The Honorable Richard A. Jones

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF WASHINGTON
AT SEATTLE

STATE OF WASHINGTON, *et al*., Plaintiffs, v. UNITED STATES DEPARTMENT OF THE NAVY, *et al*., Defendants.	NO. 2:19-cv-01059-RAJ CITIZENS OF EBEY'S RESERVE AND PAULA SPINA'S MOTION FOR SUMMARY JUDGMENT NOTE ON MOTION CALENDAR: AUGUST 3, 2021 ORAL ARGUMENT REQUESTED

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I. FACTS

A. The Navy's Action at Issue in this Case

Growlers are extremely loud military jets, even more so when flying just a few hundred feet above the ground. *See infra,* Section I.B. The Navy is increasing low-level Growler overflights around Coupeville by 400%.[1] That dramatic increase is the catalyst for this appeal.

The overflights occur during training practices at the Navy's Outlying Landing Field ("OLF") near Coupeville. The flights are just a few hundred feet above the ground as they loop over the Ebey's Landing National Historical Reserve ("Reserve") and a mix of rural homesteads, subdivisions, and the historic town of Coupeville. GRR 113599; 150328. Each loop ends with a brief "touch-down" and begins immediately thereafter with takeoff, *i.e.,* a "touch-and-go" without a full stop on the runway. GRR 159470; 159472. These "Field Carrier Landing Practices" or "FCLPs" simulate landing on an aircraft carrier.[2] This loop pattern is repeated again and again by two to five jets, each conducting about 10–12 FCLP loops. A typical session lasts about 30 to 45 minutes, but multiple sessions can occur in quick succession, resulting in several hours of low-level overflights. Growler operations can occur any day of the week, day and night, but tend to be scheduled into weeks of concentrated practice separated by periods without operations. GRR 150245, 150254.

B. Growler Noise

It is difficult to describe in words the extreme noise created by Growler jets flying FCLPs just a few hundred feet above the ground. A site visit might be appropriate. The noise from the Growler

[1] Previously, the Navy operated 82 Growlers at two airfields on Whidbey Island, but most FCLPs were at Ault Field near Oak Harbor. Between 2000 and 2017, only about 25% used the OLF near Coupeville. The ROD adds 36 new Growlers and flips the allocation so that 80% of the FCLPs are now at OLF. The two changes combine to increase noisy low-level overflights at OLF from an average of 5,637 per year (2000 to 2017) to 24,100 per year, a fourfold increase. GRR 150313–15 (Table 2.6-1); GRR 160604.

[2] In Navy parlance, "touch-and-go" and FCLP are different operations, but because both involve aircraft coming down to the runway, going to full power, and taking off again without coming to a full stop, GRR 150328, we use the familiar "touch-and-go" terminology interchangeably with "FCLP."

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jets is far louder than the noise from commercial aviation or even other military jets. The noise at ground level from a low flying Growler routinely exceeds 100 decibels on an A-weighted scale (dBA) and often approaches 120 dBA. *See, e.g.,* GRR 60547. What do those numbers mean? Permanent hearing loss. For its own personnel, the Navy's maximum permitted exposure time to 100 dBA is 15 minutes; at 110 dBA, it is 90 seconds; and more than 115 dBA is forbidden. GRR 113628. "Even when we are working outdoors while wearing ear protection and running a chainsaw, the noise and vibration from the overhead Growler flights drowns out all other sound, including that of the chain saw we are using." GRR 152009.

As detailed in the State's summary judgment motion, non-auditory heath impacts include pediatric behavior changes, increased hospital admissions and death from cardiovascular disease, sleep disturbances which may cause or exacerbate many other medical conditions, and speech and cognitive performance interference. *See also* GRR 85022; 154259; 113702–704; 116751–754.

Growler noise also severely disrupts normal living and daily activities. The Growler expansion exposes 1,300 additional residents to *average* noise levels over 75 dB in an average year, GRR 159178. For reference, that is more than four times louder than levels that interfere with conversations; 2 to 8 times louder than levels that disrupt sleep; and exceeds EPA's standards for protecting public health. GRR 14250.[3] These noise levels disrupt sleep; interrupt conversations; interfere with work, study, and classroom education; and make outdoor recreation a painful, horrifying experience rather than a solace and a joy.[4] But when the jets are flying overhead, residents and users of Ebey's Reserve do not hear "average" noise levels. During overflights, they are exposed to much higher noise levels—

[3] The decibel scale is logarithmic: Every increase of 10 decibels represents a 10-fold increase in acoustic energy and a doubling of perceived loudness. GRR 159282. Thus, a noise level of 75 dBA is 100 times the acoustic energy of 55 dBA and a quadrupling of perceived loudness.

[4] *See, e.g.*, GRR 151947, 152009, 152014, 152519, 152650, 155013, 162423 and 162427.

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up to 119.2 dBA (10,000 more energy and more than 16 times greater perceived loudness than the average). GRR 60539.

While the Navy's estimates are low, the Navy acknowledged the basic cause and effect relationship. It predicts that the new Growlers and flight patterns would put 686 more local residents near OLF at risk of permanent, irreparable hearing loss (compared to the No Action Alternative) and would awaken people at night and interfere with indoor and outdoor speech, including disrupting classroom learning at several schools. GRR 159186; 159189–203 (Tables 7-14 through 7-17).

C. Ebey's Landing National Historical Reserve

A large part of the landscape impacted by the low-flying jets is within Ebey's Reserve. The Reserve was established by Congress in 1978 to "preserve, protect, and interpret the reserve's nationally significant historic, natural, cultural, scenic, and recreational resources." GRR 160559. *See also* GRR 160567–68. The Reserve "provides an unbroken historical record from nineteenth century exploration and settlement in Puget Sound to the present time," 54 U.S.C. § 320101. As part of the National Park System, this "superlative natural, historic, and recreation area," 54 U.S.C. § 100101(b)(1)(A), must be "managed for the benefit and inspiration of all the people of the United States," § 100101(b)(1)(C). Further, "activities shall . . . not be exercised in derogation of the values and purposes for which the System units have been established, except as directly and specifically provided by Congress." 54 U.S.C. § 100101(b)(2). The boundaries of Ebey's Reserve are coterminous with the Central Whidbey Island Historic District, which was listed on the National Register of Historic Places ("National Register") on December 12, 1973. GRR 160559.

The OLF abuts the approximately 17,000-acre Reserve. The National Park Service has expressed an interest in buying the OLF property because it would "improve maintenance of the rural landscape and historic scene, and protect open space for plant and wildlife habitat." GRR 151217.

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Instead of evaluating alternatives sites for the Growlers so it could sell the OLF property to the Park Service, the Navy's action will retain OLF and quadruple touch-and-go overflights there. This will cause noise levels to regularly exceed 90 decibels on the Reserve during training sessions. GRR 167459. That is sixteen times the 45–50 dBA noise level typically experienced in a quiet suburban neighborhood. GRR 159284. The peace, tranquility and sense of timelessness sought to be preserved within the Reserve is being destroyed by the fourfold increase in Growler overflights.

II. STANDARD OF REVIEW

Courts are to "set aside" agency action found to be arbitrary or capricious or "without observance of procedure required by law." 5 U.S.C. § 706(2)(A), (D). Unlike substantive challenges, no deference is provided to the agency's claim that it met its procedural obligations. *Kern Cty. Farm Bureau v. Allen*, 450 F.3d 1072, 1076 (9th Cir. 2006). The familiar arbitrary and capricious standard is deferential, but still requires a "searching and careful" examination of the facts; the court must engage in a "thorough, probing, in-depth review." *Citizens to Preserve Overton Park v. Volpe*, 401 U.S. 402, 415 (1971). "A contrary approach would not simply render judicial review generally meaningless, but would be contrary to the demand that courts ensure that agency decisions are founded on a reasoned evaluation 'of the relevant factors.'" *Marsh v. Oregon Nat. Res. Council*, 490 U.S. 360, 378 (1989).

NEPA's salutary purposes can be achieved "only if the prescribed procedures are faithfully followed; grudging, pro forma compliance will not do." *Lathan v. Brinegar,* 506 F.2d 677, 693 (9th Cir. 1974). "[D]eference does not excuse the [agency] from ensuring the accuracy and scientific integrity of its analysis, a NEPA requirement. *See* 40 C.F.R. §§ 1500.1(b), 1502.24." *Oregon Nat. Desert Ass'n v. Jewell*, 840 F.3d 562, 570 (9th Cir. 2016). *See also Northern Spotted Owl v. Hodel,*

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716 F. Supp. 479, 482 (W.D. Wash. 1988) ("[j]udicial deference to agency expertise is proper, but the Court will not do so blindly").

Nor may the Navy use national security concerns as a shield to avoid judicial scrutiny. As the Ninth Circuit explained in a similar case involving the Army: "While the metamorphosis of the Army and the strategic planning accompanying this transformation is the business of the Army, not the courts, the Army's compliance with NEPA does involve us." *'Ilio'ulaokalani Coal. v. Rumsfeld*, 464 F.3d 1083, 1086 (9th Cir. 2006).

III. NEPA CLAIMS

The National Environmental Policy Act of 1969 ("NEPA"), 42 U.S.C. § 4321 *et seq*., is "our basic national charter for protection of the environment." 40 C.F.R. § 1500.1(a). The "NEPA process is intended to help public officials . . . take actions that protect, restore, and enhance the environment," 40 C.F.R. § 1500.1(c). NEPA "emphasizes the importance of coherent and comprehensive up-front environmental analysis to ensure informed decision making to the end that the agency will not act on incomplete information, only to regret its decision after it is too late to correct." *Churchill County v. Norton,* 276 F.3d 1060, 1072–73 (9th Cir. 2001) (internal citations omitted). 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). *See also Metcalf v. Daley*, 214 F.3d 1135, 1142 (9th Cir. 2000).

A. The EIS Failed to Analyze a Reasonable Range of Alternatives

1. Legal standard

The analysis of alternatives forms the heart of an EIS. *'Ilio'ulaokalani, supra*, 464 F.3d at 1095. The purpose is to identify options that can meet the agency's objectives with less environmental harm. 40 C.F.R. 1502.1. "A rigorous exploration and objective evaluation of

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alternative actions that might avoid some or all of the adverse effects is essential." 36 Fed. Reg. 7725 (1971). Congress intended "that no major federal project should be undertaken without intense consideration of other more ecologically sound courses of action, including shelving the entire project, or of accomplishing the same result by entirely different means." *Envtl. Def. Fund, Inc. v. Corps of Engineers of U.S. Army*, 492 F.2d 1123, 1135 (5th Cir. 1974). When reasonable alternatives are excluded from the EIS, NEPA's fundamental objective cannot be met. "The existence of reasonable but unexamined alternatives renders an EIS inadequate." *'Ilio'ulaokalani, supra*, 464 F.3d at 1095 (internal quotation omitted).

Of course, "the concept of alternatives must be bounded by some notion of feasibility." *Vermont Yankee Nuclear Power Corp. v. Nat. Res. Def. Council, Inc.* 435 U.S. 519, 551 (1978). Courts review the range of alternatives under the "rule of reason." *Westlands Water Dist. v. U.S. Dep't of Interior*, 376 F.3d 853, 868 (9th Cir. 2004) (internal citation omitted). Under this standard, the EIS "need not consider an infinite range of alternatives, only reasonable or feasible ones." *City of Carmel-by-the-Sea v. U.S. Dept. of Transportation,* 123 F.3d 1142, 1155 (9th Cir. 1997) (citing 40 C.F.R. § 1502.14(a)–(c)). Agencies are required to "[r]igorously explore and objectively evaluate all reasonable alternatives, and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated." 40 C.F.R. § 1502.14(a).

2. Reasonable alternatives were not rigorously explored or reviewed in detail

The Navy failed to rigorously explore the option of moving the Growlers to a new site, far removed from population centers and a federal historic reserve designated, in part, for its tranquil setting that evokes the serenity of centuries past. Exploring a new site would have been consistent with the National Park Service's stated desire to purchase the OLF property to fill out the Reserve.

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The Navy has an existing base (Naval Air Facility El Centro) in a remote desert in southeast California. The Navy recognized El Centro as a reasonable alternative for other jet plane operations in an EIS for siting F-35 jets. Yet now, in this EIS, the Navy refused to study El Centro in detail as a reasonable alternative for siting the Growlers. The record shows two flaws. One, the Navy failed to take a hard look (to "rigorously explore") the use of El Centro as a substitute for Whidbey. Two, if the Navy had taken a hard look, it would have concluded that El Centro was a reasonable alternative that should have been analyzed in detail in the EIS.

The EIS acknowledged that El Centro was superior to Whidbey for Growler training. Referencing an earlier temporary deployment of Growlers to El Centro, the Navy concluded:

> The unmodified carrier landing pattern at NAF El Centro and the unique at-sea ambient lighting and environmental conditions of nearby San Clemente Island provided **higher quality** of training than could be achieved at either Ault Field or Coupeville reducing the need to maximize the use of Coupeville.

GRR 121559 (emphasis supplied).

Nonetheless, in this EIS, the Navy identified two flaws that necessitated eliminating El Centro from detailed review: (1) cost and (2) shifting impacts from one community to another:

> Some members of the public have suggested moving all Growler squadrons to another installation. No installation exists that could absorb the entire Growler community without excessive cost and major new construction. Furthermore, moving all Growler squadrons to another installation would only move the potential environmental impacts from one community to another community.

GRR 150307. Neither of these justifications withstand scrutiny. We address them in reverse order.

3. The comparison of environmental impacts at the two sites is exactly why the EIS should have investigated El Centro in detail

The EIS blithely asserts that "moving all Growler squadrons to another installation would only move the potential environmental impacts from one community to another community." *Id.* That statement is shockingly at odds with NEPA's core purpose. NEPA is intended to lessen environmental

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impacts by assuring that agencies have taken a hard look at alternatives that could accomplish the agency's objectives at lower environmental cost. The EIS is the mechanism by which an agency assesses the comparative environmental impacts of alternatives. The Navy seeks to dispense with the hard look at those comparative environmental impacts in a single sentence that says they will be the same, regardless of location. The Navy cannot cite any evidence to support that bold statement. Nor can it demonstrate that it conducted any investigation to support that statement.

It should be obvious that the impacts of jet noise will not be the same everywhere. Flying jets low over the lightly populated deserts in remote parts of southeast California will not result in impacts similar to those at Whidbey. To our knowledge, there is no federally designated historic reserve anywhere near El Centro. The number of residents, park visitors, businesses, and schools are far less (or non-existent) in the desert than on Whidbey. The Navy's flippant statement is the antithesis of the hard look required by NEPA. The Court should require more.[5]

4. The higher cost of El Centro was not a valid basis for eliminating them from review

One purpose of an EIS is to inform "ultimate decision-makers," like Congress, of actions they can take to address the issue. *See, e.g., NRDC v. Morton,* 458 F.2d 827, 835 (1972). "[E]ven if an alternative requires legislative action, this fact does not automatically justify excluding it from an EIS." *MVCC v. Reg'l Forester*, 833 F.2d 810, 815 (9th Cir. 1987), *rev'd on other ground by Robertson v. Methow Valley Citizens Council*, 490 U.S. 332 (1989) (internal quotations omitted). *See also Envtl. Def. Fund, Inc. v. Corps of Engineers of U.S. Army*, 492 F.2d 1123, 1135 (5th Cir. 1974) ("[t]he imperative directive is a thorough consideration of [reasonable alternatives], including those without

[5] The Navy also identified one specific environmental impact that might be problematic at El Centro: air pollution. The EIS states that El Centro is in a Clean Air Act "nonattainment area." GRR 150308. But that did not stop the Navy from considering El Centro as a reasonable alternative for the F-35s. *Id*. Air quality is just one of the many environmental impacts that should have been explored in detail and compared between Whidbey and El Centro.

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the area of the agency's expertise and regulatory control as well as those within it").

Thus, an EIS cannot discount an alternative simply because it would require additional federal funds. *Muckleshoot Indian Tribe v. U.S. Forest Serv.*, 177 F.3d 800, 812 (9th Cir. 1999). On the other hand, if the agency can show that it pursued additional funding but Congress rejected the request, the court is more likely to uphold its rejection of a more expensive alternative. *See City of Sausalito v. O'Neill*, 386 F.3d 1186, 1209–10 (9th Cir. 2004) (agency made "consistent attempts to work with members of Congress to secure whatever funding was available" and "kept abreast of possible congressional funding sources").

We recognize, as the Navy said, that moving the base would "require the continued resolve of Congress to support special appropriations and authorizations to replace facilities and training ranges that already exist at NAS Whidbey[.]" GRR 150308. But there is no evidence that the Navy sought that additional funding. The Navy acknowledges that during its environmental review, Congress increased appropriations for the number of new Growlers in response to the Navy's request, GRR 150289, demonstrating that funding decisions are not static and that Congress could respond to the Navy's requests for more funding. *See also* GRR 84474 (uncertainties in Congressional funding).

The cost justification also flounders because it is inconsistent with the Navy's approach for siting another jet, the F-35. The Navy prepared an EIS for single-siting F-35s and included El Centro as a reasonable alternative studied in detail, even with its $800 million price tag. *Id.*

The Navy presented no evidence that it sought funding to move the base to a location the Navy deemed superior for training purposes nor that Congress rejected such a request. Hence, the Navy's cost justification carries no weight.[6]

[6] The Navy also asserted that moving the Growlers to El Centro would disrupt the use of that airfield by other current users. GRR 150308. But the EIS does not state that the Navy could not manage those disruptions. To the contrary, locating the F-35s at El Centro would cause similar disruptions, yet the Navy concluded those could be managed and

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B. The Navy Failed to Take the Necessary Hard Look When It Failed to Validate Noise Models with Readily Available Real-World Monitoring

The EIS relies on computer models to predict noise impacts on humans living in the area. Yet the Navy failed to validate its model. Other agencies and the public repeatedly urged the Navy to validate its model. The model's output and skewed results elsewhere strongly suggested the model was inaccurate. Validating the model would have been easy. Validation would have provided critical information as to the project's expected impacts. Because NEPA demands high quality, accurate information, the failure of the Navy to validate its model renders the EIS unreliable and inadequate.

1. The Navy had a duty to acquire missing information important to a reasoned decision

"Accurate scientific analysis, expert agency comments, and public scrutiny are essential to implementing NEPA." 40 C.F.R. § 1500.1(b). *See also Lands Council v. Powell*, 395 F.3d 1019, 1031 (9th Cir. 2005) ("NEPA requires that the Environmental Impact Statement contain high-quality information and accurate scientific analysis"). If "available information relevant to reasonably foreseeable significant adverse impacts is essential to a reasoned choice among alternatives, and the overall costs of obtaining it are not unreasonable, the agency shall include the information in the environmental impact statement." 40 C.F.R. § 1502.22(a).

2. The model's output was dependent on its input

A model's output is only as good as its input. The input for the EIS noise model included the expected flight tracks of the overflights and the engine power setting during the overflights. GRR

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included El Centro as a reasonable alternative analyzed in detail in the F-35 siting EIS.

Further, the operational drawbacks of moving the Growlers to El Centro would be offset by operational advantages. Despite the Navy's puffing of Whidbey's attributes, internal Navy documents reveal Whidbey is less than ideal. In addition to the large number of residents and a national reserve nearby, Whidbey's OLF has many other deficits the Navy hides from the Court: The clear zone at the end of the OLF runways is too small; the runway is too short for emergency landings; three schools are on the edge of the high risk accident zone; the bird strike avoidance protocol cannot be met; and the runway and wind direction often fail to properly align. GRR 113589–96, 150322.

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159536. Real world deviations in either will cause actual noise levels to vary from the model's predictions. The Department of Defense cautions that monitoring may be needed when conformity between actual operational data and a model's assumptions "come into question." GRR 32768.[7]

Here, there was substantial evidence that pilots do not adhere precisely to the flight tracks, landing gear position (up or down), power settings, speeds, and altitudes used as model inputs. GRR 161313, 150323 (EIS: deviations of several miles). If a modeled flight track is just 1/4 mile off the actual, noise on the ground will vary from the modeled noise by 10–15 dBA.[8] Each of these variables influence noise levels, which is why they are input variables to the model. GRR 96133, 159536. The model also assumes certain precise temperature, humidity and wind conditions that, in the real world, vary and influence noise levels. That influence is negligible when close to the jet but becomes more profound as distance from the jet increases. GRR 60548, 113574. The Navy has not refuted any of this evidence; indeed, most of it was provided by the Navy.

3. Validation was readily available and sought by numerous agencies and organizations

Often, predictive models cannot be validated because the proposal has not yet come to fruition. There is nothing to measure in the field. But here, while the EIS was being prepared, Growlers were already flying the same flights paths modeled for the "no action" alternative. In this situation, an affordable, real world laboratory was available to measure the precise noise levels at the locations of concern based on the planes' actual flight paths, altitudes, power settings and other "operational data." Those actual noise measurements on the ground could then be compared to the model outputs for the no action scenario to assess the accuracy of the model. But the Navy refused to validate its model

[7] Operational data includes inputs such as altitude and airspeed. GRR 116967.

[8] At 500 feet above ground, there is a 27 dB difference in noise level between a Growler overhead versus one mile away. At 2000 feet altitude that difference is still 13 dB (more than double perceived loudness). GRR 150332 (EIS, Table 3.2-1).

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results with actual noise measurements around OLF.

The model's forecasts were inconsistent with the real-world measurements done by the National Park Service, GRR 151223, 151227. As the National Park Service explained:

> NPS monitoring results document a 7dBA difference in Lmax (113 dB at Reuble Farmstead versus 106 at Rhododendron Park), and a 5.2 difference in SEL (117 dB at the Farmstead versus 112 dB at Rhododendron Park). The differences between levels at the Ferry House and Ebey's Prairie are 8 dBA Lmax and 8.6 SEL. In both instances, **the DEIS modeling data** projected for Calendar Year 21 (full implementation of the proposed action) **significantly under represent [sic] the noise derived from NPS monitoring of current conditions**. Please explain this discrepancy.

GRR 116462 (emphasis supplied). *See also* GRR 116458 (NPS: "[The Navy's computer modeled] data is not consistent with data the NPS collected on the Reserve").

The model results also were inconsistent with measurements taken by Jerry Lilly, a highly qualified noise engineer (retained by COER), GRR 60526-50.[9] There also was evidence the model had produced inaccurate results elsewhere. GRR 152230 ("modeled data consistently underestimated the actual on-site noise by 5-15 decibels").

The model results were called into question by the EPA (GRR 116565; 162331), the Washington Department of Health (GRR 151313–14), and others, including the Trust Board of Ebey's Landing National Historical Reserve (GRR 116408; 151378), the National Parks Conservation Association (GRR 151410), the West Coast Action Alliance and Olympic Forest Coalition (GRR

[9] The EIS estimated 4,315 jet noise incidents exceeding 100 dBA at Rhododendron Park, GRR 150673, whereas Mr. Lilly's on-site measurements at that same location indicated there would be about 7200 low-flying jets generating peak noise in excess of 100 dBA (with some above an unimaginable 130 dB). (Lilly's reports include graphs showing peak noise levels for each overflight at various locations. Of the total number of overflights (peaks on the graphs), about 60% were over 100 dBA at Rhododendron. GRR 60545-46 (Fig. 5, 7). Applying that percentage to the total overflights in the EIS forecast, (24,100 operations equals 12,050 overflights), GRR 167647, indicates that, based on these real world measurements, there would be about 7200 flights per year at Rhododendron Park exceeding 100 dBA.)

Similar, disparities can be calculated at Admiral/Byrd. There, the EIS estimates 7712 flights over 100 dBA, GRR 150671, whereas Mr. Lilly's on-site measurements at that same location indicated there would be about 11,200 flights over 100 dBA. (Lilly measured about 93% exceeding 100 dBA (assuming an average of Lockwood/Stark and Keystone). GRR 60544, 60547 (Fig. 3, 9)). Applying that percentage to the total of 12,050 flights equals about 11,200.)

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151551–553), the Sierra Club (GRR 151504), and COER (GRR 152230).

The Washington Department of Health explained that, unlike other modeling situations that preclude validation, ongoing operations at Whidbey allowed for monitoring when the EIS was being prepared. That real world monitoring would allow the agency to evaluate the model's predictive value: "model estimates need to be compared against these actual values . . . these metrics can be measured in a timely manner that is not cost-prohibitive." GRR 151313–14.

The U.S. Environmental Protection Agency (EPA) requested validation monitoring, too:

> The EPA recommends that the Navy establish a monitoring program to verify that actual noise impacts are similar to those projected in this EIS. . . . The EPA believes this on-the-ground validation would help provide an assessment of actual noise impacts projected to be experienced by Whidbey Island and surrounding area residents and wildlife due to the proposed expansion. For example, monitoring sensitive receptor sites within each projected DNL noise contour of 65dB and greater may help characterize more fully the actual duration, frequency, and intensity of exposures to noise-related impacts within these loudest projected contour zones.[10]

Governor Inslee pleaded with the Navy's Rear Admiral for monitoring. GRR 138157. Congressman Larson did, too. GRR 138168. So did Washington's historic preservation officer and the federal Advisory Council on Historic Preservation. All to no avail.[11]

Even the Navy doctor assessing the health effects of the noise impacts explained to those working on the EIS that he could not fully evaluate the health effects "without some idea of the **actual noise measurements** for the population at risk." GRR 118248 (emphasis supplied).

The Navy's failure to conduct monitoring of Growler noise levels to verify that actual noise impacts are similar to those projected by the EIS computer model—as requested by COER, the EPA,

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[10] GRR 151257. Overall, the EPA rated the draft EIS as "EC-2," GRR 151256, which means "environmental concerns with insufficient information." GRR 151259.

[11] The strongly worded requests for monitoring from Washington's historic preservation officer and the federal Advisory Council on Historic Preservation are discussed further *infra* at 31 *et seq.*

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three other agencies, and Washington's Governor—is a stunning omission. NEPA requires that where information important to a reasoned decision is missing and can be readily obtained, the agency must obtain it and use it in the EIS. 40 C.F.R. § 1502.22. "[T]he court may properly be skeptical as to whether an EIS's conclusions have a substantial basis in fact if the responsible agency has apparently ignored the conflicting views of other agencies having pertinent expertise." *Sierra Club v. U.S. Army Corps of Engineers*, 701 F.2d 1011, 1030 (2d Cir. 1983). The Navy's failure to obtain and use validation monitoring data to forecast future impacts renders the EIS inadequate.[12]

4. The Navy failed to disclose the model's limitations

The Navy's reliance on the model without validating it gives rise to another NEPA violation. Agencies are not required to provide conclusive scientific information when it is not available. But they must then acknowledge the limitations in the information they present. Where there are limits in a model's ability to forecast the future, those limitations must be disclosed. *Lands Council v. Powell*, 395 F.3d 1019 (9th Cir. 2004); *Connecticut v. E.P.A.,* 696 F.2d 147, 158–59 (2d Cir. 1982). This EIS contains no such disclosures. That omission provides an independent basis for finding the EIS inadequate. *Id.*

5. The Navy failed to meaningfully respond to comments calling for validation monitoring

Responding to comments is mandatory. NEPA regulations require agencies to first prepare a draft EIS, which is circulated to obtain feedback from other agencies and the public. 40 C.F.R. §§ 1502.9(a), 1503.1. The lead agency must then respond to these comments and publish a final EIS.

[12] Validating a model is not always required. But cases where it has been excused did not include a record with evidence that the model had generated inaccurate results elsewhere and at the subject site; that validation was readily available at low cost; or that multiple federal and state agencies were calling for validation. *See, e.g., Idaho Wool Growers Association v. Vilsack,* 816 F.3d 1095, 1108 (9th Cir. 2016). *See also Allen v. Nat'l Institutes of Health,* 974 F. Supp. 2d 18, 35 (D. Mass. 2013) (approving EIS which "used real live data and experience to the maximum extent possible").

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Id., §§ 1502.9(b), 1503.4. The responses must be meaningful, not evasive. *Oregon Nat. Desert Ass'n v. BLM*, 625 F.3d 1092, 1122 (9th Cir. 2010). The response must be in the final EIS, not elsewhere in the record. *Ctr. for Biological Diversity v. U.S. Forest Serv.*, 349 F.3d 1157, 1168 (9th Cir. 2003). Courts will scrutinize a nominal response to assure that it addresses the issues and is not simply a dodge. *Id.* at 1167–69.[13]

The Navy breached this duty, too. The Navy dismissed monitoring requests from the Washington Department of Health, the EPA, the federal Advisory Council on Historic Preservation, the Washington State Historic Preservation Officer, COER, and many other organizations with this vacuous non-response: "Measuring current noise conditions and/or monitoring future noise conditions, as well as collecting subjective/experiential data, are not being considered." GRR 161320.

This response was, in effect, no response at all. Specific to the NPS request that the Navy "explain this discrepancy" and NEPA's requirement to do so, 40 C.F.R. § 1503.4(a), the Navy did not provide a meaningful response and instead just asserted without explanation that the NPS measurements "affirmed" the Navy's modeling predictions, GRR 161320 (Resp. 4.f). As in *Sierra Club v. U.S. Army Corps of Engineers*, 701 F.2d 1011, 1030 (2d Cir. 1983), "[a]lthough the FEIS purported to respond to these comments, no new studies were performed, no additional information was collected, no further inquiry was made; and the FEIS essentially reiterated or adopted the statements in the DEIS." The Navy's failure to meaningfully respond to agency and public comments calling for validation monitoring renders the EIS inadequate.

[13] Advice on this issue from the Council on Environmental Quality is informative (though not binding): "For example, if a commenter on an EIS said that an agency's air quality dispersion analysis or methodology was inadequate, and the agency had included a discussion of that analysis in the EIS, little if anything need be added in response to such a comment. However, if the commenter said that the dispersion analysis was inadequate because of its use of a certain computational technique, or that a dispersion analysis was inadequately explained because computational techniques were not included or referenced, then the agency would have to respond in a substantive and meaningful way to such a comment." 46 Fed. Reg. 18026, 18034 (1981).

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C. The EIS's Use of DNL Masked Real Impacts

1. An EIS must be forthright, not misleading, and must allow for comparison among alternatives

NEPA requires disclosure of impacts in a manner that allows a comparison among alternatives. 40 C.F.R. § 1502.14. In this instance, the objective was to use a methodology that would allow the Navy (and the public and other agencies) to understand the difference among the alternative scenarios when the Growlers are flying. The Navy used a standard metric but in a manner that obscured the differences among alternatives. We have no argument with the metric when used correctly. It is the manner of its use here that obfuscates the differences among alternatives.

2. As used by the Navy here, the DNL metric provided misleading information and precluded comparing alternatives

Growlers are expected to use OLF intermittently. GRR 150214. The EIS should have answered, clearly and succinctly, two fundamental questions for each alternative: How many more days will the Growlers be flying around Coupeville and how much more noise will there be on days when they fly compared to days when they do not fly. In all its pages, tables and appendices, the EIS never provides a clear answer to either of those questions.

The EIS answers the first question, but in the most misleading way possible. Rather than state, plain as day, that the proposed action would increase noisy fly days at OLF fourfold (from about 10% of the days per year to about 40%), the EIS states only that the percentage of hours per year when the planes will fly at OLF will increase from 1% to 4%. GRR 167646–47. By expressing the increase in these terms, the EIS did not illuminate the issue and inform the public, but attempted to mask and trivialize it. The EIS never tells the public, other agencies (or even the Navy's own decision makers, if they read the EIS) that flights around Coupeville would increase fourfold.

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As to the second question, the EIS did not merely mask and trivialize. It failed to provide the information at all. The Navy used a legitimate metric, but did so in a way that precluded comparing noise levels on noisy fly days with background conditions, *i.e.,* noise levels on quieter days with no flights. Instead, the Navy averaged projections of noise when Growlers were flying with projections of noise when they were not. That averaging made it impossible to see how much each alternative would increase noise compared to quiet days, and then compare that predicted additional noise from one alternative to the next.

The averaging issue has its genesis in OLF's sporadic flight operations. Weeks of training can be followed by weeks with no training. The noise forecasts should have focused on days when training was occurring. Instead, the EIS calculated an average across all days of the year, commingling noisy fly days with quieter no-fly days. That average is not reality. No human hears the average. When the jets are not flying, noise levels are far less than the EIS average. But when they are flying, the loudness humans hear is 6 to 50 times the average.[14] By using the average, the EIS overstates the noise on no fly days and, more importantly, understates the noise on active days. This mashup made it impossible to understand the noise impact on days when the jets are flying and prevented the comparison of the proposal's impacts required by NEPA. GRR 165605.

The EIS relied on the "day-night noise" (DNL) metric to characterize community annoyance to Growler noise. *See, e.g.*, GRR 159071. That metric sums the predicted noise throughout the day and calculates an average value. We have no objection to using the DNL metric if calculated twice: once to predict the average noise on fly days and, separately, to predict the average on quiet days. Those two numbers could then be compared to assess the impact of the

[14] Compared to the EIS's annoyance threshold (DNL of 65dB), the noise on the ground from the overflights is 95 dB to 120 dB or about 6 to 50 times the loudness of 65 dB (because loudness doubles with every 10 dB increase on that logarithmic scale). GRR 159282.

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flights. But the Navy did not do that. Instead, it calculated a single DNL value that combined the predicted average noise on noisy fly days with the predicted average on quiet no-fly days. Mushing the predicted noise values for the two different situations (fly and no-fly days) into a single number made it impossible to discern the expected difference in noise on fly days versus no-fly days.

The Navy has repeatedly recognized the need to separately calculate noise levels on days when jets are flying and days when they are not in situations like this where operations are not steady throughout the year. The Navy refers to a DNL calculated only for fly days as an "average busy day" DNL. GRR 150329. One typical statement of the need to calculate the DNL separately for fly days and non-fly days was included in an earlier noise study for the Whidbey airfields: "For some military airbases, where operations are not necessarily consistent from day to day, a common practice is to compute [DNLs] based on an average busy day, **so that the calculated noise is not diluted by periods of low activity**." GRR 32516 (emphasis supplied). *See also* GRR 32663, 32679–80 (DOD Operational Noise Manual: DNL based on average day underestimates annoyance under flight paths for sporadic conditions like training exercises that last for periods of weeks or months; Army and Air Force do not use annualized average day; Air Force uses average busy day). As in *Friends of the Clearwater v. Dombeck*, 222 F.3d 552, 559 (9th Cir. 2000), this information emphasizing the need to develop a meaningful forecast by separately calculating the DNL for fly days and no-fly days "was not buried in a report prepared by another agency, which might have escaped the [lead agency's] attention, but was generated by the [lead agency] itself."

Aware of its vulnerability on this issue, the Navy devised a plan to avoid disclosing this troublesome data. In an internal email conversation, the Navy recognized that "COER is pushing for using average busy days **and the more intermittent the ops the stronger the case**." GRR 93857 (emphasis supplied). Thus, opined the Navy, "we should stay away from specific number of

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fly days." *Id.* The Navy followed through on its obfuscation plan, never stating the number of fly days in the EIS.

As noted by acoustics engineer Dr. Sanford Fidell, "Given that the proper goal of an [EIS] is to disclose environmental impacts, it is misleading to underestimate immediate impacts by averaging them over inappropriately long time periods which include lengthy periods when no aircraft noise is present." GRR 165605. The EPA agreed:

> Day-night sound level is the primary measure of general audible noise and is appropriate for noise environments that affect community over an entire 24-hour day. . . .
>
> If the existing noise is expected to be substantially the same from day to day, measurements during a single typical 24-hour period may be adequate. . . . **In other situations where strong daily, weekly, monthly, or seasonal effects occur, it may be necessary to measure for a number of different daily periods suitably chosen to account properly for these variations.**

GRR 8359–60, 61 (EPA Guidelines for Noise Impact Analysis) (emphasis supplied). *See also,* GRR 5473 (same statement by National Research Council under Navy contract). The National Park Service agreed: "Due to the highly intermittent nature of the training at OLF Coupeville, using a yearly average dilutes the noise impact. A better basis would be the average busy day." GRR 151238.

The Navy advanced a host of reasons for not calculating DNL separately for quiet days and comparing that to the DNL on fly days (or the "average busy day"). None withstand scrutiny. One response was to note that the DNL averaged across all days is a commonly used metric. GRR 161318. But that common usage is not apropos for an airstrip which is not used "consistent[ly] day to day," as the Navy recognizes. GRR 32516.

Similarly, the Navy has said that choosing the correct noise methodology is a matter to be left to the experts with no judicial review. Dkt. 55 at 17–18. But the issue here is not a dispute about which of several methodologies provides the best assessment of a particular issue. The question here is how

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to properly apply the chosen methodology. A thermometer is undoubtedly the correct method of taking someone's temperature, but you do not put it in the mouth of someone sucking an ice cube. DNL is a legitimate metric, but where operations are intermittent, as they are here, it must be calculated twice, once on the active days and once on the quiet days. Otherwise, the results are misleading or useless. "The deference accorded an agency's scientific or technical expertise is not unlimited. The presumption of agency expertise can be rebutted when its decisions, while relying on scientific expertise, are not reasoned." *Brower v. Evans*, 257 F.3d 1058, 1067 (9th Cir. 2001) (internal citations omitted). *See* Part II, *supra* (deference not applied "blindly;" court must still assure "accuracy and scientific integrity" (citing cases and regulations)).

Misusing a metric to understate impacts is prohibited by NEPA. "Agencies shall insure the professional integrity, including scientific integrity, of the discussions and analyses in environmental impact statements." 40 CFR § 1502.24. *See Lands Council v. Powell,* 395 F.3d 1019, 1032 (9th Cir. 2005) (EIS invalid where agency failed to disclose model's shortcomings). There should be baselines for the DNL for quiet days and noisy days calculated separately. Those quiet day and noisy day baselines would be contrasted with the DNL for quiet and noisy days under the various alternative scenarios. That would provide *meaningful* comparisons (as opposed to the Navy's approach which has "averaged away" the distinctions by combining quiet and noisy days together). S*ee, e.g., Pac. Coast Fed'n of Fishermen's Ass'n, Inc. v. Nat'l Marine Fisheries Serv.*, 265 F.3d 1028, 1036 (9th Cir. 2001) (project effects should not be "diluted into insignificance").

The Navy also contends that there would be only a 1.5 decibel difference between a DNL calculated for all days and a DNL calculated for noisy days. GRR 161318. But that comparison is inapt for two reasons. One, it is based not on OLF, but on Ault Field where operations are not nearly so intermittent. Two, it is not the right comparison even if it were from OLF. The correct comparison

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would be between the DNL on noisy days and the DNL on quiet days (not comparing noisy days and the average, as the Navy has done). The comparison between quiet and noisy days would be a larger contrast, but the Navy continues to refuse to provide it. The actual disparity is apt to be in the range of 5 to 15 dBA, *i.e.,* reality is 50% to 250% louder than the EIS forecast.[15]

The Navy also claims that calculating the DNL for the average busy day would fail to account for the "benefits" of little noise on quieter days. GRR 161318–19. But if the Navy would analyze the DNL for busy and quiet days separately, the difference between the two would readily reveal the so-called "benefit" of the quieter days.

In the EIS, the Navy said it refused to use the average busy day metric for three reasons. First, the Navy noted that the average busy day metric is used to "help prevent [new] incompatible development from encroaching on the flying mission of a Navy airfield." GRR 150329. Yes, but that is not its only purpose. The average busy day metric is useful not just to assess whether new homes should be built near an existing airfield but also to assess the impacts of increasing flights on existing homes. (Even in its role of discouraging new home construction, use of the diluted average is counterproductive: The EIS's diluted annual averages, by understating noise on fly days, encourages problematic encroachment. Owners and buyers need to know over how many days will there be flying and how loud will it be *on those* days. The Navy provided neither of those crucial metrics.)

Second, the Navy complained that if it used the average busy day metric at OLF, it would have to use the same metric at Ault Field, because "an accurate analysis requires a common measure." *Id.* We support using the DNL metric to show quiet day and busy day forecasts at Ault, too. But the issue

[15] Alternative 2A assumes 25% of the FCLPs at OLF being night sessions. GRR 159157. Lilly's measurements resulted in LDNs between 79.9 and 84.0 for four sites with three daytime sessions (no night sessions) and between 84.4 and 90.3 for a scenario with three day sessions/1 night session (25% night). GRR 60529. The 5 to 15 dBA discrepancy can be seen by comparing the location of those four sites (GRR 60531) with the Navy's predictions (GRR 150664).

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is whether commingling quiet and noisy day forecasts at OLF to create an average value is misleading (it is) and whether it allows for an informed comparison among the alternatives (it does not).

Third, the Navy asserts that "the sub-alternatives that provide for greater operations at OLF Coupeville, would make the average busy day an inappropriate measure based on volume of operations;" that the average busy day has a "potential for inaccuracy;" and notes that the Air Force is *considering* phasing out use of the metric. *Id*. (emphasis supplied). The Navy does not explain why the average busy day would be "inappropriate" or potentially inaccurate. Nor is the reasoning behind the Air Force's *consideration* of phasing-out its use of the metric even cursorily revealed or its relevance explained.

When an agency's choice of a particular methodology is challenged, the agency must "articulate a satisfactory explanation for its action." *Owner-Operator Ind. Drivers Ass'n v. FMCSA*, 494 F.3d 188, 203 (D.C. Cir. 2007). *See also Judalong v. Holder,* 565 U.S. 42, 55 (2011); *Native Ecosystems Council v. Dombeck*, 304 F.3d 886, 902 (9th Cir. 2002). "The agency . . . must articulate a rational connection between the facts found and the conclusions reached." *Earth Island Inst. v. U.S. Forest Serv.*, 442 F.3d 1147, 1156–57 (9th Cir. 2006), *abrogated on other grounds by Winter v. Nat. Res. Def. Council, Inc.*, 555 U.S. 7 (2008).

The Navy fails the test. Given that the purpose of an EIS is to disclose the impacts of the project, the Navy's use of a muddled "average" DNL value, which made it impossible to compare the difference between the DNL on quiet days and noisy days, renders the EIS fundamentally inadequate.

D. The EIS Relies on an Outdated Standard and Thus Fails to Accurately Describe the Likely *Effect* on Local Residents Caused by the Predicted Noise Exposure

"NEPA requires that the Environmental Impact Statement contain high-quality information and accurate scientific analysis. 40 C.F.R. § 1500.1(b)." *Lands Council v. Powell*, 395 F.3d 1019,

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1031 (9th Cir. 2005). The EIS failed to use up-to-date information in assessing the effects on humans likely to result from the predicted noise exposure.

Much of the EIS noise analysis focuses on describing the amount of noise that will reach human ears. Various metrics are used to describe those forecasts, *e.g.,* DNL and SEL. But the ultimate issue to be addressed in the EIS is not the amount of noise reaching human ears, but the likely effect of that noise on those residents. It is the difference between describing dose and effect. Noise modeling predicts the dose. The resulting human response is the effect. It is the latter that matters most. And with regard to this critical inquiry, the EIS relied on outdated information.

In 1992, Federal Interagency Committee on Noise (FICON) addressed the need to relate noise *exposure* to human *effects* and identified the prevalence of annoyance in communities as the preferred unit of adverse *effects* to be used by federal agencies. The FICON report concluded that the dose-effect relationship as represented by DNL (dose) and "Percent Highly Annoyed" (effect) was the best available approach for analyzing noise impacts from most transportation facilities. GRR 14190. In the 1970s, Theodore Schulz had analyzed the findings of a number of social surveys and developed a function (expressed as a curve on a graph) that relates noise exposure to human annoyance. The curve was updated in 1991 and is referred to as the "updated Schulz curve" in the 1992 FICON report. GRR 14252 *et seq.* According to that report, as of 1992, the "updated" Schultz curve was the most useful tool for relating exposure to annoyance effect. GRR 14190. *See also* GRR 121930 (Fidell).

The EIS used 65 DNL, derived from the "updated" (1991) Schulz curve, as the threshold for significant effects. GRR 150254. (The EIS also references FAA guidance, but that, too, was based on the updated Schulz curve. GRR 32671.) Per the updated 1991 Schulz curve, 12.3% of people exposed to 65 DNL report "high annoyance." *Id.*; GRR 121931. But more recent studies demonstrate that 12%

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of the population is highly annoyed when aircraft noise exceeds 55 DNL. GRR 121931-33. Yet the EIS refused to use the modern analysis and stuck with 65 DNL in its disclosures of significant impacts.

Dr. Fidell was the principal author of the study that generated the updated Schulz curve. GRR 32671. His "updated" Schulz curve was over a quarter century old when the EIS was published. He was retained by COER to assess the Navy's use of his old study. He provided the Navy with a detailed, but understandable, demonstration that the so-called "updated" 1991 Schulz curve is no longer up-to-date nor accepted as the best means for relating noise exposure to human response to airplane noise. GRR 165602. More recent studies have documented that decibel for decibel, aircraft noise is more annoying than rail or road noise. GRR 152411. Miedema and Vos in 1998 reported that for aircraft noise 12% of the population reports high annoyance at 55 DNL. At 65 DNL, 24% of the population is highly annoyed. Another study obtained similar results in 2001. GRR 159295. Consequently, in 2016, the International Organization for Standardization (ISO)[16] developed its own dose-response relationship. It is specific to aircraft noise and is based on more social survey information than was available in 1991. GRR 121933. The resulting curve (relating dose to effect) showed that using the old Schulz curve "underpredicts the prevalence of annoyance created by aircraft noise exposure by more than a factor of two." *Id.* Whereas the old Schulz curve identified 65 DNL as the noise exposure related to 12.3% of "high annoyance," the ISO curve specific to aircraft noise identified 55 DNL as generating 12.3% of "high annoyance." *Id.* Given the Navy's use of 12.3% high annoyance as the threshold for significant impacts, the more modern research associates that level of high annoyance with an exposure threshold of 55 DNL. *See also* GRR 151315 (WDOH: "One of the largest studies to

[16] The ISO study was the product of an independent, non-governmental international organization with a membership of 165 national standards bodies supported, in part, by the United States Department of Transportation. GRR 121931–32.

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date found that reading comprehension falls below average when children are exposed to aircraft noise that is above 55 dB").

The Navy was fully aware that the "updated" Schultz curve was no longer up-to-date. GRR 121926. It also knew that the FAA was contemplating "a reduction in the noise 'Annoyance Factor' level from 65 dB to 55 dB (or potentially even lower)." GRR 123378. (The same Navy email thread identified the 55 dB issue as "a can of worms" that "has already been opened." GRR 123375.) Yet the Navy continued to use the outdated 65 DNL as the significant annoyance threshold.

The final EIS made one adjustment: It added 55 DNL and 60 contour lines on some of the noise maps. *See, e.g.,* GRR 150604. But the Navy failed to change any part of the analysis of *effects* related to that exposure level. The final EIS continued to limit its estimate of the number of people and school children exposed to the 65 DNL contour, not 55 DNL, and thereby underestimates the significant health impacts *on people*. *See*, *e.g.*, GRR 150655.

NEPA's hard look "should involve a discussion of adverse impacts **that does not improperly minimize negative side effects**." *Earth Island Inst.*, *supra*, 442 F.3d at 1159 (emphasis supplied). "We have elsewhere interpreted the "hard look" requirement as entailing both **a complete discussion** of relevant issues as well as meaningful statements regarding **the actual impact** of proposed projects." *Id.* at 1172 (citing multiple examples) (emphasis supplied).

Where more recent studies demonstrate that old findings no longer fit, NEPA requires the agency to use the updated studies. "It would not further NEPA's aims for environmental protection to allow the Forest Service to ignore reputable scientific criticisms that have surfaced with regard to the once 'model' ISC Strategy." *Seattle Audubon Soc. v. Espy*, 998 F.2d 699, 704 (9th Cir. 1993) (internal citation omitted).

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The dispositive facts are undisputed. The draft EIS addressed noise impacts only by reference to areas (and people within those areas) predicted to suffer with DNL levels of 65 or greater. GRR 121926. In response to criticism that annoyance impacts are significant down to 55 DNL, GRR 150600, the final EIS included a map that depicted the 55 DNL contour. GRR 121934. But the final EIS did not provide any more information about those impacts. It stated the number of people living within the 65 DNL contour but not within the 55 DNL contour. It stated the number of acres within the 65 DNL contour but not the 55 DNL contour. It identified all the schools within the 65 DNL contour, but not those within the 55 DNL contour. It omitted all that information even though the EIS tacitly acknowledged that the current science demonstrates that the long-standing 12.3% "highly annoyed" standard employed by the Navy (using the old Schulz curve) is now recognized to be associated with the 55 DNL contour. (Curiously, the Navy says it computed the population inside the 55 DNL contour, GRR 159053, but this calculation never saw the light of day.) *See also N. Carolina All. for Transp. Reform, Inc. v. U.S. Dep't of Transp.*, 151 F. Supp. 2d 661, 695 (M.D.N.C. 2001) ("[agencies'] decision not to update the FEIS with more accurate air quality data prevented decision-makers and the public from more fully understanding the [project's] effect on air quality"); *Klamath-Siskiyou Wildlands Ctr. v. Nat'l Oceanic & Atmospheric Admin.*, 99 F. Supp. 3d 1033, 1063 (N.D. Cal. 2015) (map simply identifying possible new well sites not an adequate substitute for analyzing the impacts caused by withdrawals from the wells).

Further, if the agency had a valid reason for not using the updated data, it needed to explain itself. *Seattle Audubon Soc. v. Espy,* 998 F.2d 699, 704 (9th Cir. 1993) ("[e]ven if the Forest Service concludes that it need not undertake further scientific study regarding owl viability and the impact of further habitat loss, the Service must explain in the EIS why such an undertaking is not necessary or feasible"). But the Navy did not. The EIS acknowledged the new science, but stated it would stick

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with the outdated science, because that is the way they had done it in the past. GRR 165602. That rigid adherence to outdated science does not meet the Navy's duty to take a hard look and to use "high-quality information" and "accurate scientific analysis." 40 C.F.R. § 1500.1(b). The EIS is inadequate.

E. The EIS Failed to Respond to Agency Requests to Consider Noise Monitoring as a Mitigation Measure

Adaptive management is the process of using a feedback loop to modify mitigation based on real world experience. It can serve an important mitigation function when impacts and/or the effectiveness of mitigation measures are uncertain.[17] While in many cases it may not be possible to use post-implementation monitoring to revise a completed project, the action here is an on-going operation that can be modified or stopped if post-implementation monitoring reveals noise levels significantly worse than predicted by the models. As the federal Advisory Council on Historic Preservation explained to the Navy in this case: "Predicting and measuring [noise effects in Ebey's Reserve] can be elusive until the expanded operations are actually underway. Continued monitoring and evaluation can provide the necessary information for developing and implementing long-term minimization and mitigation strategies for the important historic resources." GRR 167462.

The EPA and the National Park Service reviewed the draft EIS and commented that the final EIS should include noise monitoring as part of a program to respond to noise impacts once the project was initiated. The final EIS failed to do so. That failure violated two NEPA obligations: the duty to include in the final EIS a response to comments on the draft EIS and the duty to include in the EIS a discussion of reasonable mitigation measures.

[17] *See Protect Our Communities Found. v. Jewell*, 825 F.3d 571 (9th Cir. 2016) (finding that "the use of such a continuous monitoring system may complement other mitigation measures, and help to refine and improve the implementation of those measures as the Project progresses").

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1. Agencies have a duty to assess reasonable mitigation measures and to provide a meaningful response to comments regarding mitigation measures

An EIS must include a discussion of measures that can be used to mitigate environmental impacts. "[O]mission of a reasonably complete discussion of possible mitigation measures would undermine the "action-forcing" function of NEPA. Without such a discussion, neither the agency nor other interested groups and individuals can properly evaluate the severity of the adverse effects." *Robertson v. Methow Valley Citizens Council,* 490 U.S. 332, 351 (1989). Agencies must explain their reason for omitting discussion of a reasonable mitigation measure. *See, e.g., Mid States Coal. for Progress v. Surface Transp. Bd.*, 345 F.3d 520, 539 (8th Cir. 2003) ("without a reasoned discussion of [the agency's] rationale [for not discussing a mitigation measure], we cannot say that [the agency] has taken a 'hard look' at this substantial issue"); *Neighbors of Cuddy Mountain,* 137 F.3d 1372, 1380 (9th Cir. 1998) ("mere listing of mitigation measures" violates NEPA). When other agencies and commenters raise the EIS's failure to consider an important mitigation measure, the duty to discuss reasonable mitigation measures in the first instance is bolstered by the related duty to provide a meaningful response to those comments. *See supra* at 14-15.

2. The Navy failed to consider noise monitoring as a mitigation measure and failed to respond to the request from multiple agencies to do so

The EIS did not list or include a discussion of monitoring as a mitigation measure. GRR 150742–746. EPA commented on the draft EIS asking the Navy to consider a noise monitoring program as possible mitigation. GRR 151123. So did the National Park Service. GRR 151217. The Navy failed to do so. The Navy justified its failure to discuss monitoring as mitigation with the assertion that "monitoring would not change the results." GRR 161320. The only support for this Pollyannish assumption is a claim that NPS's monitoring data was consistent with the Navy's model—

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a characterization disputed by the NPS, which explained its monitoring indicated the Navy's model results "significantly under represent [sic]" noise impacts. *See supra* at 12. The Navy's failure to include a discussion of noise monitoring in the EIS and its failure to provide a meaningful response to the comments raising that issue violated the Navy's twin duties to take a "hard look" at reasonable mitigation measures and to respond to comments on the draft EIS.

F. The Navy Understated Greenhouse Gas Emissions in the EIS

The Navy failed to use the best information available to forecast the project's greenhouse gas (GHG) emissions. Jet fuel consumption "contribute[s] directly to emissions of GHGs." GRR 151046. The fuel quantity used in the EIS to forecast GHG emissions for the no action alternative is less than half of that indicated by reference to fuel actually used by the Growlers in 2016. The same method (with the same underestimation of fuel use) was used to forecast emissions in the action alternatives, indicating that those forecasts are less than 50% of likely emissions, too.

1. The actual amount of fuel used by Growlers in 2016 was more than twice the estimated fuel consumption in the EIS

The EIS estimates emissions by multiplying fuel consumption for each leg of a flight by the number of expected flights. Using this methodology, the EIS estimates that in the "baseline" scenario (no additional Growlers in calendar year 2021) just over 64 million pounds of jet fuel would be consumed. GRR 159665. In contrast, the Navy's Fuels Management Officer reported about 138 million pounds of fuel were burned by Growlers alone in FY2016—more than double the baseline case estimated in the EIS (64 million pounds). Greacen Decl., at ¶ 11 and Ex. B. (COER is concurrently moving to supplement the record with Mr. Greacen's declaration. ECF 86.)

The EIS indicates that Growler operations in the "baseline" scenario for FY2021 would be about the same as the actual flights in FY2016. GRR 138290 (2016); GRR 150330 (2021). Thus, the

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only explanation for the more than twofold difference between the fuel estimated in the EIS and the actual consumption in FY2016 is that the EIS dramatically under-estimates fuel consumption and, correspondingly, GHG emissions. Greacen Decl. at ¶¶ 14, 19–20.

The Navy's calculation of Growler fuel use and GHG emissions in the EIS is also inconsistent with Department of Defense documents estimating fuel consumption in prior years. The 2012 Selective Acquisition Report shows the Growler fuel consumption rate at approximately five times the rate estimated in the EIS. Greacen Decl., ¶ 23 and Ex. A. Likewise, the 2015 Selective Acquisition Report shows the Growler fuel consumption rate at approximately three and a half times the rate estimated in the EIS. Greacen Decl., ¶ 24 and Ex. C.

2. The Navy failed to respond to Dr. Greacen's comment pointing out the erroneous fuel usage estimate

Based on the 2012 SAR and discrepancies in the EIS's depicted length of the flight tracks, Dr. Greacen provided the Navy with a detailed analysis demonstrating that the Navy's estimates of Growler fuel and greenhouse gas emissions were likely understated by half. GRR 154092–154093. The Navy never responded to his analysis nor justified its own analysis. *See* GRR 161364–365.[18]

3. The EIS is inadequate because of its flawed analysis of GHG emissions and its failure to respond to comments about its flawed analysis

The Navy's estimate of fuel use and greenhouse gas emissions contradicts the evidence provided to the Navy by Dr. Greacen,[19] is less than half of the actual fuel consumption reported by the

[18] While it is not our burden to demonstrate the cause of the discrepancies between actual use and the EIS forecasts of future use, two explanations are apparent. One, the EIS forecasts appear to stop assessing fuel consumption after the plane exceeds an altitude of 3,000 feet. *See, e.g.*, GRR 14684, GRR 14699. Yet fuel consumption and GHG emissions occur during the entire flight. Two, the EIS forecasts appear to model fuel consumption for shorter flight tracks than those assumed for the action alternatives in the EIS. *Compare* GRR 150348, 150603, 150652, and 150697 (describing a 10-mile glide slope to the runway) *with* GRR 150324 (showing an approximately 14-mile glide slope).

[19] It was clear from Dr. Greacen's comment letter alone that the Navy dramatically underestimated Growler fuel consumption and, therefore, the project's greenhouse gas emissions. *See*, *e.g.*, GRR 154092 (noting "4.6 fold difference" between the fuel use specified in the 2012 SAR and in the EIS). Thus, even if the new evidence is not admitted, there remains sufficient evidence in the record to substantiate these claims.

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Navy's own Fuels Management Officer, and just 22% to 28% of the fuel use estimates in the SARs. An EIS is inadequate when it contains incorrect information, fails to provide a rational explanation for its conclusions, or fails to respond to substantive comments. *See supra* at 14-15, 22. The GHG emissions analysis in the EIS fails these tests. The Court should find the EIS is inadequate.

IV. NHPA CLAIM: THE NAVY FAILED TO ADEQUATELY RESPOND TO ACHP RECOMMENDATION

A. The Navy Need Not Abide by ACHP's Recommendations but Must Have a Rationale Basis for Rejecting Them

Section 106 of the National Historic Preservation Act (NHPA) requires federal agencies to consider the effects of federal undertakings on any district, site, building, structure, or object listed in the National Register of Historic Places. 54 U.S.C. § 306108; 36 C.F.R. § 800.1. "Like NEPA, section 106 of NHPA is a 'stop, look, and listen' provision that requires each federal agency to consider the effects of its programs." *WildEarth Guardians v. Provencio*, 923 F.3d 655, 676 (9th Cir. 2019) (internal quotations omitted).[20]

Section 106 requires an action agency to consult with the State Historic Preservation Officer (SHPO) in an effort to reach consensus on steps to protect historic resources. 36 C.F.R. §§ 800.4(a), 800.6(a). *See also, id.* §§ 800.5(2), 800.6(b), 800.8(c)(v). If, as here, the action agency determines that further consultation will not be productive and terminates the consultation, the matter is elevated to the federal Advisory Council on Historic Preservation. 36 C.F.R. § 800.7(a)(1). The Advisory Council is an independent federal agency tasked with the "preservation of historic property." 54 U.S.C. § 306101(a)(1). While Advisory Council decisions are entitled to deference in the NEPA process, "Advisory Council decisions are of greater weight for NHPA purposes,

[20] "An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association." 36 C.F.R. § 800.5(a)(1).

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where their role is prescribed by statute." *Pres. Coal., Inc. v. Pierce*, 667 F.2d 851, 858 n.2 (9th Cir. 1982). "The Advisory Council, tasked as it is with preserving America's historic resources, merits special attention when it opines on historic properties of transcendent national significance." *Nat'l Parks Conservation Ass'n v. Semonite*, 916 F.3d 1075, 1085 (D.C. Cir.), *amended on reh'g in part,* 925 F.3d 500 (D.C. Cir. 2019) (internal quotation and citation omitted).

Where a statute (like the NHPA) requires an agency to consult with and consider the input of other agencies, the administrative record must demonstrate not just that the consultation took place, but that it was meaningful. "'Stating that a factor was considered . . . is not a substitute for considering it.'" *Beno v. Shalala*, 30 F.3d 1057, 1075 (9th Cir. 1994) (footnote omitted) (quoting *Getty v. Federal S & L Ins. Corp.,* 805 F.2d 1050, 1055 (D.C. Cir. 1986)). The Court should engage in a "'searching and careful' inquiry to determine if [the agency] actually *did* consider" the comments of other expert agencies. *Getty* at 1055 (quoting *Citizens to Preserve Overton Park v. Volpe,* 401 U.S. 402, 416 (1971) and rejecting as "conclusory" an agency statement that all relevant factors had been considered) (emphasis in original).

B. The Navy's Rationales for Not Implementing the Advisory Council's Recommendations Were Arbitrary

The Navy failed to give great weight to the recommendations of the SHPO and the Advisory Council. Instead, those recommendations, originally advanced by the SHPO, "were summarily rejected by the U.S. Navy." GRR 163843 (Washington State Department of Historic Preservation).

During the Section 106 consultation process, the SHPO repeatedly stated that the Navy's proposed mitigation measures were inadequate to address the adverse effects on the impacted historic resources. *See*, *e.g.*, GRR 160334–36. The Navy terminated consultation with the SHPO and other

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consulting parties (including COER) because the Navy disagreed with the SHPO on the type and amount of mitigation appropriate to resolve adverse effects to the Reserve. GRR 164171.

After terminating consultation with the SHPO, the Navy requested that the Advisory Council participate in an effort to resolve the dispute. *Id*. The Advisory Council echoed the State's position and recommended that the Navy monitor Growler noise and then work with stakeholders to develop mitigation measures based on the monitoring results. GRR 167458–65.

If the Navy had a good reason for not accepting the Advisory Council's recommendation, it was free to do so. But the Navy's rationales for rejecting the recommendations should not survive the "exacting," non-deferential review designed to assure that the Navy did not merely go through the motions, but, instead, provided adequate reasons for rejecting the expert agencies' recommendations.

In response to the Advisory Council's and SHPO's request for a robust monitoring program, the Navy first stated that the SHPO agreed with the Navy's assessment that the overflights would "affect the perceptual qualities" in the Reserve. GRR 167575. We agree, but that is no reason to reject the Advisory Council and SHPO recommendations.

Next, the Navy stated that modeling is commonly used to assess potential noise impacts. *Id*. But as discussed above and emphasized by the Advisory Council, the action here is an on-going operation that can be modified if post-implementation monitoring reveals noise levels significantly worse than predicted by the models. The Navy's assertion that models are commonly used prior to implementation is no response to the Advisory Council's call (echoing the earlier Washington Department of Health's call, GRR 151313–14, and the recommendation of EPA, GRR 151257) for after-the-fact monitoring to assess whether the modeled predictions are accurate and whether more effective mitigation should be adopted later.

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Finally, the Navy rejected after-the-fact monitoring because "operational conditions" at the Reserve "would be similar to levels" that occurred in the 1970s. *Id*. For multiple reasons, that response is arbitrary and capricious. One, the response is unintelligible. The sentence seems to say that "operational condition" levels are similar, but what are the "operational conditions?" Noise levels? The number of overflights? The types of engines? On its face, this response is no response at all. Two, if the sentence meant to refer to the number of overflights and engines then in use, the response is irrational, because the planes and engines used in the 1970s were not the same as today. For example, the "Prowler" aircraft that immediately preceded the Growler at Whidbey had less than half the thrust of a Growler, GRR 150245, and, per the Navy, the Growlers "are widely experienced as a louder and more intrusive aircraft," GRR 151216. Three, the Navy provided no noise monitoring data from the 1970s, so it cannot be known whether the EIS model mirrors recorded noise levels from the 1970s.

While the Advisory Council's recommendations "deserve great weight" and "merit special attention," the Navy rejected them for no good reason—the epitome of arbitrary and capricious decision-making. *Kern Cty. Farm Bureau, supra; Beno, supra.* On-the-ground, post-implementation noise monitoring is low cost and provides important information for improving mitigation or even shifting operations elsewhere. The Navy's inability to provide a rational reason for rejecting the Advisory Council's recommendation renders the Navy's action arbitrary and capricious.

V. CONCLUSION

For the foregoing reasons and those advanced by the State of Washington whose arguments and factual recitations we adopt, the Court should find the EIS inadequate and remand for preparation of an adequate EIS. If the Court so determines, we will address other potential remedies, *e.g.,* injunctive relief and its scope, in subsequent briefing.

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Dated this 30th day of March, 2021.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that on March 30, 2021, I served a copy of the foregoing on counsel of record electronically through the court's CM/ECF system.

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