

THE ROCKEFELLER FOUNDATION 100 RESILIENT CITIES CENTENNIAL CHALLENGE

Your City's Application

Please complete the following application form in full. All questions marked with * are required. Your responses will be limited to the number of characters allotted. Your submission is final and cannot be edited. However, you may use this document as a worksheet.

City* Portland, OR

Country* USA

First name 1* Carmen

Last name 1* Merlo

Organization name 1* Bureau of Emergency Management

Email address 1* carmen.merlo@portlandoregon.gov

Phone number 1 503-823-4375

First name 2 Susan
(You may list an additional representative.)

Last name 2 Anderson

Organization name 2 Bureau of Planning and Sustainability

Email address 2 susan.anderson@portlandoregon.gov

Phone number 2 503-823-7700

1. The Rockefeller Foundation defines [resilience](#) as the ability of a system, entity, community, or person to withstand shocks while still maintaining its essential functions and to recover quickly and effectively. How does this definition of resilience resonate with your city? What are the five most pressing resilience-building priorities for your city? (2000 characters)

The "Portland Plan," Portland's strategic plan, was adopted in April 2012 after an extensive public process that engaged thousands of residents and more than 20 city, regional and community organizations (www.pdxplan.com). The Portland Plan states in the introduction: "Resilience is important in a changing world...Portland must become more resilient in a variety of ways...We need well-designed, flexible and strong infrastructure (physical, social, ecological and economic) to adapt to an uncertain future." The Foundation's definition of resilience aligns well with Portland's resilience priorities:

A) Foster strong, integrated social networks centered on complete communities with services and amenities within walking distance. Portland is a city of neighborhoods (95 total) each with a unique character and identity. Storms like Sandy and Katrina have taught us that social cohesion is a strong predictor of recovery and integrated, complete communities foster social resilience.

B) Build awareness of risks and appropriate steps to prepare and respond. Portland doesn't often experience the severe storms that underscore risks and prompt residents to prepare. To be resilient, the community must recognize risks and take action.

C) Support a diverse local economy with small businesses at the core of neighborhood employment districts. A robust local economy improves job growth and economic resilience. Small businesses are essential to overall recovery and neighborhood businesses reinforce social cohesion.

D) Ensure equitable access to resources, especially health, education, and transportation. Disasters disproportionately harm people with the fewest resources and widen existing disparities. Action is essential to reduce disparities and strengthen social networks.

E) Construct a built environment that protects people and anticipates natural events. Actions must be taken to strategically upgrade infrastructure and response and recovery systems to reduce long-term vulnerabilities.

2. Do you have a formal risk assessment for your city? What are the most significant hazards, shocks, and stresses that your city faces and how do they affect the ability of your city to function?* (2000 characters)

Portland has a Natural Hazards Mitigation Plan and a Threats and Hazards Inventory and Risk Assessment prepared according the standards of the US Federal Emergency Management Agency. Portland has also completed a risk and vulnerabilities assessment as part of the development of a Climate Change Preparation Strategy.

A mega-earthquake is the acute threat of greatest concern. Flooding, severe weather, and urban wildland fires are also hazards, and these risks, along with landslides and heat waves, are projected to increase as a result of climate change.

Portland is vulnerable to a Cascadia subduction zone earthquake, such as the one in Tohoku, Japan, in 2011 that triggered the devastating tsunami. There is a 37% chance of this earthquake happening within the next 50 years. Portland's earthquake risk was not well understood until the 1990s, and as a result, many schools, apartments, and other structures were not built to withstand strong shaking and will collapse in an earthquake. Portland's water and sewer systems and all our river bridges are vulnerable.

Structural retrofits, individual preparedness efforts, and the ability of community members to assist one another following a disaster such as an earthquake are essential elements of increased resilience. But most Portlanders have not experienced a significant disruption and, as a result, do not recognize this threat and are not prepared to respond.

Existing disparities in Portland compound these risks, especially for low-income communities and communities of color. Inequity has not been addressed in traditional hazard assessments, and Portland is committed to applying an equity lens to future resilience work. People with few resources are vulnerable to even small-scale disruptions, such as heat waves or the winter flu. Portland will suffer more and recover more slowly if vulnerable communities are disproportionately harmed.

3. Many cities already have some activities that are directly relevant to building resilience. What specific current or recent project(s), urban plan(s) or policy(ies) has made the most significant positive contribution to the resilience of your city? Were there innovations that you can describe?* (2000 characters)

The 2012 Portland Plan, current Comprehensive Plan, 2009 Climate Action Plan and decades of strong land-use planning have promoted vibrant, safe neighborhoods that reflect a unique character and history and support community cohesiveness and resilience. Related efforts include:

A) Neighborhood economic prosperity: In 2011 Portland adopted a Neighborhood Economic Development Strategy with the goal of fostering business districts in low-income areas to increase employment and income. The City's re-development agency now partners with 6 local business associations to strengthen networks and improve equity.

B) Transportation options: Portland has invested in transportation infrastructure, building regional light rail and streetcar systems. Portland's transit service carries more people than any other US system its size. Portland's targeted investment in bike infrastructure in the 1990s resulted in a 400% increase in ridership. Many neighborhoods have a range of transportation options (walking, biking, transit) in the event of a disruption.

C) Green infrastructure: Portland is a national innovator in green infrastructure, especially in managing stormwater. The "Grey to Green" initiative launched in 2008 promotes bio-swales, green roofs and street trees as elements of an engineered stormwater system to reduce flooding and treat runoff. The program also benefits urban livability.

D) District scale solutions: Portland also initiated the concept of "EcoDistricts," neighborhood-scale sustainable systems (energy, water, waste) and governance mechanisms to allow property owners to work collaboratively. Portland has 7 eco-districts in development, including in low-income areas.

E) Neighborhood preparedness: Portland has active Neighborhood Emergency Teams across the city, with residents trained to respond with search and rescue and first aid in a disaster. Emergency first aid and communication kits are stationed in all neighborhood hubs so every resident can walk to help.

4. How do the hazards, shocks and stresses that you've articulated impact your city's poor and vulnerable residents? How do you define poverty and vulnerability within the context of your city?* (2000 characters)

Portland defines vulnerable communities as those that have concentrations (above the City average) of at least 3 of the following factors: renters, below average educational attainment, below average household income and people of color. A recent gentrification and displacement study worked to define these indicators.

Portland has a national reputation for a high quality of life, but poverty and unemployment rates also exceed national averages. Portland is the whitest major city in the US, and the median household income of people of color here is half that of whites. High school graduation rates (93% for whites, 70% for people of color) and measures of health (37% more low-birth-weight babies in communities of color versus white) are similarly unequal. The entire US experiences racial disparity, but Portland communities of color experience more inequality than average. Portland is becoming more diverse and these disparities are widening. Gentrification and forced displacement increase the distance to social support services and the cultural institutions that support social cohesion.

Disasters disproportionately affect people who have less. People who are poor are less likely to have household emergency kits. Renters can't dictate seismic retrofits of their buildings, and may not have insurance to cover losses. People with poor health are more vulnerable to pandemics and heat waves. People with limited English proficiency may not understand emergency messages. Immigrant and refugee communities are often socially isolated with limited access to resources. Low-income neighborhoods have fewer neighborhood emergency teams. Many of these vulnerability factors separate and marginalize communities, which results in the disproportionate impact when an emergency occurs.

5. Describe how you will bring multiple stakeholders, including the private sector and other levels of government (e.g., state and or national) together in developing and executing a plan to build resilience. Please give examples of key stakeholders. Which stakeholders do you think are the most relevant and most critical to success? (2000 characters)

Portland has strengthened community relationships through efforts like visionPDX, the Portland Plan and the Neighborhood Prosperity Initiative. The priorities for resilience-building flow from the shared commitments and values identified in these earlier efforts. This enables us to tap an existing network of relationships to develop and implement our resilience plan. We expect to continue collaborating with key partners including Portland Public Schools, Home Forward, Portland Development Commission, Regional Arts and Culture Commission, local Red Cross, neighborhood business associations, private infrastructure firms, and Multnomah County.

We will also seek to continue expanding our network of key collaborators and stakeholders through engaging community-based organizations, particularly those working with low-income populations and communities of color. The member organizations of the Coalition of Communities of Color and the Immigrant and Refugee Community Organization will be important in helping ensure resilience efforts are relevant to the primary needs of vulnerable communities. We anticipate a significant portion of the total resources for this project to be invested in capacity-building within these communities.

To strengthen existing partnerships and develop new relationships, we will look to engage Portland's stakeholders in ways that relate to their values, needs, and existing efforts. Many community thought leaders (community elders, pastors, youth group and club leaders, neighborhood association chairs, community activists) share a vision for strong, connected communities. Similarly, many volunteer groups (business associations, churches, Neighborhood Emergency Teams, neighborhood watch groups) actively support efforts that advance public safety and local business success. We will look to these "doers" to help deliver tangible results. Uniting planners and thought leaders with service groups can strengthen the connection between idea and actions.

6. What specific technical support would you seek for the *development* of a resilience plan (such as financing mechanisms, technology and data analytics, land-use planning, infrastructure, and community/social resilience capacity building)? What specific technical support would you seek for *implementing* a resilience plan? Are there solutions or solution providers/ companies with which your city has already worked with or would like to work? (2000 characters)

In Portland, communities of color, low-income populations, and immigrant and refugee groups are likely to be the most vulnerable to disasters. Therefore, we will seek technical assistance to help build capacity within those groups to plan and lead resilience efforts. It will be essential to work with existing community based groups and coalitions that have credibility and trust with those they serve. Building capacity within these organizations will help ensure resiliency efforts are culturally appropriate and relevant to vulnerable communities, and that meaningful progress is made to reduce disparities.

We will also seek technical assistance to develop appropriate metrics of neighborhood and community connectivity (social capital). Many methods exist; we are seeking indicators that use available data, are inexpensive to measure, apply to many communities (particularly vulnerable communities), and can gauge our effectiveness over time. The City has extensive data and mapping capabilities and we will bring this expertise to the development of the metrics.

Technical support for implementation would involve help in identifying innovative financing structures for efforts like the seismic retrofit of private structures. Portland created a program, now a statewide non-profit called Clean Energy Works Oregon, that provides free home energy audits, discounts in energy retrofits, referrals to qualified contractors, and a financing program that allows people to repay the cost of improvements on their energy bill. We are interested in whether a similar model can be employed to retrofit homes for earthquake safety. We are also interested in innovative financing models to retrofit seismically unsound multi-family housing and public assembly spaces, and how retrofits of these spaces can be made financially feasible for small landlords or organizations. A related effort is underway by our regional government (Metro) to develop a public-private infrastructure finance bank.

7. What is the desired impact you want your resilience plan to have in terms of success? How might the plan impact various communities, especially poor or vulnerable residents? (2000 characters)

A successful resilience plan would advance three primary outcomes:

- 1) Integrate, coordinate and focus city agency resilience activities;
- 2) Prioritize investments, engagement and programs that reduce vulnerabilities;
- 3) Strengthen the capability of community organizations, especially those serving low-income households and communities of color, to reduce risks and make resources available to vulnerable Portlanders.

In short, improved community resilience leads to both a better future and a better present, generating social and economic benefits near-term and long-term while also preparing Portlanders for the inevitable natural disasters. A successful resilience plan would produce results as varied as more walkable neighborhoods, increased urban tree canopy, and reduced, life and safety threats from earthquakes. The consequence of floods and landslides would be minimized, reducing disruptions to road and transit services, access to jobs and school and the movement of freight. Health impacts associated with extreme heat events will be effectively managed and vulnerable populations will have ready access to culturally appropriate cooling centers and health services. Homes and businesses would remain structurally sound after an earthquake, minimizing deaths and injuries and expediting recovery

Specific measures of a successful resilience plan could include:

A) Increased social capital, especially in low-income communities and communities of color: funds spent building capacity within community based organizations; culturally appropriate resilience messages, materials and messengers.

B) Increased community and neighborhood cohesion: number of Neighborhood Emergency Teams (NETs); formation of NETs where the majority of members are people of color; greater participation in groups like neighborhood watch; more community place-making projects (informal murals, free-book stations); community volunteerism such as street tree planting

8. How do you envision the role of a Chief Resilience Officer? Beyond salary support, what structure would be established to enable the CRO to succeed in building your city' resilience? We recommend that the CRO would have a direct reporting line to the mayor or a senior official. If you already have someone in a similar function/role, what duties and powers is he or she currently vested with?* (2000 characters)

The Chief Resilience Officer (CRO), a role which doesn't currently exist, would report directly to the mayor. Portland has a commission form of government, where the mayor and fellow commissioners each directly supervise the operations of city bureaus. The mayor makes bureau assignments, proposes the annual budget, and in many ways has the city's bully pulpit. From the mayor's office, the CRO would regularly convene staff from the Bureau of Planning and Sustainability, Bureau of Emergency Management, Portland Development Commission, the Office of Neighborhood Involvement, the Office of Management and Finance, and the various infrastructure bureaus (water, sewer, transportation, parks) to form a resiliency task force.

The CRO would also convene outside partners from the non-profit, academic and private sectors to collaborate on the resilience plan development and implementation. Many Portland bureaus have initiatives that are connected to managing risks and reducing disparities that contribute to the vulnerability of low-income communities and communities of color. The CRO would manage a matrix team that seeks synergies and opportunities to leverage resources through the meaningful collaboration and engagement of multiple stakeholders, especially those that would be most impacted by an emergency.

9. One key element to 100RC is the creation of the 100 Resilient Cities Network to facilitate sharing of best practices and lessons learned as well as become a source of knowledge on urban resilience building. What are the things your city would like to gain from the network and what are three things your city would contribute to the network?* (2000 characters)

From the 100RC network Portland would like to gain perspectives and understand lessons learned on building social capital from other cities, and especially to see other successful models that have developed and maintained social cohesion in communities with few material resources. We want to learn about successes in sustaining citizen engagement in first-responder programs and neighborhood response plans and engagement approaches that result in a lasting culture of risk awareness and preparedness. How do other cities that have serious but hard-to-see risks (like earthquakes) motivate residents to prepare for the inevitable? We are also eager to explore innovative strategies for financing or incentivizing private investment in mitigation activities, especially earthquake retrofits.

As a national leader in stormwater management, Portland can contribute knowledge of green infrastructure design (ecorooftops, bioswales, greenstreets), including the integration of green and grey infrastructure, as well as gaining community acceptance, and planning for its maintenance. Portland can also share expertise in ecodistrict design including collaborative investments in energy, transportation and stormwater management, as well as governance structures. Portland also has extensive knowledge and experience implementing innovative small-scale renewable energy and energy efficiency retrofit programs. For example, Clean Energy Works developed financing mechanisms to enable homeowners to pay for retrofits through long-term loans tied to utility bill savings while also creating a workforce development pipeline for women and minority contractors. Similarly, Solarize Portland helped neighbors form buying clubs, solicit participants, identify contractors, and install solar power systems on multiple homes in the neighborhood more cheaply than any one homeowner could on their own.

10. Are you currently a participant in or have you participated in other networks? Which ones?* (500 characters)

Portland is a participating member of the C40 Cities Climate Leadership Group, and Portland staff hold leadership roles in the Urban Sustainability Directors Network (USDN) and convene USDN's regional affiliate, the Cascadia Region Sustainability Directors network. For many years, Portland was an active member in ICLEI - Local Governments for Sustainability and Portland a founding member of both EcoDistricts and The Natural Step of Oregon.

11. What about your city in particular makes you a good candidate for 100 RC? What unique perspective, knowledge, or capability do you bring? What essential problem must be addressed whose solution can also be replicable for other cities?* (2000 characters)

Portland has been a North American leader on many fronts: integrated land use and transportation planning, bicycling, streetcar, ecodistricts, green infrastructure, local food culture, climate change planning. These successful innovations have been possible in part because we have been willing to experiment and take risks; our downtown plan calls for Portland to be a “living laboratory.” Portland also has a high degree of civic engagement. Compared to other US cities, it consistently has high voter turnout and rates of volunteerism, and one of the highest library circulation rates in the US. This track record of innovation and engagement, more than any single accomplishment, makes Portland an ideal candidate for 100 RC. We bring the perspective of urban inventor as well as all the technical capabilities our experiments have yielded.

We have a lot to offer, but also a long way to go. Portland is precariously balanced on both geologic and social fault lines. While many Portlanders enjoy and take pride in the city's quality of life, many low-income communities and communities of color do not equitably share in the benefits. Intentional and focused efforts to identify and reduce disparities and create complete communities must become a high priority.

Portland's challenge is two-fold: to confront the significant risks we face, and to build community networks of resilience to mitigate and respond to disasters. Strong social networks will not only prepare us to respond to an inevitable earthquake, but will contribute to a more integrated and equitable city, where all communities are resilient. Accomplishing this requires much more than a public education campaign. It requires the development of leadership for resilience in communities that are most vulnerable, and to allow those communities to lead us towards a culture of inclusion and equity—something more uniquely Portland than any previous innovation because it will for the first time represent the whole city.

12. Include a link to a map of your city in which you highlight and annotate areas and features of particular importance to your application responses.*
<http://www.portlandoregon.gov/bps/urbanequitymap>

13. Please attach your letter of support from the senior-most representative of your city's government, whether elected or appointed.*

I agree to all rules and legal conditions associated with this challenge.*

I am 18 years of age or older.*