Aurora Airport Resiliency Plan

Prepared by:

Aurora Airport Improvement Association
14497 Keil Road
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- *"Resiliency to disasters means a locale can withstand an extreme natural event with a tolerable level of losses."* Dennis S. Mileti, *Disasters by Design*, American Academy of Sciences Report, 1999.

Resiliency Plan Introduction

This Aurora Airport Resiliency Plan provides detailed description and background concerning the enormous assets that the Aurora Airport and immediate surrounding properties can or will be providing to Marion County, the State of Oregon, and the NW region following any major environmental disaster. This is especially true for "the big one" – the Cascadia Event earthquake.

When other primary transportation modes – roads and rail lines – are disrupted by landslides, broken pavement, and unusable bridges, it will be air transportation that is essential in the delivery of supplies, and medical help. During those times air transportation will also provide the transportation for workers equipment to repair bridges, major power lines, gas pipe lines, and other basic infrastructure. Thus, as will be explained in this plan, the Aurora Airport will play a major role in the recovery of the north Marion County area, as well as parts of southwestern Clackamas and Multnomah Counties. Aurora Airport may turn out to be the closest operational airport even to large parts of the City of Portland. It will become one of the primary logistical hubs to support response and recovery periods that follow an event.

Much attention is given to the possibility of an 8.0-9.0 magnitude Cascadia Subduction Zone (CSZ) earthquake occurring in the Pacific Northwest, along the CSZ fault line, which stretches from southern British Columbia to northern California. History has shown, and scientists confirm, this quake occurs, on average, once every 200 to 500 years. The last major CSZ earthquake and tsunami occurred in 1700. Geologists say that most of the intervals between these events have been less than the 310 years since the last one. So it is not a matter of if, but of when.

The danger of these large CSZ earthquakes has been known for some time, but it is only recently that citizens are taking it seriously. Probably the most important document that changed

people's thinking on this was the 2015 New Yorker article titled The Really Big One[1] by Kathryn Schulz. In that article, the director of FEMA's Region X (the division responsible for Oregon), is quoted as saying:

"Our operating assumption is that everything west of Interstate 5 will be toast."

That shocking statement got the Oregon public's attention in a big way. The public interest generated support for the Governors and Legislatures in Oregon, Washington, British Columbia, and California to begin major disaster planning for this CSZ event in earnest.

Aurora Airport is just a little east of Interstate 5, so by FEMA's view, does that mean it won't be "toast?" Of course not; but there are a whole bunch of reasons why Aurora Airport is expected to not only survive the event, but will likely actually remain operational.

Equally important to the Willamette Valley region, Aurora Aiport will be a particularly important airport to provide disaster services for the region, following "the really big one," due to the major aviation and infrastructure services it provides on a day-to-day basis. These will be essential services after the seismic event. This paper describes the detail of those essential services, and establishes next steps for making the Aurora Airport even more resilient as a lifesaving tour de force for the Willamette Valley region, following the seismic event.

[1] https://www.newyorker.com/magazine/2015/07/20/the-really-big-one

1.0 Existing Airport Infrastructure and Its Basic Resilience

- *"Sustainability means that a locality can tolerate – and overcome – damage, diminished productivity, and reduced quality of life from an extreme event without significant outside assistance,"* Dennis S. Mileti, *Disasters by Design*, American Academy of Sciences Report, 1999.

1.01 War Effort Federally Funded Original Heavy-duty Infrastructure

Aurora Airport was constructed in 1943, during World War II by the United States Army Air Forces. At that point in the war the outcome was still in serious question. Just a year prior, a Japanese submarine along the south Oregon coast had launched a floatplane that had dropped incendiary bombs inland, trying to start major forest fires. Another Japanese submarine had fired shells at Fort Stevens near Astoria. It was recognized by the Federal government that there was an essential need to be able to patrol and defend the West Coast with military aircraft from numerous locations in western Oregon. Aurora Airport was constructed and during its initial period was used for patrolling the coast, looking for enemy ships and aircraft, and for pilot training.

Aurora Airport from its beginning, represents a major investment of public tax dollars, to create essential public infrastructure. As a military airport, Aurora Airport was designed, and construction specified, using the standard military criteria of that era. It was established as a 150 foot wide by 4,104 foot long runway. The asphalt pavement was built upon a very thick, heavy gravel base, designed to accommodate the loads of military aircraft. This included the ability to handle medium and heavy bombers such as B-25, B-26, B-17, B-24 and cargo aircraft such as C-45, C46, and C-54.

1.02 Federal Aviation Trust Fund Continued with Solid Infrastructure Improvements

Following the war, Aurora Airport was managed by the United States Bureau of Public Roads. In 1953 the State of Oregon Highways Division then became the operator of the Airport. In 1973 ownership was transferred to the Aeronautics Division. From this point forward most funding has come from the Federal Aviation Administration (FAA) through their Aviation Trust Fund that is created from taxes on aviation fuel. The first FAA Airport Master Plan was prepared in 1976, followed by major improvements in 1977-78, which included construction of a parallel taxiway, installation of a rotating beacon, runway reconstruction and a narrowing of it from 150 feet to 100 feet, runway lighting, and tiedown apron construction.

The1976 Plan identified the need for an air traffic control tower and a runway extension to a full 6,000 feet. In 1995, the runway was lengthened from 4,104 feet to 5,004 feet, and the FAA installed (and to this day maintains) a non-precision Localizer Landing System instrument for Runway 17. In 2001 the Aurora Airport Water Control District was formed to create a fire protection water system for the airport. The water district put in water storage tanks, a pump

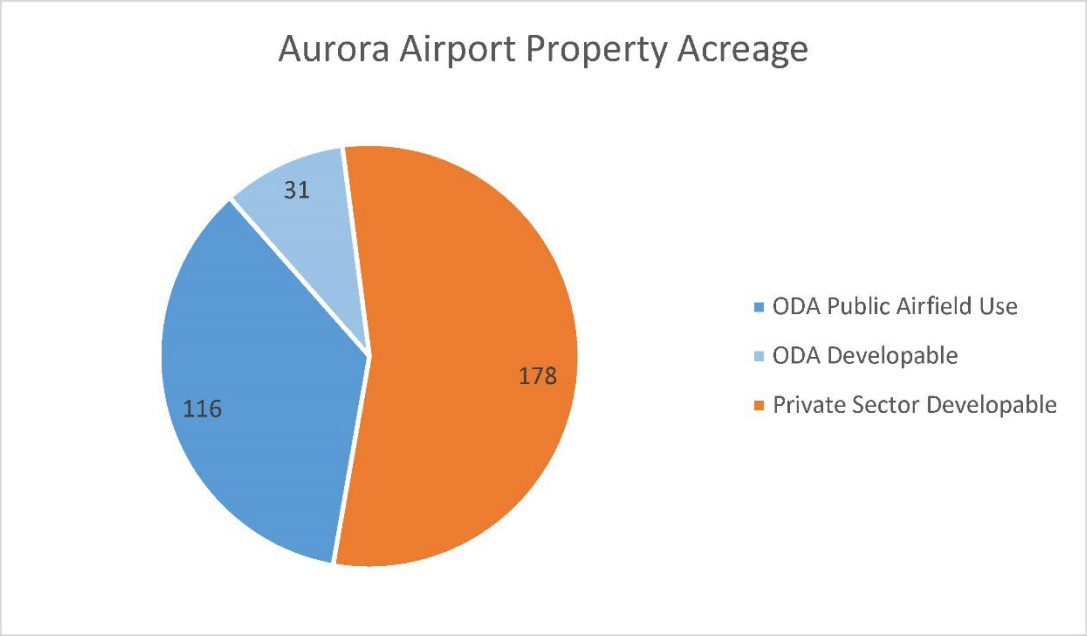
house, and a fire hydrant system that serves the developable lands of the airport. The same system provides water for fire sprinklers in the hangars, as required by the state fire marshal.

In 2004, the runway was reconstructed and in 2009, the parallel taxiway was relocated to meet FAA's design standard for runway-taxiway centerline separation. The 2012 Airport Master Plan Update confirmed the need for construction of a control tower and extension of the runway to the planned 6,000 feet as had previous updates called for. In 2015 a control tower was constructed and became operational. The runway extension is scheduled to have its environmental assessment study performed in 2022 and construction to occur in the following two years.

Virtually all of these airport improvements continue to be funded mostly with federal funds that come from a tax on aviation fuel. Thus, the airport improvements costs do not take any funds from schools, social programs, or other general fund tax sources. They are entirely funded by funds created by the aviation industry itself – thus a tax on itself.

1.03 Resiliency from a Unique Public-Private Partnership

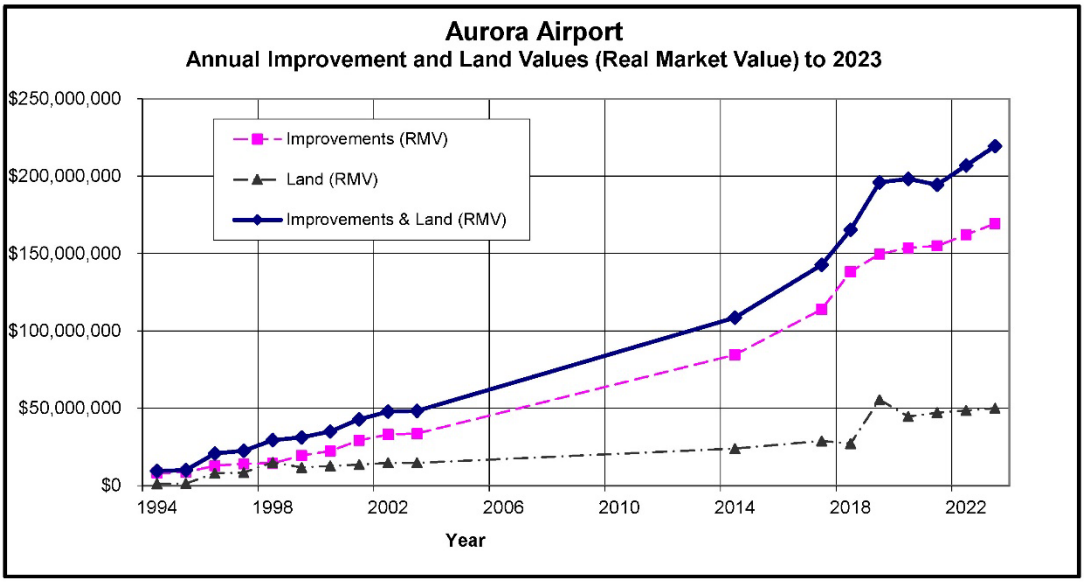
Aurora Airport has a unique resiliency, in that more than half of its land is privately owned and thus functions as a unique public-private partnership. Of the overall approximately 325 acres of airport-use property, the State of Oregon owns 45% (147 acres) and private sector owns 55% (178 acres). Of the state's 147 acres approximately 116 acres are for aircraft operations areas of runway, taxiway, and clear zones, while 31 acres are developable for aircraft tiedowns and hangars. The pie chart below shows this graphically.



The total area available for development of aircraft tie-downs, hangars, internal taxilanes, internal vehicular roads, parking, and other uses is approximately 154 acres, of which 20% (31 acres) is on public land and 80% (123 acres[2]) is on private land.

The availability of private land with access to a public airport creates a great benefit for the creation of aviation-related jobs for a community. This is because the business community can invest in buildings and equipment on private land though normal financing methods that are not available on leased land. In 2005, the Oregon Legislature recognized the unique ability of airports to create jobs in a community, and named Aurora Airport as one of three airports in Senate Bill 680, which encouraged this type of community partnership between the public and private sectors.

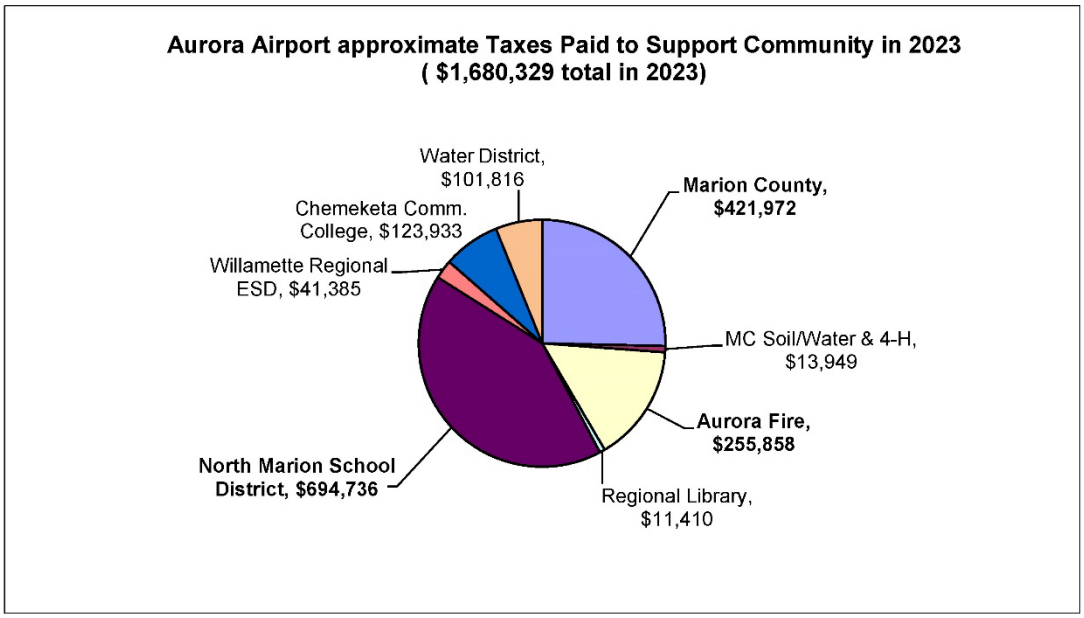
Aurora Airport is the model airport for this kind of economic development effort that is possible. Marion County tax records show that businesses at Aurora Airport now have an investment of approximately $216 million in facilities.[3]



These facilities not only provide airport services essential for the aviation industry. They also provide a return to the community in the form of jobs and taxes. Tax records show that the airport development property tax base provides an annual payment of over $1.68 million in per year to local schools, police, fire, and county government agencies. Next year this will undoubtedly rise even further.

[2] Note that a portion of the "developable" public and private properties facing the runway or runway approaches has some restrictions to development due to required airspace clearances and/or are usable only for aircraft tiedown and cannot have buildings.

[3] Note this value does not include the development costs of the runway and taxiway, or of internal public roads which if constructed from scratch likely have a construction value of at least $100,000,000.



Equally import, the approximately 1,000+ highly skilled mechanics, pilots, medics, aircraft designers, and aviation-related innovators who are employed by the aviation businesses at the airport, provide an income tax base that further supports all state and local government services.

The public-private partnership is an important component of the resiliency of Aurora Airport, because it shows the strong economic connection between the airport and the community, in providing jobs and tax support. It means that following a natural disaster, the human component of the airport will be ready and able to carry on the important work of disaster recovery. The importance of public-private partnerships in disaster recovery is well documented in the paper: *Achieving Resilience in Disaster Management: The Role of Public-Private Partnerships*.[4]

As will be seen in a following section of this report, the aviation businesses who chose to invest and grow at the airport, are ones that by their nature are important to providing the services needed during a seismic event or other natural disaster. These businesses are here to stay, because they are owners of their facilities. They are part of the community.

1.04 Resiliency provided by the Soils Underlying the Airport

Three recent detailed geotechnical studies on the soils around the Aurora Airport, show that the soils are not prone to significant liquefaction during an earthquake. Each of these studies were

[4] Nathan E. Busch and Austen D. Givens, *Achieving Resilience in Disaster Management: The Role of Public-Private Parnerships*, Journal of Strategic Security, Volume 6 Number 2, 2013. https://scholarcommons.usf.edu/cgi/viewcontent.cgi?article=1231&context=jss

performed by drilling approximately 100 feet down and studying the soil profiles. In each case a second cone penetration test was performed to approximately 100 feet deep. These studies established that:

> *"Our analysis indicates that total post-liquefaction settlement at the existing ground surface will be negligible during a design-level earthquake."*

This means that it is highly likely that the pavement of the runway, taxiways, aircraft aprons, and vehicular roads will be fully functional after an earthquake. For the airport buildings, which have heavy loads on their footings, the reports predict an approximate one-half inch of differential settlement. This is a remarkably small amount of settlement, and indicates that for buildings designed using current structural codes, they too will likely be fully functional following an earthquake.

1.05 Resiliency based on demonstrated Runway Load Capacity

The Aurora Airport runway was originally constructed as a military airport, with a strong rock base. The rock base forms the essential backbone for the runway, and military planners know this. Thus, they start with an exceptional rock base design, knowing that the pavement can always be repaired, added to, and otherwise improved, but the base cannot easily be redone.

From the above geotechnical information, we know that the underlying soil also has a remarkable stability. In 2019, a geotechnical study using falling weight deflectometer (FWD) testing, core explorations, and engineering analyses was conducted in accordance with FAA Advisory Circular 150/5335-5C, *Standardized Method of Reporting Airport Pavement Strength – PCN*. Using that FAA methodology, it determined that the runway is capable of being regularly used with single wheel main gear loads of 102,000 pounds or dual wheel main gear loads of 145,000 pounds.

Since the runway was originally designed to military standards, this should be expected. It indicates that during disaster recovery work, typical medium weight military cargo aircraft that meet these weight limitations can use the runway.

1.06 Resiliency based on available Control Tower

Good communications systems are essential during disaster recovery periods. The FAA Control Tower was installed in 2015 ensures that Aurora Airport has a direct linkage to the larger FAA airspace control system, in addition to the normal ability to use aviation frequencies to communicate with aircraft in the air approaching the airport, and on the ground for coordination during taxiing operations. The control tower does have an emergency generator system, so can remain functional during power outages.

1.07 Resiliency based on access to I-5

Aurora Airport is located a 3 minute drive from the I-5 Exit 278 ramp. Thus, the airport is strategically located to coordinate with vehicular traffic once I-5 is operational following a regional disaster.

1.08 Resiliency lacking for Runway Lights and Electrical Service

Aurora Airport has a medium intensity runway and taxiway lighting system, an airport rotating beacon, and includes an Omni-Directional Approach Lighting (ODAL) system for instrument approaches to Runway 17. These are appropriate for an airport that that is intended to provide resiliency services following a major earthquake event. However, none of these lighting systems have emergency generator power, which will need to be remedied in future resiliency upgrades. It is noted than the FAA Localizer for Runway 17 also does not have emergency power.

The service provider to Aurora Airport is PGE. AIAA is working with PGE and has determined power lines feed the airport come from multiple directions, which can be important when power is disrupted as with addition of appropriate power line switches it can allow power availability from one direction to Aurora Airport while the other direction is out of service. AAIA is currently exploring resiliency methodologies of backup power for parts, if not all of the airport. These include, but are not limited to, solar, fossil fueled generation, and battery backup systems.

1.09 Resiliency lacking for Building and Facilities Electrical Service

The existing buildings, hangars, fuel systems, and other facilities at the airport do not have emergency generators. AAIA is developing a plan for having all airport buildings provided with manual transfer switches and standardized plugs to be added to each building. This will make all buildings have the capability of connecting to a mobile generator or adding a generator during/after an event It is important to realize some buildings may be re-purposed and thus for some things an empty building is more valuable than a full one. Several owners of significant hangars on the airport have indicated their willingness to share space for aviation operations and logistical support.

As a phase two of this work, the AAIA is considering acquiring and maintaining a collection of generators that can be used at particular buildings on an as-needed basis. A plan will be developed for how to quickly bring in additional generators from other parts of the country, so that all facilities have emergency power capability.

1.10 Summary of Existing Infrastructure Resiliency

The exceptional resiliency of the existing Aurora Airport infrastructure comes first from its excellent soils and from its origin as a military airport from World War II era. The airport has continued to have major upgrades of an initial 1,000 foot runway extension, along with a well-constructed parallel taxiway, lights, and an FAA control tower, all funded largely by FAA grants from the dedicated airport trust fund. A future 1,000-foot runway extension is approved by the

state and FAA per the 2012 Master Plan and is awaiting final environmental review and construction – both expected to be completed in the next three to five years.

The airport is a mixture of public and privately owned lands. This has promoted major investment in aviation facilities at the airport, which has resulted in major aviation service, maintenance, and repair capabilities being available. As a community resource, the airport also provides important tax base for public schools and government agencies. As such, it has a particularly strong positive relationship with the larger community, and is an important partner.

The runway has good strength for cargo and other aircraft that would need to use the airport as part of disaster recovery efforts. Geotechnical studies show that the airport is likely to be fully functional following a major earthquake, as there will be negligible settlement due to liquefaction. The one major weakness of the existing infrastructure is that only the control tower has emergency generator power. Future resiliency upgrade plans should focus on adding emergency power to the airfield lights and localizer. Plans for developing emergency power capability for the fuel systems and buildings at the airport, is also part of the planning effort for improved Aurora Airport sustainability.

2.0 The Airport Businesses that will help in Regional Recovery and their Capabilities and Resources

- *Building and maintaining partnerships is one of the primary strategies FEMA identifies for implementing the Whole Community Framework. Partnerships that include the public and private sectors have the potential to enhance the efficiency and effectiveness of efforts undertaken by individual firms and public agencies. Working together, partners can advance new efforts that build on the unique knowledge and capabilities present among actors from the public and private sectors.* Southeast Disaster Recovery Partnership & NOAA, *For the Long Haul: Public-Private Partnerships for Long-Term Disaster Recovery, 2018*.

2.01 Introduction

The Aurora Airport public-private partnership has created a setting where major aviation-related business can own their land and facilities, which allows them to make much bigger investments in their facility needs, than can occur on leased land. This is because in lieu of the investment value going to zero as the end of the 10, 20, or 30 year lease period ends, the value of the property and development increases over time. This also promotes a business to keep maintaining and investing in upgrades to its facilities, keeping it at the cutting edge of innovation and competitiveness on the world market.

2.02 Heavy Lift Helicopters & Roles in Disaster

Aurora Airport is a major headquarters and base of operations for the three largest heavy lift helicopter companies in the United States: Columbia Helicopters, Helicopter Transport Services (HTS), and Erickson. For Columbia and HTS these are the world headquarters, and their helicopters provide services to every continent of the world. These three companies will be providing essential supply transportation services following a major seismic event. Since their maintenance facilities are at the airport – Aurora Airport will remain their base of operations. This will provide essential sustainability to the Willamette Valley regions that are around the airport.

2.03 Medivac & Role in Disaster

Aurora Airport is the national headquarters for Life Flight Network, the principal emergency air medical service for the northwest United States region. Their service area includes Oregon and large parts of Washington, Idaho, and Montana. Their services will be critical to citizens of Marion County, Oregon and the region. Life Flight Network operates both helicopter and fixed wing aircraft, enabling them to support short, off airport missions as well as transportation of stabilized, but critical, patients out of the immediately affected event area.

2.04 Power Line Restoration & Role in Disaster

Aurora Airport is the base of operations for two companies that specialize in repair and modifications of major electrical grid power lines using helicopters: Wilson Construction Company and Winco Power Line Services Inc. In repairing downed and damaged power lines, following a natural disaster – whether it be fire or windstorm or earthquake - these service will be critical to the citizens of Marion County, Oregon and the region. These companies have well developed and active relationships with the heavy lift helicopter operators at Aurora Airport to work together in restoring power. This will be absolutely critical because, as evidenced by the recent ice storm, road access to works may become impassable.

2.05 Aerial Mapping and Data Collection & Role in Disaster

Aurora Airport is a base of operations for Oregon's premier aerial mapping company: Geo Terra, Inc. Their aircraft and equipment will be essential in providing high resolution aerial photography and mapping of regional infrastructure for the basic planning for recovery following a disaster. Also based at Aurora Airport is FLIR systems flight department. FLIR is the premier manufacturer of high-capacity infrared camera systems. Their fleet of aircraft are mounted with state of the art cameras that are used to locate existing infrastructure as well as identify problems after an event, to include the location of people in distress.

2.06 Fixed Base Operations for Aircraft Fuel and Service

Aurora Airport has two Fixed Base Operators (FBOs): Lynx and Willamette Aviation. These and others of the aircraft operations at the airport have a total fuel capacity of over 250,000 gallons in a combination of fixed tanks and mobile truck tankers. In addition, each FBO has a designated place for temporary fuel bladder tanks to be stored when brought in by heavy lift helicopters from Redmond Airport (as disaster planners are projecting), or other non-affected locations. The ground handling capabilities of these businesses will become critical immediately following an event as military and civil aircraft arrive to support. Their leadership is open and ready to coordinate with civil and military authorities.

2.07 Major Aircraft Maintenance Facilities

Aurora Airport has numerous businesses with major aircraft maintenance facilities. These facilities and their many FAA licensed mechanics and inspectors that have capability to repair all kinds of aircraft. They have ready to use test equipment, can rebuild engines and machinery, have spare parts inventory, have tools, and the skilled labor force necessary to maintain their aircraft. They also have repair and maintenance capability for specialty aviation accessories like aero-medical equipment, aerial photographic equipment. These businesses will be able to maintain – without help from outside – their equipment a full functional condition during a seismic emergency. That is the definition of "sustainability." The expertise of these businesses

means that they also will be available if needed by the military to assist in maintenance of their aircraft that are involved with the recovery efforts.

2.08 Availability of Specialty Manufacturing

Aurora Airport is the international headquarters of Vans Aircraft, the largest supplier of kit-built aircraft in the world today. Their facilities include computer aided design metal-cutting machines and large supplies of aluminum sheet. Should a recovery effort need the quick manufacturing of specialized aluminum devices, the Vans Aircraft machines can quickly be re-purposed and programmed to mass produce specialty devices, on an as-needed basis.

2.09 Availability of Large Spaces for as-needed Special Recovery Efforts

Aurora Airport has approximately 1,250,000 square feet of buildings. Of this approximately 70% is hangar space, and 30% is office/shop space. The size of buildings varies from long-span 200 foot wide with 28 foot high hangar doors on 160 foot deep space, to small 60 foot by 60 foot hangar units, to multi-story offices. These spaces are devoted to their prime use as aviation-related support facilities. However, if during a disaster event, regionally the need is for storage of essential products or equipment, some of these wide-open spaces can easily be repurposed for other uses – whether they be medical, or area planning, or communications. They can be quickly transitioned to highest and best use for emergency management operations.

Most emergency and military planners look for these combinations of operating airports, hangars and large vacant land next to a water source to plan the placement of temporary recovery assets. Aurora Airport is uniquely suited as it is proximate to the Metro area and will be intact and able to support in case of an event in addition to meeting these planning and placement criteria. This will be covered in more depth in section 3.0.

2.10 Availability of Equipment

These many essential businesses, also maintain an inventory of tools, lifts, ladders, and every type of equipment that will otherwise be difficult to obtain in an emergency. This provides resiliency to the operations of all of the combined businesses at the airport.

2.11 Conclusion

Aurora Airport has numerous businesses that will be essential for the region's recovery. This ranges from providing heavy lift cargo deliveries, to medical transport, to aircraft maintenance, to the mundane fuel and servicing of aircraft. These are essential ingredients to a sustainable region around the airport.

3.0 The Agricultural Land Surrounding the Airport and its Availability for Staging

Aurora Airport is surrounded by agricultural lands. Many of these lands are set up with large gravel pavement areas for the production, storage, and shipping of agricultural products. During an emergency these areas can be repurposed as staging areas for use by emergency management operations.

Immediately adjacent to the airport is zoned farmland to the east, north, west, and south. The farmland to the immediate east is clear and flat, lending itself to the natural placement of emergency medical facilities as well as logistical support and storage. The land is irrigated by pumped well water. The Pudding River flows parallel to the airport runway approximately 1 mile to the east.

Both of these geographic features and the wells will become extremely valuable during an event recovery as they can, and most likely, will be used for emergency medical facilities, logistical laydown, and storage/distribution of supplies. The military (specifically, the Oregon Army National Guard) operates water purification equipment with the ability to pull water from the

Pudding and/or from the wells, to purify and store significant quantities to support emergency needs in temporary emergency medical facilities. Water can also be made available to support and supplement surrounding communities.

AAIA is in the process of meeting with some of these surrounding farm operations. The goal is to have some pre-agreements for use of those facilities during a major earthquake or other natural disaster.

4.0 The Airport Current Status in County and State Preparedness Plans

The following emergency management and planning documents already acknowledge the important of Aurora Airport as part of preparedness plans:

- FSA Tier 2 (2017 Airport Resiliency Workgroup),
- Category 2 (Oregon Resilience Plan 2013),
- "Critical Transportation Facility" (Marion County Multi-Jurisdictional Hazard Mitigation Plan 2017),
- Type 2 FSA (Oregon Aviation Plan 2019), "National Airport" (FAA designation, only two in Oregon).

5.0 The Airport Future Role in County and State Preparedness Plans

Aurora Airport will be capable of providing unique, essential, major recovery assistance following a major natural disaster. The businesses in the airport specialize in disaster cargo, power line repair, aerial disaster mapping, and emergency medical treatment. The existing county and state preparedness plans do not yet acknowledge or appear to understand the essential resilience of Aurora Airport for self-contained operations during a disaster. Nor does it yet recognize the importance of the airport services to maintaining the resiliency of the Willamette Valley region. It is recommended that Aurora Airport be better integrated into state, regional, and county plans for recovery efforts.

Some local cities have expressed interest in coordinating with and supporting the resiliency of Aurora Airport. AAIA is in discussion with the cities of Woodburn and Canby in coordinating joint resiliency efforts.

6.0 Current User Planning for Improvements to Airport Resiliency

The following resiliency improvements to Aurora Airport are currently being pursued by AAIA:

- Coordination with Marion County to further the resiliency of Aurora Airport and North Marion County;
- Coordination with local cities expressing interest in supporting the resiliency of Aurora Airport and their local communities, including: the City of Woodburn and City of Canby.
- Addition of manual power transfer switches to most airport buildings and fuel facilities, all with a common plug when possible;
- Acquisition of generators to be available for use at the airport buildings and fuel facilities;
- Meetings with surrounding agricultural properties to pre-plan for potential shared use during a disaster; and
- Potential creation of a joint-use Fire Station/Emergency Operations Center/Airport Management building as part of the development of the Aurora Airport Business Center property.

7.0 Aurora Airport Resiliency and the Goals of the Aurora Airport Improvement Association (AAIA)

The AAIA is fully committed to improving the resilience of Aurora Airport. It recognizes that the airport is unique, and will play a major role in the resilience of the north Willamette Valley area. In fact, due to the unique nature of the heavy lift, power line, and emergency medical resources, it may play a major role to the recovery of the state. AAIA welcomes input on improving this resiliency plan, and looks forward to working cooperatively with our Marion County leaders, and our local communities.

AAIA's Aurora Airport resiliency plan focusses on:

- Promoting local responsibility by the airport businesses for creating the airport resiliency plan;
- Promoting a vibrant economy as part of the resiliency plan, so that the airport businesses provide jobs and tax base for schools and other essential services as part of their development;
- Using the airport's key unique state-of-the-art, innovative businesses as essential elements of the plan; and
- Working with Marion County and local communities to have a win-win for resiliency at the airport and at their communities.

BEFORE THE BOARD OF COMMISSIONERS -- *DRAFT*--

FOR MARION COUNTY, OREGON

RESOLUTION No.

In the Matter of Declaring)
that Aurora Airport shall be)
considered a key Resiliency)
Airport for use during a)
major seismic event.)

This matter is before the Board of Commissioners, as an essential emergency management infrastructure issue, to acknowledge the importance of Aurora Airport in providing services and support to the residents of Marion County following a major seismic event.

WHERAS, recently completed soils reports at the airport predict a negligible soil settlement following the largest predicted earthquake, which indicates that the runway, taxiways, and parking aprons will likely be fully operational with very little repair, following a major seismic event; and

WHEREAS, the airport is a major headquarters and base of operations for the three largest heavy lift helicopter companies in the United States, Columbia Helicopters, Helicopter Transport Services, and Erickson, and these helicopters will provide essential supply transportation services following a major seismic event; and

WHEREAS, the airport is the regional headquarters for Life Flight Network, the principal emergency air medical service for the northwest United States region that includes Oregon and large parts of Washington, Idaho, and Montana, and whose services will be critical to citizens of Marion County, Oregon and the region; and

WHEREAS, the airport is the base of operations for two companies that specialize in repair and adjustments of major electrical grid power lines, Wilson Construction and Winco Inc., and whose services will be critical to the citizens of Marion County, Oregon and the region; and

WHEREAS, these resiliency critical businesses all have major aircraft maintenance facilities at the airport, for their specialized aircraft, with ready to use test equipment, rebuild machines, spare parts inventory, tools, and the skilled labor

force necessary to maintain their aircraft, specialty aviation accessories, and aero-medical equipment in a full functional condition during a seismic emergency;

WHEREAS, the airport is surrounded by agricultural lands that during an emergency can be repurposed as staging areas for use by emergency management operations; and

WHEREAS, the airport has two Fixed Base Operators serving aircraft and the airport as a whole has fixed and truck-mounted tankage for up to 250,000 gallons Jet fuel and avgas, along with site locations for temporary fuel tanks to be stored when brought in by said heavy lift helicopters; and

WHEREAS, the airport runway was constructed as a military airport, funded by the U.S. government, with capability of landing heavier military type aircraft, and by independent testing has been found to currently be capable of supporting aircraft with up to 102 thousand pound single wheel main gear or 145 thousand pound dual wheel main gear loads; and

WHEREAS, the airport has approximately 1,250,000 square feet of aviation hangar, office, and shop space that can be quickly transitioned to highest and best use for emergency management operations; and

WHEREAS, there is current planning underway to have each airport building be retrofitted with a manual power transfer switch that will allow each to function with power from an emergency electrical generator if electrical power is lost; and

WHEREAS, the following emergency management and planning documents already acknowledge the important of the airport as: FSA Tier 2 (2017 Airport Resiliency Workgroup), Category 2 (Oregon Resilience Plan 2013), “Critical Transportation Facility” (Marion County Multi-Jurisdictional Hazard Mitigation Plan 2017), Type 2 FSA (Oregon Aviation Plan 2019), “National Airport” (FAA designation, only two in Oregon); and

WHEREAS, the airport has the support of the following Marion County cities for being considered an essential resiliency airport: [working on letters from Woodburn and Canby], now, therefore

IT IS HEREBY ORDERED that the Aurora Airport shall heretofore be designated by Marion County as a Tier 1 resiliency airport for purposes of planning for emergency services during periods of county-wide disaster.

IT IS HEREBY ORDERED that the Marion County Public Works/Emergency Management assist the Aurora Airport by supporting grant applications that further prepare the airport infrastructure to serve its important function of being a resiliency airport to resupply and support the citizens of Marion County during periods of disaster following a severe seismic event or other county-wide disaster.

DATED at Salem, Oregon, this ___ day of ___, 202_.