Citizens of the Ebey's Reserve
For a Healthy, Safe and Peaceful Environment
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Memorandum:

TO: Island County Planning Commission and the Board of Island County Commissioners

FROM: Citizens of Ebey's Reserve

DATE: February 3, 2026

SUBJECT: Review Comments on Island County's Draft Comprehensive Plan

We, Citizens of Ebey's Reserve (COER), provide here our suggestions and comments on the current draft comprehensive plan. We appreciate the County's planning team effort to recognize and address the need for land use that reflects the needs and well being of County residents and allows for thoughtful development without putting adults and children in harm's way. We know and understand that Island County has multiple important issues to address in this plan aside from the problems created by military jet noise (i.e., EA-18G Growlers). So, we realize the challenge of providing space and diligence to all, and we appreciate your attempt to address the Growler noise issue through restrictive land use policy.

We suggest, however, that the multiple problems these jets have created necessitate proactive steps by the County aimed at reducing the need for restrictive policy while concurrently honoring the County's primary charge and obligation—i.e., protecting the health and well being of its residents. In addition, there are places where the plan could be more informative and forthright about military jet noise and how the County envisions coping with it.

General Comments

Because military jet noise in some areas of Island County can compromise childhood learning and livability and invoke a variety of health risks, such as permanent hearing loss, heart attack, etc., the County has a moral and legal obligation to effect land use decisions that strive to eliminate the risks associated with military jet noise. That obligation is magnified by aircraft mishap risk, which is most acute during landing and takeoff and far greater for military than for commercial aircraft. Of the Navy's Growler jet operations, field carrier landing practices (FCLPs) produce the greatest risks and noise impacts because they can involve hundreds of low-level flights, takeoffs, and landings directly over homes and businesses at near treetop level.

It is not surprising then that COER fully agrees with and supports the central theme and priority stating, "*The Board of Island County Commissioners set three priorities for the 2025 Comprehensive Plan update: Health, Equity, and Climate Resilience. Staff used these priorities to inform updates to elements.*" (Section I.IV.I) That theme is reinforced in Section 1.3.2.2: "*At its core, the Land Use Element should support development that provides for the health, safety, and welfare of County residents.*" But the devil is in the details, and the question is how and how effectively the County will translate those themes into policies and bring them to bear on land use decisions.

Discretion can open the door to special-interest influence in decision-making with results generally not in the best interest of the community. It's no secret, for example, that the County for years ignored implementing land use recommendations that prior Air Installation Compatible Use Zone (AICUZ) reports identified as incompatible uses. So, the County does bear responsibility for its past lax permissiveness, which ultimately has put people in harms way. But recently that responsibility has shifted to the Navy.

Recalling that before the 2018 Record of Decision (ROD), the Navy in Federal Court and in its AICUZs had publicly committed to the status quo training levels at the OLF, where 65 decibels DNL (average day/night noise level) was the loudest noise zone at that time. It is now 85+ decibels or 4 times louder. The status quo assurance, and the limited awareness of noise harms on health, enabled the local officials to green-light residential and business development in the noise zones. The Navy's 2018 ROD upended that modus operandi.

The ROD initiated a 44% increase in new Growler jets at NASWI yet only about a 9% increase in total FCLPs,[1] presumably due to flight simulators and *magic carpet*. Yet somehow, in the Navy's eyes, that 9% increase in FCLPs demanded a disproportionate nearly 300% <u>increase</u> at the OLF, accompanied by a similar nearly fourfold cut in Ault Field FCLPs: 22,000 cut to about 6,000. That extremely lopsided bad decision produced understandable surprise and public outrage and a manifestation of established land uses that were suddenly and dramatically rendered incompatible. It denigrated education at Coupeville's public schools as well as the ability of children to study at home, impinged health risks on young and old alike, magnified catastrophic mishap risks for both schools and residences, and increased the area of noise impacts on listed species.

The Navy therefore needs to accept its full responsibility for the ROD debacle, step up, and do its part to reduce the impacts. The County's long-time support of NASWI and its operations, while historically understandable, is not now justifiable, as is the Navy's steadfast resistance to doing anything other than nothing. Given the consequential training impacts, which conflict with the County's correct and

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1 Pre-ROD data below from *Section 106 Determination of Effect for the EA-18G "Growler" Airfield Operations at the Naval Air Station Whidbey Island Complex* (Figure 4, p 21). Post-ROD data from Growler EIS, Table 2.3-1 on p 2-8 and Table 2.3-2 on p. 10.

Post-ROD total FCLPs (Ault + OLF):	29,600
Pre-ROD total FCLPs (Ault + OLF):	<u>27,100</u>
Increase afforded by the ROD	2,500 = about a 9% increase in total FCLPs

Similarly, total airfield operations by all aircraft at Ault increased 12% from 78,200 to 88,000 (same tables).

overriding priority to protect health and well-being requiring compatible land use, the comprehensive plan needs to be more forthright in how the County plans to not only uniformly restrict land use, but to proactively seek a pathway towards reasonable mitigation that would lessen restrictiveness.

But there are two additional silenced reasons to help the Navy understand that it must fix the problem it created. The noise-based need is greatly exacerbated by two crash risks that have not been forthrightly presented in the AICUZ and, hence, have not been properly addressed in the comprehensive plan.

1. APZs and Coupeville Schools. First, we point out that schools are verboten within APZs Second, the Navy has incorrectly set the boundaries of the APZs at the OLF. The boundaries were calculated from a single midline flight path throughout the FCLP loop. Military requirements, however, call for a different calculation when there are multiple flight paths for takeoff and landing, as there are at the OLF.[2] That is, the widest and narrowest paths are to be used. Were the bogus APZs corrected to account for the widest and narrowest flight paths, the APZs would much wider, placing the Coupeville high and middle school complex within or at the very edge of the APZ.

2. BASH Risks. The Navy has also swept under the carpet the fact that the predominantly used OLF flight track (#32) does not and cannot meet military Bird and Animal Strike Hazard (BASH) requirements, which call for flight paths to be 10,000 feet from agricultural fields, wetlands, and marine shorelines.[3] The Navy is not free to dispatch or otherwise control the waterfowl and seabird population in the agricultural fields, wetlands, and shorelines under the flight path, nor are pilots conducting FCLPs at the OLF able to avoid the those areas. That reality and mitigation impossibility greatly exacerbates mishap risk for the schools and residential areas.

Mitigation: Reallocation and Detachment Training

As we noted above, the Navy and its ROD are responsible for creating the FCLP noise/health and safety debacle[4]. As everyone knows, Growler FCLPs produce the greatest risks and noise impacts because on a busy day they can involve hundreds of near treetop-level flights directly over homes and businesses, sometimes spread out from morning until after midnight. As a result FCLPs conflict with the County's primary charge of protecting health and well-being and create the greatest impediment to land use.

The County needs to proactively confront the FCLP noise issue. In the past it failed to acknowledge the problem, and by not establishing policy positions calling for the amelioration of the problem, the county became complicit in the harm being done. Continuation of that convenient myopia gives the Navy a safe harbor to continue harming the residents of Whidbey Island. The comprehensive plan

2 https://citizensofebeysreserve.com/wp-content/uploads/2020/12/OLF-Deficiencies.pdf (see pages 8-12).
3 https://citizensofebeysreserve.com/wp-content/uploads/2020/12/OLF-Deficiencies.pdf (see pages 13-14).
4 COER prepared comprehensive comment to Island County regarding its revised Community Health Improvement Plan. Those comments document the health risks and are available at: https://citizensofebeysreserve.com/wp-content/uploads/2026/02/COER-Report-for-the-CHIP.pdf

should set the stage for the County to apply its persuasive authority with the Navy to thoughtfully explore solutions that protect the health and well being of its residents.

Were the County to successfully apply its influence with the Navy to achieve moderate FCLP reallocation and detachment training (as in the scenarios 2-4 in Appendix A below), it would not only demonstrate the sincerity of the County's intent to apply its overriding priority (i.e., health and well being), but would effect potential spinoff benefits:

- increase land available for development,
- eliminate the need for APZs at the OLF,
- reduce the educational impacts on children in school and doing studies at home,
- reduce the unacceptable safety risks to Coupeville schools,
- mitigate impacts on health, childhood learning, and livability,
- reduce impacts on currently incompatible parks, trails and athletic fields[5], and
- reduce or eliminate community discord that so often leads to a BRAC.

Further below we present changes to the County's draft policies, which if adopted, would affirm the County's intent to put its citizens first by exerting its influence to help the Navy understand that it needs to seriously consider reallocation and detachment training.

Suggested Changes for Section 1

Below we have made specific suggested additions (in red font) and deletions (strikeout) to the draft comprehensive plan update that we believe improve clarity, explanation, and/or direction transparency. In some places we have also provided sidebar comments.

Inconsistency with Themes

Section 1.9.2, Military Airports, (p. 26) includes the following paragraph, which subtly subverts the above-noted themes:

> *NASWI, **including OLF**, represents the **dominant economic force** in Island County. They are a strategically located national asset and constitute a significant capital investment in our region by the federal government. The closure of these facilities would result in **extreme population and economic loss** for the county. As such, the County's **land use decisions support the retention** and future use of these facilities. Uses incompatible with the current and future projected missions of the base shall not be sited adjacent to the NASWI and the OLF (RCW 36.70A.530)."* (emphasis supplied)

The paragraph appears to be a carry-over from less-informed times that assigned a premium to naval interests. The message received is that because the Navy is such a big part of the islands' economy, it

5 https://citizensofebeysreserve.com/wp-content/uploads/2024/02/Section-5-Parks-MASTER-Pat-Waers.pdf

must take priority over health and welfare and that exceptions will therefore be made to accommodate the military's agenda. The absoluteness of some highlighted points are unwarranted and propagandistic:

> 1) The representation of the Navy as "the dominant economic force" is unsubstantiated and likely not true. The County's second theme, puts it more reasonably, that is, that the Navy has a "large" economic influence in Island County. Absent a credible comparative economic study, it may well be the retirement community as a whole is the most significant and durable economic force in Island County. If so, then perhaps land uses should conform to the needs and interests of the retirement community. And, no study has credibly accounted for the true naval contribution to county business and local government, nor have the multiple hidden costs been debited, as discussed by Shuman, M. 2017 (Invisible, the $122 Million Price Tag for the Naval Air Station Whidbey Island[6]) been factored in. For example, we are unaware of any economic benefit from the OLF, but we are quite aware of its multiple and significant costs, including financial, health, education, and community discord.
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> 2) The statement that closure of the base would result in "extreme population and economic loss for the county," is similarly unsubstantiated. No credible economic study has clearly identified how long or how large the economic losses would persist before other economic drivers (e.g., businesses, retirees) absorbed the vacated space. There is no closure option on the table, none on the horizon, and no BRAC in the wind. Furthermore, the County lacks the power to effect closure of the base or to prevent a closure, so rattling "closure danger" seems contrived to achieve a fear-mongering end.
>
> 3) Finally, the paragraph vaguely notes that land use siting decisions will be made to avoid conflicts with military operations. That deserves additional profile because if the County actually complies with the AICUZ provisions, as it should, the community needs to understand that it will restrain space needed development—just another one of the hidden costs.

Taking all the above into account, we suggest the paragraph be recast to be more realistic, forthright and informative and less propagandistic—for example:

> *NASWI is a significant economic contributor to Island County.~~, including OLF, represents the dominant economic force in Island County~~. ~~They~~ The base and its OLF are a strategically located national asset and constitute a significant capital investment in our region by the federal government.* The County recognizes and values that and the need to accommodate current and future naval missions. Because of the health impact and safety issues attendant to low-flying military jet operations over living and working areas, land uses affected by current and future projected operations at NASWI and the OLF shall be cited and codified consistent with the AICUZ guidelines and requisites, as summarized in Table x (RCW 36.70A.530). ~~*The closure of these facilities would result in extreme population and economic loss for the county. As such, the County's land use decisions support the retention and future use of these*~~

Commented [1]: Table X would summarize the AICUZ land uses relevant to home and business land use for the noise zones.

6 https://citizensofebeysreserve.com/wp-content/uploads/2025/05/Invisible-Costs_by_Shuman-1.pdf.

~~*facilities. Uses incompatible with the current and future projected missions of the base shall not be sited adjacent to the NASWI and the OLF (RCW 36.70A.530).*~~*"*

Similarly, we believe it is important to both honor and avoid conflicts between your central themes with these modifications to this theme (p. 8): ~~*The Navy is a very large part of the County's economic, social, and cultural make up.*~~ *The County established goals, policies, and development regulations to ensure that land use decisions involving* ~~*will be compatible with*~~ *current and future naval operations comport with both Navy needs and the health and well being of the community at large*.

Commented [2]: That is true but so is the community at large equally important. There is no need to profile either one here. As written it seem like the Navy overrides everything because of its self-proclaimed and likely exaggerated economic contribution.

Land Uses for APZs

This important paragraph (p. 26) is misleading because it infers that the AICUZ land use recommendations will be strictly followed by the County. Of course that has and does not seem to be the case. For example, for APZs the AICUZ recommends no development of residential housing, transient lodging, campgrounds/rec vehicle parks, hospitals, etc., yet the comprehensive plan allows those uses. Hence, this suggested revision.

The AICUZ study generally contains aircraft noise contour maps, Accident Potential Zone (APZ) designations, and recommended land use matrices for land areas within those noise zones and/ or APZs. In 2021, NASWI revisited the AICUZ program and the newest AICUZ and APZ maps will ~~*now be utilized for*~~ *be considered in the implementation of these regulations.*

Commented [3]: Here we suggest waffle language to reflect actual practice, even though we suggest it's time the county actually utilize the AICUZ recommendations and state so unequivocally, and explain existing incompatible uses are grandfathered in.

Land Uses for Noise Zones

While the Development Regulations section of the plan presents tabular details to guide the County in its land use decisions involving APZs, we have been unable to locate a similar regulatory guide for the noise zones. Compared with the iffy likelihood of an aircraft mishap in an APZ, Growler noise impacts in the noise zones are definite and certain, have a far greater geographic reach, impact a larger population on a daily basis with a wide variety effects ranging from annoyance and sleep disruption to hearing loss to death from cardiac infarction[7], not to exclude detriment to childhood learning and home-based businesses.

The comprehensive plan, however, provides very little attention to the noise zones and their allowable versus inappropriate land use. The plan infers that the AICUZ noise maps will be utilized for the noise zone land use decisions but that seems to be it—no other detail. In spite of the plan inferring compliance with the AICUZ, history indicates compliance consideration will be loose and varied. That in mind, we strongly urge inclusion of tabular details similar to the provisions provided for APZs in the Development Regulations section of the plan. Table 1 below summarizes some of the compatible vs. incompatible land uses recommended in the AICUZ.

7 Best available science has greatly advanced recent knowledge on the health impacts of noise. Some of the most salient recent study results have been summarized in pages 5-7 and Appendix A of https://citizensofebeysreserve.com/wp-content/uploads/2026/02/COER-Report-for-the-CHIP.pdf

Table 1. Permissible and impermissible land uses, by noise zone, per the 2021 AICUZ, Appendix B.

Land Use Type	Land Use Compatible?		
	Noise Zone 1 55-65 dB DNL	Noise Zone 2 65-75 dBA	Noise Zone 3 ≥75 dBA
• All (13 out of 13 categories) residential housing types, including transient lodging	Yes	No[1]	No
• Public assembly	Yes	Maybe[3] No	No
• Outdoor parks (indoor allowed if noise level is reduced)	Maybe[2]	Maybe[2]	No
• Educational Services (schools, daycare centers, etc.)	Maybe[2]	Maybe[2]	No
• Resorts and group camps	Maybe[1]	Maybe[1]	No
• Parks	Maybe[2]	Maybe[2]	No
• Livestock farming	Maybe[2]	Maybe[2]	No

[1] Although local conditions regarding the need for housing may require residential use in these zones, residential use is discouraged in DNL 65 to 69 and strongly discouraged in DNL 70 to 74. The absence of viable alternative development options should be determined and an evaluation should be conducted locally prior to local approvals indicating that a demonstrated community need for the residential use would not be met if development were prohibited in these zones.
[2] Yes but conditioned on whether noise levels for indoor facilities can be significantly reduced by 25 to 30 dB DNL from outdoor noise levels.
[3] Yes for 65 to 69 DNL; no for 70-74 DNL.

SUGGESTED CHANGES TO GOAL 8 AND ITS POLICIES

We note a number of policies where the emphasis seems misplaced, given the County's overriding theme and charge to protect the well being of the community. That is, we suggest the policies should not come off as service to the military's needs and mission but instead to ensure that the public health and well being are not compromised by military operations. For completeness here, we have included all the policies under Goal 8, whether we suggest changes or not.

Goal 8. Explore and facilitate ways to mitigate impacts and risks of existing airports on the surrounding community and ensure that future development in the Airport and Aviation Safety Overlay protects public health, safety and welfare.

Commented [4]: On this the County needs to be proactive and persuasive, not just reactive.

LU 8.1 Land use policies and development regulations affecting airports and aviation notification zones shall be updated in accordance with the regulations set forth in the Washington State Department of Transportation's Airports and Compatible Land Use Guidebook, CFR Title 14, FAR Part 77, and FAA Terminal Instrument Procedures (TERPS) and that state laws addressing noise in the workplace[8] are consistently applied.

LU 8.2 Ensure that the permitting process for any new or expanding airport is subjected to a thorough review. Potential benefits will be carefully considered as will potential adverse impacts.

LU 8.3 Ensure that public or private development around existing airports allows the continued use of that facility as an airport. To protect health and well being, l~~L~~and uses within aircraft approach and departure zones and Noise Zones 1-3 will be restricted to only compatible (Table X) ~~will be protected from inappropriate~~ development.

LU 8.4 Ensure that new land uses around existing airports which would attract or accommodate large concentrations of people will not be permitted to locate within approach or departure zones and/or Accident Potential Zones or Noise Zones of 70 dB DNL or greater ~~of existing airports~~.

LU 8.5 Help to minimize the number of people exposed to very high aircraft noise levels in areas near airports by facilitating only ~~through~~ compatible land uses. In the ~~highest~~ 65 dBA DNL and above ~~airport noise level~~ areas open/ undeveloped space will be encouraged and land use densities shall remain low. The objective is to achieve the greatest degree of compatibility and the least impact and risk that ~~annoyance which~~ can be attained.

LU 8.6 Preserve the right of airport owners and operators to continue present operations and allow for future air transportation and airport facility needs. ~~It is also important to consider the present and future use of private property and the rights of private property owners.~~ Proposed changes to airport operations that would denigrate property owners established use of their property or their health and well being will require an overwhelming finding of public-need benefits.

LU 8.7 Compliant with AICUZ guidelines, n~~N~~ew dwellings in the 55-75 decibel DNL noise zones ~~moderate and high aircraft noise areas~~ will be built to a noise level reducing standard that is higher than that which is obtained by building to current minimum building code standards. ~~Structural noise attenuation standards in~~ In the higher noise areas (75 DNL and above) new residential housing will not be permitted ~~(NAS/OLF) will be greater than that required in moderate aircraft noise areas~~.

LU 8.8 Island County will notify the airport operator, state and federal aviation agencies, at the time of initial application, of any proposed actions or projects, which would lead to development near an airport that is not compatible with the airport's operations. The airport operator shall notify Island County, and potentially affected citizens, of any proposed operational changes which would have a significant impact on existing land uses.

8 https://app.leg.wa.gov/wac/default.aspx?cite=296-817-20020

Commented [5]: They should be applied to public places and residential areas as well.

Commented [6]: Recommend defining the noise zones by DNL range in the Glossary. Table X again would summarize the appropriate uses.

Commented [7]: This is in keeping with the AICUZ, and provides full transparency.

Commented [8]: What's highest??. If you need to use words, then define those words (higb to low) with actual DNLs in the glossary. Note that best available science has determined that 55 DNL to be the threshold assigned to high annoyance and heart attack, etc., risk. So maybe you should use 55 here.

Commented [9]: It's no longer "annoyance" but health and safety.

Commented [10]: Here too specificity is essential or define low, medium, high by DNL in the Glossary. Note, that this policy will help, but sadly, it ignores the reality that folks don't live just inside and that just a few minutes of exposure here and there to 110+ dBA can permanently erode hearing and open the door to heart attack.

LU 8.9 Land use proposals, structures, or objects that would interfere with the safe operation of aircraft will be examined for compatibility as defined in CFR Title 14, FAR Part 77 and FAA Terminal Instrument Procedures (TERPS) Chapter 12, and WA 31. The object is to permit land uses which allow safe aircraft operations as defined in the documents referenced above.

LU 8.10 A public site plan review is required in the event airport operations exceed an operational growth rate of 30% in 3 years which necessitates expansion of existing airport boundaries.

LU 8.11 Island County will require a Comprehensive Plan Amendment for the establishment of any proposed new airport.

LU 8.12 Make noise zone information easily available to the general public and r~~R~~equire advance notification of ~~future owners~~ imminent buyers or renters of properties within noise zones ~~impact areas~~ of potentially significant noise impacts.

LU 8.13 Overlay policies and development regulations shall be implemented in addition to those associated with the underlying land use designation. When there is a conflict in policy statements or development regulations, the more restrictive shall apply

LU 8.14 To protect the civilian population, Island County will work with the Navy to ensure the Accident Potential Zones (APZs) boundaries are correctly established and up to date. It will ~~discourage~~ disallow residential development in ~~Aircraft Accident Potential Zones (~~APZs~~)~~ as provided in the AICUZ, which ~~. To protect the operational use of military airports, Island County~~ will ensure that future development in ~~Accident Potential Zones (~~APZs~~)~~ around Ault Field and Outlying Field Coupeville is at the lowest possible density consistent with the underlying land use designation.

LU 8.15 If the Department of Defense should declare surplus any portion of NAS Whidbey Island, the County will work closely with federal and state officials, the City of Oak Harbor, and other appropriate entities to ensure that the base capital facilities are put to the best economic use, consistent with city and county comprehensive plans.

LU 8.16 In keeping with the County's overriding need to protect the health and safety of its citizens and given the impacts of military aircraft operations on land use and childhood education, the County will apply its influence to urge the Navy to to reallocate a portion of its field carrier landing practices to other locations, consistent with detachment training in the recent past, and ~~Island County~~ will continue to work with NAS Whidbey Island to ensure land use~~swill remain~~ compatible with the changing needs ~~and uses~~ of NAS Whidbey Island.

LU 8.17 When applicable, Island County will take action on updated AICUZ and APZ standards provided by NAlS Whidbey Island within two (2) years of their production.

Commented [11]: If you allow one you have to allow all. Keep in mind the APZs are the 85+ DNL making them unfit for human habitation. "Discourage" is not consistent with your overriding goal/theme. Just one of those hidden costs Shuman presented. Keep in mind too, that not designating the OLF APZs does not change the risks or pull wool over anyone's eyes.

Commented [12]: It has not in the past, nor is it now compatible. See Appendix A below.

— Appendix A —

Four Reallocation Scenarios

Field carrier landing practice (FCLP) operations are basically touch-and-go operations that represent the most egregious type of practice operations. The noise is louder and more harmful than other Growler operations, and a practice session is one overflight after another without quiet pauses between flyovers. The practice may go on for hours with multiple sessions occurring from morning to late at night. For folks closest to the flight path it is a living hell.

Here, COER examines the impacts of four different FCLP allocation scenarios, each of which is aimed at reducing the lopsided impacts that resulted when the 2018 ROD moved nearly all of its FCLPs from Ault Field to the OLF. For about 20 years prior to that time the Navy had conducted about 22,000 FCLP operations per year at Ault Field vs about 6000 at the OLF. The ROD reversed that to around 6000 operations at Ault Field vs 24,000 at the OLF. The Navy inexplicably rationalized that the 44% increase in new Growler jets and a 9% increase in total FCLPs for NASWI somehow necessitated a non-proportionate 367% decrease in Ault Field FCLPs and a nearly 300% increase at the OLF.

These scenarios provide insight into options that would reduce the unsupportable ROD, which shifted nearly all the FCLPs from Ault Field to the OLF and in so doing denigrated education at Coupeville's public schools and the ability of children to learn at home, impinged health risks on children with attendant impacts on their learning, magnified catastrophic mishap risks for schools and residences, and increased the area of noise impacts on birds of concern.

The impacts were assessed with two metrics: number of overflights and number of exposures to extreme noise levels. The *overflight impact* is simply how many times people in a given impact area experience a Growler FCLP overflight—that is, the quantification of overflight severity, The *exposure impact* is the number of individual experiences of significant disturbance from Growler FCLPs; i.e., one person experiencing 10 overflights would count as 10 exposures, as would 10 people experiencing 1 exposure. As such it indexes the overall impact on the population in a given area. It is the metric used by U.S. Fish and Wildlife Service and the Navy in their analysis of Growler noise impacts on marbled murrelets.

The four FCLP allocation scenarios below help to inform how reallocation could help to reduce the impacts—i.e., number of overflights and toxic noise exposures. Three of the allocation scenarios involved just Ault Field and the OLF; the fourth included El Centro:

1) *Existing Condition Scenario*. As the baseline condition from the 2018 ROD, which allocated 29,600 total operations as 5,900 FCLP operations at Ault Field and 23,700 at the OLF, this shows the overflight and exposure impacts for each runway to compare with the other three scenarios.

2) *Equal Exposure Scenario*. Based again on the ROD's 29,600 total operations, this shows the number of overflights for each runway if the number of significant disturbance exposures were equalized among the six runways.

3) *Overflights Balanced Scenario*. Based again on the ROD's 29,600 total operations, this shows the number of exposures for each runway if the number of overflights were equalized among the six runways.

4) *One-Thirds Scenario*. Based again on the ROD's 29,600 total operations, this shows the overflight and exposure impacts if the operations were divided up as 1/3 for the OLF, 1/3 for Ault Field, and 1/3 for El Centro (or other off-Whidbey airfields).

First, a *significant disturbance noise area* was defined to address the population most heavily impacted by Growler FCLPs. From ample noise recordings data and information in the final Growler EIS [9], that was the area 1 mile on either side of the FCLP flight track. The affected populations within the significant disturbance areas were then derived via EJScreen, an environmental screening and mapping tool developed by the Environmental Protection Agency based on U.S. Census Bureau data.

Under each scenario, the impacts are analyzed for each of the four runways at Ault Field and two runways at the OLF. That is because different populations are affected depending on which runway is used. So the population impacts for each runway had to be treated independently even though some minor disturbance area overlap occurs. Each runway has a different discrete population in terms of size and number of overflights, so while comparisons between runways are valid, they runways cannot be averaged. Nevertheless, we did average the two OLF runway populations and the four Ault Field populations to provide a generalized comparison between two airfields.

The impacts metrics for each scenario and runway are presented in the four tables that follow. While Scenarios #2 and #3 would be a significant improvement over the Existing Condition (#1), the best by far is the Thirds Scenario (#4). It not only reduces the overflights and noise at

9 A Growler at a speed of 400 kn and a power setting of 84.5 flying at 200 feet AGL will measure 116 dB on the ground directly under the jet, but will be 77 dB at a mile on either side of the track, or a dissipation of 29 dB or 8-fold less loud (EIS Table 3.1-2). The same jet at 1000 feet will be 104 dB under the jet but will be 84 dB at a mile on either side, or 2-fold less loud. Because FCLPs are conducted within that elevation range, the area beyond a mile from the flight path is not extreme and continues to dissipate rapidly.

the Ault Field, but it greatly reduces the impacts at the OLF, and thereby mitigates noise impacts on children (and the overall community) and birds of concern. It also provides pilots with the opportunity to practice at the best venue, El Centro, which ancillarily would provide diversity in training geography and topography, something the Navy has ignored.

1) Existing Condition Scenario. The 2018 ROD allocates 5,900 FCLP operations to Ault Field and 23,700 to the OLF. Under this scenario, the number of noise exposures is 13widely unbalanced, varying among the 6 runways by 171-fold (0.224 million to 38.215 million exposures). The severity index high in this scenario, at 8295 overflights affecting 4607 individuals, was far greater than the high in any of the other scenarios and was more than 2 times the next closest: 3825 overflights of 2468 individuals (Scenario 2).

Existing Condition Scenario				
FCLP Usage% by Runway[a]		**(A) 2020 Census Population[b]**	**(B) Number of Overflights per Year**	**(A x B) No. of Indivdual Exposures (in Millions, x10^6)**
Ault Field [Total FCLP operations = 5900 (FEIS Table 2.3-2) or 2950 overflights]				
#07	21%	3608	620	0.224
#14	30%	2468	885	2.184
#25	49%	5700	1446	8.242
#32	1%	16,924	30	0.508
Average for 4 Ault Runways				2.790
Outlying Field [Total FCLP operations = 23,700 (FEIS Table 2.3-2) or 11,850 overflights]				
#14	30%	2796	3555	9.939
#32	70%	4607	8295	38.215
Average for 2 OLF Runways				24.077

[a] These percentages, as derived from FEIS$_G$ (Tables A3-2 and A3-3, pages A3-5 and A3-6), were separate for night and day and had to be averaged into one for day/night. That totaled to over 100% so reduced to not overstate Column B; they may therefore be off a point or so, but not significant.

[b] Population counts by runway were derived from via EJScreen (as depicted below).

2) Equal Exposure Scenario. This scenario examines reallocating the total number of FCLPs in the Existing Condition (ROD = 29,600 ops) so that the exposure totals are the same for each runway, i.e., how the Navy could adjust FCLPs to balance the exposure impact. Some areas would experience increases in noise, but for most, there would be a reduction in exposure.

Equal Exposure Scenario[a]				
FCLP Proposed[b] vs. (Historical) Usage% by Runway		**(A) 2020 Census Population**	**(B = C/A) Number of Overflights per Year**	**(C) No. of Indivdual Exposures[c] (in Millions, x10^6)**
Ault Field [Based on 20,000 FCLP operations or 10,000 overflights]				
#07	30.9% (21%)	3608	2616	9.439
#14	44.2% (30%)	2468	3825	9.439
#25	19.1% (49%)	5700	1656	9.439
#32	2.0% (1%)	16,924	557	9.439
Average for Ault				9.439
Ault Field totals		28,700	8654	
Outlying Field [Based on 9600 FCLP operations or 4800 overflights]				
#14	62.0% (30%)	2796	3376	9.439
#32	37.8% (70%)	4607	2049	9.439
Average for OLF				9.439
OLF totals		7403	5425	
Grand Total: Ault + OLF			14,079	

[a] Using the total number of operations (14,800 overflights) in the Existing Condition Scenario, this scenario back-calculates the number of overflights for each runway that would produce the same number of exposures (9.439 million) at each runway. the same number of exposures at each runway based on the ROD total overflights of 14,800. Under the Existing Condition there were 57.232 million exposures, which divided equally among the 6 runways equal 9.439 exposures for each runway, which divided by the population for a given runway provides the number of overflights for that runway. Then the number of overflights for that runway divided by grand total of overflights provides the percentages for each runway.

[b] The Proposed Usage that would equalize exposures among all 6 runways is Column B overflights/grand total of overflights (14,079), which is a bit shy of the ROD total 14,800 due to rounding very large numbers. It could be proportionally forced to 14,800, but it would make a barely negligible difference.

[c] Based on the Existing Condition Scenario of 57.232M total exposures split evenly between all 6 runways.

3) Overflights Balanced Scenario. This scenario balances the number of total ROD overflights to 2470 for each runway. (14,800 ROD overflights divided by 6 runways = 2467 per runway). Under this scenario, the number of noise exposures varies far less widely among runways (7-fold from 6.096 to 41.802 million) than under the Existing Condition Scenario, and each person experiences the same number of toxic exposures (2470 overflights/person). From a health and livability standpoint the impact is fair and balanced in that each civilian is exposed to the same number of overflights. That is, in this scenario the impact of noise on each individual is significantly less than the scenarios #1 and #2, but the overall impact as reflected by exposures is greater than #2, primarily due to Ault Field runway 32. It is kind of the conundrum, which is worse, 1 lash on each of 10 peasants or 10 lashes on 1 peasant?

Overflight Balanced Scenario				
FCLP Proposed vs. (Historical) Usage% by Runway[1]		**(A) 2020 Census Population[2]**	**(B) Number of Overflights per Year**	**(A x B) No. of Indivdual Exposures (in Millions, x10^6)**
Ault Field [Based on 19,760 FCLP operations or 9880 overflights]				
#07	16.7% (21%)	3608	2470	8.911
#14	16.7% (30%)	2468	2470	6.096
#25	16.7% (49%)	5700	2470	14.079
#32	16.7% (1%)	16,924	2470	41.802
Average for 4 Ault Runways				17.722
Outlying Field [Based on 9880 FCLP operations or 4940 overflights]				
#14	16.7% (30%)	2796	2470	6.906
#32	16.7% (70%)	4607	2470	11.379
Average for 2 OLF Runways				9.143

4) The Thirds Scenario. This scenario reallocates the Existing Condition (#1) operations as follows: 1/3 at the OLF, 1/3 at Ault Field, and 1/3 at El Centro or any off-Whidbey airfield, which is 29,600 ops/3 = 9867 ops or 4933 overflights at each airfield. This option significantly reduces the impacts at Ault and the OLF over the other scenarios. The impacts could be further reduced by allocating the total overflights for Ault + OLF (9867) and converting to equal overflights or equal exposures, as in scenarios 2 and 3, instead of the historical runway usage.

The Thirds Scenario				
FCLP Hisorical Usage% by Runway		**(A) 2020 Census Population**	**(B) Number of Overflights per Year[a]**	**(A x B) No. of Indivdual Exposures (in Millions, x10^6)**
Ault Field 9867 ops or 4933 overflights				
#07	21%	3608	1036	3.738
#14	30%	2468	1480	3.653
#25	49%	5700	2417	13.777
#32	1%	16,924	50	0.846
Average for 4 Ault Runways				5.503
OLF 9867 ops or 4933 overflights				
#14	50% [b]	2796	2467	6.898
#32	50% [b]	4607	2467	11.365
Average for 2 OLF Runways				9.132

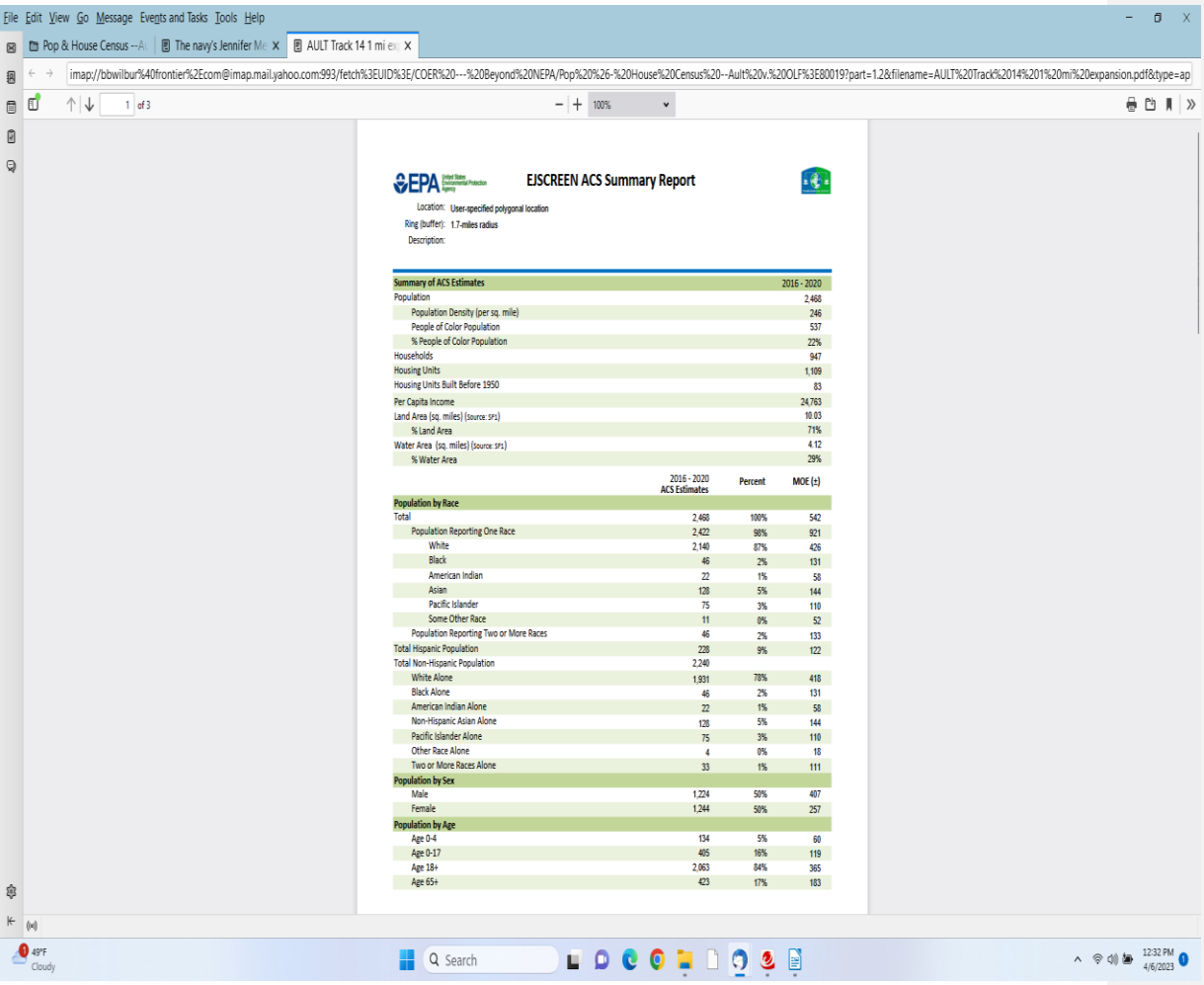
[a] The overflights are the total number of overflights (4933) times the historical usage percent for a given runway.

[b] While this allocation in the ROD has been 30% on #14 and 70% on #32, in recent practice it has been closer to 50:50 and that seems to be a more realistic split to use, especially since the seasonal wind conditions are predominately southerly half the year and northerly the other half. Also, this allocation helps to keep the overflight impact on #32 more in line with all the other runways.

Example of Derived Population Reports and Maps via EJScreen

EJScreen map of severe Growler noise impact area (green highlight) 0.5 miles on both sides of the field carrier landing practice loop for Runway #14 at Ault Field, Navy Air Station Whidbey Island.

Example of an EJScreen report for severe Growler noise impact area.



EJSCREEN ACS Summary Report

Location: User-specified polygonal location
Ring (buffer): 1.7-miles radius
Description:

Summary of ACS Estimates	2016 - 2020
Population	2,468
Population Density (per sq. mile)	246
People of Color Population	537
% People of Color Population	22%
Households	947
Housing Units	1,109
Housing Units Built Before 1950	83
Per Capita Income	24,763
Land Area (sq. miles) (Source: SF1)	10.03
% Land Area	71%
Water Area (sq. miles) (Source: SF1)	4.12
% Water Area	29%

	2016 - 2020 ACS Estimates	Percent	MOE (±)
Population by Race			
Total	2,468	100%	542
Population Reporting One Race	2,422	98%	921
White	2,140	87%	426
Black	46	2%	131
American Indian	22	1%	58
Asian	128	5%	144
Pacific Islander	75	3%	110
Some Other Race	11	0%	52
Population Reporting Two or More Races	46	2%	133
Total Hispanic Population	228	9%	122
Total Non-Hispanic Population	2,240		
White Alone	1,931	78%	418
Black Alone	46	2%	131
American Indian Alone	22	1%	58
Non-Hispanic Asian Alone	128	5%	144
Pacific Islander Alone	75	3%	110
Other Race Alone	4	0%	18
Two or More Races Alone	33	1%	111
Population by Sex			
Male	1,224	50%	407
Female	1,244	50%	257
Population by Age			
Age 0-4	134	5%	60
Age 0-17	405	16%	119
Age 18+	2,063	84%	365
Age 65+	423	17%	183