

Metro Policy Advisory Committee (MPAC)

agenda

Wednesday, June 23, 20215:00 PMhttps://zoom.us/j/9
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1. Call to Order, Declaration of a Quorum & Introductions (5:00 PM)

Please note: To limit the spread of COVID-19, Metro Regional Center is now closed to the public. This meeting will be held electronically. You can join the meeting on your computer or other device by using this link: https://zoom.us/j/95889916633 or by calling +1 669 900 6128 or +1 877 853 5257 (Toll Free)

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2. Public Communication on Agenda Items (5:05 PM)

Public comment may be submitted in writing and will also be heard by electronic communication (videoconference or telephone). Written comments should be submitted electronically by emailing legislativecoordinator@oregonmetro.gov. Written comments received by 4:00 pm on Tuesday, June 22 will be provided to the committee prior to the meeting.

Those wishing to testify orally are encouraged to sign up in advance by either: (a) contacting the legislative coordinator by phone at 503-797-1916 and providing your name and the agenda item on which you wish to testify; or (b) registering by email by sending your name and the agenda item on which you wish to testify to legislativecoordinator@oregonmetro.gov. Those requesting to comment during the meeting can do so by using the "Raise Hand" feature in Zoom or emailing the legislative coordinator at legislativecoordinator@oregonmetro.gov. Individuals will have three minutes to testify unless otherwise stated at the meeting.

3. Council Update (5:10 PM)

4. Committee Member Communication (5:15 PM)

- 5. Consent Agenda (5:20 PM)
 - 5.1MPAC consideration of MTAC nominationsCOM20-0450

Attachments: MPAC Worksheet for June 2021 MTAC Nominations MTAC Nominations Memo June 9, 2021

Metro Policy Advisory Committee (MPAC)			Agenda	June 23, 2021		
	5.2	Consideration of	of the May 26, 2021, MPAC Minutes	<u>COM</u> <u>20-0449</u>		
		Attachments:	May 26, 2021 MPAC Minutes			
6. Information/Discussion Items (5:25 PM)						
	6.1	Port of Portland	Seismic Resilient Runway Discussion (5:25	<u>COM</u>		
		PM)		<u>21-0451</u>		
		Presenter(s):	Alexandra Howard, Program Development Manager, Po Ann Gravatt, Federal Affairs and Policy Manager, Port			

Attachments: <u>NIBS PDX Brochure</u> <u>PDX seismic runway summary</u>

6.2 Breaking Down Barriers to Affordable Housing Panel (5:45 PM)

Presenter(s): Alma Flores, ReachCDC Ernesto Fonseca, HaciendaCDC Devin Ellin, Housing Authority of Clackamas County Nathan Teske, Bienestar Tony Marnella, Marnella Homes

7. Adjourn (7:00 PM)

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ការគោរពសិទ្ធិពលរដ្ឋរបស់។ សំរាប់ព័ត៌មានអំពីកម្មវិធីសិទ្ធិពលរដ្ឋរបស់ Metro ឬដើម្បីទទួលពាក្យបណ្តឹងរើសអើងសូមចូលទស្សនាគោហទំព័រ

www.oregonmetro.gov/civilrights[¶]

បើលោកអ្នកក្រូវការអ្នកបកប្រែកាសានៅពេលអង្គ ប្រជុំសាធារណៈ សូមទូរស័ព្ទមកលេខ 503-797-1700 (ម៉ោង 8 ព្រឹកដល់ម៉ោង 5 ល្ងាច ថ្ងៃធ្វើការ) ប្រាំពីរថ្ងៃ

ថ្ងៃធ្វើការ មុនថ្ងៃប្រជុំដើម្បីអាចឲ្យគេសម្រួលតាមសំណើរបស់លោកអ្នក ។

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February 2017



2021 MPAC Work Program As of 6/16/2021

Items in italics are tentative

	s are tentative
	<u>June 23, 2021</u>
	 Port of Portland Seismic Resilient Runway Discussion (Elizabeth Kennedy-Wong, 20 min)
	 Breaking Down Barriers to Affordable Housing Panel (Various Panelists; 80 min) Housing Authority of Clackamas County Bienestar Hacienda CDC Reach CDC Marnella Homes
<u>Iulv 28, 2021</u>	August 25, 2021- <i>Cancelled</i>
 Housing Bond Update (45 min, Metro; Emily Lieb) Supportive Housing Services Update (Patricia Rojas, 45 min) Legislative Update (Randy or Anneliese, Metro;10 min) 	Metro Council on Recess
 September 22, 2021 Housing Needs Analysis Discussion (Mayor Callaway, Sean Edging (15 min presentation) Regional Mobility Policy Update (Kim Ellis, Metro; 40) 	 October 27, 2021 Metro code updates to facilitate city and county compliance with HB 2001 Middle Housing requirements (Tim O'Brien or Ted Reid, Metro) 2040 Planning and Development grantee highlights (TBD grant recipients)
• November 24, 2021- Cancelled	December 8, 2021

Parking Lot:

- Housing/SHS progress report
 - Regional affordable housing implementation (share/brainstorm/discussion)
 - o Housing Panel counties and cities



600 NE Grand Ave. Portland, OR 97232-2736 oregonmetro.gov

- New transfers station sites
 - Larger conversation of regional solid waste
- Engagement during a pandemic
- Parks bond progress report
- Expo Development Opportunity Study and regional venues
- Employment land
- Census likely for December
- Transportation funding
- Growth Trends (Ted will schedule)

5.1 Consideration of the May 26, 2021 MPAC Minutes

Consent Agenda

Metro Policy Advisor Committee Wednesday, June 23, 2021



600 NE Grand Ave. Portland, OR 97232-2736 oregonmetro.gov

METRO POLICY ADVISORY COMMITTEE (MPAC)

Meeting Minutes May 26, 2021

MEMBERS PRESENT

Susheela Jayapal Carmen Rubio Christine Lewis Gerritt Rosenthal Bob Stacey Joe Buck Gordon Hovies

Linda Glover Peter Truax Lacey Beaty Steve Callaway Kathy Hyzy Mark Watson

Rachel Lyles Smith Don Trotter

Vince Jones-Dixon Ed Gronke Jose Nava Kathy Wai Elizabeth Kennedy-Wong

AFFILIATION

Multnomah County **City of Portland** Metro Council Metro Council Metro Council City of Lake Oswego, Largest City in Clackamas County Tualatin Valley Fire & Rescue, Special Districts in Washington County City of Vancouver City of Forest Grove, Other Cities in Washington County City of Beaverton, Second Largest City in Washington County City of Hillsboro, Largest City in Washington County City of Milawaukie, Cities of Clackamas County Hillsboro School District Board of Directors, Governing Body of a School District City of Oregon City, Second Largest City in Clackamas County Clackamas County Fire District #1, Special Districts in Clackamas County City of Gresham, Second Largest City in Multnomah County Citizen of Clackamas County Citizen of Washington County TriMet Port of Portland

MEMBERS EXCUSED

Ted Wheeler Brian Cooper Brian Hodson James Fage Martha Schrader Terri Preeg Riggsby

Temple Lentz

ALTERNATES PRESENT Pam Treece

Brett Sherman Gordon Howard

<u>AFFILIATION</u>

City of Portland City of Fairview, Other Cities in Multnomah County City of Canby, City in Clackamas County outside UGB City of North Plains, City in Washington County outside UGB Clackamas County West Multnomah Soil & Water Conservation District, Special Districts in Multnomah County Clark County

AFFILIATION

Washington County City of Happy Valley, Other Cities in Clackamas County Oregon Department of Land Conservation and Development

<u>OTHERS PRESENT:</u> Anne Debbaut, Adam Barber, Anthony Martin, Carol Chesarek, Colin Cooper, David Berniker, Erik Hesse, Jaime Huff, Jaimy Stasny, Jean Senechal Biggs, Jeff Gudman, Jeff Owen, Katherine Kelly, Kelsey Lewis, Megan McKibben, Jules Walters, Mona Schwatz, Nick Fortey, Tom Armstrong, Daniel Pauly, Cassera Phipps, Michael Weston

<u>STAFF:</u> Roger Alfred, Jaye Cromwell, Connor Ayers, Alex Oreschak, Anne Buzzini, Ramona Perrault, Kate Fagerholm

1. CALL TO ORDER, INTRODUCTIONS, CHAIR COMMUNICATIONS

Chair Steve Callaway called the virtual meeting to order at 5:00 PM.

Chair Callaway acknowledged the passing of Jennifer Donnelly, MPAC alternate for the Oregon Department of Land Conservation and Development. There was a moment of silence.

2. PUBLIC COMMUNICATIONS ON AGENDA ITEMS

There were none.

3. COUNCIL UPDATE

Councilor Christine Lewis announced that the 500,000th COVID-19 vaccine shot had been administered at the Oregon Convention Center. She informed members that the first Housing Bond annual report had been released and is available on Metro's website. She concluded by updating members on the Metro natural areas bond and the community oversight committee. Newell Creek and Chehalem Ridge nature parks are scheduled to open this fall.

4. <u>COMMITTEE MEMBER COMMUNICATIONS</u>

There was none.

5. CONSENT AGENDA

MOTION: Mayor Peter Truax moved to adopt the consent agenda. Citizen Ed Gronke seconded the motion.

ACTION: With all in favor, motion passed.

6. INFORMATION/DISCUSSION ITEMS

6.1 Update on 2018 UGB Expansion Areas and impact on supply of housing land

Chair Callaway informed members that item 6.1 is an informational item and thanked representatives from Wilsonville, Beaverton, King City, and Hillsboro for coming to

MPAC. These cities are conducting engagement and planning for the areas added to the Urban Growth Boundary by the Metro Council in 2018.

Key points from the presentations included:

Planning Manager Daniel Pauly gave the first presentation for the city of Wilsonville. He first identified where the planned Frog Pond neighborhood is located and gave an overview of the site's features. He explained that middle housing would be a major part of the neighborhood. He discussed a timeline of the project to illustrate how the site had come about and what would happen in the future. He highlighted the Equitable Housing Strategic Plan, the 2018 UGB Expansion Conditions of Approval, and House Bill 2001 & Administrative Rules.

Member Discussion Included:

Mr. Gronke asked what the affordable housing units would likely cost.

Mr. Pauly answered that they are still looking at what the exact price of affordable housing units they are aiming for.

Councilor Kathy Hyzy asked for Mr. Pauly to speak more to the metrics they are looking at in regards to variable rate SECs.

Mr. Pauly answered that this was another thing they are studying, and a lot of measurements are currently on the table.

Mayor Joe Buck asked for Mr. Pauly to speak more to the cost per acre for infrastructure. He also asked if they expected the development to pay for itself.

Mr. Pauly stated that the development will pay for itself. He added that for Frog Pond they are not using urban renewal.

Mayor Buck asked how cost per acre impacts infrastructure.

Mr. Pauly assured him that that is also something that they are looking into how this would affect per unit cost.

Mr. Callaway introduced Senior Planner Cassera Phipps of Beaverton.

Key points of the presentation included:

Ms. Phipps began by explaining the three sub-areas that make up the Cooper Mountain Community Plan. She gave an overview of the project planning effort and explained how the city of Beaverton is implementing a racial equity lens to create inclusive neighborhoods. She discussed the project timeline, and mentioned that they are currently in Phase 2, which focuses on community planning. She gave an overview of the project goals, which included creating equitable outcomes for residents and measuring long term success. She highlighted the public engagement that has been done for the project. She shared maps that illustrated the natural resources, slopes, and landslide susceptibility of the site. She also shared the efforts of the city to develop a regional stormwater strategy. She explained that in terms of the market analysis, it is strongest for single family homes, and weakest for affordable housing, which would require some sort subsidy. She noted that there are transportation challenges which include narrow roads, few sidewalks, little transit, and limited east-west connectivity. She shared that they are working with partners to determine infrastructure funding. She concluded by going over what the next steps for the project will be.

Member discussion included:

Citizen Gronke asked if affordable housing would be subsidized. He also asked for Ms. Phipps to expand on the racial equity lens they are using.

Ms. Phipps answered that they had not made a decision for how to fund yet, but they are planning for the full spectrum of housing at the site. She explained that the racial equity lens changed the assumptions made by planners and changed the ways that engagement for the project was done.

Councilor Hyzy asked for Ms. Phipps to expand on the city's partnership with Unite Oregon.

Ms. Phipps shared that they had worked with Unite Oregon to form the Inclusive Housing Cohort and to host community events. She also confirmed that participants were compensated for their time.

Director Kathy Wai asked if there would be outreach to transit dependent riders during the engagement phase.

Ms. Phipps answered that they have not done transit focused outreach so far, but that it is something that often comes up. They are further hoping to work with other cities in the area to connect areas north to south.

Chair Callaway asked if infrastructure building is planned for maximum density allowed under HB 2001, or otherwise.

Ms. Phipps acknowledged that there would be some consideration of how density affects infrastructure costs.

Chair Callaway introduced City Manager Michael Weston from King City.

Key moments of the presentation included:

Mr. Weston began by explaining the project schedule for Kingston Terrace. King City has begun engaging the community and is currently working on a draft of the master plan. He noted that during public engagement there was a mix of support for the Concept Plan Vision for the site. Major concerns included protection of the natural environment and expansion of roads. He reviewed key takeaways of the need to educate the public, balancing infrastructure with natural resources, including a variety of dense housing, and working on stormwater solutions. He went over plans of the area and coordination King City is doing with Washington County and Metro. He shared various design concepts for streets at the site. He concluded by sharing what the next steps are.

Steve Callaway introduced Planning Director Colin Cooper of Hillsboro.

Mr. Cooper began by showing where Witch Hazel Village South is located. He reminded members that Hillsboro is at the edge of the Metro region. He noted that there is a lot of demand resulting in very fast construction. He then shared aspects of the concept plan. He shared the planning that is being done for the sight, which included updating housing choices, community engagement, and building upon the concept plan. Mr. Cooper emphasized that the project is using an equity lens. He discussed a map that illustrating the transportation infrastructure in the area. He highlighted a timeline of the project for upcoming meetings.

Member discussion included:

Mayor Callaway informed members that they would need to move on but if they have any questions they can send them to Jaye Cromwell who will forward them to presenters.

6.2 Congestion Pricing Update

Steve Callaway gave an introduction to the Congestion Pricing Study and introduced Metro Staff Alex Oreschak.

Key points of the presentation included:

Mr. Oreschak began by giving an overview of what congestion pricing is, how pricing performance is being measured, and expected outcomes. He noted that the current system of congestion pricing is inequitable, disproportionately hurting low income and BIPOC community members. He noted that multiple plans identify the need for congestion pricing. He explained that the goal of the study was to understand how congestion pricing could be used to address the goals of managing congestion, climate, and safety. Congestion pricing scenarios were tested for reducing congestion and emissions, reviewing potential impacts to equity and safety, and maximizing benefits. He shared how engagement had been done with experts to help shape the study. He

miles traveled, cordon pricing, roadway pricing, and parking pricing. The methods that achieved the strongest alignment with regional goals were vehicle miles traveled and parking changes. He concluded by sharing feedback that they had gotten from the Expert Review Panel, Metro Council, and JPACT.

Member Discussion Included:

Mayor Buck asked how congestion pricing applies to an average resident of the region. He also asked if there was differences between different parts of the region.

Mr. Oreschak answered that for the average person while prices might increase a bit, there would be less congestion and trips would be more reliable. He promised to follow up with Mayor Buck on any geographic differences that were found.

Councilor Lewis noted that diversion modeling done by the study would be an impact for people in Clackamas County. The study also influenced how ODOT is doing their planning for the region, especially on diversion.

Councilor Hyzy expressed a wish to see more emphasis on getting to climate goals in the study.

Mr. Oreschak mentioned that they had found that compared to Regional Transportation Plans results, implementing a charge had a positive impact on RTP goals.

Mayor Truax expressed concern for how transportation costs impact marginalized members of the community.

Mr. Oreschak noted that they had identified concerns about lower income drivers being disproportionately affected by a road user charge.

Chair Callaway agreed with Mayor Truax's concern and noted that some with lower income are pushed further out where they can get housing.

Councilor Rosenthal asked if there were certain assumptions made for the amount of electric vehicles on the road and the price of gas.

Mr. Oreschak answered that all of the assumptions made were the same ones made in the RTP with the exception of the price of congestion pricing.

Mayor Callaway thanked staff for the meeting and reminded members that they can send in any further questions to staff.

Mayor Truax noted that Ralph Brown, a former mayor of Cornelius and community member is missing.

7. <u>ADJOURN</u>

Chair Callaway adjourned the meeting at 7:01 PM.

Respectfully Submitted,

Connor Ayers

Connor Ayers Recording Secretary

ATTACHMENTS TO THE PUBLIC RECORD FOR THE MEETING OF APRIL 28, 2021

ITEM	DOCUMENT TYPE	Doc Date	DOCUMENT DESCRIPTION	Document No.
6.1	Presentation	05/26/21	City of Wilsonville Presentation	052621m-01
6.1	Presentation	05/26/21	City of Beaverton Presentation	052621m-02
6.1	Presentation	05/26/21	City of King City Presentation	052621m-03
6.1	Presentation	05/26/21	City of Hillsboro Presentation	052621m-04
6.2	Presentation	05/26/21	Congestion Pricing Study Update Presentation	052621m-05

6.1 Port of Portland Seismic Resilient Runway Discussion

Information/Discussion Items

Metro Policy Advisory Committee Wednesday, June 23, 2021



Natural Hazard Mitigation Saves: Case Study

PORTLAND RESILIENT RUNWAY BENEFIT-COST ANALYSIS: AN OVERVIEW

March 2021

Resilient Runway Benefit-Cost Analysis March 2021

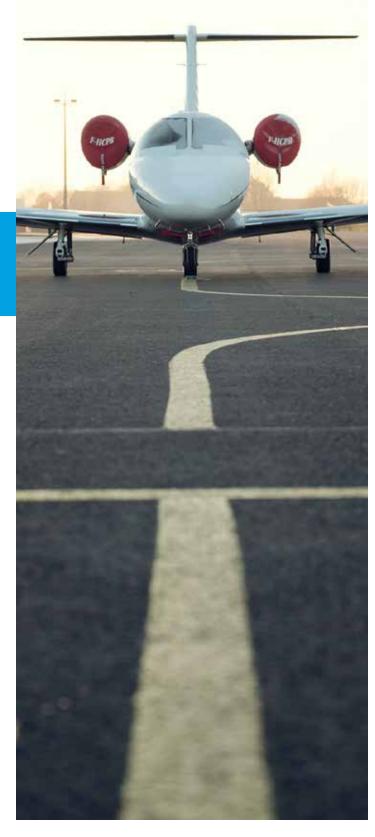
Oregon has significant potential of experiencing a greater than magnitude-8.7 earthquake within the next 50 years. An earthquake of this magnitude will cause catastrophic damage and loss of life across much of the Pacific Northwest, but pre-disaster mitigation can prevent much of that loss. When large earthquakes occur in the Pacific Northwest, they can cause liquefaction, landslides, and other hazards. When liquefaction occurs, it greatly damages pavement and can damage Portland International Airport's (PDX) runways so severely that repairs could take almost a year. However, the Port of Portland (Port) can reduce the likelihood of future damage by constructing a resilient runway.

While an earthquake cannot be prevented, it is possible to prepare and build resilience though mitigation. Building resilience lessens the impacts and positions communities to respond, rebuild, and recover quicker and more efficiently. Nationally and locally, mitigation can save billions of dollars.

BENEFIT-COST RATIO

FOR EVERY \$1 SPENT ON THE PDX RUNWAY, APPROXIMATELY \$50 WILL BE SAVED.

Strengthening the south runway to mitigate potential earthquake damage will cost an estimated \$140 million. However, extensive research conducted by the National Institute of Building Sciences (NIBS) Multi-Hazard Mitigation Council (MMC) has determined that making the south runway resilient will save \$7.2 billion in future losses. That equates to \$50 saved per \$1 spent, a 50:1 benefit-cost ratio. Few mitigation measures provide such a high ratio, and this 50:1 figure does not even take into consideration \$170 million in defense value from protecting the mission of the 142nd Fighter Wing of the Oregon Air National Guard.



Resilient Runway Benefit-Cost Analysis March 2021

Findings

The Portland Resilient Runway Benefit-Cost Analysis study estimates how a resilient runway saves lives, helps people to return to safe buildings, restores economic activity associated with air travel, reduces future runway damage, and aids in national defense.



SAVE LIVES

The resilient runway will also add value to the airport by ensuring that emergency medical care can reach the northern Willamette Valley, potentially saving lives. The federal government would value those lives at about **\$460 million**, at least for regulatory purposes.

SPEED RETURN TO HOMES AND WORKPLACES

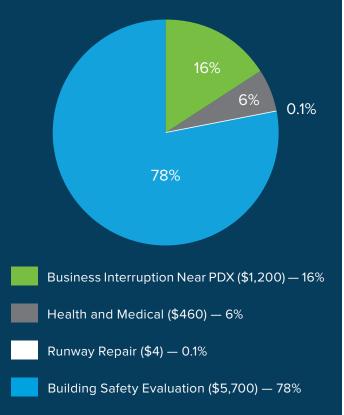
Of the total benefit-cost analysis of building the seismically resilient runway, **\$5.7 billion** comes from ensuring certified building safety evaluators can get to Portland quickly after an earthquake to evaluate the safety of buildings in the affected area. Identifying safe structures will help people return to their homes, reduce displacement, and speed recovery.

AVOID BUSINESS INTERRUPTION

Another **\$1.2 billion** will be saved by avoiding economic losses from PDX being unable to support large aircraft operations.

REDUCE REPAIR COST An additional **\$4 million** of value is added by avoiding future runway repairs.

BENEFIT-COST ANALYSIS BREAKDOWN



Preventing liquefaction under the south runway at PDX would save \$7.2 billion, counting the four sources shown here (units: \$ million).



Benefits of a Resilient Runway

A resilient runway shows the Port of Portland's commitment to the community and to transship essential goods and services to those who need them most under difficult conditions. It communicates the Port's interest in efficiently returning commercial service after a big earthquake, and positions PDX to serve as a federal and state response staging area.

A RESILIENT RUNWAY SAVES LIVES.

The airport transports care and resources into Willamette Valley, while also removing potential earthquake victims. Under normal, non-pandemic, non-earthquake conditions, 68% of local intensive care units (ICU) and emergency-department (ED) hospital beds are occupied, leaving an

A LARGE EARTHQUAKE COULD INJURE **TENS OF THOUSANDS** OF PEOPLE.



excess capacity of about 360 beds. A large earthquake could injure **tens of thousands of people**, including up to 2,400 injuries so severe that the victims will die without ICU or ED care.

A resilient runway could save lives by allowing for emergency medical care to arrive in Portland from outside the Willamette Valley, either to treat injured victims at or near PDX or to facilitate evacuation of severely injured people out of the Willamette Valley. Medical evacuation directly benefits especially those who live or work in highly seismically vulnerable buildings. The US government sets acceptable regulatory costs for safety. The value of the avoided deaths could **exceed \$3 billion**. Accounting for aftershocks, the probabilities of different outcomes, and the number of people that could die before arriving at a distant hospital, the present value of those avoided future fatalities is about **\$900 million**, half of which could reasonably be attributed to PDX's resilient runway.

A RESILIENT RUNWAY HELPS PEOPLE RETURN TO DAMAGED BUT STRUCTURALLY SAFE HOMES AND WORKPLACES FASTER.

Along with damaging the PDX runways, a large earthquake in the region could damage around 600,000 buildings. After a disaster, agencies managing response use the Safety Assessment Program (SAP) to evaluate building safety. SAP uses certified professional volunteers and agency staff to complete building safety evaluations. There are only **approximately 180** certified SAP evaluators in the Willamette Valley and thousands will be needed for several weeks to respond to a large earthquake.

A LARGE EARTHQUAKE COULD DAMAGE AROUND 600,000 BUILDINGS.



However, Portland is isolated: volunteers can only arrive via air or by driving over mountainous routes. Those routes could suffer more than 1,000 landslides in wet conditions,

people throughout the study area,

and earthquake shaking could damage many of the over 2,000 highway bridges along the route.

Resilient Runway Benefit-Cost Analysis March 2021

A resilient runway allows the volunteers to arrive by air within days, rather than waiting for road repairs that could take up to three months under the worst conditions. Faster building reoccupancy has health and safety benefits, response and recoverv administration benefits, and economic benefits. The cost of delay—of being unable to use 600,000 buildings for up to three months because safety evaluators cannot arrive-is enormous, up to **\$20** billion, not counting aftershocks. Accounting for probabilities and the time value of money, the value of being able to use those

THE COST OF DELAYED BUILDINGS SAFETY EVALUATIONS IS ENORMOUS, UP TO **\$20** BILLION.



buildings sooner is **\$5.7 billion**. Vulnerable populations will benefit greatly from briefer displacement.

A RESILIENT RUNWAY AVOIDS \$1.2 BILLION IN BUSINESS INTERRUPTION LOSSES.

THE AIR-TRAVEL ECONOMIC SECTOR COULD SUFFER \$1.2 BILLION IN LOST ECONOMIC ACTIVITY.



Many businesses in the region either directly or indirectly rely on PDX's air operations. A functioning runway will help reduce interruption to businesses throughout the region. A resilient runway would reduce lost revenue to PDX, its tenants, and users; lost revenue to nearby businesses that rely on PDX: and indirect business interruption to businesses that trade with PDX and its nearby businesses. Some part of the study area's \$200 billion in gross domestic product depends upon air travel. Runway damage slows that economic activity, and runway repairs could take almost year.

The lack of a functioning major runway in the region would significantly slow economic activity and recovery. Given the estimated runway repair times, the air-travel economic sector could suffer \$1.2 billion in lost economic activity after a large earthquake. Increased business stability benefits all economic demographic groups approximately equally.

A RESILIENT RUNWAY LESSENS THE COST OF RUNWAY REPAIRS.

A resilient runway will suffer less earthquake damage, costing an estimated \$4 million less to repair. Lower runway repair costs primarily benefit PDX. Assuming the earthquake results in a presidential disaster declaration (a likely outcome), the repair costs would eventually be transferred to the federal government through FEMA's Public Assistance program. Thus, reduced runway repair costs benefit all U.S. taxpayers.



quantifies income loss by income level, this study does not

estimate racial and social equity impacts. The Port is working

with Portland State University (PSU) on an equity-impact analysis that will address racial and social vulnerability and

equity and that will complement this study.

OTHER BENEFITS:

This study focuses on costs that the project team could confidently estimate. Other costs were omitted because they are highly uncertain or too open to debate, such as an estimated \$170 million saved by avoiding interrupting the mission of the 142nd Fighter Wing stationed at the Oregon Air National Guard at PDX. Other problematic recovery costs include some public health benefits of a timely recovery and the ability to physically reconnect with family. The project team identifies but does not quantify those costs and benefits. While this study includes an economic impact analysis (mainly focused on business interruption) and

THE **ECONOMIC IMPACT OF** THE OREGON **AIR NATIONAL GUARD IS** AROUND **\$130 MILLION** PER YEAR. OR \$356,000 PER DAY.

the National Institute of Building Sciences Multi-Hazard

Mitigation Council released the initial Natural Hazard Mitigation Saves study, which demonstrated that for every public dollar spent on mitigation, society saves \$4. The subsequent studies in 2017, 2018, and 2019 expanded the scope and evaluated broader mitigation measures from adopting up-to-date building codes and exceeding codes to addressing the retrofit of existing buildings and utility and transportation infrastructure. We found that mitigation saves up to \$13 per \$1 invested (national average) across perils, including riverine flood, hurricane surge, wind, earthquake, and wildland-urban interface fire. Download the report and find more about NIBS Natural Hazard Mitigation Saves at www.nibs.org/PDXreport.

Multi-Hazard Mitigation Council (2021). PDX Resilient Runway Benefit-Cost Analysis: An Overview. Principal Investigator Porter, K.; Co-Principal Investigators Rose, A., and Santos, J.; Investigator Wei, D.; Yuan, J., Executive Director, MMC. National Institute of Building Sciences. Washington, DC,

Project Contact: Jigiu (JQ) Yuan, PhD, PE, PMP, jyuan@nibs.org, Executive Director, NIBS.

About the Study This case study builds on where we started. In 2005,



PORT OF PORTLAND

Building a Resilient Runway at PDX – A Transformative Opportunity for Oregon's Earthquake Response

The Port of Portland is deeply committed to supporting state and community needs during a crisis. The Port's long-term resilience plan includes significant investments in seismic safety. The most transformational investment the Port is advancing is the development of a seismically resilient runway at PDX.



Following an earthquake of significant magnitude, the ground beneath the current runways at PDX is likely to settle and spread, cracking and

breaking the runway pavement surface and rendering it unusable for aircraft. Without a usable runway, the airport will not be functional, and it may take up to one year or longer to rebuild a runway that meets federal standards for large flight operations. A resilient runway at PDX—one that can withstand the effects of liquefaction—could be an essential lifeline for many Oregonians.

A resilient runway at PDX will make it possible to:

- Save more lives by completing more medical evacuations from Oregon's most populous region as well as bringing in emergency responders, equipment and supplies to support medical operations and disaster relief efforts.
- Help people get back into their homes and businesses by flying in certified building safety inspectors to determine which damaged buildings are safe to re-enter and re-occupy.
- Speed up the delivery of needed rebuilding supplies and aid and fly in construction workers to support the work.
- Reduce the duration of state-wide business interruption and facilitate economic recovery.

Port of Portland efforts to-date:

- 2017: Inspired by the seismic resilient runway at Sendai Airport in Japan, the Port began work on a seismic runway design.
- 2018: **The Port partnered with Oregon State University** to study the effects of liquefaction settlement that could occur post-earthquake. The results of this study helped complete a 30% design for rebuilding 6000-feet of PDX's south runway.
- 2019: The Port worked with the National Institute of Building Sciences (NIBS) to complete a costbenefit analysis of constructing the resilient runway. Results from the NIBS cost-benefit analysis **indicate that a resilient runway would help Oregon avoid \$7.4 billion in losses**, an estimated 50:1 cost-benefit ratio.
- 2021: The **Port is partnering with Portland State University to complete an equity study** that will highlight which workers and communities will be impacted by an airport shutdown.

Need for state and federal Investment:

- To-date, the Port of Portland has invested over \$850,000 in study and design; the total cost of a seismic resilient runway will be approximately \$200 million and will require significant federal and state support.
- The Port is currently seeking state and federal funds to support the next phase of design and development to further the planning work to a 90% design of the south runway.

6.2 Breaking Down Barriers to Affordable Housing Panel Information/Discussion Items

Metro Policy Advisory Committee Wednesday, June 23, 2021 Materials following this page were distributed at the meeting.

PDX Resilient Runway Project



June 2021 – MPAC

Alexandra Howard, Planning and Development + Trade and Equitable Development Ann Gravatt, Federal Affairs and Policy Manager

Today's Topics

- 1. Port Response and Resilience Approach
- 2. Resilience Program Summary
- 3. FOCUS: Cost Benefit Analysis of the Resilient Runway Project by the National Institute of Building Sciences (NIBS)
- 4. Introduce the Portland State University Equity Analysis











Response & Resilience Approach

- Long-term
- Holistic (infrastructure, people, systems)
- Collaborative
- Adaptable

The Port's Resilience Program

Purpose

- Reduce vulnerability to natural hazards
- Recover, adapt, return to operations

How?

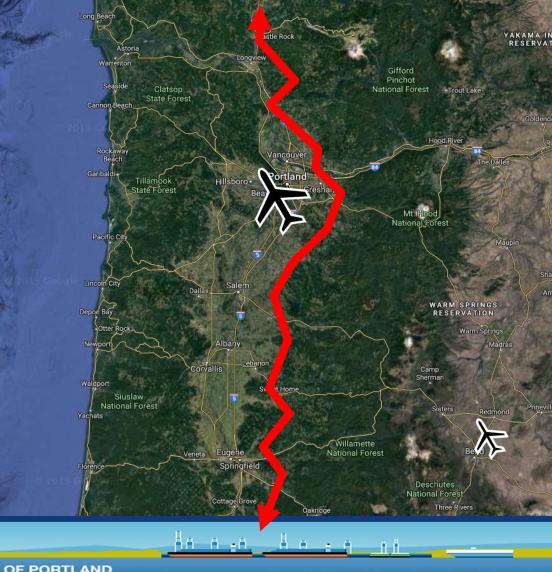
- Physical investments
- Operational adjustments (such as maintenance)

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 Agreements and partnerships

PORT OF PORTLAND Possibility. In every direction

Initial Focus: Seismic Resilience



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PDX has a resilient airfield that is ready to serve national, statewide, regional, and local response.

Terminal 6 supports marine cargo movement and is a critical site for statewide recovery.

Commercial air service at PDX is restored in a timely manner, driving regional and statewide economic, physical, and social recovery.

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Resilient Runway Project

- 1. Feasibility analysis and 30% design (Oregon State University and GRI)
- 2. Cost-benefit assessment (National Institute of Building Sciences)
- 3. Equity analysis Fall 2021 (Portland State University in process)
- 4. Seek funding to complete engineering (from 30% to 90%)



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NATURAL HAZARD MITIGATION SAVES: PDX CASE STUDY

About NIBS

NIBS is America's Congressionally chartered non-profit, non-governmental organization bringing together representatives of government, the professions, industry, labor and consumer interests to focus on the identification and resolution of problems and potential problems that hamper the construction of safe, affordable structures for housing, commerce and industry throughout the United States.





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A wide-ranging team of experts



Porter, PI, engineering



Santos, business interruption

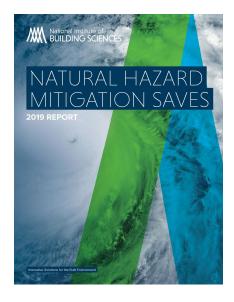


Rose & Wei, income equity





Yuan, project management



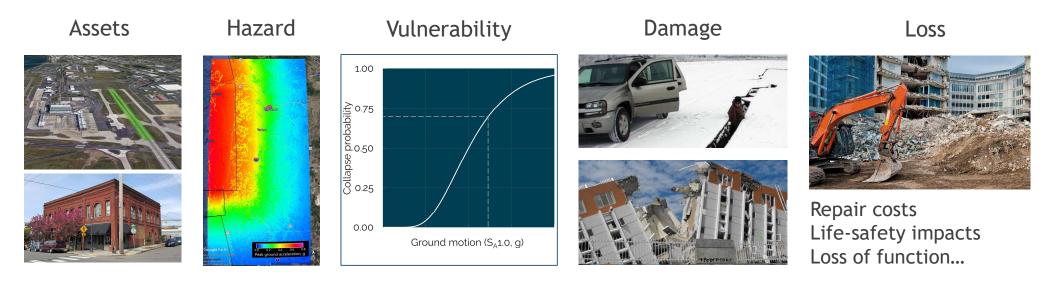
Independent peer review







Resilient Runway Benefit-Cost Analysis



Account for probabilities, get present value of future loss PV(L) Benefit = PV(L_{as-is})- PV($L_{mitigated}$) BCR = Σ (Benefit categories) ÷ Cost

National Institute of BUILDING SCIENCES[®]

A resilient runway at PDX saves over 50:1



National Institute of **BUILDING SCIENCES**"



Saves lives: medevac worth \$460 million in health and medical benefits



Speeds return to homes and workplaces: \$5.7 billion saved when experts arrive to help people return to 600,000 safe buildings



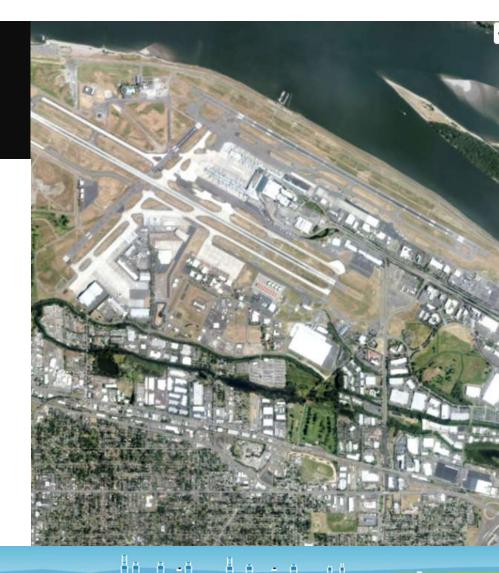
Avoids business interruption: protects \$1.2 billion in regional, US economy reliant on PDX



Reduces repair cost: \$4 million in avoiding predictable runway damage

Portland State University Equity Analysis (on-going)

- 1. Demographic analysis of job loss and business interruption impacts (builds on NIBS' analysis)
- 2. Qualitative study to create an in-depth understanding of most affected communities
- 3. Moves beyond basic demographic dataset information through interviews and focus groups (following PSU School of Social work methods and practices)



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Questions?

- Alex Howard, Port of Portland <u>alexandra.howard@portofportland.com</u>
- Ann Gravatt, Port of Portland <u>ann.gravatt@portofportland.com</u>
- NIBS Mitigation Saves: PDX Report <u>https://www.nibs.org/projects/PDXreport</u>



Alma Flores

Director of Housing Development - REACH CDC

Alma is a first generation Xicana from Los Angeles, CA who has lived in the Portland Metro area for close to 20 years. She joined REACH in June 2019 but brings over 22 years of local government policy, program, and project management experience in housing, community, and economic development to affordable housing development. Her expertise lies in community economic development, anti-displacement measures, community engagement and leading with racial equity in policy, project, and program development. She currently serves on the boards of the Network Of Affordable Housing and the Portland Housing Center and previously served on the board of directors for Hacienda CDC, Catholic Charities of Oregon and PSUs Institute for Metropolitan Studies. She is a graduate of UCLAs Chicano/a Studies and MITs City Planning—Housing, Community, and Economic Development program. Alma is married to her high school sweetheart, and is the mother of 2 adults in training. She is passionate about commercial corridors and main streets and affordable housing!

Dr. Ernesto Fonseca

Chief Executive Officer – Hacienda CDC

Ernesto Fonseca joined Hacienda as CEO in April 2017, bringing his passion for community development and a belief in the power of connecting families to opportunity. Raised in a poor but loving family in central Mexico, Ernesto watched his parents take advantage of educational opportunities and their own initiative to build careers in construction and nursing. They passed on their values of hard work and education to their children, and Ernesto embraced those values to gain a foothold in this country by initially working in kitchens and restaurants as he pursued his educational goals, culminating with a Ph.D from Arizona State University in Environmental Design and Planning. Ernesto believes it is Hacienda's job to help all families access the critical ingredients they need to achieve their goals: a stable, affordable home, a healthy family life that allows youth to learn and grow, opportunities for economic success, and access to affordable health care and healthy neighborhoods. He joined Hacienda because he shares the same values and experiences with this community, and is eager to empower families to flourish like his own has.

Ellin Devin

Interim Director of Housing Development - Housing Authority of Clackamas County

Devin Ellin has over 15 years of experience working in real estate and affordable housing development. Prior to joining the Housing Authority of Clackamas County (HACC), Devin worked in nonprofit affordable housing development in the San Francisco Bay Area. Since 2019, Devin has worked at HACC as Senior Housing Developer and, most recently, as the Interim Director of Housing Development. Devin oversees the administration of the Metro Housing Bond program for Clackamas County. HACC's mission is to provide and develop affordable housing with supportive services for individuals and families on their path to improved health, wellness, prosperity and



COMMUNITY DEVELOPMENT CORP.





inclusion. The Metro Housing Bond and Supportive Housing Services measures provide HACC with important resources to help us accomplish our mission

Nathan Teske

Executive Director - Bienestar

Nathan Teske is a seasoned nonprofit leader with nearly two decades of experience working in Latinx-serving organizations. He led the charge to develop Portland's first Latino public market, the Portland Mercado, in 2015. Since 2017, he has been the Executive Director of Bienestar, a community-based affordable housing developer focused on Washington County. Bienestar's mission is to build housing, hope and communities for the well-being of Latinx, immigrant and all families in need. In recent years, Bienestar has built its capacity, sharpened its mission, and grown its impact, and is involved in supporting or providing services to six Metro housing bond projects in Washington County. Bienestar is co-developing two of those projects: Nueva Esperanza in Hillsboro and Plaza Los Amigos in Cornelius. These projects will create 263 new affordable rental homes for low-income households while honoring the heritage of Latinx and migrant workers in the western portion of the county

Tony Marnella,

Owner - Marnella Homes

Tony Marnella's background in Real Estate spans over 30 years and includes sales, restoration of historic homes, construction, and development. Over the years, he has always tried to bring the same sense of pride and excitement to his customers that he felt as a first-time homebuyer. Tony is a lifelong resident of the northwest and understands the importance of a good name. From start to finish, his reputation is represented through quality of craftsmanship, honorable dealings and attention to detail. Tony is involved in every aspect of Marnella Homes. His vision of the Marnella companies and the experience that he expects for homeowners is what motivates Tony and every one of Marnella Homes' team members. Marnella Homes is passionate about a design build process that creates excitement for their clients as well as building new homes that include all the green building systems and processes they have learned to incorporate for a healthy and energy efficient home.



