Sean T. Malone

Attorney at Law

259 E. Fifth Ave.,
Suite 200-G
Eugene, OR 97401

Tel. (303) 859-0403
Fax (650) 471-7366
seanmalone8@hotmail.com

April 18, 2013

Via Email and Certified, Return Receipt Mail

Renee Dowlin, Senior Environmental Planner
Port of Portland
PO Box 3529
Portland OR 97208

Dear Ms. Dowlin,

On behalf of Oregon Aviation Watch, please accept these comments on the Draft Supplemental Environmental Assessment (SEA) for the Hillsboro Airport Parallel Runway 12L/30R. Attached to these comments are a number of supporting documents, and the list of supporting documents can be found at the end of these comments. Please add these comments and the supporting documentation to the record.

Oregon Aviation Watch is a 501(c)(3) non-profit organization whose primary purpose is to research, educate, and advocate on behalf of the public interest and public welfare about aviation issues. The mission of OAW is to enhance and protect the quality of life for Oregon residents by eliminating the adverse impacts of aviation activity. OAW's vision is to achieve a transparent, accountable, and sustainable aviation system that neither disregards nor diminishes the environment, livability, health, or well-being of current and future generations of Oregon residents.

I. Factual Background

A. Remand from the Ninth Circuit Court of Appeals

Petitioners Michelle Barnes, Blaine Ackley, and Patrick Conry challenged the Original Environmental Assessment prepared by the FAA for the Parallel Runway 12L/30R, and the Ninth Circuit granted their petition for review, remanding the matter to the FAA to consider the environmental impacts from the induced demand of aircraft operations from constructing a third runway at the Hillsboro Airport – an issue the original EA failed to address.

As noted by the Ninth Circuit, the proposed third runway is "a major ground capacity expansion project," and, Ninth Circuit case law indicates that "a new runway has a unique potential to spur demand, which sets it apart from other airport improvements, like changing flight patterns, improving a terminal, or adding a taxiway, which increase demand marginally, if at all." In the words of the FAA, a new runway is "the most effective capacity-enhancing feature an airfield can provide."

B. Hillsboro Airport

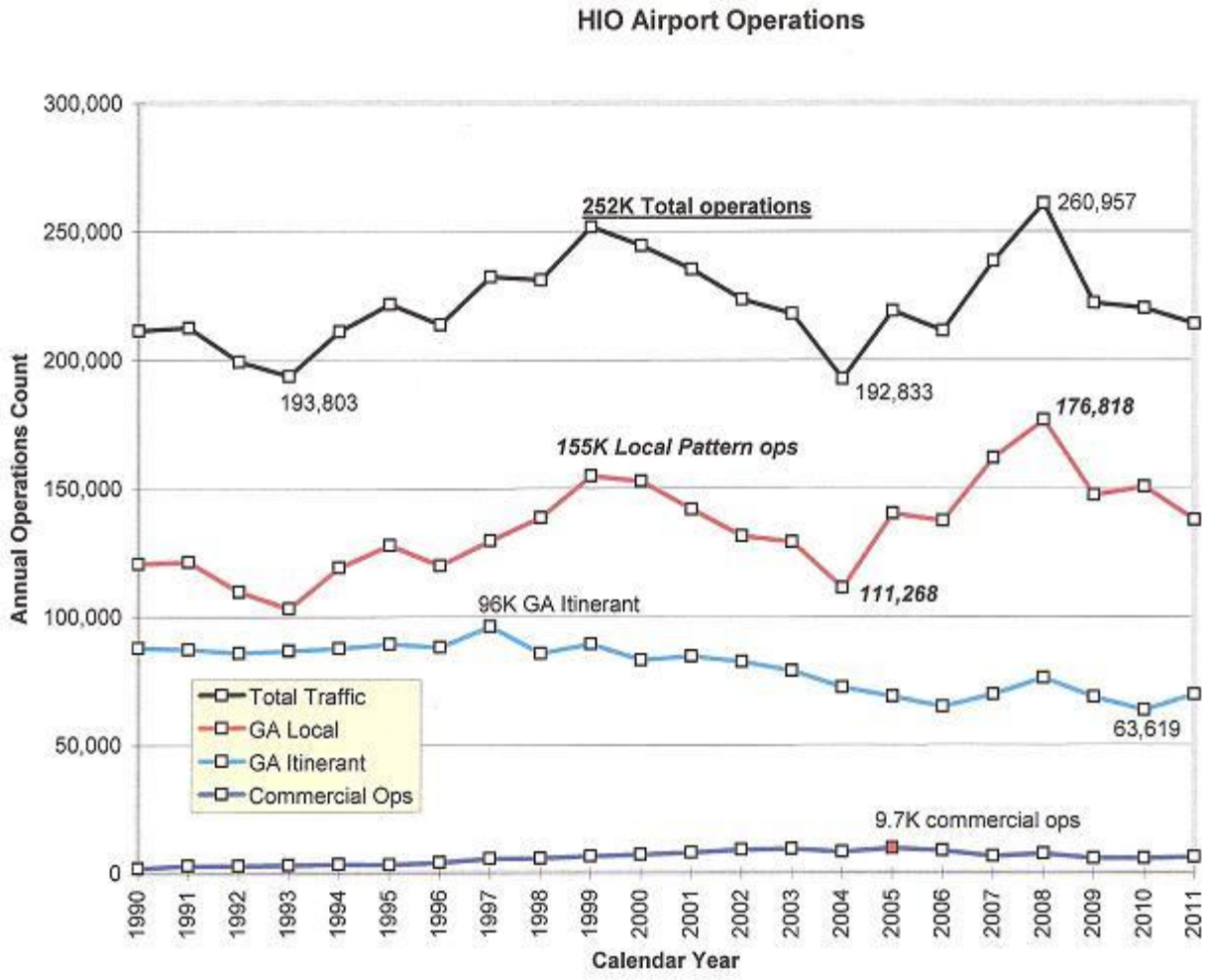
The Hillsboro Airport is the busiest general aviation airport in the state of Oregon, and currently the second busiest airport in the state of Oregon. In previous years, the Hillsboro Airport was the busiest airport in the state. As noted below, leaded aviation gasoline (avgas) from instructional flying, air taxi activities, and personal transportation at general aviation airports contains lead, a potent neurotoxin.

According to the EPA, out of 20,000 airports that utilize avgas in the U.S., the Hillsboro Airport is 21st in the nation in lead pollution. In 2008, the Hillsboro Airport emitted 0.68 tons of lead into the atmosphere. As a result of the induced demand, the Hillsboro Airport will likely emit over one ton of lead into the atmosphere over the city of Hillsboro, requiring the airport to abide by lead monitoring requirements. *See* 73 Fed. Reg. 66964 (monitoring required when emissions inventories of 1.0 tpy or more). Of significant concern for the public health and safety, the Hillsboro Airport is surrounded on three sides by residential development. Regardless of whether the airport or the residential development occurred first, the FAA must disclose those impacts from increasing the amount of air toxins and other pollution generated from increased aircraft operations.

The Oregon Department of Environmental Quality (DEQ) recently placed an air toxics monitor in Hillsboro in March 2013, less than one mile away from the Hillsboro Airport. DEQ prioritizes monitoring for air toxics in areas where data indicates that pollutants could be ten or more times above clean air goals, or benchmarks. DEQ acknowledges that Hillsboro is the highest priority for air toxics monitoring statewide, and that it has measured higher levels of particulate pollution in Hillsboro than other parts of the Portland area. The Hillsboro Airport Original EA and the SEA rely on a monitoring station that is 16 miles away from the Hillsboro Airport in Southeast Portland. This monitoring station is closer to Portland International Airport (PDX) and Downtown Portland than it is to the Hillsboro Airport.

The vast majority of flight operations at the Hillsboro Airport are flight training operations, which include (1) touch and goes (a landing practice wherein an aircraft does not make a full stop after a landing, but proceeds immediately to another take-off); (2) flights to designated "high intensity" flight training areas over western Washington County; and (3) flights to other local airports.

Because commercial airline fuel and jet fuel do not contain lead, commercial airports do not experience the same significant levels of lead pollution as general aviation airports. General aviation airports also cater to flight training and instruction schools (which comprises the vast majority of aircraft operations at Hillsboro), and flight training generally requires that pilots fly local patterns or fly in high intensive flight training areas. General aviation airports experience continuous flight training and other local general aviation aircraft operations that largely remain in the locale, flying at lower altitudes, whereas commercial airports are generally arrivals and departures that immediately climb to high elevations. As demonstrated in the figure below, GA local traffic and GA itinerant flights, which are largely piston-engine driven aviation aircraft using avgas, dominate the skies above Hillsboro Airport, the City of Hillsboro, and outlying areas.



C. Lead (Pb)

Though lead has been long since banned from gasoline used in automobiles and other uses, the use of leaded aviation gasoline (avgas) in piston-engine powered aircraft occurs unabated throughout the United States. According to the EPA, there are almost 20,000 airport facilities in the U.S. where leaded avgas is used. Aviation gasoline is utilized in general aviation aircraft with piston engines, which are generally used for instructional flying, air taxi activities, and personal transportation. Lead, however, is not used in jet fuel and most commercial aircraft. Emissions from piston-engine aircraft using leaded avgas comprise approximately half of the national inventory of lead emitted to the air, even more than industrial uses. Between 1970 and 2007, approximately 34,000 tons of lead were emitted into the atmosphere as a result of leaded avgas. Piston engine aircraft are the chief source of lead emissions in the United States, emitting 57% of the 964 tons of lead put into the air in 2008, according to the most recent figures from the National Emissions Inventory. In 2008 alone, aircraft emitted 571 tons of lead, more than doubling lead emissions emitted by industrial processes.

The EPA acknowledges that lead concentrations in air increase with proximity to airports where piston-engine aircraft operate. Lead disperses widely into the environment before settling to soil, water, vegetation or other surfaces. Lead is also removed from the air by rain. Once lead falls onto soil, it sticks strongly to soil particles and remains. Approximately 16 million people live within one kilometer of the approximately 20,000 airport facilities, and over 3 million children attend school within one kilometer of the approximately 20,000 airport facilities. While the U.S. has made improvements in lead concentration in the atmosphere, the same cannot be said for those families living near general aviation airports.

Lead is a neurotoxin, and when emitted into the air it can be inhaled or, after it settles out of the air, can be ingested. Ingestion of lead that has settled onto surfaces is the main way children are exposed to lead originally released into the air. Once in the body, lead is absorbed into the bloodstream and results in a broad range of adverse health effects. Children are particularly vulnerable to the effects of lead. Exposures to low levels of lead early in life have been linked to effects on IQ, learning, memory, and behavior. There is no identified safe level of lead in the body.

Shortly after lead gets into a person's body, it travels in the blood to the "soft tissues" and organs (such as the liver, kidneys, lungs, brain, spleen, muscles, and heart). After several weeks, most of the lead moves into the bones and teeth. In adults, about 94% of the total amount of lead in the body is contained in the bones and teeth. About 73% of the lead in children's bodies is stored in their bones. Some of the lead can stay in your bones for decades; however, some lead can leave your bones and reenter your blood and organs under certain circumstances (e.g., during pregnancy and periods of breast feeding, after a bone is broken, and during advancing age).

The human body does not change lead into any other form. Once it is taken in and distributed to your organs, the lead that is not stored in your bones leaves your body through the urine or feces. About 99% of the amount of lead taken into the body of an adult will leave in the

waste within a couple of weeks, but only about 32% of the lead taken into the body of a child will leave in the waste. Under conditions of continued exposure, not all of the lead that enters the body will be eliminated, and this may result in accumulation of lead in body tissues, especially bone.

D. Hillsboro Aviation, Inc.

In the words of Max Lyons, President of Hillsboro Aviation, Hillsboro Aviation is "the largest flight training facility for both airplanes and helicopters on the pacific west coast…." Hillsboro Aviation uses piston-engine driven aircraft for its flight training, and, therefore, its operations significantly contribute to the lead exposure in and around the Hillsboro Airport. Mr. Lyons has also stated: "It has been clear to us, that a third runway will help to alleviate much of the congestion that we are experiencing and will allow the airport and it's [*sic*] tenants to continue expanding as the impact of the current recession subsides." As noted in the supporting documentation, Hillsboro Aviation has a longstanding relationship with various Chinese airlines to train its pilots, and Hillsboro Aviation has positioned itself to expand its flight training operations as the aviation industry in China and elsewhere in Asia experiences unprecedented growth.

E. Global Aviation, Inc.

Global Aviation, Inc. also acknowledges that demand will result from increased airport capacity: "The addition of the parallel runway will make Hillsboro more attractive to the type of aircraft that are the focus of Global's business. The excess demand that we anticipate will develop within the next three years partly as a result of the additional airport capacity, is the driving force behind the plans we are making to expand our 63,000 square feet of aircraft hangar space by 50%."

F. Aero Air

Aero Air has recently expanded its hangar at the Hillsboro Airport with a 30,000 square foot hangar. Numerous pilots reported in the survey that they would likely relocate their aircraft to Hillsboro Airport if additional hangar space is available.

II. National Environmental Policy Act

National Environmental Policy Act (NEPA) of 1969 is "our basic national charter for protection of the environment." 40 C.F.R. § 1500.1(a). Congress passed NEPA "to protect the environment by requiring that federal agencies carefully weigh environmental considerations and consider potential alternatives to the proposed action before the government launches any major federal action." *Lands Council v. Powell*, 385 F.3d 1019, 1026 (9th Cir. 2005). To accomplish this, "NEPA imposes procedural requirements designed to force agencies to take a 'hard look' at

environmental consequences." *Earth Island Inst. v. U.S. Forest Serv.*, 351 F.3d 1291, 1300 (9th Cir. 2003).

NEPA requires federal agencies to prepare an EIS before undertaking "major Federal actions significantly affecting the quality of the human environment." 42 U.S.C. § 4332(2)(C). An EIS must "provide full and fair discussion of significant environmental impacts and shall inform decisionmakers and the public of the reasonable alternatives which would avoid or minimize adverse impacts or enhance the quality of the human environment." 40 C.F.R. § 1502.1.

Under the Council on Environmental Quality regulations implementing NEPA, an agency prepares an EA in order to determine whether to prepare an EIS or to issue a FONSI, the latter of which excuses the agency from its obligation to prepare an EIS. *See* C.F.R. §§ 1500.1-8; *Morongo Band of Mission Indians v. FAA*, 161 F.3d 569, 575 (9th Cir. 1998). Regulations consistent with this approach have also been promulgated by the FAA for the purpose of evaluating FAA actions, including airport developments. *See* FAA Order 1050.1E, *Policies and Procedures for Considering Environmental Impacts* (Mar. 20, 2006).

A. The Proposed Third Runway will have Significant Impacts on the Environment

An EIS must be prepared if "substantial questions are raised as to whether a project . . . may cause significant degradation of some human environmental factor. *Ocean Advocates v. U.S. Army Corps of Egn'rs*, 402 F.3d 846, 864 (9th Cir. 2005). To trigger the need for an EIS, a plaintiff need not show that significant effects will in fact occur; "raising substantial questions whether a project may have a significant effect is sufficient." *Id.* at 864-65 (internal quotations omitted). The effects that must be considered are both direct and indirect. 40 C.F.R. § 1508.8. Indirect effects are "caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable." *Id.* at 508.8(b). Indirect effects include growth inducing effects. *Id.* "While 'foreseeing the unforeseeable' is not required, an agency must use its best efforts to find out all that it reasonably can." *City of Davis v. Coleman*, 521 F.3d 661, 676 (9th Cir. 1975).

Determining whether an action "significantly" affects the quality of the human environment, 42 U.S.C. § 4332(2)(C), requires "considerations of both context and intensity." 40 C.F.R. § 1508.27. "Context" is the setting in which the agency's action takes place. *Nat'l Parks & Conservation Ass'n v. Babbitt*, 241 F.3d 722, 731 (9th Cir. 2001), *abrogated on other grounds by Monsanto Co. v. Geertson Seed Farms*, 130 S. Ct. 2743, 2757 (2010). The significance of an action must

> be analyzed in several contexts such as society as a whole (human, national), the affected region, the affected interests, and the locality. Significance varies with the setting of the proposed action. For instance, in the case of a site-specific action, significance would usually depend upon the effects in the locale rather than in the world as a whole.

40 C.F.R. § 1508.27(a). The Ninth Circuit previously noted that the proposed third runway is a site-specific project, and, therefore, significance must be assessed based on the effects in the locale. As a result of the runway, increased operations, particularly by flight schools and other general aviation aircraft will occur, and that will disperse, settle, and deposit lead over the airport and, most importantly, the residential developments surrounding the airport on three sides. The context of the cumulative effect of lead on children and adults in and around the Hillsboro Airport is significant.

Significance is also analyzed in terms of intensity: "This refers to the severity of impact," and the NEPA regulations identify ten significance factors. *See* 40 C.F.R. § 1508.27(b)(1)-(10). Here, the proposed third runway is significant under the following significance factors:

- The degree to which the proposed action affects public health or safety. 40 C.F.R. § 1508.27(b)(2). As noted above, lead is a well-accepted neurotoxin that disproportionately affects children. Importantly, Duke University studies by Miranda have demonstrated that elevated levels of lead are found in children living in close proximity to general aviation airports, and that even very low levels cause adverse effects to children's neurological development. Clearly, this project will have long-lasting impacts on children and adults in and around the Hillsboro Airport, and this issue must be thoroughly analyzed in an environmental impact statement (EIS).
- Unique characteristics of the geographic areas. 40 C.F.R. § 1508.27(b)(3). This site specific project is surrounded on three sides by residential developments, and the impacts of air toxins and lead will adversely affect those families and children living adjacent to the airport. In light of this well-established impact (*see* Miranda/Duke University studies), the FAA has taken the untenable position that there will be no off-airport impacts. Again, this project will have long-lasting impacts on children and adults in and around the Hillsboro Airport, and this issue must be thoroughly analyzed in an EIS.
- The degree to which the effects on the quality of the human environment are likely to be highly controversial. 40 C.F.R. § 1508.27(b). Impacts to adjacent communities, families, and children from the impacts of lead, air toxins, and noise are controversial in the City of Hillsboro. Here, there exists a dispute as to the size, nature, and effect of the proposed runway as it relates to the impacts of lead and other pollutants on the residents of the City of Hillsboro. These controversial impacts must be thoroughly assessed in an EIS.
- The degree to which the possible effects on the environment are highly uncertain or involve unique or unknown risks. 40 C.F.R. § 1508.27(b)(5). The disproportionate impacts of lead on children are unique risks that exist in close proximity to general aviation airports. Hillsboro Airport is home to the largest flight training school on the west coast, and the Hillsboro Airport emits over 1,000 pounds of lead into the atmosphere. Notably, there are no safe levels of lead. These unique risks to the children and residents of Hillsboro must be thoroughly analyzed in an EIS.

- Whether the action is related to other actions with individually insignificant but cumulatively significant impacts. 40 C.F.R. § 1508.27(b)(7). Throughout the history of the Hillsboro Airport, an EIS has never been prepared, yet the operation of the airport emits significant amounts of lead historically, presently, and will do so into the future. Given the disproportionate effect of lead on children, the past, present, and reasonably foreseeable impacts of lead must be analyzed fully in an EIS. Lead does not break down in the environment, and, therefore, the cumulative and incremental effect of spewing a potent neurotoxin over the skies of the City of Hillsboro must be addressed.

B. Failure to Disclose Environmental Impacts to the Affected Environment

The "Affected Environment" section of the EA is required to identify "those environmental resources the proposed action and its reasonable alternatives, if any, are likely to affect (FAA Order 1050.1E, paragraph 405e)." Under the "socioeconomic impacts, environmental justice, and children's health and safety risks," the agency acknowledges that "the population of the City of Hillsboro, Washington County and the Portland-Vancouver Area is growing faster than was noted in the original Environmental Assessment." The FAA, however, also states that "[d]espite this increased growth rate in area population, the proposed project is not expected to have off-airport effects," and "[a]s described in the Original Environmental Assessment, the project footprint is solely within the airport boundary." The agency's conclusion that a project would not have any off-airport effects is arbitrary and capricious because the impacts from lead and other pollutants are not confined to the project footprint.

The SEA also states that "[t]he original Environmental Assessment noted that no significant adverse socioeconomic impacts or risks to children's health and safety were anticipated due to construction and operation of the proposed project." This statement is false. The original EA did not consider the impacts of operation of the proposed project – this was the essence of the Ninth Circuit's holding. The SEA, however, follows suit and fails to acknowledge impacts from operation of the runway as it relates to the surrounding residential developments. In addition, the SEA again states that "the project would not have off-airport population effects," and "the anticipated project-related effects continue to be confined to the Airport,…." Finally, the SEA disclaims any effects to children: "no resources associated with children would be affected, no further analysis of these factors is required in this Supplemental Environmental Assessment."[1]

Here, the SEA does not even disclose that residential homes surround the airport on three sides, and similarly fails to disclose how many people (most importantly children, a segment of

[1] Here, it would appear that the only way children could be impacted by pollution from increased aircraft operations is if the children were playing on the runway, or at least within the airport boundary.

the population that is disproportionately affected by lead) live within a mile of the airport. This information is relevant and significant because of the attached studies from Miranda and Duke University, which demonstrate that children living within close proximity to general aviation airports contain significant concentrations of lead and also demonstrate that small levels of lead have discernible impact on children in end-of-grade testing. The SEA is arbitrary and capricious not only because it ignores the disproportionate impacts to children but also because the SEA takes the untenable position that there would be no off-airport impacts from lead. The Miranda/Duke University studies and common sense dictate otherwise.

C. Failure to take a hard look, adequately analyze, or disclose reasonably foreseeable environmental effects

The FAA acknowledges that the "new forecasts were prepared for the time period through year 2031 as noted in Appendices B, C, and D, as the standard FAA aviation demand planning horizon is the base/current year (2011) plus 20 years." The FAA, however, determined that the "standard FAA aviation demand planning horizon" was not warranted for this particular project: "However, FAA determined that the period through 2021 is reasonably foreseeable for purposes of NEPA and this Supplemental Environmental Assessment." The agency's change in position is not due deference. While the agency has the information for forecasts to 2031, it fails to disclose the impacts from 2021-2031. In all of the EAs and EISs I have reviewed, this is the first time I have seen an agency fail to analyze the impacts based on information contained within the NEPA document itself. This failure to disclose the impacts associated with forecasts for 2031 is arbitrary and capricious.

D. Failure to Consider FAA Order 5090.3C

The FAA relies on a 1983 FAA Advisory Circular 150/5060-5, *Airport Capacity and Delay* (September 1983) to assess ASV, but FAA Order 5090.3C, *Field Formulation of the National Plan of Integrated Airport Systems* (Dec. 4, 2000) also defines ASV. Importantly, FAA Order 5090.3C defines ASV as the average delay per operation as 4 minutes. Here, according to the SEA, the 2011 activity resulted in delays estimated from near 0.5 minute to approximately 1.6 minutes (with average of about 1 minute). By 2021, it is estimated to be from 0.75 minutes to 2.7 minutes (averaging about 1.75 minutes). According to the FAA Order 5090.3C, the Hillsboro Airport has not yet reached ASV – not even close. As noted by the Ninth Circuit, "[w]hether the Master Plan's recommendation for airfield capacity improvements would have been the same had it relied on the ASV definition actually used by FAA Order 5090.3C is not before us." This issue is now before the FAA. The Master Plan's recommendation for airfield capacity improvements would have been far different had the FAA and the Port of Portland utilized FAA Order 5090.3C, and there would be no purpose and need for this project. According to that Order, the Hillsboro Airport has not yet reached ASV, and it will not do so anytime soon.

E. Failure to take a hard look, adequately analyze, and consider impacts from reaching capacity with a third runway

While the FAA acknowledges that a third runway will allow the Hillsboro Airport to accommodate 315,000 operations, the FAA fails to disclose the environmental impacts associated with that capacity, including impacts from lead on children living in close proximity to the airport. By failing to consider the impact from 315,000 aircraft operations, the FAA and the Port of Portland have ensured that these impacts will never be disclosed to the public or analyzed by the agency. The agency's failure to assess this information is arbitrary and capricious and fails to inform the public of the environmental hazards awaiting them from construction of a third runway.

F. Failure to take a hard look, adequately analyze, and disclose impacts to wildlife

According to the Centers for Disease Control, elemental lead cannot be broken down. The levels of lead build up in plants and animals from areas where air, water, or soil are contaminated with lead. If animals eat contaminated plants or animals, most of the lead that they eat will pass through their bodies. Here, the FAA has failed to consider these impacts on any wildlife in and around the Hillsboro Airport. After tens of years of dispersing and settling many thousands of pounds of lead in and around the airport, the soil and vegetation are likely contaminated with lead, yet the SEA failed to analyze this issue. This omission is arbitrary and capricious.

G. Failure to take a hard look, adequately analyze, and disclose the cumulative effects of lead dispersion, settling, and deposition

The additional runway will lead to more than 140,000 additional aircraft operations in the years to come.[2] The SEA fails to demonstrate how many of these aircraft operations would be piston-engine driven aircraft operations, and, therefore, the analysis is not upfront about the impacts of lead on and around the airport. The SEA also fails to disclose the cumulative effect of year after year of depositing thousands of pounds of lead onto and around the airport, particularly the residential development. This failure is significant because there is no safe level

[2] Table D-4 indicates that in 2014, there would be an additional 7,890 aircraft operations; in 2015, there would be an additional 11,350; in 2016, there would be an additional 11,350. Though the Table D-4 does not disclose additional aircraft operations from 2017-2020, it is reasonable to assume that 11,350 additional operations would occur in these years because Table D-4 includes an additional 11,350 operations in 2021. It is reasonable to assume, based on the projections in Table D-4, that 2022-2025 would include 7,570 additional aircraft operations because 2026 would also have an additional 7,570 operations, and the years 2027-2030 would each have 3,460 additional operations because 2031 is projected to have 3,460 additional operations. Thus, the sum total of additional aircraft operations from the years 2014 through 2031 is 142,490 additional aircraft operations. The FAA fails to disclose the lead impacts and impacts associated with other pollutants from on an additional 142,490 aircraft operations.

of lead in children – not even a hundredth of a microgram. The agency's failure to consider the cumulative impact – including past, present, and reasonably foreseeable impacts – of lead dispersion, settling, and deposition onto and around the airport, including large residential developments, is arbitrary and capricious.

The Port of Portland constructed a taxiway, which the FAA has conceded marginally increases demand at an airport. Here, the FAA failed to disclose the cumulative and incremental impact on demand from constructing the new taxiway and the proposed new runway. This failure is arbitrary and capricious.

H. Failure to Take a Hard Look at Water Quality

According to the Centers for Disease Control, dispersed lead enters rivers, lakes, streams and aquatic life when soil particles are moved by rainwater. Lead from increased aviation activity disperses and settles into McKay Creek watershed, the Glencoe Swale, Dawson Creek, and Dawson Creek watershed. The EA fails to identify the past impacts to water bodies and watersheds as it relates to lead dispersion and settling, and fails to disclose the environmental impact of adding more lead to water bodies.

The EA also fails to disclose impacts on water bodies associated with de-icing at the airport. The Port of Portland owns and operates HIO, a general aviation airport. The airport contains seven drainage basins, and it is situated on high ground between two watersheds. McKay Creek drains the northerly and westerly portions of the site. Dawson Creek serves the southern and eastern portions of the site. Drainages flow into the City of Hillsboro's storm sewer system. Both creeks and the City of Hillsboro's storm sewer system are part of the Tualatin River watershed. De-icing fluid is harmful to fish and other aquatic life. Bacteria break down de-icing fluid, depriving fish of oxygen. Sodium Formate is also used for pavement de-icing. Sodium Formate is a hazardous substance, and it is toxic to lungs and mucous membranes. It is hazardous if inhaled or if it comes into contact with skin or eyes, and very hazardous if ingested. Regardless of whether de-icing will be addressed in a 1200-Z permit, the agency cannot ignore its obligations to take a hard look, adequately analyze, and disclose the impacts on water quality from de-icing fluid.

I. Failure to Consider changes in Businesses and Economic Activity

The SEA fails to consider the potential for induced or secondary impacts on surrounding communities pursuant to FAA Order 1050.1E. Here, Hillsboro Aviation and Global Aviation have expressly stated that they would increase their operations if an additional runway is constructed, but the SEA fails to disclose this information. This demonstrates that the additional runway would induce demand from companies currently operating at Hillsboro Airport. More importantly, Hillsboro Aviation has repeatedly stated that it intends to expand its flight instruction operations if a third runway is constructed. This is significant because flight instructional operations use avgas, which contains lead. According to the survey, numerous

participants are frustrated by the overwhelming number of flight training operations, and Hillsboro Aviation's expansion will only increase lead pollution in and around the airport in the event the third runway is constructed.

The EA concedes that Aero Air expanded its hangar in 2012. Aero Air's new hangar is 30,000 square feet, and, according to Aero Air, "there is a considerable demand for hangar lease customers." Numerous pilots reported in the survey that they would likely relocate their aircraft to Hillsboro Airport if additional hangar space is available. The SEA fails to take into account the additional demand for hangar space combined with the induced demand as a result of a new parallel runway and intention of existing companies to expand operations.

According to the FAA, it is "traditionally assumed that there would be no change in activity with the addition of a new runway at a general aviation airport, as was assumed in the original Environmental Assessment." This assumption, however, was put to rest by the Ninth Circuit:

> It strains credulity to claim that increasing HIO's capacity significantly, which in turn would decrease congestion and delay, would have no bearing on the decision of flight schools, the military, emergency medical services, and business and private owners over whether to locate their aircraft at HIO or at other, considerably less busy, GA airports in the area.

Barnes v. US DOT. Hillsboro Aviation credits its expansion to its Chinese clientele, and Hillsboro Aviation has positioned itself to take advantage of the unprecedented growth in the Asian aviation industry. As this industry grows, Hillsboro Aviation will instruct more and more pilots over Washington County and the City of Hillsboro, and the residents of Washington County and the City of Hillsboro will suffer the environmental consequences. The FAA failed to take a hard look, adequately disclose, or consider the impacts from flight schools and their publicly stated intention to expand if a third runway is constructed.

J. Failure to Consider Airport Tower Closures

The FAA recently announced that it would close a number of airport towers at various airports throughout the country, including four in Oregon: Southwest Oregon Regional in North Bend, Eastern Oregon Regional at Pendleton, McNary Field in Salem, and Portland-Troutdale in Portland. The SEA fails to consider that these closures may result in increased aircraft operations at the Hillsboro Airport given that its tower will continue to be operational.

K. Failure to Disclose Current Emissions Inventory

The SEA relies on a 2007 emissions inventory for the criteria and precursor pollutants, but that information was obtained from a monitoring station more than 16 miles away from the

Hillsboro Airport, which is much closer to PDX. Oregon Aviation Watch questions the accuracy of this monitor.

The SEA states that the "2011 annual aircraft operations were 11% less than the operations evaluated in the 2007 emissions inventory. A new existing conditions (2011) emissions inventory was not prepared for this Supplemental Environmental Assessment since, based on the forecasts performed in response to the Court's remand, the emissions levels would be less than shown in the Original Environmental Assessment." This, however, widely misses the mark. The issue is not whether current aircraft operations are less than in 2007; rather, the issue is whether a monitor 16 miles away from the Hillsboro Airport can even identify emissions from the Hillsboro Airport, especially in light of the fact that the monitor is closer to PDX. Thus, a new emissions inventory based on the recently installed air toxics monitor must be prepared.

L. Failure to insure scientific integrity

For the same reasons cited above, the FAA has failed to ensure scientific integrity in its emissions inventory. Reliance on a monitor 16 miles away from the Hillsboro Airport and closer to PDX fails to ensure the scientific integrity of the Air Emissions Inventory. In the absence of any supporting documentation that an air monitor 16 miles away from the Hillsboro Airport can accurately or adequately identify emissions from Hillsboro Airport, as well as differentiate from PDX, downtown Portland, and other faciltiies closer to the monitor.

M. Failure to take a hard look, adequately analyze, and disclose information related to lead statistics

Footnote 17 states that "EDMS was used directly for all pollutants except lead (Pb). EDMS does not calculate lead emissions. Rather the fuel use identified by EDMS was used to estimate lead emissions at Hillsboro Airport based on the known quantity of lead content in AvGas." The SEA fails to provide any information to support what the quantity of lead content in avgas is and what number of piston-engine driven aircraft operations occur. In essence, the FAA has failed to heed the Ninth Circuit's direction: "In essence, the agencies would like this court to take their word for it and not question their conclusory assertions in the EA …. Their word, however, is not entitled to the significant deference that courts give aviation [methodologies] performed by the FAA." Thus, the FAA's failure is arbitrary and capricious.

N. Failure to take a hard look, adequately analyze, or disclose baseline data

The FAA's analysis of environmental impacts is fundamentally flawed because the agency failed to take a hard look, adequately disclose, or consider the baseline as it relates to off-airport impacts, emissions inventory, impacts to water bodies and aquatic life, and other environmental factors necessary to take a hard look.

O. Failure to Consider Relevant Factors

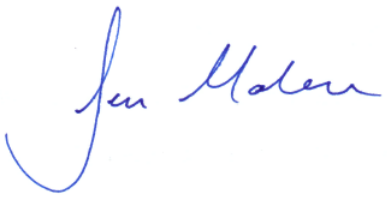
The FAA failed to consider numerous, relevant factors in its analysis, including the unique and disproportionate impacts posed by leaded avgas to children that live in close proximity to the Hillsboro Airport; past, present, and reasonably foreseeable dispersion, settling, and deposition of lead in and around the Hillsboro Airport; failure to consider off-airport impacts[3]; failure to adequately disclose the baseline by relying on a monitor for the emissions inventory that is 16 miles away from the Hillsboro Airport; and other relevant factors identified in throughout these comments.

Conclusion

Based on the foregoing, the SEA is not legally defensible, and, therefore, it must be withdrawn. If you have any questions, please do not hesitate to contact me.

Sincerely,

Sean T. Malone



Attorney for Oregon Aviation Watch
Michelle Barnes

Enclosures:

1. Advance Notice of Proposed Rulemaking on Lead Emissions from Piston-Engine Aircraft Using Leaded Aviation Gasoline Fact Sheet
2. Advance Notice of Proposed Rulemaking on Lead Emissions from Piston-Engine Aircraft Using Leaded Aviation Gasoline; Proposed Rule. Federal Register Vol. 75, No. 81. Wednesday, April 28, 2010.
3. Centers for Disease Control Fact Sheet on Lead
4. Oregon Department of Environmental Quality Fact Sheet – DEQ Places Air Toxics Monitor in Hillsboro

[3] Ironically, the FAA claims that there would be no off-airport effects, yet it relies on an monitor that very much off-airport (16 miles away from the airport to establish Hillsboro Airport's emissions inventory). Clearly the agency has found itself in an untenable and contradictory position. In essence, the FAA has arbitrarily delineated the project area.

5. Oregon Department of Environmental Quality Press Release – DEQ Adds Air Toxics Monitor in Hillsboro
6. Aero Air at HIO Erecting New 30,000 S.F. Hangar
7. Aero Air Breaks Ground on New Hangar
8. Airports Leaden Fallout May Taint Some Kids
9. Connect Oregon Application – A10119
10. Friends of the Earth Petition for Rulemaking (September 29, 2006)
11. Miranda et al. – The Relationship between Early Childhood Blood Lead Levels and Performance on the End-of-Grade Tests
12. Miranda et al. – A Geospatial Analysis of the Effects of Aviation Gasoline on Childhood Blood Levels.
13. Environmental Protection Agency – Memo re Selection of Airports for the Airport Monitoring Study
14. Fact Sheet – Revisions to Lead Ambient Air Monitoring Requirements
15. Chiodo et al. – Neurodevelopmental effects of postnatal lead exposure at very low levels.
16. Low lead exposure harms children: a renewed call for primary prevention. Report of the Advisory Committee on Childhood Lead Poisoning Prevention of the Centers for Disease Control and Prevention
17. Article – "Sunset for Leaded Fuel" from *Spheres of Influence*
18. Article - "The Real Criminal Element" from *Mother Jones*
19. Article – "Lead Exposure on the Rise Despite Decline in Poisoning Cases" from Scientific American
20. FAA list of FAA Contract Tower Closure List
21. Press Release - "FAA Makes Tower Closing Decision" (March 22, 2013)
22. Article – "Hillsboro Aviation Prepared to Support General Aviation Growth in China" from *Vertical Magazine*.
23. Article – "Hillsboro Develops China Clientele" from *Aviation International News* (March 6, 2011).
24. Intensive Flight Training in Vicinity of Portland-Hillsboro Airport, Hillsboro OR
25. APO Terminal Area Forecast Detail Report for Hillsboro Airport
26. Article – "The Growth Predicted for China's Aviation Sector is Startling"
27. Website - Hillsboro Aviation Website
28. Sodium Formate Fact Sheet
29. Article – "Will China Build 82 Unneeded Airports By 2015? You Betcha" *Forbes*