

PREFACE AND SUMMARY OF THEMES IN COMPARISON MATRIX (Rev. 7/23/19)

Recently, members of the Burien Quiet Skies coalition began questioning Sea-Tac Airport's compliance with Part 150 regulations (14 Code of Federal Regulations, Part 150) and FAA's oversight of delayed implementation of noise abatement and mitigation policies dating to 1985. Consequently, our organization decided to complete a matrix comparing FAA's June 2014 Record of Approval (ROA) of Sea-Tac's 2013-2018 Part 150 Study with earlier examples of state and regional agencies' direction regarding inadequate noise reduction measures by the Port of Seattle (POS). This document was collaboratively compiled and is being shared with members of the coalition, elected officials, and public audiences to create meaningful oversight and prompt environmental justice action that has been—too long—denied to vulnerable populations within our South King County communities:

- Historically, POS has regarded sound mitigation of homes within eligible contour boundaries a low priority; consequently, hundreds of homes have not been insulated by the POS. In addition, many homes received inferior sound insulation improvements as a result of the POS' earliest sound insulation program.
- Why are there no noise modeling results for the period of 2007-2019; a twelve-year gap where POS is out-of-compliance with the FAA's 2013-2018 Record of Approval for Sea-Tac's Part 150 Study because decibel levels appear to have increased precipitously?
- Many noise abatement procedures recommended as long ago as 1996 remain un-implemented despite high level discussions by publicly-supported "blue-ribbon" panels (i.e. Expert Arbitration Panel's Review of Noise and Demand/System Management organized by Washington State Department of Transportation and Puget Sound Regional Council and the POS' StART committee). Why has FAA allowed this to occur?
- Why hasn't FAA held POS accountable for Alaska Airlines' Greener Skies Initiative (Required Navigation Performance (RNP) route) not meeting its intended environmental goals despite concentrating noise and emissions along a specific route over heavily populated areas of Puget Sound?
- When was the last time that Sea-Tac Airport was subjected to a **performance audit** by FAA or federal auditors of its noise management program? A recent internal POS financial audit of the sound insulation program revealed lax financial oversight and very, very slow implementation of noise mitigation efforts.
- There is evidence that Sea-Tac Airport's latest noise contours are outdated and unreliable because the FAA's April 2018 CATEX report to the City of Burien (in response to its litigation) included FAA's own noise analyses (because FAA admitted it could not rely on POS's latest 2013-2018 Part 150 Study) that revealed areas of Burien that had previously been located in the 40-45 dB DNL—but now at least 5.2% of that area—had new noise levels greater than 65 dB DNL, which is the decibel DNL (day-night level) that triggers eligibility for noise mitigation. Yet, the POS insists that it must complete its expensive SAMP (Sustainable Airport Master Plan) expansion first, despite ever-increasing flight operations that pollute with noise and toxic emissions.

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<p>"2. That the demonstrated results of the noise abatement and mitigation programs the Port has "scheduled, pursued, and achieved" since 1989/1990 do not provide evidence strong enough to establish, with any degree of confidence, that there has been a "meaningful" reduction of real, on-the-ground impacts sufficient to satisfy the noise condition of Resolution A-93-03; and 3<sup>3</sup>. That the Port is not likely to achieve significantly more reduction in real, on-the-ground noise impacts in the near future with the abatement and mitigation measures it has scheduled to date and is currently pursuing." Page 37 of 50.</p>	<p>Element #1 – "...voluntary rescheduling of aircraft flight times (earlier or later) of nighttime short-haul flights by jet aircraft.."</p> <p>Element #2 – "This measure uses very high frequency (VHF) omnidirectional range (VOR) radials to curb departing aircraft from drifting off the runway heading tracks as specified in the Tower Order. Aircraft noise and overflights are reduced for areas that are not beneath the existing departure corridors."</p>	<p><b>Request:</b> How often and how many, if any, nighttime flights have been granted "voluntary" status (short-haul or otherwise) since 1985 when voluntary rescheduling was first enacted?</p> <p><b>Request:</b> While "voluntary" since 1985, is it still being implemented; and if so, how often? What are the statistics?</p>
<p>Recommendations from Expert Panel:            "g. Continue to work with the airlines to minimize nighttime engine run-ups, we note that, although many of the events are exempt from the King County Code, the exempted nighttime events have levels higher than the code permits. Existence of an exemption does not mean elimination of the impacts on people." Page 40 of 50</p>	<p>Element #3 – "This measure was included in the 2002-2007 NCP updated to address maintenance run-ups...This measure is recommended to be modified to reflect the currently implemented run-up restrictions as outlined below:</p> <p>"All engine run-ups require approval of Airport Operations. No aircraft engine Run-ups shall be conducted during the nighttime quiet hours of 2200-0700. Engine run-ups necessary for maintenance checks above idle power not to exceed a total of two (2) minutes durations per aircraft."</p>	<p><b>Requests:</b> How often is this modified measure actually approved by Airport Operations; and how many engine run-ups exceed the two minute duration limit? How many times have these operations been disclosed per this element and how many fees have been collected? Also, have engine run-ups occurred in locations not approved by the Director? What are the decibel levels of typical engine run-ups?</p>
<p>"a. Negotiate and obtain a public commitment from the FAA for full cooperation in rigorously and aggressively enforcing compliance with the current North Flow Nighttime Departure Noise Abatement Procedures.... Better, the Port should institute procedures to apply pressure, through enforcement</p>	<p>Element #4 – "This measure directs aircraft to follow the established noise abatement corridor during nighttime, thus reducing noise and overflights of areas outside the corridor."</p>	<p><b>Request:</b> Since this is a "voluntary" measure, how many times a week/month/year is this measure utilized? Records of compliance and deviance should be provided.</p>

<sup>3</sup> In April of 1993, after studying the conclusions of the Flight Plan report and environmental review documents, and in an effort to find the best method of meeting the region's long-term commercial air transportation needs, the Regional Council General Assembly...adopted Resolution A-93-03, which called for the region to pursue **both a major supplemental airport and, subject to conditions, a third runway at Sea-Tac International**. (URL: <https://snohomishcountywa.gov/DocumentCenter/View/9328/PSRC-3rd-Runway-Decision-Process?bidId=> (Emphasis added. **PSRC approved the runway, but not the new airport.**)



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mitigation program can ultimately provide only partial indoor relief." Page 38 of 50	<b>new procedures.</b> " (Bolding of this note was not added; it was bolded in the document.)	increased among neighborhoods affected by the Greener Skies initiative? What actual statistics can POS provide that substantiate the claims denied by researchers? What impact has the Greener Skies Initiative had on airspace capacity? Is that why no others have been recommended?
	<b>Element #7</b> – The POS withdrew this measure; therefore, the FAA was not required to act.	
"g. Continue to work with the airlines to minimize nighttime engine run-ups, we note that, although many of the events are exempt from the King County Code, the exempted nighttime events have levels higher than the code permits. Existence of an exemption does not mean elimination of the impacts on people. 6. That the PSRC, the FAA, and the communities affected by airport noise participate actively and constructively in the Port's upcoming Part 150 review, to propose, evaluate, and assist in implementing any feasible noise reduction measures that will maximize the net benefits for the region and provide meaningful noise mitigation for the impacted area." Page 40 of 50.	<b>Element #8 – Construct a Ground Run-Up Enclosure (GRE) on the airport to minimize run-up noise.</b> The POS recommended this measure in both its 2002-2007 Part 150 Study and also its 2013-2018 Part 150 Study. "This measure recommends the construction of a GRE based on the recommendation of the ongoing GRE Siting Study and a future GRE Design Study." However, the current SAMP (Sustainable Airport Master Plan) compiled in May 2018 (while the latest Part 150 Study was still in effect) <b>does not include construction of a GRE, or a facility commonly known as a "hush-house."</b> (Emphasis added.)	The POS recommended this measure in both its 2002-2007 and 2013-2018 Part 150 Studies. Well-meaning members of the affected communities did positively participate in the 2013-2018 Part 150 Study, only to have their recommendations over-ruled by the POS staff and commissioners. <b>Requests:</b> Why would this critical element and proven method of double-digit (15-20 dB) noise decibel reduction around three potential GRE sites that was included in two Part 150 Studies be rejected in favor of increased passenger facility development on the POS airfield? Why did this POS priority slip to non-existent?
"Turning to the longer periods of evaluation which the Port has advocated, we observe that, had the Port accelerated its Residential Insulation Program just 18 months sooner – in January 1992, rather than in mid-1993 – it could have insulated an additional 2,000 homes by December 1995; 50 percent more than it did, in fact, complete by the end of 1995. Had the Port accelerated the program three years sooner, in mid-1990, an additional 4,000 homes could have been insulated by now. Doing so would have more than doubled the number of homes insulated by December 1995, from 3,647 to approximately 7,600. The number of people benefiting from that reduction in indoor sound levels would have also more than doubled, from 8,570 to about 18,000. Instead of a Residential Insulation Program about one-third	<b>Element #10 – Standard Insulation.</b> "This measure includes the sound insulation for eligible single-family residences within the revised Noise Remedy Boundary as depicted on Exhibit 6-1 in the NCP. The Port has an ongoing program to sound insulate eligible single-family residences within the currently (sic) Noise Remedy Boundary that was established in the 1985 NCP. Completion of the single family sound insulation program was also an element of the July 3, 1997 Record of Decision for the Master Plan Update for the inclusion of the new third runway. <b>Since that time, noise exposure has decreased at Sea-Tac Airport due to ongoing noise abatement efforts and the phase-out of older, louder aircraft and the lower number of operations. As a result, the noise exposure contours development for this Part 150 Study</b>	<ol style="list-style-type: none"> <li><b>Request:</b> Was this simply an attempt by noise managers and consultants to understate projected increased flights and noise? Was it a method to reduce expenditures for sound insulation? For example, the latest Part 150 Study projected 366,000 operations (arrivals and departures) in 2018, yet the actual number was 438,391! More operations means more noise and more air emissions misjudged by nearly 20%! Additionally, POS does not intend to conduct another Part 150 noise compatibility study until 2021 except perhaps for the noise created as a result of SAMP construction.</li> <li><b>Request:</b> What happened to the NEMs/NCP for the time period between the 2002-2007 Part 150 Study</li> </ol>

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<p>indoor (closed-window) noise relief for the residents of insulated homes, but that the scope of the Port’s scheduled insulation program remains incomplete with respect to schools, other sensitive-use public buildings, and multi-family dwellings. The Port’s mitigation efforts, while substantial, have not yet reached, or been “scheduled” to reach in any concrete sense (i.e., with an explicit timetable and commitment of resources), a large enough portion of the affected population to allow us to conclude that, in combination with the abatement results, the resulting overall reduction in noise impacts has been “enough” to meet the test imposed by Resolution A-93-03.” Pages 36-37 of 50</p>	<p>buildings based on the Building Committee recommendations....This measure is ongoing. As of August 2012, sound insulation has been installed in seven schools within the Highline School District, (that fall within the DNL 65 dBA) with eight schools remaining. Fourteen of 22 eligible buildings at the Highline Community Collee have also been sound insulated.”</p> <p>“FAA Determination: Approved in part and disapproved in part. The 2002 ROA approved the measure stating that insulation of schools within the 65 dB DNL will be based upon negotiated agreements between the Port, school districts/education facilities and FAA. The Port, FAA, and the State signed an MOA with the Highline School District on June 4, 2002 agreeing to fund eligible sound reduction elements of reconstruction of 15 schools. This agreement is still in place and allows the sound insulation of the schools outlined in the MOA using FAA AIP, Port and State funding; therefore, this measure remains approved. However, the FAA notified the Port on November 4, 2013 that the Highline Community College will no longer be eligible for AIP funding due to the campus location being outside the newly revised noise remedy boundary. Therefore, sound insulation of the Highline Community College is disapproved.” (Bolding not added; it is contained in the original ROA signed by FAA in June 2014.)</p>	<p>2007), wouldn’t the Highline Community College funding been approved by FAA because the number of flight operations and concomitant decibel levels would have exceeded the 65 dB DNL?</p> <ol style="list-style-type: none"> <li>2. Why was it such a low priority for the POS to postpone sound insulation in schools where children’s and young adults’ health and learning ability is at stake? Decades of research (Transportation Research Board (TRB), Airport Cooperative Research Program (ACRP), Federal Interagency Committee on Aviation Noise (FICAN), to name a few) reveal the deleterious effects of aircraft noise on a learning environment exist replete with case studies and results and are readily available to the POS managers and port commissioners.</li> <li>3. Did the POS ever consult any scientific reports published by FICAN (or others mentioned above)?</li> <li>4. Where is the environmental justice for these children and young adults? Not only as it relates to noise, but air pollution as well. What about the health and welfare of airfield workers?</li> <li>5. Did anyone in the POS Noise Office or consultants, or Commissioners ever consult any of these documents? Are they aware the World Health Organization (WHO) recently released a report lowering the noise standard to 45 dB DNL during daytime hours, and 40 dB DNL during nighttime hours?</li> <li>6. Not only was there no noise modeling from 2007 to 2019 of all three POS runways, there is now considerable evidence that aircraft emissions—particularly ultra-fine particles—enter the human body, even the brain. On May 17, 2019, <i>The Guardian</i> (theguardian.com) published an article by</li> </ol>



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		<p>credible because it does not match the POS' online flight tracking software (WebTrack) or information from a homeowner's own AirNoise.os. Does anyone at the POS monitor this information sharing for its thoroughness and reliability; or are form letters used to respond to complainants regardless of the noise issues? Since this two-way communication maybe the only contact the public has with the POS, it's critical that this communication is without reproach. Is it?</p> <ol style="list-style-type: none"> <li>5. Have sound insulation written materials been provided in multiple languages or have pubic notices been translated into multiple languages in order to reach the diverse populations that reside in Burien and other south King County cities? Are translated materials readily available to diverse populations online?</li> <li>6. Has the POS conducted any environmental justice analyses on the effects of noise and air emissions on low income or ESL populations? It is a federal requirement to do so.</li> <li>7. Why is it apparently a low priority for the POS to take three years to sound insulate 40 homes when nearby King County Airport insulated nearly 100 homes/year? (Source: POS Audit from 2013-2019; Report No. 219-04)</li> </ol>
	<p><b>Element #13 – Local Government Remedy Support</b> “By insulating homes and assisting with real estate transactions, the Port can participate in making the Airport and surrounding residents better neighbors. However, the Port alone cannot accomplish all program goals. Local governments, with land use jurisdiction must also participate if the program is to be a success, especially in the long term. Under this measure, the Port encourages local jurisdictions to undertake projects, provide services, and</p>	<p><b>Requests:</b></p> <ol style="list-style-type: none"> <li>1. Given the self-serving nature of this noise remedy measure, it's important to examine the statutory authority of a local government compared to a “special purpose district” such as the POS because it has an entirely different mission under Title 53-25-100 RCW: unconstrained economic development! Whereas, municipal governments have a myriad of</li> </ol>

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		<p>5. How does the POS assist with real estate transactions? Is it to provide decibel level and frequency of flights underneath POS flight paths? If so, how many real estate transactions do not occur because of this information? How many times per month is POS asked to provide this information? What type of follow-up occurs with real estate agents? Doesn't the POS know that property tax revenues are the life-blood of cities, so how could they possibly "undertake projects, provide services, and adopt laws that reinforce neighborhoods and make them compatible with the Airport" when property values decline and new residents are discouraged by environmental claims of excessive noise and air pollution?</p>
	<p><b>Element #14 – Funding for Land Use/Noise Compatibility Planning</b> – This measure encourages public agencies to conduct land use/noise compatibility planning consistent with the principles and guidelines of 14 CFR Part 150 and the Port noise compatibility goals; however, the funding source is not identified.</p>	<p><b>Request:</b> Is the funding provided by the POS, the FAA, or other entity since this measure is incomplete without that information?</p>
<p><b>"d. Work with the PSRC and the affected communities to design and implement alternative noise-compatible uses of the land within the current acquisition zone. We note that the acquisition program has some very strong critics because of its adverse effects on the quality of neighborhoods for the remaining houses and businesses."</b> Page 41 of 50</p>	<p><b>Element #15 – Approach Transition Zone Acquisition.</b> This measure recommended that the Port purchase residential properties experiencing noise levels of 65 dBA or greater, and located within the Approach Transition Zones (ATZ) of Runway 16R/34L.</p>	<p><b>Request:</b> How would a homeowner know whether or not their property was located within the ATZ of these runways since the Part 150 Study is outdated and contains inaccurate noise contours?</p>
	<p><b>Element #16 – Prepare Cooperative Development Agreements.</b> The POS and the surrounding jurisdictions should work towards development of cooperative development agreements concerning land use,</p>	<p><b>Request:</b> Same as listed above for Element #15.</p>

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	<p>ground facilities, enlarge the area of incompatible use exposed to aircraft noise above 65 Day-Night Average Sound Level (DNL), the NCP should be updated prior to the implementation of those improvements. A full update may not be required, but rather, a targeted assessment of the changes occasioned by specific development projects may suffice to bring the NCP to conformity and to qualify additional areas for NCP programs, if appropriate. (Color added for emphasis.)</p>	<p>doesn't have the time or resources? This is an immoral travesty perpetrated on people for no other reason that the POS—for some reason—does not want to acknowledge that each and every aircraft operation means more deadly noise and more deadly air pollution.</p> <p>2. Why is the POS ignoring that there have been twelve years since there was a comprehensive Part 150 Study completed for 2002-2007? Why did the POS skip over all those years until they published a Part 150 Study on operations solely of the third runway? Why did they neglect the hundreds, if not thousands, of people who used to live in "quiet" areas—like Seahurst in Burien—where some* (5.2%) have experienced a 20 decibel increase in DNL, and all decibel levels increased except that 60% remained in the below 45 dB DNL level? Remember: this CATEX (Categorical Exclusion for Letter of Agreement Update to Automate a 250 degree Westerly Turn for Southbound Turboprops When Seattle-Tacoma International Airport is Operating in North-Flow Between the Hours of 6 am and 10 pm) was published the same year (2018) that the existing Part 150 Study ended. This is a clear irrefutable indication that decibel levels have increased and more residences are now eligible for noise mitigation!</p>

\* On page 35 of Section 5.2.7, fourth paragraph that begins "As FAA started preparing NEPA documentation for the Preferred Alternative, the first noise analysis results were compared to the noise contours from SEA Part 150 Study dated October 2013. FAA discovered that the noise exposure levels in the Turboprop-Only Analysis were not consistent with the Part 150 noise contours. This resulted in FAA conducting a second noise analysis that used all arriving and departing aircraft to account for the noise from all aircraft operating within the General Study Area."

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		their rights to litigate and they agreed they would only be eligible for sound insulation once!
	<b>Element #22 – Continue to operate the Noise Office.</b> This measure was recommended to continue operation of the Noise Office; and FAA approved it.	<b>Request:</b> Given all the issues outlined in these Requests, it is apparent that the Noise Office management has a cozy relationship with FAA and together they have denied hundreds or more of local residents' environmental justice in the form of "balance" for living within an unhealthy area extensively polluted by the POS.

### **CONCLUSIONS**

What these comparisons illustrate in great detail and with historic accuracy is that POS Commissioners and senior staff have deliberately redirected Port resources away from addressing the noise and health concerns of local communities. Since the late 1980s and early 1990s to the present time, noise abatement and mitigation have continually received low ranking when Port priorities were decided. Consequently, the livability of homes and schools near Sea-Tac Airport were relegated to "distressed" status. Realistically, there has been no balance between growth expectations expressed by Port officials and the health and living standards of people affected by excessive noise and air pollution. Leadership at the POS has demonstrated a habitual and legal disregard for its moral responsibilities to local residents. From the contents of this comparison, there is a clear history where the POS systematically delayed and avoided aggressive sound insulation programs. They have ignored the public's outcry for relief and jeopardized local economies. Excessive noise that's plagued homeowners, school children, and airport workers for nearly three decades were viewed as less compelling than passenger services, new gates and terminals. While illnesses and toxic air combine to sicken the old, the young, and other vulnerable people, as well as low-income populations living around Sea-Tac Airport, the POS exhibits extravagant designs for new and larger development. In summary, areas around Sea-Tac Airport have: highest noise levels in the State; highest poverty levels in King County; health risks and disparities including asthma and cancer; dense population with double the average children per household; risk, exposure and negative health outcomes in the 90-100<sup>th</sup> percentile for a large percentage of census tracts around the airport; according to University of Washington, aircraft related ultra-fine particle impacts highest under flight paths and no ideas, plans, or costs associated with mitigating this from the POS.

### **WHAT HAPPENS AROUND AN AIRPORT WHEN MORAL RESPONSIBILITY AND ACCOUNTABILITY DISAPPEAR?**