AGENDA Rogue Valley Council of Governments Board of Directors

Date: Board Meeting: Location:	Wednesday, February 26, 2020 12:00 noon Rogue Valley Council of Governments Jefferson Conference Room
1. Call to Order / A	ttendanceChair
2. Introductions and	d Comments from Members / PublicChair
3. Consent Calenda A. Approve Min B. Approve Min	rChair utes of December 4, 2019, Meeting utes of January 22, 2020, Meeting
4. Action Items A. RVCOG Boa	rd Quorum Redefinition
5. Discussion/Prese A. Jackson Cour	ntation
6. Reports A. ShakeAlert U and an earlier RV B. Receivables I	Executive Director Update (see attached Beaverton School District paper on evacuation vs duck, cover, hold on, /COG response to an Oregon Emergency Management-sponsored white paper) Report / Balance Sheet / Statement of Revenues and Expenditures
7. Agenda Build	
8. Regional Update	/ Open AirChair
9. Other Business	
10. Next Meeting The next meeting	will be held in RVCOG's conference room on Wednesday, March 25th, 2020.

Adjournment

Questions? Please contact RVCOG at 541-664-6674. If assistance is needed to participate in this meeting, please notify us at least 24 hours prior to the meeting to assist staff in providing reasonable accommodation.

Summary Minutes from the December 4th, 2019, Meeting

VOTING MEMBERS

Present:

Councilor Dick Gordon (Medford) Board Member Jim Lewis (Jacksonville) Board Member Kay Harrison (RVSS) Commissioner Rick Dyer (JACO) Board Member Colleen Padilla (SOREDI) Board Member Jody Hathaway (ECSO) Mayor Roy Lindsay (Grants Pass)

Absent:

Cave Junction Representative Ashland Representative SOU Representative RCC Representative Town of Butte Falls Representative Board Member Cathy Shaw (JCLD) Board Member Bill Mansfield (RVTD) Mayor Wayne Stuart (Rogue River) Councilor Taneea Browning (Central Point) Board Member Randy White (JSWCD) Mayor Peter Newport (Gold Hill)

Talent Representative Phoenix Representative Eagle Point Representative JOCO Representative Shady Cove Representative

RVCOG STAFF:

Michael Cavallaro, Ann Marie Alfrey, Laura O'Bryon, Nikki Hart-Brinkley, Donovan Edwards

1. Call to Order/Attendance

President Lindsay called the meeting to order at 12:05 p.m.

2. Consent Agenda

Prior to the motion it was noted that Mayor Lena Richardson had been incorrectly listed as a City Councilor on the minutes of June 26th and October 23rd, 2019.

MOTION: Commissioner Dyer moved to approve the Consent Agenda as amended. Councilor Gordon seconded the motion. The motion was approved unanimously.

3. Action Items

MOTION: Councilor Gordon moved to approve the recommendation of new Senior Advisory Council Members Paul Golding and John Irwin. Board Member Mansfield seconded the motion. The motion was approved unanimously.

4. Discussion/Presentations

RVCOG GIS Mapping

Nikki Hart-Brinkley reminded the Board of the idea she introduced at the last meeting regarding researching the different aerial data sets for the region, seeing what is being used currently and what could be used to help enhance the accuracy of the data for the entire region. Ms. Hart-Brinkley provided a slideshow providing detailed numerical comparisons between different sources highlighted the necessity of having this type of data available as a resource in the region.

In response to Board Member White's asking about next steps in the process she recommends creating a Technical Advisory Committee consisting of GIS Mapping specialists and planners. Councilor Gordon recommended taking it to the Public Managers first and asked for clarity on HB 2906 expressing his concern about the software compatibility issues that could be created from working with state funded

programs adding the needs could be different and might not necessarily meet local needs. Ms. Hart-Brinkley explained that RVCOG was the regional representative serving as an "aggregator" which is an organization that is willing to share data. The state she said will provide the funding for the level of data it requires which is already being done it just needs to be built out more along with software, hardware and personnel training. Compatibility is not an issue as all GIS spatial data modules share similar features and language.

President Lindsay noted that it seemed as though the Board was in agreement with moving forward and Mr. Cavallaro stated that they would bring the topic up to the Public Managers.

5. Reports

JOCO F&F Building Update

Mr. Cavallaro provided a slideshow of before and after pictures of the Josephine County Senior Resource Center which had its grand opening on Monday, December 2nd, 2019. President Lindsay added his impressions of the building and opening ceremonies.

Drone Update – Ashland Fire Monitoring Review

Mr. Cavallaro noted that the COG's drone pilot, James Gerhardt, RVCOG GIS/Drone Specialist had in the course of his duties within the Ashland Fire Monitoring Program uncovered an illegal campsite. As per the agreement he reported it to an Ashland Police Officer as he was departing and as it turns out helped them to locate a person who was being sought by the Ashland Police Department. Mr. Cavallaro described it as unintended but a highly beneficial bi-product of the partnership with the City of Ashland.

In addition, Mr. Gerhardt also recently attended a Drone conference specifically to look into the potential use of multi-spectrum cameras and their potential effectiveness of identifying invasive species. What actually occurred was Mr. Gerhardt made contact with a prominent camera creator who is very interested in the potential applications they can be used for in this region and are intending to bring their equipment here to develop a case study. He said that this will likely take place in the spring when the weather makes it easier to work with and said that the camera company would either come down or could just send the equipment and allow the RVCOG drone team to work with it.

ShakeAlert Update No updates.

Receivables Report / Balance Sheet / Statement of Revenues and Expenditures Mr. Cavallaro said receivables were good.

Councilor Gordon stated that one of the issues that he recalled when dealing with wildfires was the lack of available GIS trained personnel available to assist fire crews and asked if RVCOG was able to provide assistance in the event that a GIS trained person was needed to help crews locate wildfires. Ms. Hart-Brinkley responded that while Mr. Cavallaro has been generous with offers for the COG to assist no one has taken advantage of this. She added that the qualifications and certifications for the kind of mapping expertise needed by the State were a much more complicated matter, and while she is involved in the conversations she has not managed to take the certification test herself.

After some discussion about what assets local agencies were capable of providing Mr. Cavallaro asked for and received Board consensus to contact the appropriate agencies in an effort to make training a possibility for local pesonnel.

6. Agenda Build

Mr. Cavallaro said that based on previous Board discussions he made contact with Eric Guyer, Jackson County Corrections and he would attend the next meeting and provide an overview of the Jackson County Corrections program.

7. Regional Update / Open Air

ECSO – Board Member Hathaway thanked everyone who voted for the Radio Bond, now that it was passed by voters ECSO has put out the RFP. A mandatory meeting taking place on the 17th of December will be held for interested contractors. The selection process will begin in March 2020.

RVSS – Nothing major to report.

Medford – Nothing to report.

JACO – Ashland approved being a part of the Jail District on the previous day. Other municipalities will be voting on it soon. Public Hearings will take place February 6th and 26th, 2020. Following those hearings if the JACO Board of Commissioners elects to refer it to the ballot then it will take place in May 2020, without the City of Talent the cost per \$1000 would be \$0.87 cents.

Rogue River – The city recently signed a retainer for a new attorney. The Jail District has been approved as well. The Christmas Lighting will take place December 7th, 2019.

Gold Hill - Working to complete all outstanding audits to become compliant.

Central Point – They have nearly completed everything on the strategic plan that was developed 20 years ago and they are beginning to work on the next one. An ad hoc committee is working on the community center. The Dennis Richardson Memorial is being worked on at the Don Jones Park.

SOREDI – Board Member Padilla said that within the next couple of months SOREDI would like to get on the agenda to discuss their strategy to make this region a center for Wildfire education and resources. The Southern Oregon Business Conference will be January 30th, 2020. The theme will be One Rogue Valley and they will be discussing their wildfire strategy.

JCLD – They continue to work on preparing for the transition from third party contractor.

Jacksonville – Due to a storm the Christmas Tree that was put up early needed to be replaced. A new tree was found, cut and relocated along with getting redecorated all within a 36 hour period in thanks mainly to Public Works employees and Chamber of Commerce volunteers.

Grants Pass – The Christmas Parade will take place on December 7th, 2019. Mayor Lindsay was asked to be the Grand Marshall. A discussion will be taking place about whether to sell or keep the Rogue River Reserve later in the evening on December 4th, 2019.

Next Meeting

The next regular meeting will be held on Wednesday, January 22nd, 2020, in RVCOG's conference room.

Adjournment: President Lindsay adjourned the meeting at 1:30 p.m.

Summary Minutes from the January 22nd, 2020, Meeting

VOTING MEMBERS

Present:

Mayor Roy Lindsay (Grants Pass) Board Member Kay Harrison (RVSS) Councilor Taneea Browning (Central Point) Board Member Bill Mansfield (RVTD) Shady Cove Representative

Absent:

Cave Junction Representative Ashland Representative RCC Representative Board Member Cathy Shaw (JCLD) Commissioner Rick Dyer (JACO) Board Member Randy White (JSWCD) Mayor Peter Newport (Gold Hill) Board Member Jim Lewis (Jacksonville) Phoenix Representative JOCO Representative Mayor Wayne Stuart (Rogue River) SOU Representative

Talent Representative Eagle Point Representative Town of Butte Falls Representative Councilor Dick Gordon (Medford) Board Member Colleen Padilla (SOREDI) Board Member Jody Hathaway (ECSO)

RVCOG STAFF:

Michael Cavallaro, Ann Marie Alfrey, Laura O'Bryon, Kellie Owens

Guest Attendee:

Connie Wilkerson (ACCESS)

1. Call to Order/Attendance

President Lindsay called the meeting to order at 12:05 p.m.

2. Introduction and Comments from Members/Public

None present.

3. Consent Agenda

President Lindsay announced that due to the lack of a quorum the Consent Agenda would be set aside which includes the minutes from the Dec. 4, 2019 Board Meeting.

4. Action Items

- A. Board Approval for the Food & Friends Program to Apply for Medford Community Grant Funding.
- **B.** Board Approval for Senior & Disability Services to Apply for Medford Community Grant Funding for the Home at Last Program.

MOTION: Board Member Jim Lewis moved to approve the recommendation of Action Item A. Board Member Kay Harrison seconded the motion. The motion was voted on by roll call for all attending members. Due to the lack of quorum and time restraints on the grant application deadline, an email was sent to the members not in attendance. The final vote was 17 Approve and 0 Decline. Please see "Exhibit A – Results of Motions A & B" for a record of the vote.

MOTION: Board Member Jim Lewis moved to approve the recommendation of Action Item B. Board Member Kay Harrison seconded the motion. The motion was voted on by roll call for all attending members. Due to the lack of quorum and time restraints on the grant application deadline, an email was sent to the members not in attendance. The final vote was 16 Approve, 1 Abstain and 0 Decline. Please see "Exhibit A – Results of Motions A & B" for a record of the vote.

5. Discussion/Presentations

Access – Jackson County Continuum of Care– Connie Wilkerson

Ms. Wilkerson provided information on the Jackson County Continuum of Care ("CoC") Program. Access is the lead agency for the HUD Collaborative Grant, of which Home at Last received \$50,000 last week for the 2019 competition. Jackson County is lucky to be one of seven CoC's in the state so we can advocate for our residents.

The "CoC" goal is to end homelessness in Jackson County by finding safe, affordable and permanent housing, as well as provide support services through partnerships and the Homeless Management Information System (HMIS). The "CoC" is working on expanding funding resources and partnering efforts to assist the program. Housing availability rates are less than 1% at any given time. The Program utilizes a Strategic Roadmap that focuses on 4 strategic drivers;

- 1. Increase housing options.
- 2. Expand funding resources.
- 3. Expand coordination and partnering efforts.
- 4. Further develop the CoC structure.

In response to a question about clarifying what help the smaller cities could expect from the Continuum of Care Program, Ms. Wilkerson discussed the resource fairs being held in smaller communities, as well as the street outreach teams that work with veterans, homeless youth and sexual and domestic violence victims.

Mr. Catz mentioned that the student government at SOU has an interest in addressing housing and security among students. If your partners find students in need, the student government has resources and commitment to help those students. Ms. Wilkerson mentioned that Anna D'Amato from SOU is on the board and can help.

Ms. Harrison asked if the CoC was able to assist landlords to help when tenants are struggling. Connie discussed the Landlord Appreciation Event so the case managers and landlords can work together finding resources, and the case manager can advocate for the tenant.

Ms. Browning offered assistance with conveying information from local agencies to the Governor, especially with certain needs. She meets with the Governor quarterly during the League of Oregon Cities and having specific information would help her get our local needs conveyed.

A question was presented asking if the CoC was willing to speak at the next meeting for the Jackson County Jail Project. Ms. Wilkerson mentioned that she was on the committee for the Jail because she is a voice for people who are homeless and she is able to express what the proposal may offer to that particular population.

Mr. Cavallaro asked if jurisdictions are looking at accelerating the condemnation process so they could utilize those locations to help with the affordable housing. Connie stated that the City of Medford's Implementation Plan addresses the use of underutilized city-owned properties for affordable housing. Michael asked if private property would be included in their consideration. Connie mentioned that it is not on the radar at this time.

Ms. Harrison talked about how affordable housing and homelessness seems to now be an industry. The money goes out with insufficient results. I want to see steps toward some solutions. I want good stuff to happen but I am realistic in seeing how it hasn't really changed. Connie mentioned that they were able to house triple the number of people in their second year compared to their first year of operating as a continuum. It takes considerable effort to keep up with the needs of low income housing.

Mr. Fowler asked about the vetting process as he had concerns about people that prefer to live that lifestyle would receive housing assistance before someone that wants to get out of a homeless situation. Ms. Wilkerson clarified that although it is open to everyone, they help the people that contact their providers and ask for services. During their interview process (712 interviews) they find that only approx. 5% of the homeless population prefers to live that lifestyle. Mr. Fowler stated he hopes to do things differently in the future as the current process is not working and money is not being spent in a productive manner.

Mr. Lindsay states that the City of Grants Pass is struggling with a "NMBY" (Not in My Back Yard) attitude. It's understandable but it's a reality that they have to address.

Mr. Fowler mentioned that the State of Oregon is talking about changing the land use laws so a multifamily dwelling may be constructed on a property zoned for a single family residence. They are not incentivizing landlords, they are making it more difficult by requiring solar panels and there are no simple building codes. The new regulations coming out for landlords are making it more difficult for landlords to screen prospective tenants so we are going to see a reduction in available landlords.

6. Reports

ShakeAlert Update

The Governor will attempt to revitalize the request for funding of the ShakeAlert system during the legislative session. Funding is needed to complete the build-out of the network of seismometers. A publicized discussion is planned for the end of the month to initiate the campaign.

Annual Update

The Annual Update is completed. Mr. Cavallaro mentioned that his ability to appear before jurisdictions will be hindered in March and April due to a need to take time off during that period of time due to surgery.

RVCOG's Prevention of Workplace Discrimination, Harassment, and Retaliation Policy

Ms. Alfrey presented a copy of the new Prevention of Workplace Discrimination, Harassment, and Retaliation Policy that is now a state requirement as of January 1, 2020. She mentioned that this policy is applicable to all staff, volunteers and Board members.

Receivables Report / Balance Sheet / Statement of Revenues and Expenditures

No critical items that we are concerned about. RVCOG is service based and always invoicing in arrears so January invoices are for December service.

On another note: Ann Marie Alfrey's title has changed to Deputy Director to more appropriately match her duties and talents.

7. Agenda Build

No information at this time.

8. Regional Update / Open Air

Central Point – Don and Flo Bohnert Family Farm Park is now open. It has a walking path, exercise equipment, large playground and a pavilion that has a farm scene. The City of Central Point will enter into its official community center discussion in the next month or so.

Shady Cove – We are wrapping up our goal setting for our budgeting process. It was presented to citizens in a public forum last week. We completed our audit. Parks and Rec are working on enrolling bands for the Music in the Park in Aunt Caroline's Park. Mr. Cavallaro moderated a work session for us and it has given us a great start to the year.

ODOT – Nothing to report.

Phoenix – We approved a concept plan to convert Main Street to 2 lanes. The conversion will happen sometime this summer. We recently installed 2 large monument signs at each main entrance. We are also hosting the winter farmers market at the Civic Center on Tuesdays from 10-2.

SOU – We are beginning a conversation with our campus about shared governance. Our intent is to let everyone have a voice in the decisions that are made on campus. Our president has initiated a task force on financial sustainability with the intent on reducing expenses while improving enrollment. Mr. Catz has been participating on a task force in Salem at the Higher Education Coordinating Commission that looks at how we allocate higher education funding throughout the state equitably.

Josephine County – My attendance is hindered by a calendar conflict with another event. Our recent power outage (almost 18,000 households) was a great exercise for practicing emergency management plans. We opened 2 Red Cross shelters. Sara Rubrecht, our Emergency Manager is amazing and she does a great job. I believe we need to maintain the fire roads and a buffer along the roads. We could fund it by cutting down trees along the roads and selling the logs.

Rogue River – The city is working on the budget for the upcoming year. We are continuing to upgrade our water plant system.

RVTD – We are eagerly waiting to see what the numbers are on our bus usage. Busses are currently operating in Eagle Point. The bill did not pass during the recent election but we received a 3 year grant that allowed us to expand into that area. We should know in the next month or two if people are using the busses in Eagle Point.

RVS – We have updated our Discrimination and Harassment policy to make sure we are compliant.

Jacksonville – We had a successful Victorian Christmas season and an offshoot to that is the tree that was decorated at the corner of California and 3rd has been transplanted to the Courthouse grounds. It looks like it should have been there the entire time. We have been working for over 2 years on the Comp plan revisions for chapter 1. We are going to appoint a Citizens Advisory Committee to review the Comp Plan within the next couple months to do a final review. We had our audit report last night before our Counsel and Budget Committee. Chinese New Year will be the first week in February.

Grants Pass – Rogue River Reserve is up for sale. A purchase is in negotiations at this time. Over the last few months, during Public Counsel Meetings, a large group wants to speak during the Public Comment period. During the last meeting I had to stop the speakers and move the comment period to the end of the meeting. There were at least 10 speakers and each one is allowed 3 minutes I asked them to choose one person to present and that person would be given 5 minutes. This didn't go over well. I am trying to make the Council meetings go more smoothly. We start our strategic goal planning tomorrow and we intend to work on it for 3 days. We hope to open a warming center by the end of the month. It will be in the old

DMV building in the Business District. Our Audit Report happened last meeting and we had no adjustments.

Next Meeting

The next regular meeting will be held on Wednesday, February 26th, 2020, in RVCOG's conference room. Please let staff know if you can't make it so they can accommodate. We are struggling to get a quorum (50% + 1) so I broach the topic to take the quorum down to 1/3. Think about it and we will discuss it at the next meeting.

Adjournment: President Lindsay adjourned the meeting at 1:20 p.m.

Shake Alert – A School District's Perspective

With 41,000 students, 5,000 staff and 53 schools Beaverton School District (BSD) is the third largest school district in Oregon. In 2018, the District was selected to become the first school District in Oregon to receive a pilot license from the US Geological Survey (USGS) to incorporate the earthquake early warning system, ShakeAlert in its public safety communication system.

USGS touts ShakeAlert as an earthquake early warning system capable of providing "seconds to minutes of warning before strong shaking arrives. The amount of warning time depends on the speed of the warning system and your distance from the epicenter. Essentially, "the farther a location is from the epicenter, the greater amount of warning time". (USGS, 2016) This warning time allows the opportunity to determine the "best course of action for safety". (University of Oregon, 2018)

BSD saw the ShakeAlert pilot project as an opportunity to "warn BSD students and staff of imminent earthquake shaking by integrating ShakeAlert into our current emergency alert system." (Beaverton School District, 2017) In the application to USGS, the School District pledged to:

"...document lessons learned and best practices to pass along to other organizations in the k-12 sector. An integral part of our proposed project is to create an earthquake alert and message for our community. There is not a current standard for this and guidance is limited. Providing more data on this would be beneficial to all sectors, not just K-12." (Beaverton School District, 2017)

When the ShakeAlert link was provided to BSD it was available on only three workstations in BSD's corporate office; one in the Emergency Manager's office and two in the Information Technology office. Both of those offices have manual communication links to the various schools in the District. In the event of an earthquake a message would display on the computer screen that alerted the user to "how many seconds before shaking waves arrive at their location and the expected intensity of shaking at that site." (USGS, 2016) It also estimates the probability of a correct alarm, the epicenter, and provided real time tracking of the seismic waves. Inflow Communications is working with BSD's Information Technology sector to bypass the District office and provide an automated warning directly to all school buildings public address systems.

Coincident with the installation of ShakeAlert the District conducted seismic assessments of all their buildings, 53 schools and 8 support buildings. The results, to say the least, were somewhat disconcerting. It was estimated that the ten schools constructed or retrofitted after 2004 would "see little to no structural damage." (Beaverton School District, 2019) Virtually all of the other buildings were rated "Below District Goal/Does not Meet Life Safety Performance Objective" or worse (Does Not Meet Collapse Prevention Performance Objective). Essentially, except for our newer buildings, most Beaverton Schools are expected to see structural damage, including collapse or partial collapse during or after a major seismic event. Significantly, this report was made available to the parents last year on our website.

In trying to determine the best policy for integrating/messaging ShakeAlert in our schools, the District Safety Committee made a concerted effort to solicit opinions from as many informed parties as reasonably possible. Various School Safety Committees, school administrators, vice-principals, Parent Teacher Organizations and other sources such as State and local emergency managers were consulted.

The District held a "partnership breakfast" with a mix of public safety officials and educators from around the region and conducted a Table Top exercise which used a ShakeAlert warning of a Cascadia fault eruption as the central inject.

Earthquake early warning systems are operational in other countries and their messaging is well established, has been successful, and is relevant to the Beaverton School District messaging. Japan sits atop 4 tectonic plates and about 1,500 earthquakes strike those islands each year. (Israel, 2011) Because it is so close to the source of these earthquakes the warning time is often measured in mere seconds. When an earthquake will affect Japan the broadcast message is:

"This is an Earthquake Early Warning. Please prepare for powerful tremors"

Or simply:

"This is an earthquake early warning" or just the sound of chimes.

California is similar to Japan in that once the earthquake starts, there will be very little notice to residents that they are about to experience tremors. California has already made ShakeAlert available to its residents and because there will be so little time to react there is little to do in that time other than to take the FEMA recommended protective action of drop, cover and hold on. In fact, California's ShakeAlert warning is:

"Earthquake. Earthquake. Expect Shaking. Drop, Cover, Hold On. Protect Yourself Now."

This warning message was developed by a multi-state ShakeAlert focus group in 2017 and "has stood the test of time as being the most effective". (DeGroot) Notably, California has had a historically high number of earthquakes as it sits astride a number of active faults. Consequently, building codes in California have long recognized the seismic threat and require more robust construction.

Mexico City is subject to tremors from a relatively distant subduction fault (very similar to Beaverton's earthquake threat). Because Mexico City (and Beaverton) are relatively far from the most likely originating fault likely to affect them, those Cities may have a minute or more of warning time. Sirens throughout Mexico City are activated which emit a standard audible tone or loudspeakers announce a prerecorded message:

"Alerta Seismica, Alerta Seismica" (Earthquake Alert, Earthquake Alert) (Wade, 2017).

Interestingly, and directly at odds with the ShakeAlert warning, a group of U.S. based experts after Mexico City's last strong earthquake recommended that even that brief warning be abbreviated and "the alert should simply indicate "earthquake" to prompt immediate protective actions. "More complex alert information is not necessarily helpful for public warnings". (Allen, 2018) The government recommended protective action in Mexico City is either evacuation or moving to a designated secure area. The standard school response in Mexico City is evacuation, practiced monthly much as our Fire Alarm evacuations are practiced in the Beaverton School District.

Beaverton schools are a mix of construction types with varying layouts. A number of our elementary schools are cut from a mold where every classroom has a door directly to the outside. Most schools are only one story. State law requires monthly fire evacuation drills and each time a drill is held the time it takes for a complete evacuation is logged. The fire Marshall expects each school to completely evacuate

in 90 seconds. Ironically the schools taking the longest to evacuate are the newer, seismically strong buildings because they are larger and all of two-story construction. Roughly speaking, on average, most of our older schools can evacuate 90% of their population in 90 seconds. Some can be largely emptied in 60 seconds.

It is impossible to predict how much warning time we will have when the next earthquake strikes Beaverton. There has not been an earthquake of greater than M 6.0 to affect the Beaverton area since Oregon became a State (1859). There is evidence of a "Portland Hills" fault in the area but that fault has only erupted twice in the last 12-15,000 years (Liberty, Hempphill-Haley, & Maiden, 2003). Far more significant and likely is the threat of another Cascadia Subduction zone quake of which there have been over 41 in excess of M 8.2 in the last 10,000 years. (Oregon State University, 2010) The Cascadia Subduction zone stretches from offshore of Northern California to offshore of British Columbia. Depending on where the next Cascadia Rip originates, we may have over 3 minutes of warning or as little as 60 seconds.

Determining what protective action to take in the seconds or minutes before an earthquake without knowing the exact amount of time *before* the tremors start has definitely been a challenge. There are three possible protective actions to take during an earthquake:

- 1. Drop, Cover and Hold On
- 2. Evacuate
- 3. Move to an area within a building that is better suited to withstand shaking

"Drop, Cover, and Hold On" has been inculcated into our population for years and we conduct earthquake drills twice a year where students and staff take cover under the nearest desk for a minute. This protective strategy is recommended as a protective action appropriate for earthquake early warning by the Cascadia Region Earthquake Group. (Wood, 2018) That Group, however, acknowledges that "Scholars and practitioners have amassed decades of research about actions to take *during* earthquake shaking; however, very little research has been conducted specifically on the unique context of EEW". The recommendation to "duck, cover and hold" has been questioned in recent studies. (Petal, 2011)

Many reports are available that discuss the types and causes of fatalities and injuries from earthquakes. The mechanism causing the fatalities or injuries depends somewhat on circumstances, but it is fair to say that people who are outside and away from the threat of collapsing buildings, falling objects or sliding furniture will very likely not be hurt. A common saying among emergency managers is "earthquakes don't cause deaths, buildings do". In serious earthquakes, above M 7, the likelihood of being killed or injured is significant for people indoors particularly for those in buildings that are not seismically stable. With the advantage that ShakeAlert provides, ie., warning before the tremors arrive, it is apparent that evacuation from buildings provides a clear and significantly greater safety advantage over the FEMA recommendation to drop, cover and hold-on. The evacuation strategy would not be appropriate from high rise buildings or into narrow streets that are bordered by masonry buildings, but this is not the situation near any of the Beaverton schools.

The third strategy, move to an area with better protection or fewer hazards, has some applicability/validity in our schools. In all our schools the most vulnerable place to be during an earthquake is in the gyms or cafeterias. Those rooms have expansive ceilings and most are not expected

to remain intact during a strong earthquake. In no instance is there any cover provided in the gyms, they are wide open and anyone in those spaces is at great risk. The cafeterias all have tables, many of which are on wheels to ensure easier cleaning of the floors. Those tables would pose a crush hazard to students once they start moving during a quake. ShakeAlert can provide advance warning allowing students and staff the opportunity to exit to the outside or, at least, move into the relatively safer hallways.

Beaverton School District recognizes that the effects of a seismic event in this area are potentially catastrophic. The documented toll on schools from recent earthquakes is sobering (see table 1). The District is building new schools to structurally withstand earthquakes greater than M 9.0 intensity and our new schools are models as to how schools should be built in an earthquake prone area. Unfortunately however, building new schools and retrofitting old schools take both time and money. ShakeAlert is an amazing tool that has the potential to save many lives when the next Cascadia quake hits, "a matter of when, not if" according to Dr. Chris Goldfinger. (Oregon State University, 2010) To ensure ShakeAlert is used to its full advantage the Beaverton School District is considering implementing a policy that primarily focuses on evacuation before the shaking starts followed by a recommendation to drop, cover and hold once the shaking is felt.

Date/local time (Source)	Location/magnitude	Consequences/schools	Consequences/children
12 Jan 2010 16:53 (CNN 2014)	Port-au-Prince, Haiti M 7.0	Estimate 4,992 schools affected (23 % of the nation's schools)	Deaths and injuries unknown. Many children with disabling injuries. Some schools were holding their third shifts. Est. 1.3 m children and youth affected
12 May 2008 14:28 (COGGS 2008)	Wenchuan, China M.7.9	175 schools (7,000 classrooms) in Sichuan and Shaanxi provinces were destroyed	 >5,300 school children died in dozens of schools In the Beichuan Middle school, 1,300 of 2,999 students and teachers died
6 Mar 2007 11:00 (COGGS 2008)	Western Sumatra M 6.4	The wall of a primary school collapsed. Fire followed. Up to 329 schools affected by several earthquakes (2005–2010)	4 primary school children died
8 Oct 2005 St. 08:50 (UNISDR 2008)	Kashmir, Pakistan, and India M 7.6	More than 10,000 schools collapsed 80 % of Mahesehra's 2,749 66 % of Batagram's 678, and 37 % of Abbottabad's 1,829 public schools were destroyed or seriously damaged	>18,000 school children died >50,000 school children were seriously injured

Table 1 Children killed by structural failure of school buildings (Petal, School Seismic Safety and Risk Mitigation, 2014)

1 May 2003 03:20 (Rodgers 2012)	Bingöl, Turkey M 6.4	4 school buildings collapsed. Only the	84 students killed and 114 survived in the dormitory
		dormitory was occupied	
24 February 2003 10:03 (COGGS 2008)	Bachu, Xinjiang, China M 6.4	900 classrooms collapsed	Students were outside in physical education at the time of the earthquake. At least 20 students killed in one middle school collapse
31 October 2002 11:40 (COGGS 2008)	San Giuliano di Puglia, Molise, Italy M 5.9	San Giuliano infant school collapsed	26 children and 3 adults killed. 35 children rescued alive from the building but some reports suggest that one child died later
26 January 2001 Friday 08:16 Republic day holiday (COGGS 2008)	Gujarat, India M 7.6	1,884 school buildings collapsed. 5,950 classrooms destroyed. 36,584 unfit for instruction	971 school children and 31 teachers were killed in school activities. 1,051 students and 95 teachers seriously injured (COGGS 2008) 32 children died at Swaminarayan School
13 February 08:22 and 13 January 2001 (COGGS 2008)	El Salvador M 6.6	85 schools damaged beyond repair. In aftershock 22 preschoolers and their teacher were killed	50 % of fatalities were children
9 July 1997 15:24 (COGGS 2008)	Cariaco, Venezuela M 7.0	Two out of five school buildings collapsed. Four reinforced concrete buildings had serious structural defects	46 students killed
10 May 1997 12:57 (COGGS 2008)	Ardekul, Iran M 7.3	Elementary school collapsed	110 young girls were killed
1992 (COGGS 2008)	Erzincan, Turkey M 6.9	6-story medical school collapsed	62 students were killed.
7 December 1988 11:41 (COGGS 2008)	Spitak, Armenia M 6.8	380 children and youth institutions destroyed. 105 of 131 in Spitak and Leninakin destroyed	Likely thousands of school children killed. At least 400 children died in the collapse of a Dzhrashen elementary school
27 July 1976 03:42	Tangshan, China M 7.8	Most school buildings destroyed	2,000 students killed in the dormitory of the College Mining Institute
13 April 1949 11:58 (COGGS 2008)	Olympia, Washington M 7.1, USA	10 schools destroyed, 30 damage. Spring break	2 children in school were killed)

31 October 1935 (COGGS 2008)	Helena, Montana, USA M 6.2	Newly built secondary school wing collapsed	2 students killed. Classes not in session, could have been
			much worse
10 March 1933 (COGGS 2008)	Long Beach, California M6.4	USA 70 schools destroyed. 120 with major damage. Classes held in tents for 2 years. First legislation for safe school construction	2 children died in gymnasium collapse. Spring break, classes not in session, (COGGS 2008) M 6.4 could have been much worsen

The evacuation first policy has caused some consternation among the ShakeAlert policy advisors because it is contrary to the long-standing FEMA guidance of "drop, cover, and holding." FEMA does not recommend evacuating unreinforced masonry buildings during an earthquake because the evidence supporting this as an effective protective action is "insufficient". (Wood, 2018) Concern has been expressed that individuals may be at risk trying to move during shaking because they are more likely to be injured but that concern is based primarily on one cited event, the Northridge quake, where falls were "the leading cause of hospitalized injury in that event"..." in that earthquake, very few serious, nonfatal injuries were associated with building collapse". (Wood, 2018) The M 6.7 Northridge quake only lasted 10-20 seconds – far less serious than what we expect to see in Beaverton from a Cascadia generated quake. Significantly, and not mentioned in FEMA's recommendation, at least 61 people died as a result of that earthquake, the majority of fatalities due to either a building collapse or a heart attack (Associated Press, 1994). Those who get injured from falls during an earthquake are almost all over 50 years old – not representative of our student population. More than half of all injuries in the Loma Prieta earthquake in the Bay Area, and the Northridge earthquake outside Los Angeles, were linked to hazards like falling ceiling lights and bookshelves. (Calma, 2019) There are many more striking examples of significant death tolls and injury to people who remained behind in buildings during an earthquake and, in earthquakes that were greater than M 7, the toll is shocking (see Table 1). Simply stated, "injuries from falls are minor compared to building collapse". (Petal, 2011) Critical to remember is that BSD's proposed policy is to evacuate *before* the shaking starts.

BSD is installing a system that will announce over the public address systems a pending earthquake once ShakeAlert triggers. The announcement will be followed by the fire alarm and evacuation. To reduce confusion and hesitation BSD petitioned USGS for permission to change the warning announcement to "Earthquake. Earthquake shaking expected". So far USGS has not acceded to this request insistent that the public messaging for ShakeAlert remain consistent on the West Coast. Their stated desire is to maintain the standard verbiage of "Earthquake! Earthquake! Expect shaking. Drop, Cover, Hold On. Protect yourself now." That message is supported by FEMA and was developed by the ShakeAlert work group. In areas such as California which, because of the tectonics, will have very little warning once a quake strikes, this message is perfectly appropriate. Californians are likely to have only seconds to tens of seconds to seek shelter and drop, cover and hold on in buildings which, because of the local tectonic history were built to stricter building standards. Californians are likely to be in safer buildings and will have little warning when the next earthquake strikes. Drop, cover and hold on is sensible advice. Beaverton school students and staff on the other hand will likely have more warning time and be in buildings that will not remain intact during severe shaking. In Beaverton, drop, cover and hold on is exactly the wrong thing to do in advance of the next quake. It will not require a major effort to retrain students and staff, evacuations after fire alarms have been practiced for years. The announcement that an earthquake is expected should significantly shorten the time it takes to evacuate a school building and consequently reduce casualties.

Beaverton School District's proposed policy to evacuate on warning and then drop, cover and hold-on once the shaking starts has been informed by the release of the seismic evaluations conducted on our individual buildings. We have developed this policy after careful thought and community input. The policy isn't perfect, won't save everyone when "the big one" hits but may be the 90% solution – we may be able to get 90% of our population to safety in 90 seconds. If we can get the warning message to match our policy ShakeAlert has the potential to make a huge difference in the safety of our students and staff. Every second will count and hesitation and delay matter.

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Emailed comments to author Michele Wood by Michael Cavallaro on the *State-of-The-Art Knowledge of Protective Actions Appropriate for Earthquake Early Warning* white paper.

My principal comment is in regards to evacuation as a protective action. I've noticed a reliance on the part of those who do not support any real consideration of evacuation as a protective action to rely on data that is peripheral at best (injuries suffered by those exiting buildings <u>during</u> an earthquake), and on recommendations to drop, cover, and hold on based on a lack of real life experience with an early earthquake warning system. After reading through the white paper, I find your conclusion to not consider evacuation as a potential protective action to be consistent with this observation. You acknowledge this as a potential issue in the white paper, when you state that there is a need to reconsider what we are doing at this time: "As part of preparing the U.S. public for the arrival of the ShakeAlert EEW system, it is essential that emergency managers and others provide earthquake safety education and training based on preparedness actions that make sense when an EEW message has been received, with some amount of time before ground shaking begins, as opposed to protective actions that are appropriate once shaking has begun. The majority of research and analysis conducted thus far about earthquake protective actions assumes the latter". *and*

"To help guide emergency managers in their support of ShakeAlert, existing research must be assessed for its appropriateness in an EEW context, and additional research needed to fill critical gaps in light of EEW implementation should be identified and conducted. In addition, crucial to this effort is having a clear understanding of the evidence base for recommending different protective actions in various settings, including whether support is based on research findings, expert opinion, or simply on informed practice".

I find this dissonance in acknowledging on the one hand the inadequacy of applicable research and yet recommending against evacuation as a potential protective action particularly notable given the excellent observation you make that speaks to the need for situational awareness and the need for actions that take in the reality of diverse situations and locational contexts. For example, under the section on "Situational Awareness", you include the following: "... different building characteristics (e.g., adobe or reinforced masonry) may warrant different guidance, such as evacuation or drop, cover, and hold on. Likewise, the extra seconds now afforded by EEW significantly expands the number of different actions individuals have an opportunity to perform before shaking begins (Burkett et al., 2014). Based on this variability, GHI concluded that people should understand and assess the hazards posed by their geographic location and physical surroundings. This type of pre-event assessment can help people develop situational awareness, that is, an understanding of the things that can harm the individual in an earthquake, and the best ways to stay safe in the individual's earthquake scenario. Specifically, emergency managers and other message providers should encourage people to develop situational awareness by learning basic earthquake safety principles, becoming more aware of their environment, and using their judgment to determine the best course of action to take in a given situation (GeoHazards International, 2015b, pp. 5-6, 20)".

To emphasize the importance of the concept above, and then to definitively <u>not</u> recommend evacuation in conjunction with an early warning system, seems incongruous. At the very least, it would seem that a statement to the effect that current research and recommendations derived from non-EEW systems are only marginally applicable at best would be an appropriate addition. This is especially the case considering your statements under "Future Research", in which you state:

"... existing research examining protective actions taken in response to the onset of earthquake shaking should be studied under EEW conditions, when warning is provided and there is time to take action before shaking begins". and

"...more rigorous research should be conducted on the protective actions individuals with advance notice have or have not taken, and how those actions have reduced the earthquake's impact".

In my opinion, this statement, and the one above it, should have precluded any definitive recommendation to not support evacuation as a potential protective action, since that recommendation is based on a lack of applicable research and current (non-EEW) recommendations. In fact, in several of your recommendations in subject areas in which adequate and appropriate research does not exist, the recommendations use wording such as the following:

"...based on...logic and on indirect evidence..."

and

"based on...common sense..."

Introducing the concepts of logic and common sense in several of these recommendations is appropriate. Unfortunately, to not include in the recommendation regarding evacuation an acknowledgement that logic and common sense will most likely, for many members of the public, dictate the evacuation of unsafe buildings when given 30, 45, or more seconds of warning, is not. We need to admit that the advent of an EEW capability complicates the message of drop, cover, and hold on, and that messaging simplicity is a major victim of this game-changing technology. In the future, notwithstanding the recommendation in this paper, it is likely that sheltering in place and evacuation will be accepted options for people, depending on their situations. As the GeoHazards document you cite states (page 5): "No single action is appropriate in all locations".

and, more explicitly (page 22),

"...the International Federation of Red Cross and Red Crescent Society's (IFRC) recent key messages document recommends evacuation of those inside single story adobe buildings with heavy roofs, and Drop, Cover, and Hold On in all other buildings."

Nuanced messaging is possible – it works in other places, it needs to be considered.

In the same GeoHazards document quoted above, there is a chart that sums up recommendations of protective actions, describing under which circumstances they would be more and less effective. For building evacuation, it states that this protective action is most likely to be effective in:

...a few areas, such as Mexico City, with early warning systems and long times between the remote fault rupture and commencement of strong shaking".

It also states that drop, cove, and hold on is likely to be ineffective:

"inside a building very likely to collapse".

Seeing as our built environment in Oregon, in which the vast majority of buildings were constructed prior to the seismic upgrade of the building codes in the early 1990s, shares some similarities with Mexico, then this is an important distinction. Yet the existence of pros and

cons around the two protective actions did not influence the evacuation recommendation. Nor did statements like this, again from the GeoHazards document (page 21):

"When buildings collapse, those who are able to move without falling, and who exit without being struck by falling or sliding objects on the way out or outside, may avoid death or injury due to building collapse."

Finally, there is the statement in the recommendation under **11. Move to Higher Ground or Inland (Evacuate)**, in which you state:

"EEW may provide opportunity to move to higher ground prior to earthquake shaking. Future research on the issues surrounding this protective action is critical."

Isn't opening the possibility that evacuation would be an appropriate protective action during the alert time of an earthquake on the coast reason enough to provide an equal measure of open mindedness on evacuation further inland? If the hazard of a tsunami is reason enough to state that evacuation may be appropriate, then why isn't the danger of being killed or injured in the collapse of a structurally compromised building equally so?

In conclusion, I believe that a prescriptive stance on evacuation at this time is unsupported. I fear that should it continue without due consideration it will undermine public confidence in the recommendations provided by federal and state emergency management. The GeoHazards document (page 23) explicitly warns against endorsing "uncritical adoption of messages across regions". In addition, the fact that the recommendation is clearly negative about evacuation, citing the FEMA draft as its major rationale, is somewhat problematic in itself, as the FEMA document is described in the text as follows:

"Although the FEMA report is extensive in scope, it does not explicitly address the need for protective action guidance in the context of EEW. The authors of this white paper encourage FEMA to reorganize the report in future revisions and present findings in a way that specifically identifies protective actions that could apply to EEW."

Again, relying so heavily on the FEMA document in the rationale for not recommending evacuation appears to be questionable, especially since there was information that more clearly addressed the reality of evacuation as a protective action. The GeoHazards document, for example, clearly states that evacuation is an official and/or heavily practiced protective action in several counties, with or without EEW systems; that fact, and the lack of definitive information contrary to evacuation being a potential strategy in an EEW environment, should have been reason enough to significantly soften the recommendation to at least one of "further consideration needed."

I think it is important to state that no one I am aware of who is looking at evacuation as an appropriate protective action is stating that it should replace drop, cover, and hold on in all circumstances, nor are they saying that we should institute evacuation right now in our non-EEW environment. Evacuation will work best as an option once ShakeAlert is ubiquitous, but now is the time to discuss it openly and without preconception.

Custo Name	I nvoice Number	I nvoice Date	Due Date	Current	1 - 30 Days Past Due	31 - 60 Days Past Due	61 - 90 Days Past Due	Over 90 Days Past Due	Total	Invoice Description
AARP Oregon	20-1834	1/29/2020	2/28/2020	695.00	0.00	0.00	0.00	0.00	695.00	Builders Associatio Southern Oregon 2020 Southern Oregon Home Shov
Total AARP Oregon				695.00	0.00	0.00	0.00	0.00	695.00	
AllCare Health - CLAIMS	20-1823	1/8/2020	2/7/2020	0.00	324.36	0.00	0.00	0.00	324.36	DECEMBER 2019 3 Meals @ \$9.54 per Meal
	20-1867	2/12/2020	3/13/2020	248.04	0.00	0.00	0.00	0.00	248.04	1/8/2020 - 2/3/20 26 Meals at \$9.54 per Meal
Total AllCare Health - CLAIMS				248.04	324.36	0.00	0.00	0.00	572.40	
AllCare Health FINANCE	20-1738	11/21/2019	12/21/2019	0.00	0.00	181.26	0.00	0.00	181.26	Meals October 22, 2019 - November 12, 2019
	20-1779	12/19/2019	1/18/2020	0.00	0.00	448.38	0.00	0.00	448.38	Medicare Adv Nov Meals
Total AllCare Health FINANCE				0.00	0.00	629.64	0.00	0.00	629.64	
City of Ashland	20-1839	1/31/2020	3/1/2020	348.00	0.00	0.00	0.00	0.00	348.00	TAP Utilities - December 2019
	20-1847	2/5/2020	3/6/2020	53.00	0.00	0.00	0.00	0.00	53.00	TAP Financial Services DECEMBE 2019

Aged Receivables by Due Date Aging Date - 2/19/2020 From 7/1/2019 Through 2/29/2020

Custo Name	I nvoice Number	I nvoice Date	Due Date	Current	1 - 30 Days Past Due	31 - 60 Days Past Due	61 - 90 Days Past Due	Over 90 Days Past Due	Total	Invoice Description
	20-1856	2/7/2020	3/8/2020	496.25	0.00	0.00	0.00	0.00	496.25	Stormwater Assessment Octobe - December 2019
Total City of Ashland				897.25	0.00	0.00	0.00	0.00	897.25	
City of Central Point	20-1858	2/7/2020	3/8/2020	2,935.74	0.00	0.00	0.00	0.00	2,935.74	Stormwater Assessment Octobe - December 2019
Total City of Central Point				2,935.74	0.00	0.00	0.00	0.00	2,935.74	
City of Eagle Point	20-1849	2/5/2020	3/6/2020	224.95	0.00	0.00	0.00	0.00	224.95	Digital Maps, Cartegraph Conf C; City Comp Designation City Z(
Total City of Eagle Point				224.95	0.00	0.00	0.00	0.00	224.95	
City of Jackson	20-1826	1/28/2020	2/27/2020	10,000.00	0.00	0.00	0.00	0.00	10,000.00	Food & Friends Budget Allocation f the Fiscal Year 2019/2020
	20-1851	2/5/2020	3/6/2020	89.98	0.00	0.00	0.00	0.00	89.98	Street Vacation Ma & Analysis - Octobe 2019 Ian Foster/Ryan Nolan
Total City of				10,089.98	0.00	0.00	0.00	0.00	10,089.98	

Jackson...

Custo Name	I nvoice Number	I nvoice Date	Due Date	Current	1 - 30 Days Past Due	31 - 60 Days Past Due	61 - 90 Days Past Due	Over 90 Days Past Due	Total	Invoice Description
City of Medford	20-1857	2/7/2020	3/8/2020	1,553.78	0.00	0.00	0.00	0.00	1,553.78	Stormwater Assessment Octobe - December 2019
	20-1866	2/12/2020	3/13/2020	620.37	0.00	0.00	0.00	0.00	620.37	Restoration Project July - December 2019 FINAL INVOI
	20-1869	2/13/2020	3/14/2020	27.00	0.00	0.00	0.00	0.00	27.00	Laminated Salmon Life cycle Poster
Total City of Medford				2,201.15	0.00	0.00	0.00	0.00	2,201.15	
City of Phoenix	20-1841	1/31/2020	3/1/2020	9,761.27	0.00	0.00	0.00	0.00	9,761.27	TAP Utilities - December 2019
	20-1853	2/5/2020	3/6/2020	53.01	0.00	0.00	0.00	0.00	53.01	TAP Financial Servi DECEMBER 2019
Total City of Phoenix				9,814.28	0.00	0.00	0.00	0.00	9,814.28	
City of Rogue River	20-1826	1/28/2020	2/27/2020	3,000.00	0.00	0.00	0.00	0.00	3,000.00	Food & Friends Budget Allocation f the Fiscal Year 2019/2020
	20-1850	2/5/2020	3/6/2020	112.48	0.00	0.00	0.00	0.00	112.48	ArcOnline Set-up & Training Oct 2019
Total City of Rogue River				3,112.48	0.00	0.00	0.00	0.00	3,112.48	
City of Talent	20-1840	1/31/2020	3/1/2020	12,922.94	0.00	0.00	0.00	0.00	12,922.94	TAP Utilities - December 2019
	20-1849	2/5/2020	3/6/2020	53.00	0.00	0.00	0.00	0.00	53.00	TAP Financial Services DECEMBE 2019

Custo Name	I nvoice Number	I nvoice Date	Due Date	Current	1 - 30 Days Past Due	31 - 60 Days Past Due	61 - 90 Days Past Due	Over 90 Days Past Due	Total	Invoice Description
Total City of Talent				12,975.94	0.00	0.00	0.00	0.00	12,975.94	
Jackson County Mental Health	20-1855	2/5/2020	3/6/2020	2,281.00	0.00	0.00	0.00	0.00	2,281.00	Foster Residential Care FEBRUARY 20
Total Jackson County Mental Health				2,281.00	0.00	0.00	0.00	0.00	2,281.00	
Jackson Soil & Water	20-1870	2/13/2020	3/14/2020	27.00	0.00	0.00	0.00	0.00	27.00	Salmon Life Cycle Poster
Total Jackson Soil & Water				27.00	0.00	0.00	0.00	0.00	27.00	
Medford Water Commis	20-1838	2/6/2020	3/7/2020	27.00	0.00	0.00	0.00	0.00	27.00	Salmon Life Cycle Poster - Education Programs - Bear Creek
Total Medford Water Commis				27.00	0.00	0.00	0.00	0.00	27.00	
Multnom Co Aging, Disab, & Veteran	20-1835	1/30/2020	2/29/2020	8,234.24	0.00	0.00	0.00	0.00	8,234.24	December 2019 Veteran Directed Care Program

Custo Name	I nvoice Number	I nvoice Date	Due Date	Current	1 - 30 Days Past Due	31 - 60 Days Past Due	61 - 90 Days Past Due	Over 90 Days Past Due	Total	Invoice Description
	20-1868	2/13/2020	3/14/2020	8,545.18	0.00	0.00	0.00	0.00	8,545.18	ADVS Funds Reque Veteran Directed Care Program January 2020
Total Multnom Co Aging, Disab, & Veteran				16,779.42	0.00	0.00	0.00	0.00	16,779.42	
Northrid Center	20-1878	1/1/2020	1/1/2020	0.00	0.00	1,350.00	0.00	0.00	1,350.00	Josephine County Senior Resource Center Lease Janua 2020
	20-1879	2/1/2020	2/1/2020	0.00	1,350.00	0.00	0.00	0.00	1,350.00	Josephine County Senior Resource Center Lease February 2020
Total Northrid Center				0.00	1,350.00	1,350.00	0.00	0.00	2,700.00	
ODOT - CMAQ	20-1810	1/9/2020	2/8/2020	0.00	106.67	0.00	0.00	0.00	106.67	RVMPO CMAQ DECEMBER 2019
Total ODOT - CMAQ				0.00	106.67	0.00	0.00	0.00	106.67	
ODOT - MPO	20-1781	12/19/2019	1/18/2020	0.00	0.00	2,170.41	0.00	0.00	2,170.41	Agreement #2910: July - November 20
	20-1845	1/31/2020	3/1/2020	13,384.55	0.00	0.00	0.00	0.00	13,384.55	RVMPO 130-PL FUNDS DECEMBER 2019

Custo Name	I nvoice Number	I nvoice Date	Due Date	Current	1 - 30 Days Past Due	31 - 60 Days Past Due	61 - 90 Days Past Due	Over 90 Days Past Due	Total	Invoice Description
	20-1846	1/31/2020	3/1/2020	4,341.06	0.00	0.00	0.00	0.00	4,341.06	RVMPO 235-FTA FUNDS DECEMBER 2019
	20-1847	1/31/2020	3/1/2020	13,254.08	0.00	0.00	0.00	0.00	13,254.08	MRMPO 133-PL FUNDS DECEMBER 2019
	20-1848	1/31/2020	3/1/2020	4,843.18	0.00	0.00	0.00	0.00	4,843.18	MRMPO 233-FTA FUNDS DECEMBER 2019
Total ODOT - MPO				35,822.87	0.00	2,170.41	0.00	0.00	37,993.28	
ODOT - Region 3	20-1833	1/28/2020	2/27/2020	2,227.50	0.00	0.00	0.00	0.00	2,227.50	Plants for Peninger Fire Area East Side of Bear Creek
Total ODOT - Region 3				2,227.50	0.00	0.00	0.00	0.00	2,227.50	
Rogue Valley Sewer Services	20-1859	2/7/2020	3/8/2020	350.14	0.00	0.00	0.00	0.00	350.14	Stormwater Assessment Octobe - December 2019
Total Rogue Valley Sewer Services				350.14	0.00	0.00	0.00	0.00	350.14	
Seniors People With Disabiliti	19-1525	6/30/2019	10/15/2019	0.00	0.00	0.00	0.00	556.93	556.93	ADRC NWD Adjustment JUNE 2019

Custo Name	I nvoice Number	I nvoice Date	Due Date	Current	1 - 30 Days Past Due	31 - 60 Days Past Due	61 - 90 Days Past Due	Over 90 Days Past Due	Total	Invoice Description
Total Seniors People With Disabiliti				0.00	0.00	0.00	0.00	556.93	556.93	
SOREDI	20-1770	12/5/2019	1/4/2020	0.00	0.00	231.23	0.00	0.00	231.23	NOVEMBER 2019 January 2018 LifeMap Insurance Premium
Total SOREDI				0.00	0.00	231.23	0.00	0.00	231.23	
Talent Urban Renewal Agency	20-1871	2/13/2020	3/14/2020	1,861.06	0.00	0.00	0.00	0.00	1,861.06	Executive Director Recruiment Project December 2019 & January 2020
Total Talent Urban Renewal Agency				1,861.06	0.00	0.00	0.00	0.00	1,861.06	
Team Senior Referral Services, Inc.	20-1874	3/1/2020	3/1/2020	(603.20)	0.00	0.00	0.00	0.00	(603.20)	Josephine County Senior Resource Center Monthly Lea March 2020
	20-1875	4/1/2020	4/1/2020	(603.20)	0.00	0.00	0.00	0.00	(603.20)	Josephine County Senior Resource Center Monthly Lea April 2020

Custo Name	Invoice Number	I nvoice Date	Due Date	Current	1 - 30 Days Past Due	31 - 60 Days Past Due	61 - 90 Days Past Due	Over 90 Days Past Due	Total	Invoice Description
Total Team Senior Referral Services, Inc.				(1,206.40)	0.00	0.00	0.00	0.00	(1,206.40)	
US Dept of Housing & Urban Dev	20-1854	2/5/2020	3/6/2020	3,524.61	0.00	0.00	0.00	0.00	3,524.61	HUD - DECEMBER 2019
Total US Dept of Housing & Urban Dev				3,524.61	0.00	0.00	0.00	0.00	3,524.61	
Report Total				104,889.01	1,781.03	4,381.28	0.00	556.93	111,608.25	

Rogue Valley Council of Governments Balance Sheet As of 12/31/2019

	Current Year To Date
Assets and Other Debits	
Current Assets	
Cash and Cash Equivalents	1,217,476.97
Investments	395,229.78
Accounts Receivable	941,082.27
Due From Other Funds	2,267,064.92
Prepaid Expenses	5,401.71
Total Current Assets	4,826,255.65
Other Debits	
Fixed Assets	2,212,659.42
Total Other Debits	2,212,659.42
Total Assets and Other Debits	7,038,915.07
Liabilities, Fund Equity and Other Credits	
Current Liabilities	
Accounts Payable	376,443.82
Payroll Payable	320,569.87
Due To Other Funds	2,853,678.86
Total Current Liabilities	3,550,692.55
Non-Current Liabilities	
Deposits Held for Others	382,941.92
Compensated Absences Payable	402,990.03
Total Non-Current Liabilities	785,931.95
Fund Equities and Other Credits:	
Contributed Capital	162,735.24
Beginning Fund Balance	2,930,350.84
Net Increase (Decrease) In Fund Balance	(390,795.51)
Total Fund Equities and Other Credits:	2,702,290.57
Total Liabilities, Fund Equity and Other Credits	7,038,915.07

Rogue Valley Council of Governments Statement of Revenues and Expenditures From 12/1/2019 Through 12/31/2019 (In Whole Numbers)

	Current Period Actual	Year To Date Actual	Annual Budget	Budget Variance
Revenues Less Expenditures				
Revenues				
Member Dues	0	86,673	86,672	1
Other Local Government	123,554	454,388	768,852	(314,465)
Federal and State Grants and Contracts	665,072	2,550,389	5,138,786	(2,588,397)
Donations	29,345	142,204	293,800	(151,596)
Charges for Services	30,090	311,649	555,869	(244,220)
Other Revenues	8,150	84,229	769,712	(685,483)
Indirect Charges	27,677	181,775	392,488	(210,713)
Departmental Administration Allocation	0	0	24,000	(24,000)
Interfund Revenues	1,726	9,905	665,718	(655,814)
Beginning Fund Balance	0	0	80,553	(80,553)
Total Revenues	885,614	3,821,211	8,776,451	(4,955,241)
Expenditures				
Salaries and Wages	(191,876)	(1,135,124)	(1,986,202)	851,078
Employee Benefits	(133,340)	(801,276)	(2,048,202)	1,246,926
Materials and Supplies	(10,938)	(90,622)	(159,364)	68,742
Purchased Services	(246,585)	(1,352,981)	(2,930,843)	1,577,862
Other Expenses	(4,112)	(42,041)	(202,780)	160,739
Capital Outlay	(63,554)	(273,052)	0	(273,052)
Operating Contingency	0	0	(275,512)	275,512
Indirect Charges	(27,677)	(181,775)	(392,488)	210,713
Departmental Administration Allocation	(1,695)	(10,532)	(24,000)	13,467
Interfund Charges	(50,054)	(321,528)	(665,719)	344,191
Depreciation	(566)	(3,075)	(81,278)	78,203
Ending Fund Balance	0	0	(10,063)	10,063
Total Expenditures	(730,398)	(4,212,006)	(8,776,452)	4,564,445
Total Revenues Less Expenditures	155,216	(390,796)	(0)	(390,795)