No. 14-71180

IN THE UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT

MICHELLE BARNES, PATRICK CONRY, BLAINE ACKLEY, JIM LUBISCHER, DAVID BARNES, AND OREGON AVIATION WATCH,
Petitioners,

v.

FEDERAL AVIATION ADMINISTRATION,
Respondent

and

PORT OF PORTLAND,
Intervenor-Respondent

PETITIONERS' OPENING BRIEF

Sean T. Malone OSB # 084060
Attorney at Law
259 E. 5th Ave, Suite 200-G
Eugene, OR 97401
Tel. (303) 859-0403
Fax (650) 471-7366
seanmalone8@hotmail.com

CORPORATE DISCLOSURE STATEMENT

Pursuant to Federal Rule of Appellate Procedure Rule 26.1, Petitioners hereby state that they do not have any parent companies, subsidiaries, or affiliates that have issued shares to the public.

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INTRODUCTION

This is a petition for review of the Federal Aviation Administration's Final Supplemental Environmental Assessment (SEA), Finding of No Significant Impact (FONSI) and Record of Decision (ROD) on remand from Barnes v. United States Dep't of Transp., 655 F.3d 1124, 1126-1127 (9th Cir. 2011) (Barnes I), approving the construction and use of a third runway at the Hillsboro Airport (HIO), the busiest general aviation Airport in the state of Oregon, ER-5.[1] Petitioners raise claims under the National Environmental Policy Act (NEPA), 42 U.S.C. §§ 4321 et seq., as well as 49 U.S.C. § 47106(a)(1).

STATEMENT OF JURISDICTION

This petition for review challenges the Final SEA, FONSI, and ROD for the Hillsboro Airport Parallel Runway Project (Project) to construct an additional runway at HIO, as issued by the FAA on February 1, 2014, on remand from this Court in Barnes I, 655 F.3d at 1126-1127 (Barnes I). The FONSI constitutes an order of the FAA Administrator, which is subject to review by the Court of Appeals in accordance with the provisions of 49 U.S.C. § 46110. For purposes of the National Environmental Policy Act ("NEPA"), 42 U.S.C. § 4321 et seq. and

[1] However, HIO has surpassed even the busiest commercial airport in Portland in number of airport operations. See Barnes I, 655 F.3d at 1127 ("[i]n 2008, HIO became Oregon's busiest airport, surpassing [PDX] in number of airport operations.").

the Administrative Procedures Act ("APA"), 5 U.S.C. § 551 et seq., the FONSI constitutes final agency action. The petition for review was filed within the 60 days following issuance of the FONSI, as required by 49 U.S.C. § 46110(a).

QUESTIONS PRESENTED

1. Under NEPA, did the FAA fail to take a hard look at the indirect environmental impacts of the Project when:

   a. the FAA failed to disclose any baseline data on lead pollution (a pollutant that does not breakdown in the environment) for an airport that has been emitting leaded aviation fuel for over 8 decades adjacent to the City of Hillsboro, allowing the indirect environmental impacts of the Project to be viewed in isolation?

   b. the FAA used a pilot survey to determine induced demand and indirect effects from the Project but failed to include any information in the survey from the single largest operator at HIO, a flight training school that admits that it would expand its operations if a third runway was constructed, and when documentation was submitted showing that the flight training school, one of the largest in the country, admittedly trains significant numbers of foreign pilots from countries where the aviation industry is significantly expanding?

c. the FAA failed to follow protocol outlined by the Environmental Protection Agency to fully account for lead pollution from all aspects of general aviation aircraft's landing and take-off sequence, including the tax-in/taxi-out time, run-ups, and the cruise phase, necessarily diminishing the amount of lead pollution resulting from the Project?

d. the FAA departed from its policy of using a 20-year standard demand planning horizon to determine foreseeable impacts, and, instead, used a 10-year non-standard demand planning horizon, without providing an explanation for the agency's change in position and necessarily masking the full spectrum of indirect effects from the Project?

e. the FAA failed to disclose any off-air impacts and impacts to children from induced demand, stating that the FAA need not re-evaluate impacts to children on remand, despite the concession that there will be a net increase in lead emissions from the Project; despite the well-established and disproportionate effect that lead, a potent neurotoxin that has no safe level in the body, has on children; despite two Duke University studies that have identified a correlation between children with increased lead levels in their blood living adjacent to general aviation airports that use leaded aviation gasoline and declining

academic performance; despite the FAA's concession that it has never taken any lead measurements adjacent to HIO; and despite the FAA's reliance on non-NEPA documents to displace the agency's obligations to disclose indirect environmental impacts under NEPA?

f. the FAA failed to re-evaluate the indirect environmental impacts from pollution, including lead pollution, on remand to water quality when the Project area contains significant wetlands and a tributary to the Tualatin River, and, instead, relies on a Clean Water Act 1200-Z permit, a non-NEPA document to displace the agency's obligations to disclose indirect environmental impacts under NEPA?

2. Was the FAA required to prepare an Environmental Impact Statement under the:

a. public health and safety factor when the FAA failed to adequately and accurately disclose the full extent of lead pollution, a potent neurotoxin that has no safe levels in children; failed to provide any baseline data for lead pollution given more than 8 decades of using leaded aviation gasoline at HIO; and in light of two Duke University studies that identified a correlation between children with increased lead levels in their blood living adjacent to general aviation airports

that use leaded aviation gasoline and declining academic performance?

b. unique risks factor and the unique characteristics of the geographic area factor given the widespread consensus that lead is a unique pollutant - a potent neurotoxin that disproportionately affects children and has no safe level in a child's body - and given that the Project will result in a net increase in lead pollution adjacent to the City of Hillsboro, an area where children reside in significant numbers?

c. under the highly controversial factor when three different agencies (the FAA, the Environmental Protection Agency, and the Oregon Department of Environmental Quality) all with expertise in assessing environmental impacts have come to dramatically different results independent of the other agencies about the amount of lead emitted from HIO and from the Project?

3. Did the FAA violate 49 U.S.C. § 47106(a)(1), which requires that a Project be consistent with plans of public agencies authorized by the State in which the airport is located for the development of the surrounding area, when the FAA relied on two invalidated zoning ordinances to satisfy the statute's requirements?

STATEMENT OF THE CASE

I. NATURE OF THE CASE

This a petition for review for declaratory and injunctive relief arising from Respondent FAA's violations of NEPA, the APA, and 49 U.S.C. § 47106(a)(1). Petitioners challenge the FAA's approval of the Project, which proposes to construct and use a third runway at HIO, the busiest general aviation airport in the State of Oregon.

II. LEGAL BACKGROUND

A. The National Environmental Policy Act (NEPA)

NEPA requires all federal agencies to assess the environmental impact of the proposed actions that significantly affect the quality of the environment. 42 U.S.C. § 4332(2)(C). NEPA's disclosure goals are two-fold: (1) to insure that the agency has carefully and fully contemplated the environmental effects of its action; and (2) to insure that the public has sufficient information to challenge the agency's action. See Baltimore Gas & Electric Co. v. Natural Resources Defense Council, 462 U.S. 87, 97 (1983).

NEPA requires agencies to prepare an Environmental Impact Statement (EIS) when a major federal action is proposed that may significantly affect the quality of the environment. 42 U.S.C. § 4332(2)(C), 40 C.F.R. § 1501.4(a)(1). An

EIS is a "detailed written statement" that "provide[s] 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. §§ 1508.11 and 1502.1.

The Council on Environmental Quality's (CEQ's) NEPA regulations allow an agency to prepare a more limited NEPA document, an Environmental Assessment, or EA. The EA is a "concise public document" that "[b]riefly provide[s] sufficient evidence and analysis for determining whether to prepare an [EIS]." 40 C.F.R. § 1508.9(a). If an EA determines that agency actions will not have a significant effect on the human environment, the agency must issue a "Finding of No Significant Impact" (FONSI). See 40 C.F.R. §§ 1501.4(e), 1508.13. However, as explained herein, even in an EA the agency must evaluate feasible alternatives to the proposed action and conduct a "hard look" regarding the project's foreseeable environmental impacts.

"The purpose of NEPA is to foster better decision making and informed public participation for actions that affect the environment." Or. Natural Res. Council Action v. U.S. Forest Serv., 293 F. Supp. 2d 1200, 1204 (D. Or. 2003) (citing 42 U.S.C. § 4321; 40 C.F.R. § 1501.1(c)).

> [NEPA] ensures that the agency, in reaching its decision, will have available, and will carefully consider, detailed information concerning

> significant environmental impacts; it also guarantees that the relevant information will be made available to the larger audience that may also play a role in both the decisionmaking process and the implementation of that decision.

Friends of the Clearwater v. Dombeck, 222 F.3d 552, 557 (9th Cir. 2000) (quoting Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 349 (1989)). "Stated differently, NEPA's purpose is to ensure that 'the agency will not act on incomplete information, only to regret its decision after it is too late to correct.'" Id.

NEPA also requires that federal agencies take a hard look at the environmental impacts of its actions. A hard look includes "considering all foreseeable direct and indirect impacts," Idaho Sporting Congress v. Rittenhouse, 305 F.3d 957, 973 (9th Cir. 2002), and requires the BLM to "undertake a thorough environmental analysis before concluding that no significant impact exists." Native Ecosystems Council v. U.S. Forest Serv., 428 F.3d 1233, 1239 (9th Cir. 2005). A hard look "involve[s] a discussion of adverse impacts that does not improperly minimize negative side effects." Earth Island Inst. v. U.S. Forest Serv., 442 F.3d 1147, 1159 (9th Cir. 2006) (quoting Native Ecosystems Council, 428 F.3d at 1241); National Audubon Society v. Dep't of Navy, 422 F.3d 174, 185 (4th Cir. 2005) ("The hallmarks of a 'hard look' are thorough investigation into environmental impacts and forthright acknowledgment of potential environmental

harms.").

B. 49 U.S.C. § 47106

49 U.S.C. § 47106(a) requires that various satisfactions and certifications be made in order to receive grants under the Airport and Airway Trust Fund. Of particular importance to this case is the certification under 49 U.S.C. § 47106(a)(1), which requires that "the project is consistent with plans (existing at the time the project is approved) of public agencies authorized by the State in which the airport is located to plan for the development of the area surrounding the airport."

III. FACTUAL BACKGROUND

A. Hillsboro Airport

The Hillsboro Airport:

> is located in the city of Hillsboro in Washington County, Oregon, 12 miles west of downtown Portland. The Port of Portland assumed ownership of [Hillsboro Airport] in 1966[2]. In 2008, [Hillsboro Airport] became Oregon's busiest airport, surpassing Portland International Airport (PDX) in number of airport operations.

Barnes I, 655 F.3d at 1126-1127; see id. at 1127-1128 (description of existing 2 runways and 3 taxiways at HIO). The Hillsboro Airport "has evolved as the primary GA airport in the Portland-Vancouver metropolitan area." *Id*. at 1128.

[2] The Port has owned HIO for 48 years and never completed an Environmental Impact Statement for the pollution stemming from its operation.

The proposed third runway would be 3,600 feet long and 60 feet wide, parallel to the existing long runway. Id. at 1129.

B. Lead Pollution and Leaded Aviation Gasoline

Unlike jet fuel utilized by commercial aircraft, lead is used in aviation gasoline: "Aviation gasoline is utilized in general aviation aircraft with piston engines, which are generally used for instructional flying, air taxi activities, and personal transportation." ER-741. According to the EPA, "[l]ead concentrations in air increase with proximity to airports where piston-engine aircraft operate." Id. HIO is surrounded on three sides by neighborhoods and one side by farmland. *See* ER-27, 43(aerial photos). "[U]nlike automobile gasoline, lead in avgas has remained unregulated." ER-758. Of the "3,414 general aviation airports considered by the EPA" in "Lead Emissions from the Use of Leaded Aviation Gasoline in the United States: Technical Support Document, HIO was identified as the 30th highest emitter of lead but recently revised to be the 21st highest emitter of lead. ER-672.

Lead is a potent neurotoxin: "[t]he main target for lead toxicity is the nervous system, both in adults and children." ER-720; Lead Industries Ass'n, Inc. v. EPA, 647 F.2d 1130, 1136 (D. D.C. 1980) ("Lead is a poison which has no known beneficial function in the body, but when present in the body in sufficient

concentrations lead attacks the blood, kidneys, and central nervous and other systems and can cause anemia, kidney damage, severe brain damage, and death.") (citations omitted). "Once in the body, lead is rapidly absorbed into the bloodstream and results in a broad range of health effects." ER-742. "There is no identified safe level of lead in the body." Id.; ER-758 ("[I]t is now understood that there is no safe level of lead exposure."). Lead disproportionately affects children, ER-721 ("Children are more sensitive to the health effects of lead than adults. No safe blood lead level in children has been determined."), and lead remains in the environment once emitted, ER-716 ("Once lead falls onto soil, it sticks strongly to soil particles and remains in the upper lay of soil."). "Lead may remain stuck to soil particles or sediment in water for many years." ER-717. Lead poisoning is a "serious public health threat with no unique signs or symptoms," ER-414, and causes "nerve damage to the sense organs and nerves controlling the body," "reproductive problems," "retarded fetal development even at relatively low exposure levels," "damage to the brain and nervous system," etc. Id. A study entitled "Neurodevelopmental effects of postnatal lead exposure at very low levels" provided data that "consistently show[s] neurobehavioral deficits in relation to low levels of lead in the areas of intelligence, reaction time, visual-motor integration, fine motor skills, attention, including executive function, off-task

behaviors, and teacher-reported withdrawn behaviors." ER-744; ER-762-763 (causal connection between lead and cancer, impaired reproductive function, spontaneous abortion); ER-721 (lead slows mental development, causes lower intelligence; "effects may persist beyond childhood").

C. Barnes I and Scope of the Remand

This Court first addressed the construction and operation of the third runway at HIO in Barnes I, 655 F.3d 1124. There, "Petitioners' main argument … [was] that adding a new runway at HIO would result in increased demand and that the EA is deficient for failing to consider the impact of the indirect effects from this increased demand." Id. at 1136. The FAA and the Port took the position that constructing a new runway, the "most effective capacity-enhancing feature an airfield can provide," id. at 1134, at the busiest airport in the state of Oregon[3] would not result in any additional aircraft operations, and, therefore, there would be no environmental effects. Furthermore, the FAA and the Port took the position that only the actual construction of the runway would result in any environmental impacts. This Court was skeptical of such a position:

> the agencies contend that, while a new runway at a major hub airport might enable airlines to schedule an increased number of connecting flights, thus

[3] At that time, "[i]n 2008, HIO became Oregon's busiest airport, surpassing [PDX] in number of airport operations." *See* Barnes, 655 F.3d at 1127. Currently, "HIO is the busiest general aviation (GA) airport in Oregon." ER-5.

> increasing demand, a new runway at a GA airport is unlikely to attract more private aircraft. The agencies do not explain why this is so and do not refer to anything in the record backing their contention. 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.

Id. at 1137. Because no indirect environmental effects were disclosed from increased aircraft, this Court concluded that "remand is necessary for the FAA to consider the environmental impact of increased demand resulting from the HIO expansion project, if any, pursuant to 40 C.F.R. § 1508.8(b)." Id. at 1139.

For construction and operation of a runway, the actual operation of the runway entails the bulk of the environmental impacts for the Project. As a result of the remand, for the first time, all pollution stemming from use of the third runway by additional aircraft must be disclosed in the SEA. Therefore, the scope of the remand is significant.

D. The new runway will result in a net increase in pollution and other impacts

In response to this Court's remand, the FAA prepared three separate forecasts to predict indirect environmental effects from construction of the third runway:

- "Unconstrained" forecasts were prepared to predict expected growth in aviation activity, without regard to possible limits on growth, such as the

capacity of HIO's existing facilities.

- "Constrained" forecasts were prepared assuming that growth (predicted from demographic and economic data) would be limited by the capacity of HIO's existing facilities. This is the forecast activity that would occur if the No Action alternative remained in the future.

- "Remand" forecasts were prepared specifically in response to the Ninth Circuit finding that the standard FAA forecasting methodology might not include increases in airport activity caused (induced) by the addition of a new runway.

ER-6, 30. The remand forecast was "based on a survey of potential airport users (something the court suggested could be useful), and are intended to estimate additional activity related to changes in general aviation user behavior as a result of the existence and availability of a new runway, and the operational changes that runway would enable." ER-33. "The Remand Forecasts assume that some portion of the responding pilots would act upon their survey response and relocate their operations to Hillsboro once a new runway is commissioned." ER-35; ER-199-255 (survey). By 2016 and 2021, the remand forecast would result in 11,350 more annual operations per year than the unconstrained forecast and the constrained forecast. ER-34; ER-35 ("Based on the survey of aviation users, it was estimated that 11,350 additional aircraft operations per year (see Table 3-2) could result from both a potential reallocation of demand in the region and the potential for growth exceeding the organic growth forecast in the Unconstrained Forecasts."). Despite

the survey's attempt to predict induced demand, the survey had several significant flaws: "The Survey did not capture the number of operations from the primary user of the Hillsboro Airport, Hillsboro Aviation." ER-606. Despite not being included in the survey, Hillsboro Aviation, the largest flight training school at HIO, acknowledged that the third runway would permit its operations to expand:

> With the tremendous growth that we have seen at the Hillsboro airport, we have been concerned of the airport's ability to continue to service the increased activity over the last 3 to 5 years. 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 its tenants to continue expanding as the impact of the current recession subsides.

ER-777 (emphasis added). Because the survey estimates induced growth but fails to account for the largest fixed-based operator at HIO, the survey necessarily minimizes the number of aircraft operations that would result from the third runway, despite acknowledging an increase of 11,350 aircraft operations. Regardless, under the conservative "remand" forecast, the FAA concedes that there would be a net increase in pollution, including lead pollution, even assuming the FAA is correct in arguing that emissions would be "offset" as a result "reductions in delay." ER-54.

STANDARD OF REVIEW

In reviewing compliance with NEPA, courts apply the arbitrary and capricious standard found in the APA, 5 U.S.C. § 706(2)(A). Marsh v. Ore.

Natural Res. Council, 490 U.S. 360, 375-76 (1989); Idaho Sporting Congress v. Thomas, 137 F.3d 1146, 1149 (9th Cir. 1998). An agency decision is arbitrary and capricious if the agency:

> relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise.

Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto Ins. Co., 463 U.S. 29, 43 (1983). The Court must "judge the propriety of such action solely by the grounds invoked by the agency" at the time it made its decision. SEC v. Chenery Corp., 332 U.S. 194, 196 (1947).

Although the scope of review of agency action is limited, agency decisions are not by definition unimpeachable, and a probing and thorough inquiry by the reviewing court is required to determine whether there is a rational connection between the facts found and judgment to support the agency determination. See Baltimore Gas and Electric v. NRDC, 462 U.S. 87 (1983) (citing Bowman Transportation Inc. v. Arkansas-Best Freight System, 419 U.S. 281, 285-286 (1974)); Citizens to Preserve Overton Oark, Inc. v. Volpe, 401 U.S. 402 (1971). In reviewing agency actions, the Court should conduct a searching and careful inquiry. Marsh, 490 U.S. at 378.

SUMMARY OF ARGUMENT

First, the FAA failed to take a hard look at the indirect environmental effects of the Project under NEPA because the FAA: (1) failed to disclose any baseline data on lead pollution, a pollutant that does not breakdown in the environment and builds up inside the human body, for an airport that has been emitting leaded aviation fuel for over 8 decades adjacent to the growing City of Hillsboro, allowing the indirect environmental impacts of the Project to be viewed in isolation; (2) failed to include the single largest operator at HIO, a flight training school, in a pilot survey that acted as the basis for determining induced demand and indirect effects, when the President of the flight training school conceded that an additional runway would allow the flight training school to expand and when the flight training school trains significant numbers of foreign pilots from countries where the aviation industry is significantly expanding; (3) failed to follow protocol outlined by the Environmental Protection Agency to fully account for lead pollution from all aspects of a general aviation aircraft's landing and take-off sequence, including the taxi-in/taxi-out time, run-ups, and the cruise phase, necessarily diminishing the amount of lead pollution resulting from the Project; (4) departed from its policy of using a 20-year standard demand planning horizon to determine foreseeable impacts, and, instead, used a 10-year non-standard demand

planning horizon, without providing an explanation for the agency's change in position and necessarily masking the full spectrum of indirect effects from the Project; (5) failed to disclose any off-airport impacts and impacts to children form induced demand, despite a conceded net increase in lead emissions from the Project, the well-established and disproportionate effect that lead has on children, two studies that link increased levels of lead in children's blood living adjacent to general aviation airports and the children's decreased academic performance, the FAA's concession that it has never taken any lead measurements adjacent to HIO, and the FAA's reliance on non-NEPA documents to displace its obligation to address indirect environmental impacts under NEPA; (6) and failed to re-evaluate the indirect environmental impacts from pollution on water quality on remand given the existence of significant wetlands and water bodies, and, instead relies on a Clean Water Act permit to displace the agency's obligations to disclose the indirect environmental impacts of the Project.

Second, the FAA failed to prepare an Environmental Impact Statement pursuant to the (1) public health and safety factor because the FAA failed to adequately and accurately disclose the full extent of lead pollution from the project, failed to provide any baseline data for lead pollution, and failed to account for the correlation between children with increased lead levels in their blood living

adjacent to general aviation airports that use leaded aviation gasoline and declining academic performance; (2) unique risks factor and the unique characteristics of the geographic area factor given the widespread consensus that lead is a unique pollutant that disproportionately affects children and given that the Project will result in a net increase in lead pollution adjacent to the City of Hillsboro, an area where children reside in significant numbers; and the highly controversial factor when three different agencies (the FAA, the Environmental Protection Agency, and the Oregon Department of Environmental Quality) all with expertise in assessing environmental impacts have come to dramatically different results independent of the other agencies about the amount of lead emitted from HIO and from the Project.

Finally, the FAA violated 49 U.S.C. § 47106(a)(1), which requires that a Project be consistent with plans of public agencies authorized by the State in which the airport is located for the development of the surrounding area, because the FAA relied on two invalidated zoning ordinances to satisfy the statute's requirements.

ARGUMENT

I. PETITIONERS HAVE STANDING

As demonstrated in the Declarations of Michelle Barnes (ECF Nos. 16-3, 22-2), David Barnes (ECF No. 16-4), Jim Lubischer (ECF Nos.16-5, 22-6), Patrick Conry (ECF No. 22-3), Blaine Ackley (ECF No. 16-2), Dale Feik (ECF No. 22-4), Henry Oberhelman (ECF No. 22-5), and Ruth Warren (ECF No. 22-7), Petitioners have standing to bring this action because Petitioners will be adversely affected if the Project is allowed to proceed. See Lujan v. Defenders of Wildlife, 504 U.S. 555, 560-61 (1992); Pit River Tribe v. U.S. Forest Service, 469 F.3d 768, 779 (9th Cir. 2006).

II. THE FAA VIOLATED THE NATIONAL ENVIRONMENTAL POLICY ACT

A. Legal Background

Under NEPA, "[t]he sweeping policy goals announced in § 101 are [] realized through a set of 'action-forcing' procedures that require that agencies take a 'hard look' at environmental consequences." Robertson, 490 U.S. at 350; California v. Block, 690 F.2d 753, 776 (9th Cir. 1982) ("NEPA's central requirement is that agencies must take a 'hard look' at the environmental consequences of its proposed action") (emphasis in original); Nat'l Parks & Conservation Ass'n v. Babbitt, 241 F.3d 722, 733 (9th Cir. 2001) ("[G]eneral

statements about possible environmental effects failed the 'hard look' test required under NEPA"); Blue Mountains Biodiversity Project v. Blackwood, 161 F.3d 1208, 1213 (9th Cir. 1998) ("We have warned that 'general statements about possible effects and 'some risk' do not constitute a 'hard look' absent a justification regarding why more definitive information could not be provided") (quotations omitted).

For the courts, "the task is to ensure that the agency has taken a 'hard look' at the potential environmental consequences of the proposed action." Klamath-Siskiyou v. BLM, 387 F.3d 989, 993 (9th Cir. 2004). A hard look includes "considering all foreseeable direct and indirect impacts." Rittenhouse, 305 F.3d at 973. "A hard look should [also] involve a discussion of adverse impacts that does not improperly minimize negative side effects." Earth Island Inst., 442 F.3d at 1159 citing (Native Ecosystems Council, 428 F.3d at 1241). The BLM "must 'undertake a thorough environmental analysis before concluding that no significant environmental impact exists.'" Id.

B. The FAA failed to take a hard look at the indirect environmental impacts of significantly increasing the capacity of the Hillsboro Airport

1. Failure to disclose baseline pollution data

As indicated above, during Barnes I, the FAA and the Port took the position

that significantly increasing the capacity of the busiest general aviation airport in the country would have no adverse environmental impacts. Instead, the FAA and the Port argued that the only environmental impacts stemming from the Project would occur as a result of construction, not use, of the runway. As such, the FAA has never disclosed any environmental impacts from operation of the any of the runways at HIO. Now that the FAA is finally required to disclose the reasonably foreseeable indirect effects of the project, the FAA has done so in isolation by not disclosing the baseline date for lead dispersion and deposition. This omission violates NEPA.

"NEPA requires that the agency provide the data on which it bases its environmental analysis." N. Plains Res. Council v. Surface Transp. Board, 668 F.3d 1067, 1083 (9th Cir. 2011) (citing Lands Council v. McNair, 537 F.3d 981, 994 (9th Cir. 2008). "Without establishing the baseline conditions … there is simply no way to determine what effect the [action] will have on the environment, and consequently, no way to comply with NEPA." Half Moon Bay Fisherman's Mktg. Ass'n v. Carlucci, 857 F.2d 505, 510 (9th Cir. 1988). "A material misapprehension of the baseline conditions existing in advance of an agency action can lay the groundwork for an arbitrary and capricious decision." Friends of Back Bay v. U.S.A.C.E., 681 F.3d 581, 588 (4th Cir. 2012). Furthermore, the FAA's

Order for NEPA compliance requires "[a]n inventory of existing conditions and facilities." ER-743 (§ 503(a)(1)).

In N. Plains, the plaintiff argued that the defendant failed to disclose adequate baseline data on a variety of wildlife species, and, instead, relied on mitigation measures for the wildlife species. 668 F.3d at 1083-1085. The Ninth Circuit held that "[t]he use of mitigation measures as a proxy for baseline data does not further" the purposes of NEPA, and faulted the defendant's mitigation measures because, "while necessary, are not alone sufficient to meet the Board's NEPA obligations to determine the projected extent of the environmental harm to enumerated resources before a project is approved." Id. at 1084-1085.

Here, on the other hand, the FAA did not even attempt to use a proxy for the baseline. Instead, the FAA wholly failed to disclose the historical extent of environmental harm from almost eight decades of lead dispersion and deposition at HIO, to the residents of the City of Hillsboro, and natural resources, including water resources, see infra. Disclosing the baseline from lead pollution is imperative because lead "sticks strongly to soil particles and remains in the upper lay of soil," ER-716; and "[l]ead may remain stuck to soil particles or sediment in water for many years." ER-717. Though this neurotoxin was largely phased out in the U.S., lead pollution from general aviation aircraft, including at HIO, continued

unabated, and lead has accumulated in the soils, waterways, and individuals at HIO and the City of Hillsboro. Now that the FAA has disclosed that there will be an increase of 200 pounds (i.e., 0.1 ton) per year to the atmosphere and City of Hillsboro below, this increase will be considered in isolation if the baseline is not disclosed. The FAA's failure ignores an important aspect of the problem, see Ctr. for Biological Diversity v. Nat'l Hwy Traffic Safety Admin., 538 F.3d 1172, 1193 (9th Cir. 2008) (an action is arbitrary and capricious if the agency "entirely failed to consider an important aspect of the problem"). The FAA should not get a free pass to avoid disclosure of the baseline simply because the FAA failed to disclose the vast majority of the environmental impacts in Barnes I.

1. Failure to account for the single largest operator at the HIO

As noted above, the FAA relied on the pilot survey to formulate the "remand" forecast, see ER-6, 30, but the survey omitted the single largest general aviation operator at HIO, Hillsboro Aviation, see ER-606 ("The Survey did not capture the number of operations from the primary user of the Hillsboro Airport, Hillsboro Aviation."). This omission is significant because Max Lyons, President of Hillsboro Aviation, submitted a letter in support of the application to fund the Project, stating that the third runway will "allow the airport and its tenants to continue expanding as the impact of the current recession subsides." ER-777.

Indeed, many of the responses in the survey pointed to Hillsboro Aviation as the reason for much of the traffic at HIO. See ER-607; id. (citing original EA: "local operations (consisting largely of training activity) currently [2009] represent about 68 percent of total operations at HIO"). As noted by Petitioners:

> The survey is deficient for not searching for and identifying primary users of the HIO runways…. The identification of primary users of the HIO runways is critical, as any 'estimated induced demand' is likely to hinge on those particular users. Not ensuring that the primary users are included in the survey is a critical mistake and any conclusions based on this Survey are not valid.

ER-608; ER-609 ("To realistically estimate 'induced' operations from a third runway at the Hillsboro Airport it is imperative to consider how the number of operations could potentially change for the principal user of the airport, Hillsboro Aviation.").Furthermore, Hillsboro Aviation is one of the largest flight school operators in the country, and it has partnered with numerous foreign airlines to expand its flight school:

> Since [Max] Lyons took leadership of Hillsboro Aviation in 1992, the company has had a continual emphasis on building partnerships in China to grow and support the country's aviation industry. As the open skies policy takes effect in China over the coming months and years, Hillsboro Aviation is well positioned to nurture the country's general aviation industry through the training of Asian pilots and representing aviation products in Asia. ER-788.
>
> Hillsboro Aviation has trained thousands of airplane and helicopter pilots from Asia, and its graduates work for some of Asia's biggest aviation

companies. As the only CAAC-approved school for both airplane and helicopter training in the United States, Hillsboro Aviation currently has over 100 Chinese pilot students training at its Hillsboro, Oregon facility. Id.

"As general aviation continues to grow and expand in China, we want to have a role in its growth and support this industry with the experience and resources we have developed over our 30-year history with Asia," said [Max] Lyons. Id.

Hillsboro Aviation … continues to grow its business in China. The company currently has more than 100 Chinese airplane and helicopter student pilots training at its Hillsboro, Ore., facility and is the only Civil Aviation Administration of China (CAAC) approved school for both airplane and helicopter training in the U.S.. ER-790.

[Hillsboro Aviation] is expanding its physical plant to accommodate the growth of its Chinese and other business. A new four-acre facility features a new office and warehouse facility. Hillsboro [Aviation] is finalizing an agreement to lease 10 additional acres to facilitate even more future growth. Id.

The CAAC (Chinese government) approved Hillsboro Aviation to conduct both airplane and helicopter training. ER-797.

Luftfartsskolen School of Aviation in Norway chose Hillsboro Aviation to train its pilots. Id.

Hillsboro Aviation has trained thousands of pilots from over 75 countries. Id.

Hillsboro Aviation has logged over 1,000,000 flight hours in [its] 33-year history. Id.

The Airline Pilot Association of Taiwan chose Hillsboro Aviation as its premier location to train. ER-796.

The Japan Aviation Academy chose Hillsboro Aviation as its premier location to train. Id.

Shanghai Airlines chose Hillsboro Aviation to train its pilots. Id.

China Eastern Airlines chose Hillsboro Aviation to train its pilots. Id.

Air China chose Hillsboro Aviation to train its pilots. Id.

See also ER-791 ("Even by the standards of China, the growth predicted for the aviation sector is startling. The combined fleet of the state-run airlines, currently 2,600 aircraft, is expected to grow to 4,500 within five years."); ER-798 ("Li Jiaxiang, director of the Civil Aviation Administration of China, announced his country will build 82 new airports and expand 101 existing ones during the current five-year plan"). In other words, the FAA's "remand" forecast ignores the "elephant in the room." Hillsboro Aviation has expanded significantly, in part, by training foreign pilots from countries where the aviation sector is expanding at a significant rate, but this factor was not considered by the FAA in performing its "remand" forecast.

The third runway Project is being financed by U.S. taxpayer dollars to accommodate a private company's flight training school that emits significant amounts of pollution, including a potent neurotoxin that disproportionately affects children, over the skies of the City of Hillsboro and the surrounding metropolitan area. Thus, the third runway will induce further flight training operations by Hillsboro Aviation that would otherwise be unable to occur without the third

runway. The FAA's failure to account for this important component in its analysis necessarily downplays the number of aircraft operations and their attendant adverse environmental impacts. See Ctr. for Biological Diversity, 538 F.3d at 1193 (failure to consider an important aspect of the problem is arbitrary and capricious). Therefore, the FAA's remand forecast (and, consequently, analysis of environmental impacts) was arbitrary and capricious.

2. Failure to adequately or accurately disclose lead pollution from leaded aviation gasoline

In response to comments raised by Petitioners about lead pollution at HIO and the City of Hillsboro, the FAA submitted the Hillsboro Lead Pollution Study prepared by the Port for the first time in the Final Supplemental EA. See ER-271-296 (Hillsboro Airport Lead Study). This study fails to adequately or accurately disclose lead pollution from leaded aviation gasoline. Petitioners concede that they did not submit comments challenging the adequacy of this study, but the reason for that failure is that the study was not included in the SEA until after the comment period was over. As such, Petitioners could not have challenged this Hillsboro Airport Lead Study.

This same issue arose in City of Las Vegas v. FAA, 570 F.3d 1109, 1114 (9th Cir. 2009), where this Court opined:

> Under 49 U.S.C. § 46110(d), however, we may only review objections that were raised in the administrative proceeding, unless there is "a reasonable ground for not making the objection in the proceeding." Petitioners have raised many issues before us that they did not raise before the agency. They argue that they had no opportunity to do so because the FSEA was issued on the same day as the FONSI/ROD, which was the final agency action that determined that terminated the agency proceeding. Given this timing, we conclude that, for the information that was available to the petitioners for the first time in the FSEA, the petitioners present "a reasonable ground" for not raising the objections to the new information in the proceeding."

The same is true here: Petitioners had no opportunity to object to the Hillsboro Airport Lead Study because it was included in the Final SEA, which was issued on the same day as the FONSI/ROD. Therefore, just as was the case in City of Las Vegas, Petitioners contend that they have presented a reasonable ground for not making the objection before the agency during the comment period.

The FAA failed to adequately or accurately disclose lead pollution from the use of leaded aviation gasoline because the Hillsboro Airport Lead Study failed to account for three important components of general aviation flights. The Hillsboro Airport Lead Study estimated lead levels "based on avgas consumption in piston aircraft," ER-266, which utilizes six different modes: start-up, taxi-out, takeoff, climbout, approach, and taxi-in. ER-267; ER-283. The Study, however, failed to account for three important components included in the standard EPA-recommended protocol, including (1) taxi-in/out time, (2) run-ups, and (3) the cruise phase.

First, the "EPA uses … a 16 minute taxi-in/taxi-out time …," Malone Declaration, Exhibit A at 16 and 19, but the Port's estimate of lead pollution only uses 10 minutes of taxi-in/taxi-out time, ER-765 ("Estimates reflect 10.0 total minutes of aircraft taxi/idle …."). Using a 10 minute taxi-in/taxi-out time instead of a 16-minute taxi-in/out idle time necessarily dilutes the total estimate of lead pollution resulting from the taxi-in/taxi-out time. While the Study does provide that "some local authorities have confirmed that these are the relevant times in mode at their airports for piston aircraft, the applicability of these times in mode will vary by airport," Malone Decl., Exhibit A at 19, the Study does not provide a rationale as to why HIO uses a 10-minute taxi-in/taxi-out time. While an agency's methodology may be due deference, where that methodology contains a void, this Court has found that it "cannot defer to a void."[4] ONDA v. BLM, 625 F.3d 1092, 1121 (9th Cir. 2010).

> Second, the EPA uses a cruise phase for lead emissions above 3,000 feet:
>
> [f] or inventory purposes, lead emitted outside the LTO [i.e., Landing Take Off] cycle occurs during aircraft cruise mode and portions of the climb-out and approach modes above the mixing height (typically 3,000 ft). This part of an aircraft operation emits lead at various altitudes as well as close to and away from airports.

[4] In addition, it is important to recognize that the Hillsboro Lead Pollution Study is not a product of a federal agency, which may be due deference. To the contrary, it was prepared by the Port of Portland to rebut the Oregon Department of Environmental Quality's study that found lead pollution exceedances.

Malone Decl., Exhibit A at 19. The Port's Study pollution estimate, however, limited its cruise phase for lead emissions to 2,031 feet (or 619 meters)[5]:

> Airborne sources, such as approach and takeoff operations, are shown as a series of elevated area sources that arise from approximately 22 meters to 619 meters, or the maximum height of the flight profile.
>
> Release heights of 100 meters, 300 meters, and 500 meters were selected to represent airborne emissions associated with the airport.

ER-283. Again, this failure necessarily dilutes the estimate of lead pollution at HIO and the City of Hillsboro.

Third, the Port's study fails to account for the run-up phase. See ER-267, 283 (listing phases used). Under the heading "Improving Airport-specific Lead Emissions Estimates," the "EPA has learned that one of the important factors in piston aircraft operations that is currently not included in the time in mode or emissions estimates is the time and fuel consumption during the pre-flight run-up checks conducted by piston-engine aircraft prior to takeoff." Malone Decl, Exhibit A at 19. The agency's failure to include this "important factor" necessarily dilutes the estimate of lead pollution at HIO and over the skies of the City of Hillsboro, and, therefore, was arbitrary and capricious. See Ctr. for Biological Diversity, 538 F.3d at 1193 (failure to consider an important aspect of the problem is arbitrary and

[5] 1 meter = 3.28084 feet, and, therefore, 619 meters = 2,030.84 feet.

capricious).

3. Failure to use the standard demand planning horizon to estimate indirect effects

The FAA departed from its policy of using the "standard demand planning horizon of 20 years to determine indirect effects, and, instead, used a 10-year planning horizon that fails to candidly disclose the full range of indirect effects from the Project. The FAA prepared forecasts "for the time period through year 2031 … as the standard FAA aviation demand planning horizon is the base/current year (2011) plus 20 years." ER-31; ER-125 ("Using calendar year 2011 as the base year, annual forecasts were prepared for four future demand years – 2016, 2021, 2026, and 2031."). However, when the FAA presented the pollution estimates from the Project, the FAA strayed from its "standard demand planning horizon," and, instead, used only a 10-year period through 2021. The FAA has not provided any rationale for this change in position except to say that the "FAA determined that the period through 2021 is reasonably foreseeable for purposes of NEPA and this Supplemental Environmental Assessment." ER-31. In other words, the FAA has only provided the public with half of the pollution picture from the Project, deviating from its standard practice.

It has been a longstanding rule that an agency's inconsistent application of its own policy is not entitled to deference: "The fair measure of deference to an

agency administering its own statute has been understood to vary with circumstances, and courts have looked to the degree of the agency's care, its consistency, formality, and relative expertness, and to the persuasiveness of the agency's position." United States v. Mead, 533 U.S. 218, 228 (2001); Good Samaritan Hospital v. Shalala, 508 U.S. 402, 417 (1993) ("[T]he consistency of an agency's position is a factor in assessing the weight that position is due."); Mt. Graham Red Squirrel v. Madigan, 954 F.2d 1441, 1457 (9th Cir. 1992) (holding that the court would not give deference to the agency's "expertise" when the agency has fluctuated in its position). Here, the agency's "[u]nexplained inconsistency" is arbitrary and capricious. See Morales-Izquierdo v. Conzales, 486 F.3d 484, 493 (9th Cir. 2007). The agency has, in its possession, information related to lead and other emissions from 2021 through 2031, but refuses to use that information to better inform the public and the decision-maker. This omission fails to disclose "all foreseeable … indirect impacts," Rittenhouse, 305 F.3d at 973, and "improperly minimizes negative side effects," Earth Island Ins., 442 F.3d at 1159. Therefore, the agency failed to take a hard look at the indirect effects of the Project.

4. Failure to disclose off-airport impacts and impacts to children from induced demand

The FAA failed to take a hard look at the off-airport impacts and impacts to children. Though it acknowledges a net increase in lead pollution, the FAA refused to make any changes to its analysis for a series of affected areas: "Based on the discussion of environmental effects in the Final EA (2010), those environmental factors that would not be affected by the new forecasts, where there has been no notable change in conditions, and would therefore not require re-evaluation as discussed in *Chapter 5* (*Affected Environment*)." ER- 10, 50 (emphasis in original). One of these affected areas not re-evaluated in the SEA is "Socioeconomic Impacts, Environmental Justice, and Children's Health and Safety Risks."[6] Id.

It is well-established that small amounts of lead can have significant impacts on individuals and that, for children, there is no safe level of lead in the body. See ER-742 ("There is no identified safe level of lead in the body."); ER-758 ("[I]t is now understood that there is no safe level of lead exposure."); ER-721 ("Children are more sensitive to the health effects of lead than adults. No safe blood lead level in children has been determined."). Leaded aviation fuel has been utilized at

[6] The SEA also lists the following subjects that would allegedly "not be affected by the new forecasts": "Fish, Plants, and Wildlife," "Water Quality," and "Wetlands," amongst others. ER-10, 50.

the HIO since it began operating more than 8 decades ago, and the City of Hillsboro has grown around this airport, with growth expected to continue. See ER-47 ("more recent demographic data have become available indicating 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"). Despite the growth rate of the surrounding urban areas and the well-established and disproportionate impact from lead on children, the SEA states:

> Despite this increased growth rate in area population, the proposed project is not expected to have off-airport effects. ER-47.
>
> Therefore, because no off airport effects are anticipated, it was determined that no further consideration was needed of social and environmental justice impacts. Id.
>
> Because the anticipated project-related effects continue to be confined to the Airport, and no resources associated with children would be affected, no further analysis of these factors is required in this Supplemental Environmental Assessment. ER-48.

These statements cannot be overemphasized. The FAA is taking the position that all lead pollution (and other pollutants) apparently disperse and settle solely on the airport and does not affect the surrounding City of Hillsboro, which is a resource associated with children.

> Accounting for even small amounts of lead settling within the residential

areas surrounding HIO is significant because two recent studies from Duke University identified a correlation between children living in close proximity to airports with increased blood lead levels and decreased academic performance. The first study, at ER-784-787 ("A Geospatial Analysis of the Effects of Aviation Gasoline on Childhood Blood Lead Levels"), provides:

> Objective: In this study we investigated the relationship between lead from avgas and blood lead levels in children living in six counties in North Carolina.
>
> Methods: We used geographic information systems to approximate areas surrounding airports in which lead from avgas may be present in elevated concentrations in air and may also be deposited to soil. We then used regression analysis to examine the relationship between residential proximity to airports and North Carolina blood lead surveillance data in children 9 months to 7 years of age while controlling for factors including age of housing, socioeconomic characteristics, and seasonality.
>
> Results: Our results suggest that children living within 500 m of an airport at which planes use leaded avgas have higher blood lead levels than other children. This apparent effect of avgas on blood lead levels was evident also among children living within 1,000 m of airports. The estimated effect on blood lead levels exhibited a monotonically decreasing dose-response pattern, with the largest impact on children living within 500 m.
>
> Conclusions: We estimated a significant association between potential exposure to lead emissions form avgas and blood levels in children. Although the estimated increase was not especially large, the results of this study are nonetheless directly relevant to the policy debate surrounding the regulation of leaded avgas.

ER-784. This study establishes that children living within close proximity to airports are more likely to have elevated blood levels, and the following study,

(ER-778-783 ("The Relationship between Early Childhood Blood Lead Levels and Performance on End-of-Grade Tests"), establishes that those same children are more likely than other children to have lower testing scores:

> Objective: In this study we sought to determine whether blood lead levels in early childhood are related to educational achievement in early elementary school as measured by performance on end-of-grade (EOG) testing.
>
> Methods: Educational testing data for 4th-grade students from the 2000-2004 North Carolina Education Research Data Center were linked to blood lead surveillance data for seven counties in North Carolina and then analyzed using exploratory and multivariate statistical methods.
>
> Results: The discernible impact of blood lead levels on EOG testing is demonstrated for early childhood blood lead levels as low as 2 µg/dL. A blood lead level of 5 µg/dL is associated with a decline in EOG reading (and mathematics) scores that is roughly equal to 15% (14%) of the interquartile range, and this impact is very significant in comparison with the effects of covariates typically considered profoundly influential on educational outcomes. Early childhood lead exposures appear to have more impact on performance on the reading than on the mathematics portions of the tests.
>
> Conclusions: Our emphasis on population-level analyses of children who are roughly the same age linked to previous (rather than contemporaneous) blood lead levels using achievement (rather than aptitude) outcome complements the important work in this area by previous researchers. Our results suggest that the relationship between blood lead levels and cognitive outcomes are robust across outcome measure and at low levels of lead exposure.

ER-778. The lessons from these studies are disturbingly clear: children that live closer to general aviation airports that use leaded aviation gasoline are likely to have increased levels of lead in their blood, and those same children are more

likely to have decreased academic performance than other children. These studies directly contradict the FAA's contention that increased lead emissions would have no off-airport impacts and that increased lead emissions would not have a significant impact on children living adjacent to HIO.

Further calling into question the FAA's statements is the disclosure that the FAA has not taken any measurements of lead adjacent to the HIO:

> Although lead measurements have not been conducted immediately adjacent to Hillsboro Airport, measurements elsewhere have not led to the USEPA to focus on the area around Hillsboro or to designate the area as a non-attainment, nor the State or local air agency to indicate that there are violations of the standard.

ER-566. In other words, the FAA appears to assume that there will be no off-airport impacts while acknowledging that it has never performed any measurements of lead adjacent to HIO. While the FAA appears to rely on "measurements [taken] elsewhere," the FAA has neither disclosed the results nor the location of those measurements. Because the airport is surrounded on three sides by residential areas, it remains to be seen how the additional, undisclosed measurements could be helpful had they been disclosed. The FAA's concession also calls into question the FAA's allegation that HIO "has no history of exceeding the USEPA lead standards." ER-63. If no measurements have been taken, then it is unsurprising that exceedances have not been identified. Finally, because the

measurements have not been disclosed, the FAA cannot rely on them to demonstrate that there would be no off-airport impacts.

The FAA also contends that "[w]hile lead is used in the AvGas dispensed by tenants to aircraft at [HIO], there is no industry-accepted information to indicate that residents in the vicinity of [HIO] have been exposed to concentrations of lead from aircraft that would cause the effects noted above." ER-566. The FAA's alleged reliance on a lack of "industry-accepted information" is unavailing:

> It must be remembered that the basic thrust of an agency's responsibilities under NEPA is to predict the environmental effects of a proposed action before the action is taken and make those effects known. Reasonable forecasting and speculation is thus implicit in NEPA, and we must reject any attempt by agencies to shirk their responsibilities under NEPA by labeling any and all discussion of future environmental effects as "crystal ball inquiry."

Scientists' Inst. For Public Information, Inc. v. Atomic Energy Comm'n, 481 F.2d 1079, 1092 (D.C. Cir. 1973). Because "lead measurements have not been conducted immediately adjacent to Hillsboro Airport," ER-566, and the agency assumes no environmental impacts because of a lack of "industry-accepted information," the agency's analysis of indirect effects has missed the mark, falling far short of what is required under NEPA.

The FAA also heavily relies on the National Ambient Air Quality Standards (NAAQS) to displace its obligation to disclose environmental impacts under

NEPA. ER-63-64, 566. The FAA argues that because the EPA, pursuant to the Clean Air Act, has identified a *de minimis* level of lead emissions at 25 tons per year, the proposed 0.1 tons per year increase in lead pollution would be *de minimis*, and, therefore, not have a significant impact on children. Though the federal *de minimis* level for lead may be 25 tons, the State of Oregon's Department of Environmental Quality (Oregon DEQ) set a 0.1 ton per year threshold for lead as the *de minimis* standard, which brings the additional emissions from the new runway into greater perspective. See Oregon Administrative Rule (OAR) 340-200-0020(33); Malone Decl., Exhibit C at 2 (Table showing *de minimis* levels for lead under OAR 340-200-0020(33)); 40 C.F.R. § 50.2(d) (permitting states to set "more stringent" ambient air quality standard "than the national standards"). Given the failure to actually measure lead levels in and around the airport and the shortcomings in the Ports lead study identified above, Petitioners contend that the state *de minimis* level will be exceeded, and, therefore, significant impacts will, indeed, occur to children, a segment of the population that has no identified safe level of lead in their body. See ER-721, 742, 758.

More importantly, according to the "remand" forecast, by the year 2016, the Project will result in 0.l tons per year of lead in addition to the existing 0.8 tons per year of lead brings the total lead emissions to 0.9 tons per year. See ER-55 (Table

6-3). This would exceed the "significant emission rate" of 0.6 tons per year of lead, as promulgated by the Oregon DEQ. See OAR 340-200-0020(133); Malone Decl., Exhibit C at 1 (Table 2 for "Significant Emission Rate"). Thus, according to the Oregon DEQ, the emissions of lead from HIO are significant.

Regardless of the above analysis, the FAA makes a critical mistake by relying solely on the NAAQS under the Clean Air Act to displace its obligations to evaluate environmental impacts under NEPA. This Court and others have consistently held that a non-NEPA document cannot replace an agency's obligation to consider environmental impacts under NEPA. See South Fork Band Council v. U.S. Dept. of Interior, 588 F.3d 718, 726 (9th Cir. 2009) ("A non-NEPA document … cannot satisfy a federal agency's obligations under NEPA."); Greater Yellowstone Coalition v. Flowers, 359 F.3d 1257, 1275 (10th Cir. 2004) (acknowledging distinction between "no jeopardy" under ESA and "significance" under NEPA); Portland Audubon Society v. Lujan, 795 F. Supp. 1489, 1509 (D. Or. 1992) (rejecting notion that consultation with USFWS under ESA can substitute as compliance with NEPA) Sierra Club v. Norton, 207 F. Supp. 2d 1310, 1335 (S.D. Ala. 2002) (stating that the "jeopardy" analysis is distinct from the "significant impact" standard of NEPA and explaining the importance of preparing an EIS where there is uncertainty about impacts to listed species); National

Wildlife Federation v. Babbitt, 128 F. Supp. 2d 1274, 1302 (E.D. Cal. 2000) (requiring an EIS even though mitigation plan satisfied the requirements of the ESA). Here, an independent analysis of environmental impacts from increased lead emissions is critical because the threshold for adverse environmental impacts from lead pollution is measured in micrograms (ug/m3) and the additional emissions from the Project are measured in hundreds of pounds per year[7]. Indeed, as has been explained supra, there is no safe level of lead in children, and, therefore, it follows that there will be some adverse environmental impact on a segment of the population on children. The FAA's failure to account for this important problem fails to consider "all foreseeable … indirect impacts," Rittenhouse, 305 F.3d at 973, and "improperly minimizes negative side effects" of the Project, Earth Island Inst., 442 F.3d at 1159.

5. Failure to disclose indirect environmental impacts to water quality

The FAA failed to account for increased pollution from increased aircraft operations that will settle onto wetlands and waterways. As with "Socioeconomic Impacts, Environmental Justice, and Children's Health and Safety Risks," impacts

[7] For example, the conceded increase of 0.1 tons of lead per year is equivalent to 200 pounds of lead. When combined with the 0.8 tons of lead per year emitted from the airport, the lead emissions from the airport amount to 1800 pounds of lead over HIO and the City of Hillsboro.

to "Water Quality" and "Wetlands" are two subjects' that the FAA refused to re-evaluate on remand in the SEA. See ER-10, 50. The Project area contains significant wetlands and a tributary to the Tualatin River:

> *Water Quality* – Hillsboro Airport lies on higher ground between two watersheds: the McKay Creek watershed, which includes Glencoe Swale, which drains the northern portion of the Airport; and the Dawson Creek watershed, which drains the southern portion of the Airport. Both watersheds are sub-basins of the Tualatin River watershed. ER-48.
>
> *Wetlands* – There are approximately 51 acres of wetlands on Hillsboro Airport. The original Environmental Assessment noted that approximately 2.2 acres of wetland would be filled. Id.

Despite acknowledging the existence of extensive wetlands and water bodies, now that the FAA is required, for the first time, to disclose the indirect environmental impacts from increased aviation activity, the agency has not disclosed any impacts to the wetlands and water bodies from pollution, including lead, that will disperse and settle onto these water bodies. See ER-48-49. Instead, the FAA proposes to rely on its 2012 1200-Z permit under the Clean Water Act – a non-NEPA document – to fulfill its obligations under NEPA. As noted supra, the FAA cannot simply displace its obligations under NEPA with a non-NEPA document, especially a document that does not purport to disclose environmental impacts. See South Fork Band Council, 588 F.3d at 726; Greater Yellowstone Coalition, 359 F.3d at 1275; Portland Audubon Society, 795 F. Supp. at 1509; Sierra Club,

207 F. Supp. 2d at 1335; National Wildlife Federation, 128 F. Supp. 2d at 1302. The 1200-Z permit is not included in the administrative record, and even if it were included in the administrative record, the agency could not rely on it to disclose the environmental impacts that the agency is obligated to disclose within the NEPA document. See League of Wilderness Defenders v. Zielinski, 187 F. Supp. 2d 1263, 1271 (D. Or. 2002) ("A federal agency's defense of its positions must be found in its EA"); Grazing Fields Farm v. Goldschmidt, 626 F.2d 1068, 1072 (1st Cir. 1980) ("We find no indication in the statute that Congress contemplated that studies or memoranda contained in the administrative record, but not incorporated in any way into an EIS, can bring into compliance with NEPA an EIS that by itself is inadequate"). Thus, the agency's failure to account for the conceded net increase in pollution, including lead pollution, to water quality and water bodies was arbitrary and capricious, and the Port's 1200-Z permit does remedy the agency's omissions, even if it were included in the administrative record.

C. The Project will have significant environmental impacts

The Project will have significant environmental impacts, and, therefore, the FAA must prepare an Environmental Impact Statement (EIS). "A determination that significant effects on the human environment will in fact occur is not essential. If substantial questions are raised whether a project may have a significant effect

upon the human environment, an EIS must be prepared." N. Am. Wild Sheep v. U.S. Dep't of Ag., 681 F.2d 1172, 1178 (9th Cir. 1982) (citations omitted) (emphasis original). If there are no potential significant impacts, then the agency must issue a FONSI, accompanied by a "convincing statement of reasons to explain why a project's impacts are insignificant." Blue Mountains Biodiversity Project, 161 F.3d at 1212. Significance factors are set forth for both context and intensity under 40 C.F.R. § 1508.27(a) and (b). "An action may be 'significant' if one of these factors is met." Ctr. for Biological Diversity, 538 F.3d at 1193 (citing Ocean Advocates v. U.S. Army Corps of Eng'rs, 361 F.3d 1108, 1120 (9th Cir. 2004)). Here, however, in its FONSI, ER-3-15, the FAA failed to present any statement of reasons as to why the impacts are not significant pursuant to the context and intensity factors at 40 C.F.R. § 1508.27, an anomaly for any Environmental Assessment.[8]

Though Petitioners raised some significance arguments in Barnes I, 655 F.3d at 1139-1141, those arguments did not relate to the indirect effects of the Project that have now been disclosed for the first time. Indeed, because this Court remanded the issue to the agency to determine the indirect effects of the Project, this Court never reached several of Petitioners arguments under the significance

[8] For this reason alone, remand is appropriate to allow the agency to address the significance factors in its FONSI.

factors:

> Petitioners first argue that the project has both beneficial and adverse effects, see 40 C.F.R. § 1508.27(b)(1), and that it affects public health and safety, see id. § 1508.27(b)(2). This argument is premised on the contention, discussed at length above, that a new runway will cause an increase in demand, thereby increasing pollution, noise, and risks of accidents. Any further discussion of this issue is superfluous.

Barnes I, 655 F.3d at 1140. Now that the agency has performed its analysis of "an increase in demand, these arguments are now appropriately before the Court.

1. Significant effect on public health and safety

Under 40 C.F.R. § 1508.27(b)(2), an EIS must be prepared given the "degree to which the proposed action affects public health or safety." Construction of the third runway will lead to increased lead emissions from general aviation aircraft at HIO and over the City of Hillsboro, ER-315, which will significantly affect the public health pursuant to 40 C.F.R. § 1508.27(b)(2), especially the health of children. The FAA failed to adequately disclose the full extent of lead pollution emanating from general aviation aircraft, see supra, failed to disclose any historical baseline from almost 8 decades of lead pollution at HIO and the City of Hillsboro, see supra, and failed to re-evaluate impacts to children from an increase in lead emissions, despite two studies that link declining academic performance with children living in close proximity to airports that use leaded aviation gasoline, see supra. Petitioners incorporate these arguments from pages 29-31, supra.

Therefore, the Project is significant given the degree to which the project affects public health and safety.

2. The effects involve unique risks and there are unique characteristics of the geographic area

Under 40 C.F.R. § 1508.27(b)(5), an EIS must be prepared given "[t]he degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks." (emphasis added). Under 40 C.F.R. § 1508.27(b)(3), an EIS must be prepared if there are "[u]nique characteristics of the geographic area…." Here, as demonstrated at length supra, lead pollution has unique risks for the population as a whole but especially for children. In addition, increasing the amount of lead pollution at HIO implicates a unique geographic characteristic because the Project will increase lead pollution immediately adjacent to the City of Hillsboro. The Duke University studies (ER-778-783 and ER-784-787) discussed at pages 29-31, supra, demonstrate that the unique impacts of lead pollution at low levels on children living adjacent to airports that use leaded aviation gasoline is a significant consideration that compels the preparation of an EIS, especially in light of the FAA's conceded failure to take any lead measurements adjacent to HIO, ER-566 ("lead measurements have not been conducted immediately adjacent to Hillsboro Airport"), the continued growth of the City of Hillsboro, ER-47 ("the population of the City of Hillsboro,

Washington County and the Portland-Vancouver Area is growing faster than was noted in the original [EA]"), and the FAA's failure to re-evaluate impacts to children on remand, ER-10, 50 (listing subjects not re-evaluated on remand); ER-48 ("Because the anticipated project-related effects continue to be confined to the Airport, and no resources associated with children would be affected, no further analysis of these factors is required in this Supplemental Environmental Assessment"). Therefore, given the unique location of the Project immediately adjacent to the City of Hillsboro and the unique risks to children from lead pollution, as explained in detail supra, an EIS must be prepared.

3. Effects of the Project are highly controversial

Under 40 C.F.R. § 1508.27(b)(4), an EIS must be prepared given the "degree to which the effects on the quality of the human environment are likely to be highly controversial." This Court has interpreted this factor to mean a controversy about "the size, nature, or effect of the major Federal action rather than the existence of opposition to a use." Blue Mountains Biodiversity Project, 161 F.3d at 1212. Here, both EPA and Oregon DEQ information indicate that the effects of the Project are far different than has been disclosed in the supplemental EA.

First, the EPA is currently studying lead emissions at 17 general aviation airports. See Malone Decl., Exhibits B and D. One airport in particular, the San

Carlos airport, was selected for the EPA study. See Malone Decl., Exhibit B at 2 and ER-802. According to the EPA, the San Carlos Airport emits 0.53 tons of lead per year, ER-802, and 0.33 µg/m³ of lead were actually measured at the San Carlos Airport. This exceeds the NAAQS by more than 100%:

> To protect the public from harmful levels of lead in outside air, EPA has established a National Ambient Air Quality Standard (NAAQS) for lead. In late 2008, EPA substantially strengthened this standard, revising the level from 1.5 micrograms per cubic meter (µg/m³), to 0.15 µg/m³, for a 3-month average concentration of lead in total suspended particles. This revised standard improves health protection for at-risk groups, especially children.

Malone Decl., Exhibit B at 1. In comparison, HIO emits 0.68 tons of lead per year, according to the EPA. ER-802. It is important to note that this figure has been updated to 0.8 tons of lead per year, ER-54 (table 6-2), and, with the Project-related indirect effects, will increase to 0.9 tons of lead per year emitted from HIO, id. Despite emitting almost 2 times as much lead per year than the San Carlos airport, the Port's Hillsboro Lead Study only "showed a maximum predicted concentration of 0.00405 µg/m³" of lead and "0.06567 µg/m³" of lead, which, according to the FAA, "is less than 50% of the lead NAAQS." ER-64. In other words, according to the EPA, the San Carlos Airport emits 0.53 tons of lead per year, and was measured to be 0.33 µg/m³ of lead; but HIO emits anywhere from 0.68 to 0.8 (and 0.9 with the new runway) tons of lead per year, yet HIO has anywhere from 0.00405 µg/m³ to 0.06567 µg/m³ of lead. The EPA's calculations

for San Carlos and the FAA's and Port's calculations for HIO are dramatically different. San Carlos is emitting less tons of lead per year than HIO, yet HIO is showing only a fraction of the emissions in micrograms per cubic meter. This is a significant controversy that goes to the effects of the Project.

Second, as noted at ER-64, the Oregon DEQ prepared a study of lead at HIO that "an analysis of lead emissions" using a model called "CALPUFF" "showed an area around the Airport [i.e., HIO] that had the potential to have ambient lead concentrations greater than the NAAQS of 0.15 µg/m³ (calendar quarter average)." This NAAQS exceedance was portrayed in a lead cloud that was included as a figure in the Port's Hillsboro Airport Lead Study. See ER-278. The Port's Hillsboro Airport Lead Study also acknowledged that Oregon DEQ's CALPUFF model "was found to be approximately 60 times greater than the peak concentration from the EDMS modeling [i.e., the model relied on by the Port]." ER-277. After issuance of the Oregon DEQ study, the Port commissioned its own study using a different model referred to as EDMS. See ER-64. Oregon DEQ then modified its model, abandoning the CALPUFF model and using EDMS model that the Port used, which brought the amount level of lead to 0.00331 µg/m³. Despite the Oregon DEQ's subsequent modification, its initial study, without the influence of the Port, showed significant exceedances that align with the EPA's findings

when put into the context of the figures found at the San Carlos airport. See supra. These dramatically varying modeling results demonstrate that lead levels at the Hillsboro airport are anything but settled, and that a significant controversy exists, as indicated by several agencies with expertise in this area. As a result, an EIS must be prepared to determine what the actual indirect effects of increasing lead pollution levels at the airport as a result of constructing an additional runway.

II. THE FAA VIOLATED 49 U.S.C. § 47106(a)(1)

The Project is not consistent with 49 U.S.C. § 47106(a)(1).[9] In order to proceed with the third runway project, the FAA must make a "determination that the environmental analysis and prerequisites associated with any future Airport Improvement Program (AIP) funding application have been fulfilled pursuant to 49 U.S.C. § 47101. The FAA was required to make determinations "prescribed by the statutory provisions set forth in the Airport and Airway Improvement Act of 1982, as codified in 49 U.S.C. § 47106 and 47107. 49 U.S.C. § 47106(a)(1) provides:

> (a) Project Grant Application Approval. – The Secretary of Transportation may approve an application under this subchapter for a project grant only if the Secretary is satisfied that –

[9] As was the case with Petitioners' challenge to the Hillsboro Airport Lead Study, which was not submitted until Petitioners could no longer offer comment, the same is true of the certification provided pursuant to 49 U.S.C. § 47106(a)(1). The Draft SEA did not contain this certification, nor did the original EA prepared in 2010. Therefore, Petitioners have set forth reasonable grounds for not objecting to 49 U.S.C. § 47106(a)(1) during the comment period.

> (1) the project is consistent with plans (existing at the time the project is approved) of public agencies authorized by the State in which the airport is located to plan for the development of the area surrounding the airport.

The FAA relies on two land use zones to satisfy 49 U.S.C. § 47106(a)(1), the City of Hillsboro's Airport Use Zone and the Airport Safety and Compatibility Overlay Zone:

> The City of Hillsboro Airport Use ("AU") Zone (Hillsboro Zoning Ordinance, No. 1945: Vol. 1, Section 135A) applies to the Airport property. The specific purpose of the zone is "to encourage and support the continued operation and vitality of the Hillsboro Airport by allowing Airport and aviation-related commercial, industrial and recreational uses in accordance with state laws." The purpose of the Airport Safety and Compatibility Overlay ("ASCO") Zone is to "establish compatibility and safety standards to promote air navigational safety and reduce potential safety hazards for persons living, working or recreating near the Hillsboro Airport, thereby encouraging and supporting its continued operation and vitality."

ER-12. The FAA argued that "[t]he proposed project is not in conflict with any local planning goals or laws" and "[t]hese zoning ordinances work together to ensure that airport development and operations are consistent with state law and are compatible with surrounding uses." ER-12-13. Contrary to these certifications, these zoning ordinances were found to be unconstitutional by the Oregon Land Use Board of Appeals and the Oregon Court of Appeals, as noted in Barnes I:

> In 2009, the City of Hillsboro approved two zoning changes that amended the Hillsboro approved two zoning changes that amended the Hillsboro

> Comprehensive Plan and the Hillsboro Zoning Ordinance to create two new zones, the Airport Use zone and the Airport Safety and Compatibility Overlay zone. See Barnes v. City of Hillsboro, Or. LUBA No. 2010-011 at 3-5 (June 30, 2010) (describing zoning changes), available at http://www.oregon.gov/LUBA /docs/Opinions/2010/06-10/10011.pdf. Petitioner Barnes challenged these zoning changes before the State of Oregon's Land Use Board of Appeals ("LUBA"). In June 2010, LUBA invalidated both zoning changes. See id. at 6-28. The Oregon Court of Appeals affirmed. See Barnes v. City of Hillsboro, 243 P.3d 139 (Or. Ct. App. 2010). It therefore appears that the two zoning changes would not be implemented.

Barnes, 655 F.3d at 1141. The FAA's certification fails to acknowledge that these two zoning changes were invalidated. Regardless of that failure, the zoning changes the FAA relies on to satisfy 49 U.S.C. § 47106(a)(1) have been invalidated, and, therefore, the Project violates 49 U.S.C. § 47106(a)(1).

III. CONCLUSION

For the foregoing reasons, Petitioners respectfully request that this Court find that the SEA is legally deficient, reverse the agency's decision, vacate the SEA, and remand to the agency.

Respectfully submitted this 11th day of August, 2014.

/s/ Sean Malone
Sean T. Malone (OSB # 084060)
Attorney at Law
259 E. 5th Ave, Suite 200-G
Eugene, OR 97401
Tel. (303) 859-0403
Fax. (650) 471-7366
seanmalone8@hotmail.com

STATEMENT OF RELATED CASES

No other cases currently before the Ninth Circuit Court of Appeals are related to this case.

Ninth Circuit Case No. 14-71180
Certificate of Compliance Pursuant to Federal Rule of Appellate Procedure 32(a)(7)(B) and (C) and Ninth Circuit Rule 32-1

I, Sean Malone, certify that:

1. This brief complies with the type-volume limitation of Federal Rule of Appellate Procedure 32(a)(7)(B) because this brief contains 12,360 words, excluding the parts of the brief exempted by Federal Rule of Appellate Procedure 32(a)(7)(B)(iii).
2. This brief complies with the typeface requirements of Federal Rule of Appellate Procedure 32(a)(5) and the type style requirements of Federal Rule of Appellate Procedure 32(a)(6) because this brief has been prepared in a proportionally spaced typeface using Microsoft Word version 2007, font size 14, and Times New Roman type style.

/s/ Sean T. Malone
Attorney for Petitioner
Date: August 11, 2014

Ninth Circuit Case No. 14-71180

Certificate of Service

I hereby certify that I electronically filed the foregoing with the Clerk of the Court for the United States Court of Appeals for the Ninth Circuit by using the appellate CM/ECF system on August 11, 2014. I certify that all participants in the case are registered CM/ECF users and that service will be accomplished by the appellate CM/ECF system.

/s/ Sean T. Malone
Sean T. Malone
Attorney for Petitioner