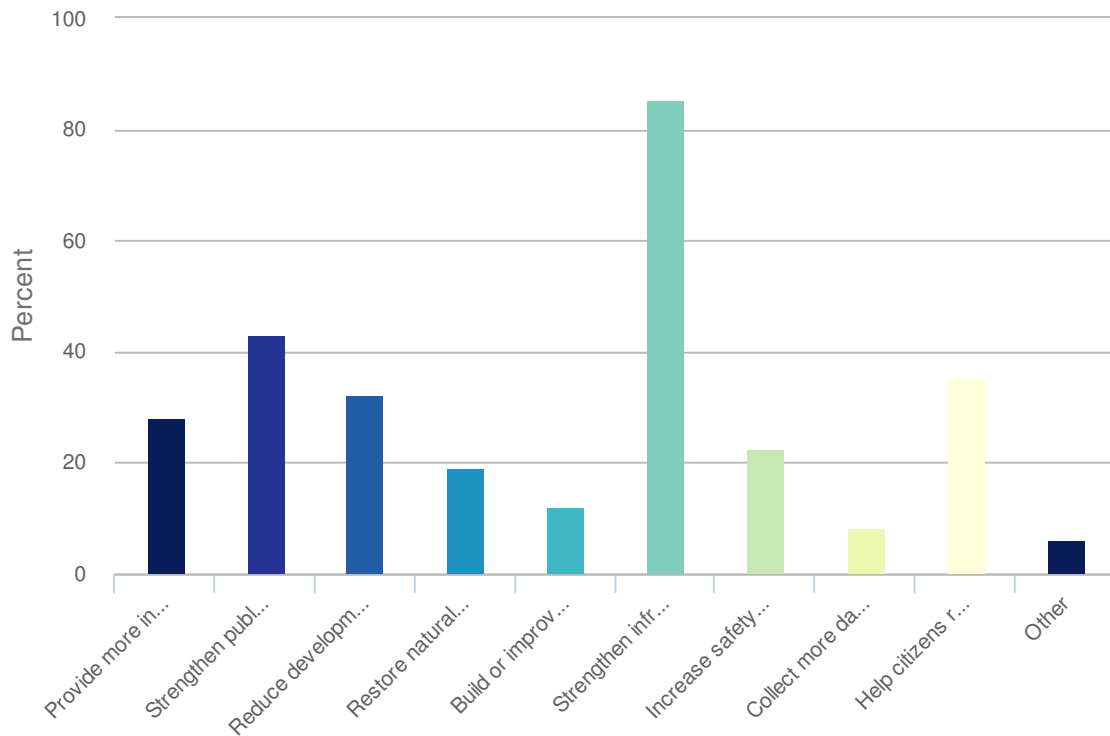


| Value | Percent | Count |
|---|---------|-------|
| Bridge closure | 42.8% | 1,321 |
| Loss of public transportation | 9.1% | 281 |
| Internet outage | 13.7% | 423 |
| Power outage | 66.0% | 2,036 |
| Telephone outage | 8.5% | 261 |
| Grocery store closure | 22.3% | 688 |
| Water system damage | 62.5% | 1,929 |
| Sewer system damage | 19.1% | 588 |
| Road closure | 15.7% | 483 |
| Damage to fuel and natural gas infrastructure | 20.4% | 630 |
| Hospital or clinic closure | 7.9% | 244 |
| Local business closure | 0.7% | 21 |
| School or daycare closure | 4.5% | 138 |
| Government office closure | 2.3% | 71 |
| Other | 1.2% | 36 |

Other common responses included:

- Getting medicine
- Damage to home
- All options listed
- Damage to public schools, and
- Cell phone outages.

13. What are the three (3) most important things the City of Portland government offices should do to reduce the risk from natural hazards?

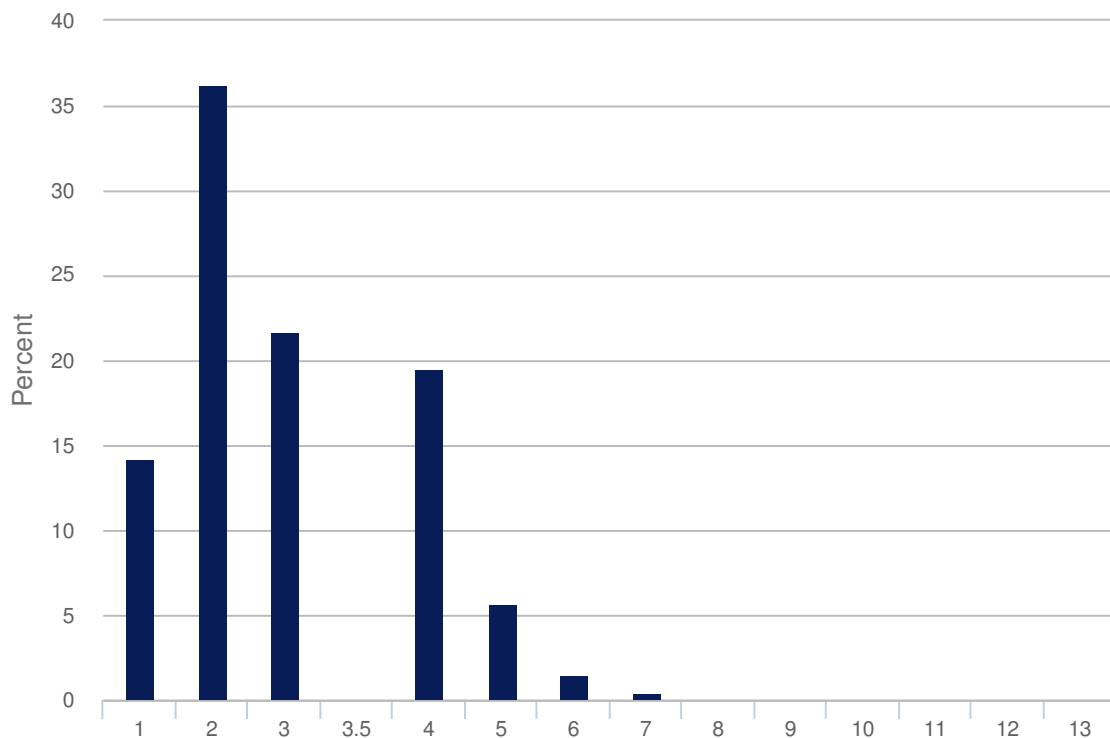


| Value | Percent | Count |
|--|---------|-------|
| Provide more information to the public about natural hazards. | 28.1% | 847 |
| Strengthen public buildings. | 43.2% | 1,302 |
| Reduce development in known hazardous areas. | 32.3% | 974 |
| Restore natural floodplains and open space. | 19.0% | 573 |
| Build or improve man-made protections (levees for example). | 12.1% | 363 |
| Strengthen infrastructure such as bridges, sewer lines, and water pipes. | 85.4% | 2,572 |
| Increase safety requirements for building permits. | 22.4% | 675 |
| Collect more data and information about hazard areas. | 8.2% | 246 |
| Help citizens reduce their individual natural hazard risks. | 35.3% | 1,062 |
| Other | 6.4% | 194 |

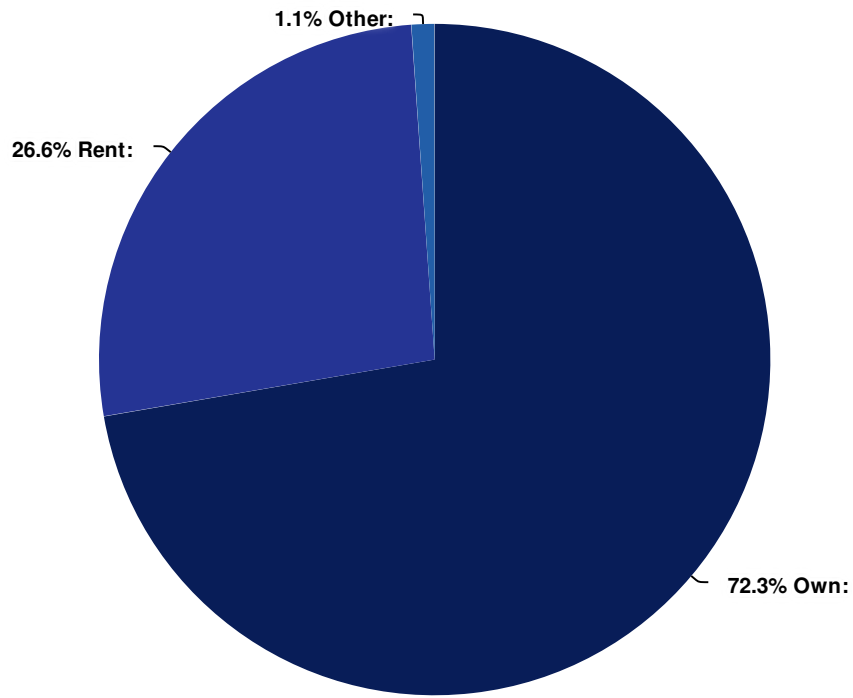
Other common responses included:

- Strengthen schools
- Road infrastructure improvement/address traffic issues
- Subsidize retrofits/preparedness
- Underground utilities
- Tax breaks
- Increase funding/wise use of public resources
- Address oil/gas infrastructure and shutoffs
- Strengthen bridges
- Require upgrades/retrofits
- Provide more information/guidance on planning and preparedness
- Offer more training/classes
- Help make it easier for residents to prepare, especially vulnerable populations.

14. How many people are in your household?

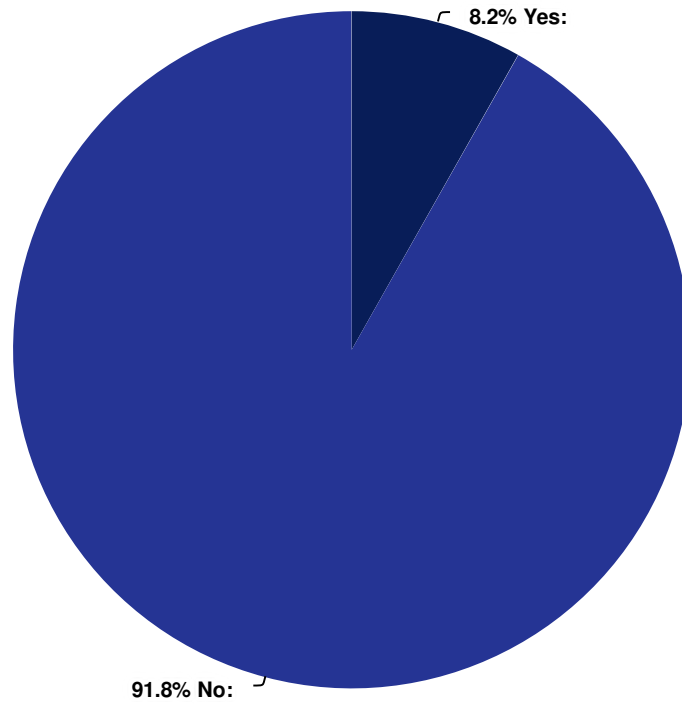


15. Do you own or rent your home?



| Value | Percent | Count |
|-------|---------|-------|
| Own | 72.3% | 2,141 |
| Rent | 26.6% | 789 |
| Other | 1.1% | 32 |
| Total | | 2,962 |

16. Were you born in another country?



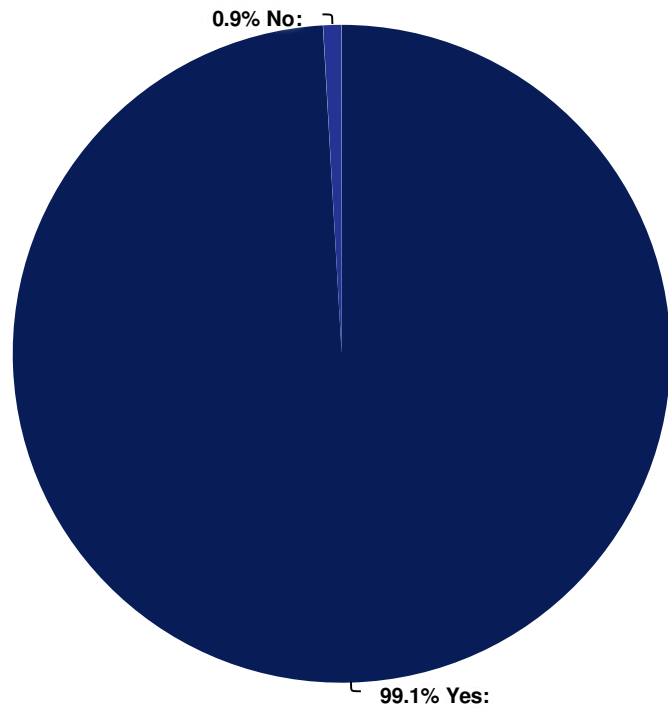
| Value | Percent | Count |
|-------|---------|-------|
| Yes | 8.2% | 233 |
| No | 91.8% | 2,625 |
| Total | | 2,858 |

17. Where were you born?

Other common responses included:

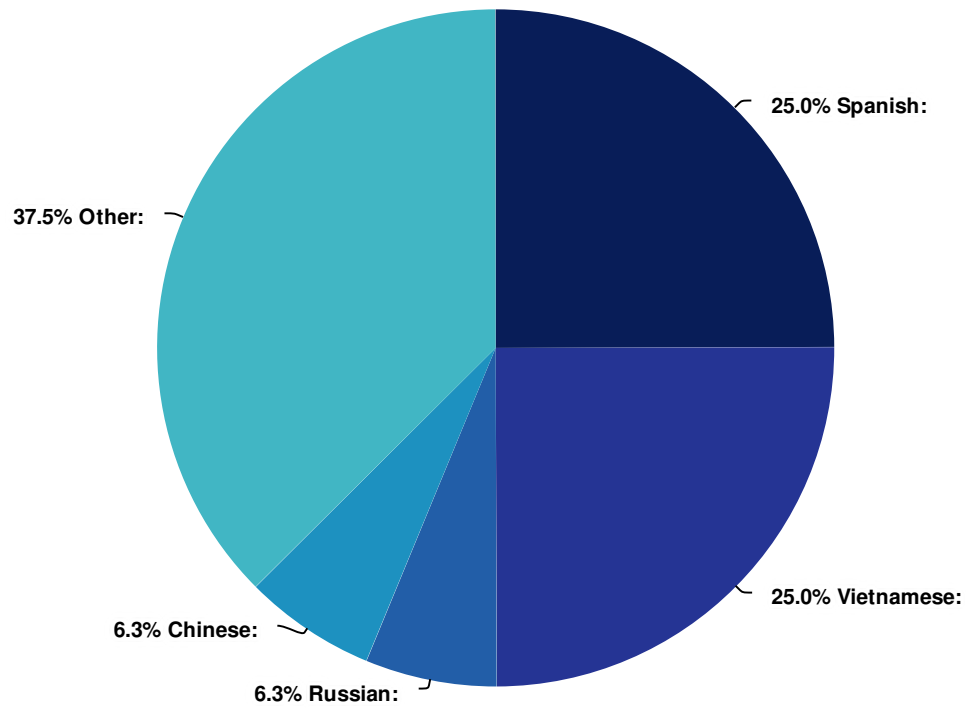
- Germany
- Canada
- Japan
- Philippines
- England
- Mexico
- Ukraine
- Vietnam

18. Do you speak English at home?



| Value | Percent | Count |
|-------|---------|-------|
| Yes | 99.1% | 2,941 |
| No | 0.9% | 27 |
| Total | | 2,968 |

19. What language do you prefer?

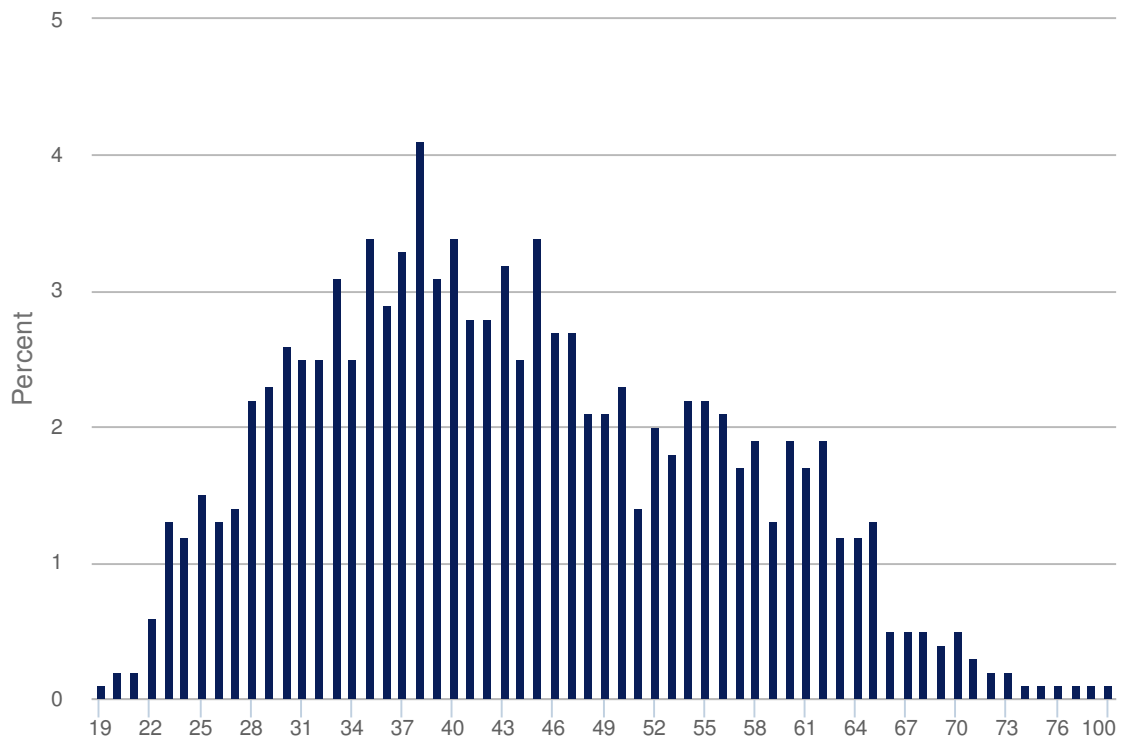


| Value | Percent | Count |
|------------|---------|-------|
| Spanish | 25.0% | 4 |
| Vietnamese | 25.0% | 4 |
| Russian | 6.3% | 1 |
| Chinese | 6.3% | 1 |
| Other | 37.5% | 6 |
| Total | | 16 |

Other responses included:

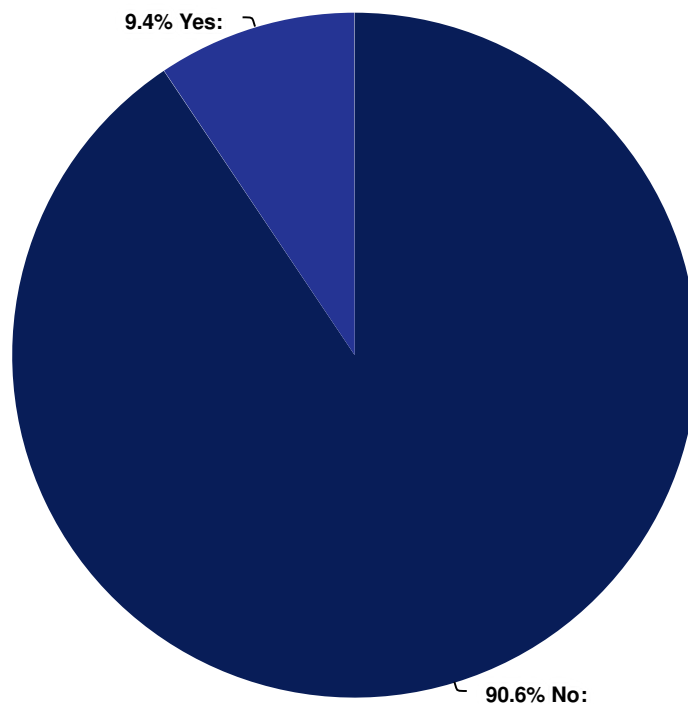
- English
- Hindi
- Nepali
- Persian

20. What is your age?



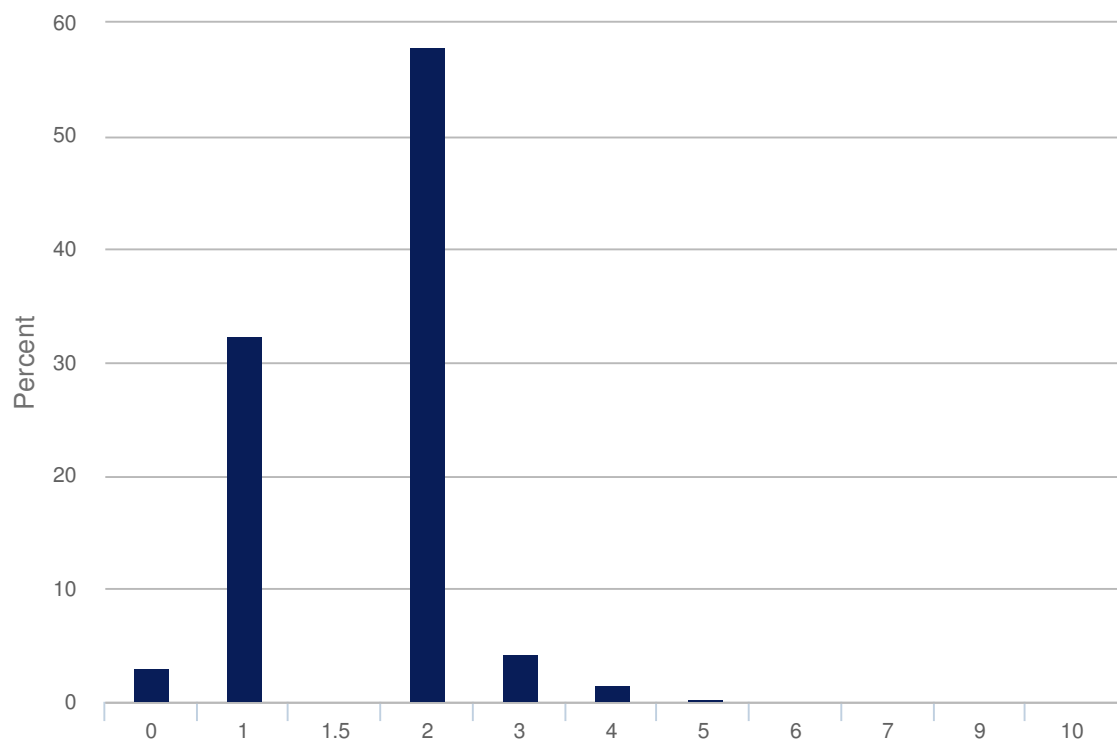
Average age is 43.5 years

21. Do you have a physical or mental disability?



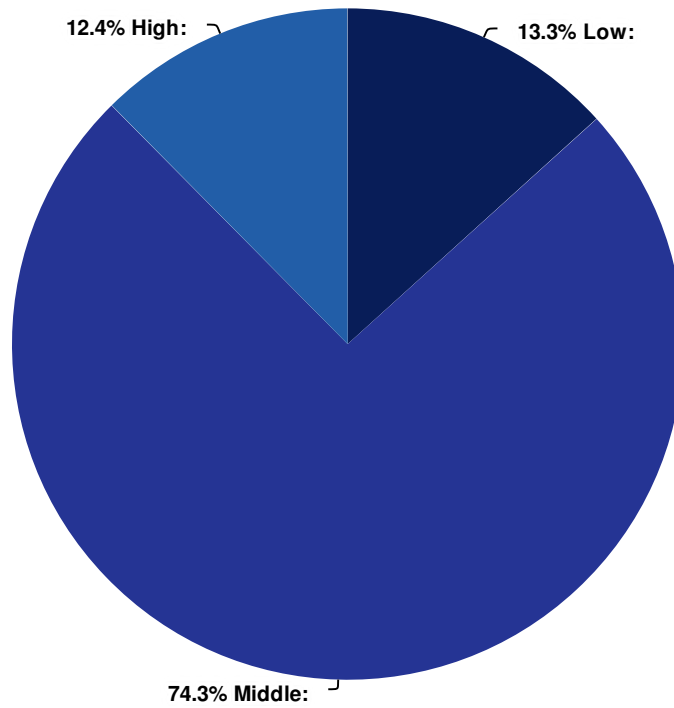
| Value | Percent | Count |
|-------|---------|-------|
| No | 90.6% | 1,834 |
| Yes | 9.4% | 191 |
| Total | | 2,025 |

22. How many people in your home work to provide for the family?



Average is 1.7 people.

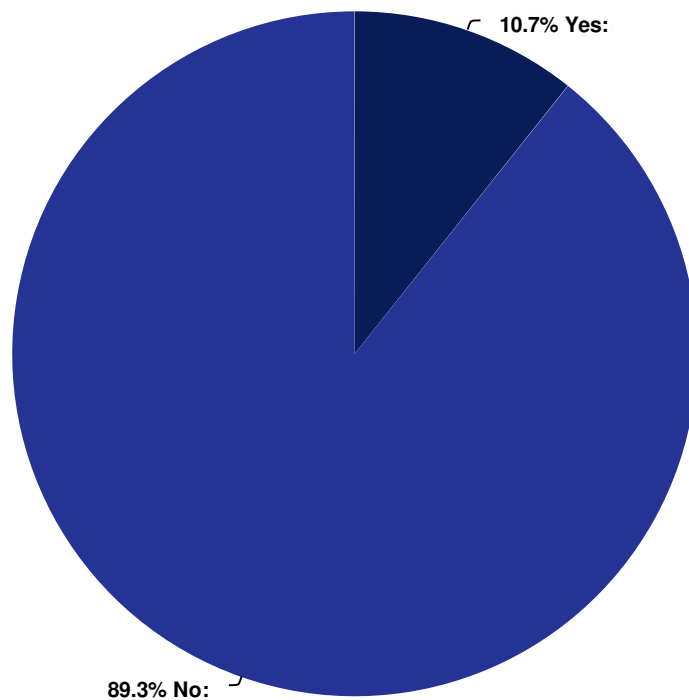
23. Would you consider your household income low, middle, or high?



| Value | Percent | Count |
|--------|---------|-------|
| Low | 13.3% | 393 |
| Middle | 74.3% | 2,197 |
| High | 12.4% | 366 |
| Total | | 2,956 |

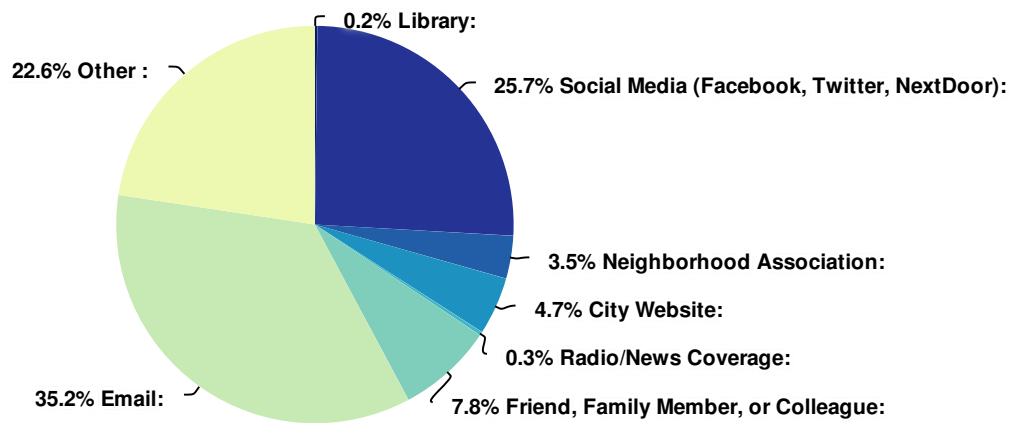
24. How do you identify yourself by race or ethnicity?

25. Are you a trained Community Emergency Response Team/Neighborhood Emergency Team member?



| Value | Percent | Count |
|-------|---------|-------|
| Yes | 10.7% | 314 |
| No | 89.3% | 2,629 |
| Total | | 2,943 |

26. How did you find out about this survey?

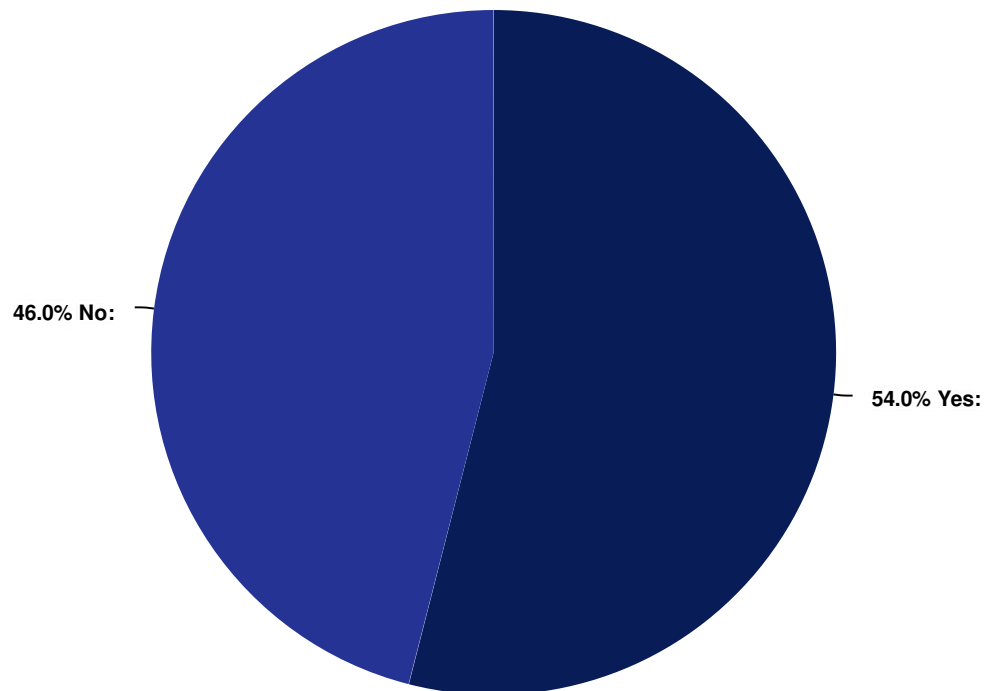


| Value | Percent | Count |
|--|---------|-------|
| Library | 0.2% | 5 |
| Social Media (Facebook, Twitter, NextDoor) | 25.7% | 761 |
| Neighborhood Association | 3.5% | 103 |
| City Website | 4.7% | 140 |
| Radio/News Coverage | 0.3% | 10 |
| Friend, Family Member, or Colleague | 7.8% | 231 |
| Email | 35.2% | 1,040 |
| Other | 22.6% | 668 |
| Total | | 2,958 |

Other common responses included:

- Work/employer
- OHSU
- ARES
- Ozone
- School
- Flash alert

27. Would you like us to contact you with related information and training opportunities?



| Value | Percent | Count |
|-------|---------|-------|
| Yes | 54.0% | 1,561 |
| No | 46.0% | 1,330 |
| Total | | 2,891 |

PLANNING FOR REAL WORKSHOPS

Planning for Real Workshop Report

INTRODUCTION

This report summarizes the public feedback gathered in support of Portland's 2016 update to its natural hazard mitigation plan (NHMP). It is intended to be used by city bureaus and offices to identify and prioritize action items to be included in the NHMP.

As part of the planning process, the planning team, with guidance from the steering committee, developed a public engagement strategy to outline the ways in which the planning team would engage the public in the development of the plan. The public engagement strategy recommended that the planning team hold 10 "Planning for Real" workshops throughout Portland. Eight of these workshops would be open to the public and focused geographically in eight of the nine risk reporting areas used for the plan. The risk reporting areas are roughly aligned with Portland's neighborhood coalitions with the addition of a Central City area. The remaining two workshops would be held with community organizations that work with Portland's communities of color and immigrant and refugee communities.

The NHMP planning team ultimately held 7 geographically-based workshops in the following locations:

- Northeast and Central Northeast Portland (joint workshop), April 18th, 2016
- Northeast Portland, April 23rd, 2016
- North Portland, April 30th, 2016
- Southeast Portland, April 24th, 2016
- Southwest Portland, May 3rd, 2016
- North/Northwest Portland and Central City (joint workshop), April 23rd, 2016
- East Portland, May 10th, 2016

The workshops were promoted through and organized with the support of the following neighborhood coalitions and groups:

- Northeast Coalition of Neighbors
- Central Northeast Neighbors
- North Portland Neighborhood Services
- Southeast Uplift
- Southwest Neighborhoods, Inc.
- Neighbors North/Northwest
- East Portland Action Plan

Two workshops were held with community organizations with the following groups:

- Coalition of Communities of Color, Native American Youth and Family Center, Portland Voz, Asian Pacific American Network of Oregon (APANO) and Latino Network, May 7th, 2016
- Community Engagement Liaisons (CELs) representing Chinese, Zomi, Lao, Butanese, Somali, Latino, Iraqi, and Khmer immigrant and refugee communities, May 14th, 2016

Individuals in the Community Engagement Liaisons group are leaders in their communities and are contracted with the City of Portland to act as a bridge between city government and immigrant and refugee communities. Following the CELs workshop, each participant was asked to schedule a meeting with at least 10 members of his or her community to share information about hazards in Portland and to provide any feedback received to the planning team by June 15th. This work is still in progress.

WORKSHOP CONTENT

The content of each workshop varied based on lessons learned from previous workshops. The planning team recognized that this was an entirely new process and was open to adapting the workshop content to community needs throughout the process. Earlier workshops focused on the NHMP planning process and the local physical exposure to hazards of concern (primarily flood, earthquake, landslide, wildfire, and severe weather, with some discussion of drought, space weather, and volcano) in the geographic area in which the workshop was held.

Based on feedback received during the process (detailed below), the content of later workshops was adapted to align with the PBEM's long-term outreach goals and to establish partnerships with local community groups in building resilience and community capacity. Workshop participants urged the planning team to deemphasize the planning process itself, and provide more information about what projects and programs the city is currently doing to reduce vulnerability, and how the city might partner with community organizations to enhance social and economic benefits to the community. Later workshops took this feedback into account. These workshops were broader in focus, briefly covering natural hazard risks, highlighting current citywide activities to reduce risk and vulnerability, and working to identify potential partnerships and collaborations between the city and community organizations.

For workshops with fewer attendees, discussion sessions involved the whole group, while larger groups were divided into discussion groups focused on specific hazards (wildfire, flood, earthquake, etc.). The following are questions discussed during the discussion sessions:

- 1) Is your neighborhood in a hazard risk zone? Are there buildings or services you use on a daily basis that are in a hazard risk zone? What would the consequences be if they were impacted by a natural hazard?
- 2) What are some ways that you could reduce the risk impacts and negative consequences at your home, at work, and in your neighborhood?
- 3) What kinds of programs or projects can city offices do to support you and your neighbors in preparing for natural hazards?
- 4) Are there potentially vulnerable populations in your neighborhood that could experience disproportionate impacts from natural hazard events? Can you think of ways to build capacity for these groups now, so that they are better positioned to absorb and recover from a hazard event?

COMMUNITY FEEDBACK

This section describes the feedback received from the Planning for Real workshops, summarized by topic. Topics include planning process, communications, and outreach; all-hazards; landslide; flood; earthquake; wildfire; severe weather; and drought.

Planning Process, Communications, and Outreach

This topic is the broadest in scope and includes feedback related to how the NHMP planning process is implemented, how to communicate messages about natural hazards and other emergencies, and how education and outreach efforts are managed across the city. This topic was the one most frequently discussed during workshops, indicating that activities that fall within this category are high priority for workshop participants.

Participants were generally in support of using the Neighborhood Emergency Team (NET) program to connect neighbors and prepare as a community. Many neighborhoods lack NETs, and the need to expand the program was highlighted. Several outreach tools were also mentioned, including using NextDoor (social media website) to promote preparedness messages, and City of Seattle's Structured Neighborhood Assessment Program (SNAP) was mentioned as an example model for community organizing.

Emergency messaging was also a prevalent topic, particularly communication of emergency messages using a variety of media and in languages other than English. A cohort of Portland residents with hearing impairments attended the East Portland workshop, and emphasized the need to communicate emergency messages using visual means including signs and graphics or flashing lights as emergency signals. Communication through graphics would also help to reach children, people who are unable to read, and people with limited English proficiency. Participants advocated for a registry of addresses with people with special needs that could be shared with emergency responders.

There was a strong emphasis on culturally appropriate and multi-language outreach and preparedness training, as well as safety training for post-disaster reconstruction and recovery. Nearly all of the workshops included a discussion of the need for additional training and education opportunities at the community level. In terms of outreach, workshop participants expressed that outreach about the plan should focus on information about social and economic benefits and investing in community capacity through partnerships. Community members are not likely to emotionally engage with specific plans; they see all of PBEM's work, and often the whole city, as one effort. To the community, there is no difference between each of PBEM's plans and the plans developed by other bureaus; the city's outreach efforts should align with one another rather than operating in "silos". Community members care most about how the city's work will directly impact them.

Some key recommendations in this category were:

- Include full social and economic recovery after a disaster as a goal of the plan.
- Provide culturally and community-specific training for community leaders on home safety, hazard mitigation (e.g. non-structural seismic strengthening), food and supply storage, response considerations for people with special needs, and household and neighborhood preparedness.
- Develop post-disaster safety messages based on 2013 "Day Labor, Worker Centers & Disaster Relief Work in the Aftermath of Hurricane Sandy" report.
- Provide education for rental property owners and property managers on hazard communication and mitigation actions.
- Provide training on evacuation and sheltering for retirement home staff and all licensed nursing homes and assisted living care providers.
- Increase PBEM's capacity to provide community trainings and partner with the Office of Neighborhood Involvement, Diversity in Civic Leadership program, and Community Engagement Liaisons program to connect underserved communities with training opportunities.

- Expand the NET program into every neighborhood in Portland and expand beyond the neighborhood structure to non-geographic communities (e.g. immigrant and refugee communities).
- Update Portland Maps to be more user-friendly and visually map hazards.
- Cultural and language-appropriate webpage for New Portlanders to access emergency information, videos, and events in their preferred language.
- Postcard mailers to every household in Portland to share natural hazard risks and how to be prepared. Include this information in neighborhood newsletters.
- Hold a storytelling event to share disaster survivor stories and share information about hazards in an emotionally compelling way.
- Citywide “Preparedness Tours” to highlight exemplary projects.
- Do outreach for ATC-20 damage assessment trainings at neighborhood land use and transportation meetings. Provide ATC-20 training to NET members to support ATC-20 certified engineers and architects.

All-Hazards

Much of the feedback received during the workshops relates to reducing overall vulnerability and can be applied across multiple hazards. This category includes ideas that address multiple hazards but are not directly related to the hazard mitigation planning process or communication and outreach.

There was widespread interest among workshop participants in identifying a funding mechanism for assisting low-income families, particularly those with elderly or very young members, in the purchase and installation of air conditioners to address the risks posed by severe heat, as well as the diminished air quality during wildfire season and during a potential volcanic eruption. Participants were concerned about the rising summer temperatures over the past few years, and felt that the city should provide assistance for potentially vulnerable residents who don’t have access to air conditioning. Participants recognized that most areas in the city are not at direct risk from volcanic lava or debris flows, but there was concern that ashfall after an eruption would pose a significant risk to the elderly and those who suffer from asthma and other respiratory problems. Another option discussed by workshop participants was to place permit requirements on new multi-family and rental housing to include air conditioning systems.

Food, water, and energy independence was another common thread in many workshop discussions. Workshop participants expressed concern about access to food and water in the case of any major natural hazard event in Portland; power outages and fuel shortages were also major concerns. Investments in community gardens and local food production, rainwater collection systems, and solar power systems were suggested as important steps to improving community resilience while simultaneously contributing to the city’s sustainability and climate change adaptation goals.

Recognizing the important role day laborers can have in disaster response and recovery, as well as their increased risk of suffering negative consequences after a disaster, workshop participants expressed the desire to see the city take an active role in protecting this group’s safety during post-disaster response, reconstruction, and recovery, and preventing post-disaster displacement. Guidelines were developed based on lessons learned from Hurricane Sandy (*Day Labor, Worker Centers & Disaster Relief Work in the Aftermath of Hurricane Sandy*, by Cordero-Guzman et al., 2013) to include these groups in planning activities, protecting workers’ rights during reconstruction, provide preparedness and safety trainings,

provide access to personal protective equipment, and allocate funds for day labor centers to be established as community resources prior to a major natural hazard event.

Many community-based projects would rely on partnerships with community organizations for implementation. Participants expressed interest in finding ways for the city to financially support community organizations that promote activities related to preparedness and increasing community resilience.

Some key recommendations in this category were:

- Financial assistance and/or regulatory support for low-income residents and renters who are vulnerable to extreme heat or diminished air quality to install air conditioning systems.
- Training and support for day laborers consistent with guidance in “Day Labor, Worker Centers & Disaster Relief Work in the Aftermath of Hurricane Sandy” report from 2013.
- Funding for community organizations outside of formal neighborhood structure whose projects focus on preparedness and community resilience.
- Invest in and promote community gardens and local food production.
- Invest in and promote rainwater collection systems in public, residential, and commercial properties.
- Require new development to include onsite rainwater storage and/or emergency drinking water storage tanks. Include water storage solutions in seismic retrofit projects for schools and other public buildings.
- Update city policies to include energy and water purification solutions promoted internationally by Green Empowerment.
- Invest in and promote solar and other alternative energy in public, residential, and commercial properties.
- Prioritize clearing bike paths so that non-automobile traffic can flow safely and develop plans to locate aid stations along these routes.
- Prioritize road access to grocery stores, medical offices, and hospitals. Consider isolated communities in establishing road-clearing priorities.
- Partner with community groups and critical social service organizations to ensure that they have continuity of operations plans.
- Develop hazard-specific evacuation plans that consider likely impacts to bridges and other transportation infrastructure.
- Develop a recovery plan to promote hazard-informed decision-making for post-disaster redevelopment and to take advantage of the opportunity to move critical assets to safer locations.
- Provide neighborhood tool libraries for mitigation projects and post-disaster reconstruction. Partner with home improvement stores to build tool collections.
- Require Portland’s emergency responders to live within the city. Provide financial support to purchase or rent a home within the city limits.

Landslide

Landslides were a major concern for many workshop participants, especially those who live in or near the West Hills in Portland; many were worried about the closure of key access roads and life safety hazards from collapse of bridges and tunnels. Participants were also worried about the dramatic increase in infill development over the past few years and the addition of large multi-family developments in known

landslide hazard areas. There was strong interest in preventing any additional development within the city's regulatory landslide hazard zone.

Some key recommendations in this category were:

- Financial support and education for property owners wishing to remediate their properties for erosion.
- Emergency moratorium on all development in high landslide risk areas.
- Enhanced communication with adjacent property owners and neighbors about how landslide risk is being minimized if development is permitted in landslide risk areas.
- Erosion control projects using bio-swales and beneficial drainage systems.
- Pre-established detour routes for access in and out of known landslide risk areas.

Flood

Flood risks were of particular concern to workshop participants who live in East Portland. Clear communication about safe alternative routes through highly flood-prone areas emerged as a top priority.

Some key recommendations in this category were:

- Replace unsafe or structurally compromised bridges and rebuild to more flood-resistant standards.
- Identify high-traffic bridges and flood-prone routes and establish alternative routes to be used in case they are flooded.
- Require construction of bio-swales for large construction projects where appropriate.
- Promote the use of French drains and other on-site stormwater management systems.

Earthquake

Because of the potential for long-term citywide and regional impact, earthquake is the “model hazard” for many participants in the Planning for Real workshops. Many of the recommendations in the all-hazards category above were discussed in the context of earthquake hazards, but were described in this report as all-hazards recommendations because of their broader applicability to other hazards of concern. It is also important to note that earthquakes may cause or contribute to incidences of other hazard events such as landslides or floods. For that reason, many concerns and recommendations from workshop participants that fall under other categories discussed in this report would also be applicable to earthquake hazards.

The need for enhanced communication about seismic risks and the seismic stability of structures throughout the city was highlighted as a priority during workshop discussions. Participants expressed the need for information about whether public buildings such as schools or office buildings have been seismically strengthened. It was also important to workshop participants that unreinforced masonry buildings be clearly marked so that people who live and work in these buildings are aware of the risks they face.

Participants were also generally unsure about whether current seismic codes were sufficient for a Cascadia Subduction Zone earthquake, and many strongly advocated for higher seismic standards for new buildings and infrastructure. Failure of bridges and overpasses, disrupted communications, and damage to key energy infrastructure and potential hazardous materials in liquefaction zones were major concerns for workshop participants. Many were also concerned about fires caused by broken gas lines and other ignition sources during and after an earthquake.

Some key recommendations in this category were:

- Retrofit and/or move fuel infrastructure in Linnton. Maintain fuel reserves in safe locations for use in disaster recovery.
- Strengthen levees to seismic standards.
- Develop an inventory of and distribute information about which shelter facilities have been retrofitted.
- Provide property owners with financial assistance for seismic strengthening, especially owners of multi-family and low-income housing.
- Reinforce and fire-proof the Linnton Community Center as a place of refuge for residents who cannot evacuate.
- Require automatic shutoff valves for gas lines in all new development.
- Evaluate whether current seismic codes are sufficient for a 9.0 subduction zone earthquake. If not, adopt higher standards.
- Assess seismic stability of large water towers throughout the city to determine whether they pose a risk or could be used as an emergency water source.
- Communicate information about hazardous materials and potential plume areas prior to major event. Ensure firefighters and NET members know hazard types and response considerations.
- Label unreinforced masonry buildings to notify occupants of their risks.
- Require signage about risks and evacuation routes in hotels.
- Retrofit and reinforce schools beyond life-safety standards so that they can be used as neighborhood shelters and storage locations for emergency supplies.
- Stage emergency resources on the west side of the river in case bridges fail and east-west access is blocked.
- Continually update water and sewer pipe systems, and continue with the project to build a seismically reinforced water pipe that crosses under the Willamette River.

Wildfire

Wildfire was primarily a concern for workshop participants who live in or near the West Hills, although participants from other areas in the city recognized the air quality risks associated with wildfire outside of their immediate neighborhoods. Recommendations to address air quality issues are discussed in the all-hazards topic above.

Many participants expressed concerns about hotter, drier summers leading to increased wildfire risk. There was also some concern about invasive or non-native species contributing to wildfire risk, as well as certain diseases affecting trees that can cause massive tree die-outs including Swiss-Cass Needle Disease, which is currently affecting Portland's Douglas Fir tree population.

Workshop participants provided a number of zoning and building code solutions to reduce fire risk in urban-wildland interface zones, such as requiring non-combustible roofing materials in wildfire risk zones. There was also interest in the city providing training to community members and NET members to use firefighting equipment and hoses.

Some key recommendations in this category were:

- Require metal or composition roofing materials when replacing greater than 50% of a roof in a wildfire risk zone.
- Provide NET members with training on fire response, especially how to use fire hydrants and hoses.
- Provide clear information to the public on burn restrictions.

Severe Weather

Primary concerns from workshop participants about severe weather were related to extreme heat and emergency shelters for all extreme weather conditions. All recommendations for severe weather are included under the all-hazards topic above.

Drought

Although drought was not a major concern for most workshop participants, some did provide recommendations for reducing Portland's drought risk. These recommendations were primarily focused on water conservation and planting native and drought-resistant plants that require less water.

Some key recommendations in this category were:

- Promote homeowners planting native and drought-resistant plants that require less water during drier months.
- Provide water conservation education to kids in schools.

NEXT STEPS - INSTRUCTIONS GIVEN TO BUREAUS

This report is intended to inform the development and prioritization of action items for the NHMP. City bureaus and offices should use this feedback from community members to supplement the list of recommended action items from other sources in this planning process. Bureaus and offices should consider which of the recommendations might fit under their portfolios. Those actions that are selected should be included in the final list of actions submitted to the NHMP planning team. They should also be refined using the equity screening process and prioritized using the prioritization tables provided in the bureau toolkit.

Questions? Contact Danielle Butsick at 503-823-3926 or danielle.butsick@portlandoregon.gov.

TOWN HALL MEETINGS

TOWN HALL MEETING SUMMARY

During the public review and comment period, five town hall events were held throughout Portland to give residents an opportunity to ask questions about and provide feedback on the draft Mitigation Action Plan (MAP) (See Table 1). These events were advertised as Summer Socials (See Figure 1). At the Summer Socials, the public was invited to come and view the maps, review the draft plan, and ask questions of city staff and neighborhood emergency team volunteers. Approximately 60 people attended the events, some even came to multiple events. Attendees learned about liquefaction, talked about natural hazard risks and how to get prepared. The Summer Socials led to several individuals being interested in becoming trained Neighborhood Emergency Team members, and several people registered for PublicAlerts after talking to staff about the voluntary registration program. Planning team staff shared information about city bureau projects currently underway to reduce risks from natural hazards, as well as those listed in the plan that bureaus hope to implement over the next five years.

Table 1. Meeting Dates, Description and Attendance

| Date | Town Hall Meeting | Description/Geographic Area | Estimated Attendance |
|------|-----------------------|-------------------------------------|----------------------|
| 8/9 | 1st Town Hall Meeting | • Coalition of Communities of Color | 15 |
| 8/16 | 2nd Town Hall Meeting | • West/Northwest | 15 |
| 8/17 | 3rd Town Hall Meeting | • North/Northeast | 15 |
| 8/23 | 4th Town Hall Meeting | • East/Southeast | 15 |
| 8/30 | 5th Town Hall Meeting | • Southwest | 15 |



Figure 1. Flyer Announcing Town Hall Events



Figure 2. Residents Attending Summer Social Events

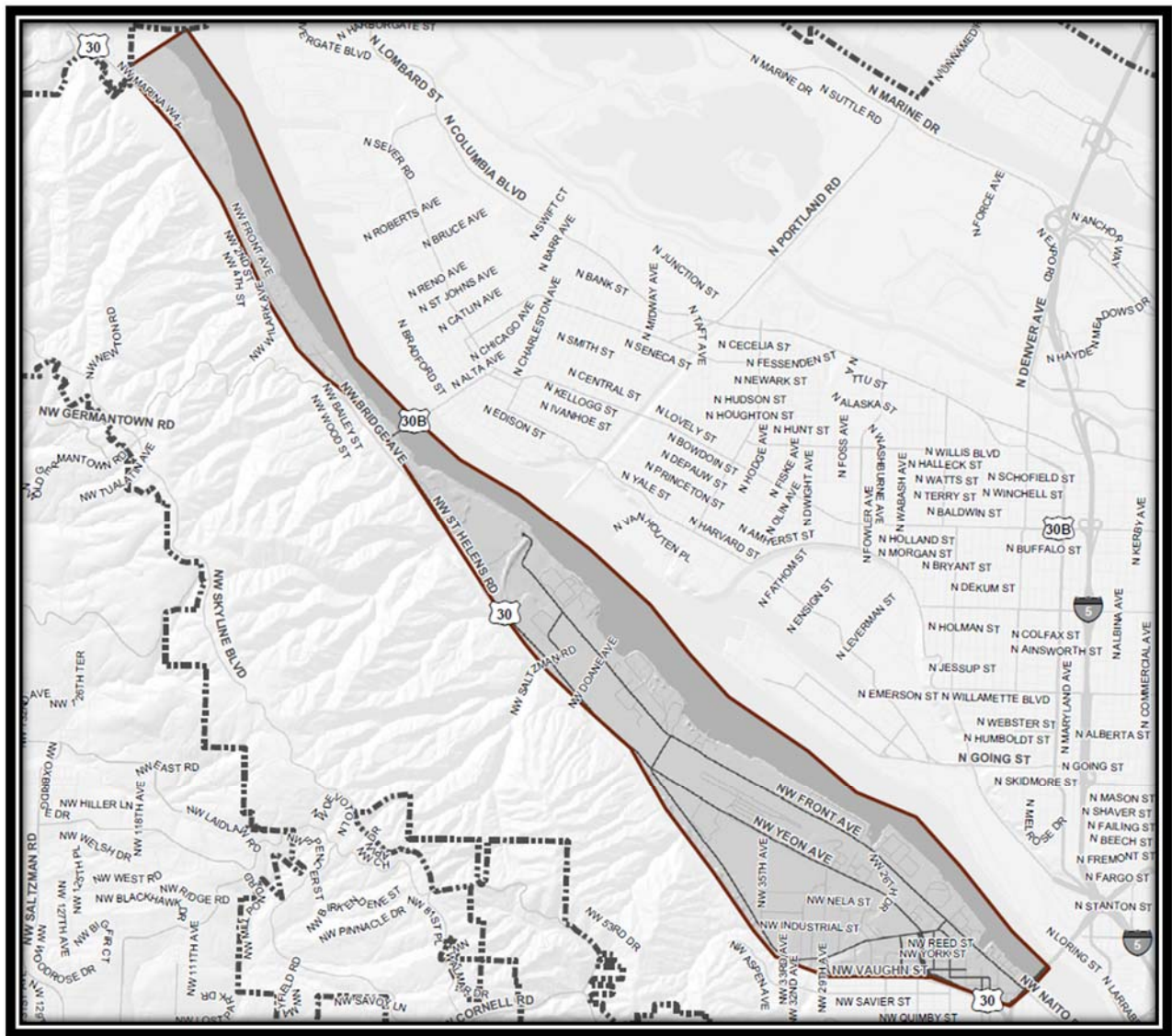
The Mitigation Action Plan

Appendix D. Critical Energy Infrastructure Hub Study



Portland Bureau of Emergency Management

2016 Critical Energy Infrastructure Hub Study



2016 Critical Energy Infrastructure Hub Study

June 2016

PREPARED FOR

City of Portland
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GLOSSARY

BES—Bureau of Environmental Services (Portland)
CDMS—Comprehensive Data Management System
CEI—Critical Energy Infrastructure
CFR—Code of Federal Regulations
CSZ—Cascadia Subduction Zone
DOGAMI—Oregon Department of Geology and Mineral Industries
FEMA—Federal Emergency Management Agency
GIS—Geographic Information System
Hazard-MH—Hazards, United States-Multi Hazard
LEAP—City of Portland Local Energy Assurance Plan
LNG—Liquid natural gas
NEHRP—National Earthquake Hazards Reduction Program
PBEM—Portland of Bureau of Emergency Management
PUC—Public Utility Commission of Oregon
USGS—U.S. Geological Survey

EXECUTIVE SUMMARY

The stability and reliability of local energy importation systems are of paramount importance to the City of Portland and the surrounding region. A significant portion of the energy distribution infrastructure is located along a 6-mile stretch of the lower Willamette River in Northwest Portland, between the I-405 Fremont Bridge and Sauvie Island, commonly referred to as the Critical Energy Infrastructure Hub (the CEI Hub). The energy sector facilities in the CEI Hub receive and distribute 90% of the fuel that powers the State of Oregon (PBEM, 2012). The CEI Hub includes the following types of facilities:

- All of Oregon's major liquid fuel port terminals
- Liquid fuel transmission pipelines and transfer stations
- Natural gas transmission pipelines
- Liquefied natural gas storage facility
- High-voltage electric substations and transmission lines
- Electrical substations for local distribution.

The CEI Hub is strategically located to provide access to navigable waters, rail infrastructure, petroleum pipelines, and highways, all important for both the supply and the distribution of energy products. While the location is vital for its functions, it is also a significant source of risk for the CEI Hub assets and personnel as well as residents who live adjacent to the CEI Hub. The CEI Hub area is especially susceptible to earthquake, flood, landslide, severe weather, volcanic ash fall, and wildfire.

This CEI Hub study was conducted by the Portland Bureau of Emergency Management in coordination with the 2016 update of the City of Portland Hazard Mitigation Plan. The purpose of the study was to develop a stand-alone report that includes a risk assessment and a list of key recommendations, and to incorporate the findings into the update of the city's hazard mitigation plan.

The study also included a comprehensive literature review on five previous studies related to the CEI Hub to pull together key findings and recommendations.

STAKEHOLDER ENGAGEMENT

Stakeholders for this study are local, state and federal agencies, as well as owners and operators of CEI Hub facilities, local residents, and environmental groups, all of whom have a stake in the disaster resiliency of the CEI Hub. In all, over 135 stakeholders were invited to participate in this study. Fewer than 10 percent of the stakeholders invited to participate in this study actually participated. This low level of participation was not surprising, as it tracks with the level of participation in other studies reviewed for this project; but it does have a direct effect on the quality of the risk assessment results.

RISK ASSESSMENT

A comprehensive risk assessment was performed on the CEI Hub facilities using the same tools that are being used to update the City's hazard mitigation plan. Risk assessment software was used to model potential impacts

from earthquake and flood. Comprehensive Data Management System software was used to capture property-specific attributes of 323 user-defined facilities.

The CEI Hub risk assessment for each hazard of concern includes an overview of the hazard, an analysis of people, property and environment exposed to the hazard, an analysis of the vulnerability of exposed people, property and environment, and a summary of key findings. The 2016 update to the City of Portland Hazard Mitigation Plan includes a more detailed profile for each hazard of concern for the entire city.

SELECTED KEY FINDINGS

- It is assumed that the modeling results of this analysis are understated due to incomplete data sets. There is a heavy reliance on default level data in the modeling for this study in lieu of the data that was not available from CEI Hub stakeholders. The accuracy of the modeling would be significantly enhanced if key data attributes that help estimate damage in the Hazus-MH models could be provided. Further, the Hazus-MH model employed a “lower bound” analysis, intended to demonstrate cost-effectiveness at the lowest level of expected impact.
- The vast majority of the facilities in the study area are constructed on soft, liquefiable soils that are typically associated with increased seismic vulnerability. The soils and liquefaction data provided by DOGAMI significantly enhanced the results of this study.
- The facilities and infrastructure within the study area range from over 100 years old to new or recent construction. The new construction has been built to heightened code standards, while the older construction was built to little or no code standards. The majority of the facilities were constructed to low, or no code standards. Code construction standards are an important parameter in the modeling of seismic events.
- Models of the Cascadia Subduction Zone event show less damage than the Portland Hills Fault event due to proximity to the source. The CSZ event has an epicenter 67 miles west of the study area, while the Portland Hills fault scenario has an epicenter less than 5 miles west of the study area. The CSZ event would be considered the true worst-case scenario due to its higher probability of occurrence and likelihood of regional impact. USGS has assigned a 15 percent probability in 50 years for a CSZ event, versus a 1 percent probability in 50 years for the Portland Hills event. Additionally, seismologists estimate a CSZ event to last longer than 3 minutes, while estimates for a Portland Hills event are 60 seconds or less. Event duration can play a significant role in the amount of damage associated with seismic events.

RECOMMENDATIONS

This study includes nine recommendations:

- Recommendation 1: CEI Hub Disaster Resiliency Workgroup—Form a workgroup made up of CEI Hub stakeholders that would be recognized by federal, state and local agencies as an authoritative body with a vested interest in the resiliency of the CEI Hub. This workgroup would help guide policy, initiate dialogue, and have some level of funding capability to seed resilience initiatives in the study area.
- Recommendation 2: Update/Enhance CEI Hub Risk Assessment—Address data gaps in the risk assessment performed for this study and update the risk assessment as new data and science become available.
- Recommendation 3: Fossil Fuel Resolution—Apply Fossil Fuel Resolution #37168 to allow expansion of existing infrastructure or installation of new infrastructure only after adjacent infrastructure on the same facility have been retrofitted to address seismic risks, including liquefaction.

- Recommendation 4: Emergency Response/Recovery Regulatory Waivers—Pursue a process for allowing waivers from federal and state regulatory agencies in order to make disaster response and recovery in the CEI Hub more efficient, for example allowing gravity-fed transfers that bypass electricity-dependent overfill alarms during an electrical outage.
- Recommendation 5: Planning—The CEI Hub Disaster Resiliency Workgroup would establish a planning curriculum by assessing the level of planning that currently exists and establishing procedures to improve coordination on planning efforts.
- Recommendation 6: Backup Power—Identify and prioritize backup power needs following local energy assurance planning protocols, and consider the use of microgrids or other alternative energy sources.
- Recommendation 7: Training and Exercise—Commit to periodic, scenario-based City trainings and exercises in the CEI Hub, coordinating between CEI Hub stakeholders and local responders.
- Recommendation 8: Facility retrofits—Via a comprehensive, site-specific risk assessment, identify and prioritize for retrofit or replacement all vulnerable CEI Hub facilities.
- Recommendation 9: Land Use Repurposing—Create regionally acceptable means to repurpose land use within an identified buffer area adjacent to the CEI Hub.

1. PURPOSE OF THIS STUDY

1.1 BACKGROUND

1.1.1 Local and Regional Energy Resources

The City of Portland, like all jurisdictions in Oregon, relies on the importation of energy resources from adjacent states (DOGAMI, 2013). The stability and reliability of local energy importation systems are of paramount importance to the City and to the entire region. A significant portion of the local, regional and state energy distribution infrastructure is located along a 6-mile stretch of the lower Willamette River in Northwest Portland, between the I-405 Fremont Bridge and Sauvie Island (see Figure 1-1). This area is commonly referred to as the Critical Energy Infrastructure Hub (the CEI Hub).

The CEI Hub lies on soils that are highly susceptible to the impacts of earthquakes and other hazards. The importance of the CEI Hub to the people and economy of the City of Portland and the State of Oregon warrant a detailed look at the exposure and vulnerability of facilities in the CEI Hub to natural hazards. The 2016 Critical Energy Infrastructure Hub Study was conducted as part of the 2016 update to the *City of Portland Hazard Mitigation Plan*. This report of the study's findings is a companion document to that updated plan.

1.1.2 Hazard Mitigation Planning

Hazard mitigation is defined as any action taken to reduce or alleviate the loss of life, personal injury, and property damage that can result from a disaster. It involves long- and short-term actions implemented before, during and after disasters. Hazard mitigation activities include planning efforts, policy changes, programs, studies, improvement projects, and other steps to reduce the impacts of hazards. The federal Disaster Mitigation Act (Public Law 106 390) emphasizes planning for disasters before they occur by requiring state and local governments to develop hazard mitigation plans as a condition for some federal disaster grant assistance.

The study recommendations presented in Chapter 5 of this report were presented for review and comment at the April 2016 meeting of the City of Portland Hazard Mitigation Plan Steering Committee. Final study recommendations will be included as actions in the updated 2016 Hazard Mitigation Plan.

1.2 OBJECTIVES

The mission of the Portland Bureau of Emergency Management (PBEM) is to build a resilient City through coordinated planning, mitigation, response and recovery. PBEM's objectives for this study are as follows:

- Conduct a study in conjunction with the update to the City's hazard mitigation plan.
- Perform a risk assessment for the CEI Hub.
- Identify CEI Hub mitigation strategies for the City of Portland and possible funding mechanisms.
- Provide the findings in a stand-alone, companion document.
- Deliver a public presentation on the study for the City Council.
- Incorporate the CEI Hub mitigation recommendations into the final, updated Hazard Mitigation Plan.

Figure 1-1.
Critical Energy
Infrastructure (CEI) Hub

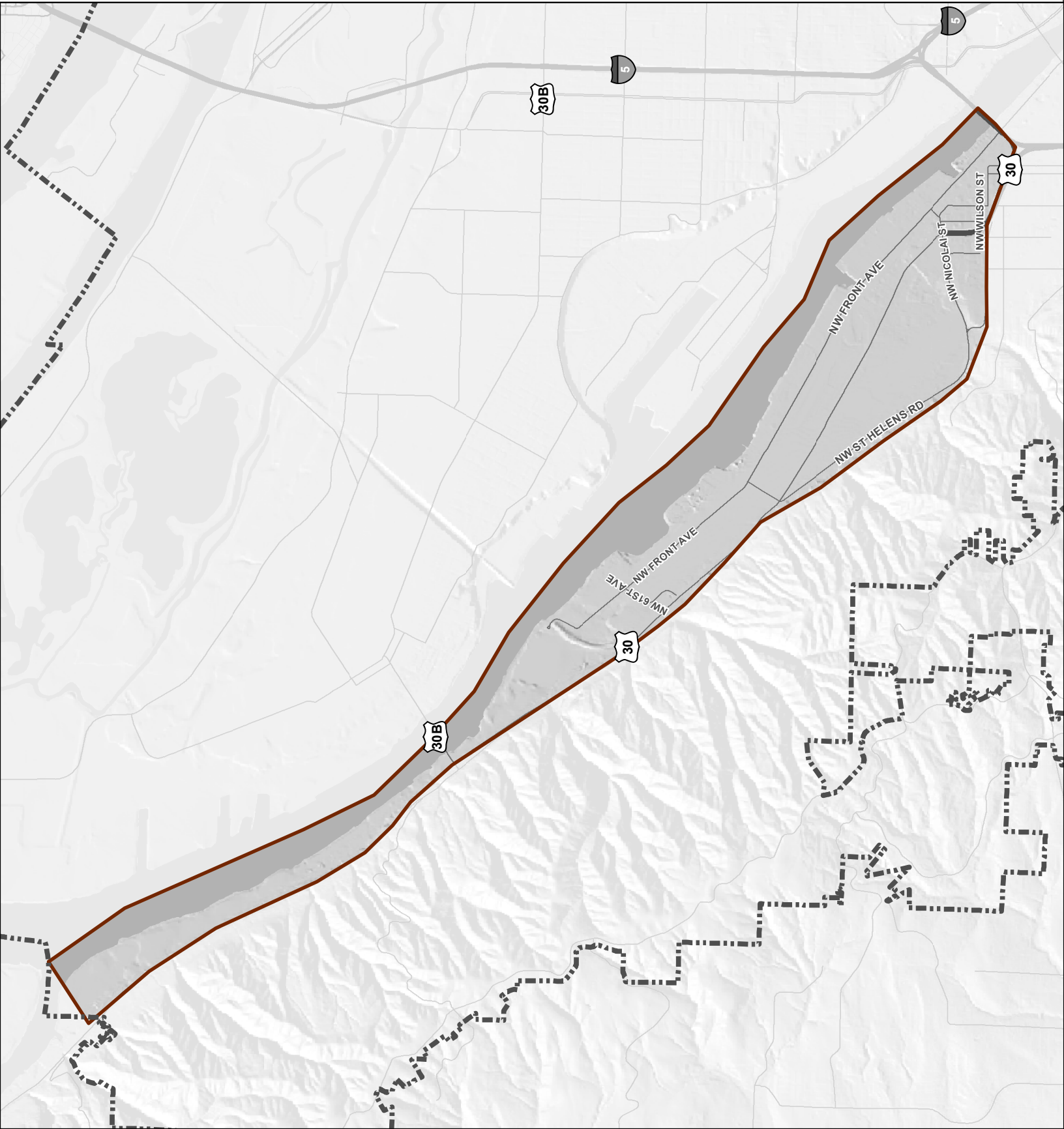
Legend

- City Boundary
- Critical Energy Infrastructure (CEI) Hub Boundary

NORTH

0 0.5 1 Miles

Source: City of Portland-2016



1.3 STUDY SCOPE OF WORK

PBEM selected Tetra Tech, Inc. to facilitate the update to the City's Hazard Mitigation Plan, including the development of the CEI Hub study. A planning team composed of PBEM and Tetra Tech staff guided and facilitated the CEI Hub study. The scope of work for the CEI Hub study included the following tasks:

- **Task A: CEI Stakeholder Engagement**—CEI Hub stakeholders were identified and engaged by the planning team to support the development of the study. These stakeholders included owners/operators of CEI Hub facilities; state and federal agencies with relevant data, studies or plans about the facilities; residents of the surrounding Linnton neighborhood; members of the Hazard Mitigation Plan Steering Committee; and relevant staff from City of Portland bureaus. Stakeholders were invited to participate in two meetings:
 - At the first meeting, the planning team explained the purpose of the study, sought committed participation from stakeholders and requested relevant data.
 - At the second meeting, the planning team presented the findings of the risk assessment and identified recommendations for actions to be considered in the City's updated Hazard Mitigation Plan.
- **Task B: CEI Data Analysis:**
 - The planning team reviewed relevant plans, studies and programs to identify data that would augment the a risk assessment for the CEI Hub.
 - Following the literature review, a risk assessment was performed using the Federal Emergency Management Agency's (FEMA's) Hazus-MH risk assessment platform (Version 2.1). The risk assessment was conducted solely on facilities for which information was provided by participating stakeholders identified under Task A. Risk assessment results were generated by facility and by hazard type. Direct damage, indirect damage, and loss-of-function estimates were derived from the Hazus-MH platform.
- **Task C: CEI Facility Report**—The planning team prepared this CEI Hub study report, which provides an overview of the risk and vulnerability of the CEI Hub for each hazard of concern, identifies possible mitigation actions, and identifies possible sources of funding for recommendations that require an alternative source of funding. The report is a companion document to the 2016 update to the City's Hazard Mitigation Plan.
- **Task D: Final CEI Report to City Council**—The planning team will present the findings and recommendations of this report to the Portland City Council.

1.4 STUDY AREA DEFINED

The study area for this assessment was defined as a 6-mile-long area centered on US Highway 30 along the lower Willamette River between the south tip of Sauvie Island and the I-405 Fremont Bridge. Figure 1-1 shows the study area. A significant portion of Oregon's electricity, natural gas, and fuel oil infrastructure is concentrated in this area. The energy sector facilities in the CEI Hub include the following:

- All of Oregon's major liquid fuel port terminals
- Liquid fuel transmission pipelines and transfer terminals
- Natural gas transmission and distribution pipelines
- Liquefied natural gas (LNG) storage facility
- High-voltage electric substations and transmission lines
- Electrical substations for local distribution.

2. STAKEHOLDER ENGAGEMENT

This chapter summarizes the outreach and engagement efforts to CEI Hub stakeholders that the planning team undertook to gather the best available data for this study.

2.1 IDENTIFIED CEI HUB STAKEHOLDERS

A stakeholder is any person or group with an investment, share, or vested interest in something. For this study, stakeholders are all persons and agencies with a vested interest in the disaster resiliency of the CEI Hub, including, but not limited to facility owners and operators, environmental groups, adjacent property owners or residents, and major regional energy customers such as PDX airport. The planning team assembled a list of two key types of stakeholders to engage in the effort:

- Owners, operators and other data providers, such as state regulatory agencies
- Communities or interests that would likely be indirectly impacted by a major hazard event at the CEI Hub, such as neighborhoods adjacent to the CEI Hub and groups representing environmental interests.

Over 135 stakeholders representing these interests were contacted and invited to participate in the development of this study.

2.2 CEI HUB STAKEHOLDER OUTREACH

2.2.1 CEI Hub Stakeholder Meeting #1

A study kickoff meeting was held on October 21, 2015 at the Clean Rivers Cooperative Training Center, located in the study area. Seventeen CEI Hub stakeholders attended, along with five members of the planning team. Stakeholder interests that were represented included: CEI Hub owner/operators, representatives from the Linnton Neighborhood Association, the Oregon Department of Geology and Mineral Industries (DOGAMI), the Federal Emergency Management Agency (FEMA), and the Oregon Department of Environmental Quality. The meeting began with a presentation to introduce the planning team, project goals and expected outcomes as well as the following meeting objectives:

- Ensure that relevant stakeholders have been identified and are participating
- Determine information needs, data availability, and possible sources
- Identify and address data confidentiality and other concerns
- Outline the project timeline
- Determine next steps in the process.

After the presentation, there was discussion among the planning team and stakeholders on project understanding, concerns, information security and data capture and transmission. Most stakeholders in attendance indicated that they were likely to participate in the study.

2.2.2 Data Solicitation

On November 9, 2015 the planning team sent a data capture form to all identified CEI Hub owner and operator stakeholders, along with a set of instructions on how to complete the form. The form was designed to capture necessary information for each facility for input to the Comprehensive Data Management System (CDMS), an extension to FEMA's Hazus-MH risk assessment software (see Chapter 4). CDMS captures facility-specific attributes to establish curves for estimating damage to facilities. Completion of the CDMS form, which was voluntary, indicated each stakeholder's support for the study. Stakeholders were asked to submit completed forms by December 18, 2015.

2.2.3 CEI Hub Stakeholder Meeting #2

A second CEI stakeholder meeting was held at the Clean Rivers Cooperative Training Center on February 25, 2016 to present the results of the risk assessment and to identify recommendations for action. This meeting was attended by 11 CEI Hub stakeholders and three members of the planning team. The agenda was as follows:

- Welcome and introductions
 - Round-table introductions
- Project review
 - Project overview
 - Project status
 - Summary of the literature review
 - Next steps
- Model results
 - Description of the computer model
 - Hazard scenarios analyzed
 - Outputs defined
 - Review of the results
- Alternatives analysis
 - Strengths
 - Weaknesses
 - Obstacles
 - Opportunities to use strengths to address weaknesses and obstacles
 - Possible actions.

Evaluation of Strengths, Weaknesses, Obstacles and Opportunities

Recommended actions for possible inclusion in the City's Hazard Mitigation Plan were identified through consideration of the study area's hazard-related strengths, weaknesses, obstacles and opportunities. Key points discussed included the following:

- Strengths
 - Practical experience—CEI Hub owner/operators have not had to respond to a major disaster, but they do have practical experience in dealing with business interruption from impacts outside the CEI Hub.

- Established relationships—There are strong relationships among CEI Hub owner/operations that have been expanded to other stakeholders, such as the City of Portland, DOGAMI and the Oregon Department of Environmental Quality.
- The City of Portland Local Energy Assurance Plan (LEAP)—The LEAP, developed by the City in coordination with CEI Hub owner/operators, has helped to establish a dialogue among CEI Hub stakeholders on energy resilience that could be applied to disaster resilience.
- Product distribution alternatives—Petroleum/gas stakeholders have the ability to deliver product without power. This is not the ideal method, but it is an option that could be deployed to support continuity of operations.
- Example for disaster resilience—Portland General Electric, the principle energy supplier to the study area, has incorporated disaster resilience into its business plan and is proactively mitigating its vulnerable facilities. This provides a practical example for all CEI Hub stakeholders on embracing disaster resilience.
- Weaknesses
 - Access—The study area has the potential to be isolated in a disaster scenario due to limited points of ingress and egress.
 - Plan awareness—Numerous plans and studies have conducted in-depth assessments of the CEI Hub and its facilities. There is a lack of awareness by CEI Hub owner/operators about these plans.
 - Planning coordination—There is a lack of coordination of all the relevant planning efforts currently underway. This lack of coordination leads to a lack of consistency in data analyzed and plan findings and conclusions.
 - Lack of data—There seems to be a good understanding about potential hazard events and their impacts; however, understanding of how CEI Hub facilities might perform in these events is lacking due to information gaps for the CEI Hub facilities. Needed information probably exists, but is not readily available.
 - Understanding of functional downtime—CEI Hub stakeholders do not have a good understanding of how long after a hazard event their facilities would be unable to operate at their normal level.
- Obstacles
 - Environmental restrictions/regulations and safety restrictions/regulations—CEI Hub stakeholders indicated that existing environmental and safety regulations may impede response and recovery efforts at the CEI Hub after a major disaster.
 - Local regulations—The City of Portland recently adopted regulations that would restrict the expansion of petroleum facilities within the study area (Resolution No. 37168). This could be an obstacle to any incentive to retrofit vulnerable facilities in the CEI Hub. It would also be an obstacle for petroleum facilities to keep up with State of Oregon growth demand.
 - Security—The need for security of sensitive data can create an obstacle to sharing data and requires steps to ensure sure that shared data is secure.
- Opportunities
 - Continuity of operations planning—Determine if all CEI Hub owners and operators have prepared continuity of operations plans and whether existing plans address post-disaster operations and provide consistency in strategies.
 - State of Oregon Energy Plan update—Update the State Energy Plan and incorporate existing data, studies, and plans on the CEI Hub.
 - Work group—Build on the momentum from this study and others by creating a work group for data sharing, analysis, security and policy-making related to the overall resilience of the CEI Hub.

- Regulatory waiver—Consider a waiver to City Resolution No. 37168 that would allow a CEI Hub owner/operator to expand a petroleum facility if it is done as a retrofit to an identified vulnerable facility.
- Legislative strategies—Pursue state legislative strategies to address environmental and safety restrictions related to achieving disaster resilience through preparedness, response or mitigation actions by CEI Hub stakeholders.
- Backup generators—Ensure that all CEI Hub owner/operators own or have access to backup generators. Further analysis is necessary to determine how many generators are needed, the type, capacity, switching capabilities, etc.
- Training and exercises—Build on existing successes, such as LEAP, to provide disaster scenario training that includes and involves CEI Hub stakeholders.
- Ongoing risk assessment updates and enhancements—Continue to update and enhance the risk assessment for the CEI Hub using the best facility data and best available science as they become available.
- Planning—Make a concerted effort among public and private-sector CEI Hub stakeholders to identify existing plans related to CEI Hub disaster resiliency, the level of consistency among them, and needs for additional planning.

Review of Risk Assessment Results

Following the evaluation of strengths, weaknesses, obstacles and opportunities, stakeholders engaged in additional discussion on the risk assessment results. There was a general consensus that the model results were likely understating risk, especially in regard to earthquake risk. Stakeholders suggested several methods by which the data and models could be refined to more accurately portray risk, including greater participation from owners/operators at the CEI Hub and accounting for an increase in severity resulting from shaking duration lasting longer than one minute. Although risk may be understated in this study, the risk assessment results represent a valuable starting point toward understanding the vulnerabilities of the CEI Hub.

2.3 CEI HUB STAKEHOLDER PARTICIPATION

All stakeholder participation was valuable for this study, and participation from owners and operators of CEI Hub facilities was of particular importance. Because all CEI Hub facilities are privately owned, a detailed assessment of the CEI Hub could not be conducted without the participation of facility owners and operators. The risk and vulnerability assessment (described in Chapter 4) was built upon FEMA's Hazus-MH modeling program, which requires detailed, accurate data about existing conditions. The accuracy and reliability of the results depend upon the quality of the input data. When current, detailed data is not provided, the model supplements missing data with default entries and assumptions.

Modeled results presented in this report (see Chapter 4) are based only on the facilities for which data was provided. The total number of owners and operators of facilities in the CEI Hub has not been established, but is substantially more than those who provided full participation. Full participation in this study—defined as attending meetings and providing data to be used in the study—was given by the following stakeholders:

- Kinder Morgan
- Pacific Terminal Services
- Port of Portland
- DOGAMI
- Department of Homeland Security, Region X
- Portland Bureau of Emergency Management
- Portland Bureau of Environmental Services
- Oregon Department of Environmental Quality

- Oregon Public Broadcasting
- Concerned citizen from Sauvie Island
- Public representatives from the 2016 City of Portland Hazard Mitigation Plan Update Steering Committee, including those representing the Linnton Neighborhood Association, the Audubon Society and the Local Emergency Planning Committee.

This rate of participation is consistent with what was observed in the review of previous studies and plans (see Chapter 3). Many of the stakeholders who participated in other plans and studies also participated in this study, and stakeholders who did not participate in this study have generally not participated in other efforts. Early in the process, the planning team determined that success would be defined as any level of participation from CEI Hub stakeholders, because this study marks the beginning of the City's engagement of CEI Hub stakeholders in planning for disaster resiliency. The dialogue and engagement initiated through this study provides a metric on which to improve.

Participation from stakeholders subject to indirect impacts from a hazard event at the CEI Hub also was critical to the findings and recommendations of this study. Representatives from the Linnton Neighborhood Association, Sauvie Island and the Audubon Society all provided insights that had a direct impact on the recommendations of this study. Their engagement and commitment to understanding the risks expanded the perspectives of the study, thus enhancing the creditability of the final report.

