U.S. EPA, Region 10
1200 Sixth Avenue, Suite 900
Seattle, WA 98101

Dear Christine Littleton,

I am writing in regards to the Navy's Environmental Impact statement proposing an increase in EA-18G "Growler" Airfield Operations at NAS Whidbey Island Complex, and request that the EPA fundamentally revise the DEIS due to the deficiencies noted below.

**1. Jet noise outside the immediate environs of the runways on Whidbey Island is not being evaluated, yet impacts are significant**. Noise from EA-18G Growlers is affecting communities far outside the vicinity of Naval Air Station Whidbey Island, yet the only area the Draft Environmental Impact Statement (DEIS) analyzes in its "study area" is what falls within 6 to 10 miles of the corners of runways. Growler aircraft, which are capable of 150 decibels (dB), use these runways to get airborne and to land; therefore, what happens outside the study area cannot be ignored as if it does not exist, because *all* flight operations are functionally connected to takeoffs and landings. By considering only takeoff and landing noise and exhaust emissions at Ault Field and Outlying Field (OLF) Coupeville, the DEIS fails to consider the wider area of functionally connected impacts caused by naval flight operations. By failing to consider the interdependent parts of a larger action that cannot proceed without takeoffs and landings, as well as their impacts, the DEIS fails to evaluate cumulative effects.

**2. Impacts to cultural and historic sites are not adequately considered.** The Navy so narrowly defined the Area of Potential Effect (APE) for cultural and historic resources that it also fails to consider significant nearby impacts. The State Historic Preservation Officer confirmed this in a January 9, 2017 letter to the Navy. (http://westcoastactionalliance.org/wp-content/uploads/2017/01/SHPO-Letter-102214-23-USN_122916-2.docx ) She said that not only will cultural and historic properties within existing APE boundaries be adversely affected, but additional portions of Whidbey Island, Camano Island, Port Townsend vicinity and the San Juan Islands are also within noise areas that will receive harmful levels of sound and vibration from Growler activity. The US Department of Housing and Urban Development posted noise abatement and control standards that classify the 65 dB levels being used by the Navy as "normally unacceptable" and above 75 as being "unacceptable." (https://www.hudexchange.info/programs/environmental-review/noise-abatement-and-control/) Residents in these outlying areas, who live many miles from these runways, have recorded noise at least twice that loud. Therefore, by failing to include these areas, this DEIS

violates both the National Environmental Policy Act (NEPA) and the National Historic Preservation Act (NHPA).

**3. Piecemealing projects to avoid analyzing cumulative effects is illegal.** The Navy has, to date, piecemealed its aircraft training and testing activities affecting Whidbey Island, the San Juans, and the Olympic Peninsula into at least six separate actions:

1. 4 squadrons of P-8A Poseidon Multi-Mission Aircraft;
2. A 2005 EA (57 Growler jets); 2010 EIS (reaffirming the 57 Growlers that replaced Prowlers);
3. 2012 EA (26 Growlers including 5 from a reserve unit);
4. 2014 EA (Growler electronic warfare activity);
5. 2015 EIS discussing electronic warfare training and testing activity;
6. The current 2016-2017 DEIS (36 Growlers);
7. And, likely, a seventh process, as confirmed by news reports and a Navy official at a recent open house, for 42 more jets to bring the Growler fleet total to 160.

Therefore, it has been impossible for the public to know just how many Growlers there would be, or what their impacts would be, or what limits, if any, the Navy intends to establish. In just four documents—the 2014 EA, Forest Service permit Draft Decision, and the 2010 and 2015 EISs, there are more than 6,000 pages of complex technical material. The number of Growler flights at Outlying Field (OLF) Coupeville *alone* went from 3,200 per year to a proposed 35,100 in 2017. That's more than a 1,000 percent increase at this runway alone, yet according to the Navy, there are "no significant impacts." The National Environmental Policy Act (NEPA 40 C.F.R. §1502.4) "...does not allow an approach that would permit dividing a project into multiple 'actions,' each of which individually has an insignificant environmental impact, but which collectively have a substantial impact."

The DEIS evaluates not the totality of impacts from the current fleet of 118 Growlers, nor the projected total of 160 of these aircraft, but slices out 36 of them for an incremental, piecemealed look, and concludes from both the construction activities and the addition of just these 36 new Growlers to the fleet, that no significant impacts will occur in the following categories: public health, bird-animal strike hazards to aircraft, accident potential zones, emissions of all types, archaeological resources, American Indian traditional resources, biological resources, marine species, groundwater, surface water, potable water, socioeconomics, housing, environmental justice, and hazardous waste. To state the obvious, impacts from this many Growlers, when taken together, are likely to be significant. Segmenting their impacts has allowed the Navy to avoid accountability.

**4. The DEIS does not analyze impacts to groundwater or soil from use of firefighting foam** on its runways during Growler operations, despite the fact that before this DEIS was published, the Navy began notifying 2,000 people on Whidbey Island that highly toxic carcinogenic chemicals had migrated from Navy property into their drinking water wells, contaminating them and rendering these people dependent on bottled water.

**5. The DEIS fails to discuss, describe or even mention any potential impacts associated with electromagnetic radiation** in devices employed by the Growlers in locating and interacting with the ground transmitters. It fails to mention any potential impacts associated with aircrew practicing using electromagnetic weaponry, that will allow the Navy to make good on its 2014 statement that this training and testing is "turning out fully trained, combat-ready Electronic Attack crews."

**6. The current comment period on a Draft EIS should not be the last chance** the public will have for input. However, Navy announced on its web site that it does not intend to allow a public comment period on the Final EIS. The "30-day waiting period" proposed for the Final EIS is not a public comment period, and thus would be unresponsive to serious and longstanding public concerns on matters that will affect our lives as well as the lives of people doing business throughout the region, plus the visitors who are the tourism lifeblood of our economy, and the wildlife that inhabits the region. The Navy must allow the public to participate throughout the process, in order to be able to be able to assess the full scope of direct, indirect and cumulative impacts. This is doubly important because so many impacts have been excluded from analysis. A federal agency <u>is required</u> to prepare a supplement to either a draft or final EIS, and allow the public to comment, if there are significant new circumstances or information relevant to environmental concerns, that bear on the proposed action or its impacts.

**7. There are no alternatives proposed in this DEIS that would reduce noise**. This violates NEPA §1506.1, which states, "...no action concerning the proposal shall be taken which would have an adverse environmental impact or limit the choice of reasonable alternatives." According to a memo from the President's Council on Environmental Quality (CEQ) to all federal agencies, "Reasonable alternatives include those that are practical or feasible from the technical and economic standpoint and using common sense, rather than simply desirable from the standpoint of the applicant." (https://energy.gov/sites/prod/files/G-CEQ-40Questions.pdf) The three alternatives presented by the Navy are merely a shell game of choices among the same number of flights, but for different percentages of activity at runways. This pits communities against each other, as the runway that receives more flights will determine the "loser" among these communities.

**8. The Navy has exacerbated the problem stated in #8 by not identifying a preferred alternative** in the DEIS. According to the CEQ memo, "[NEPA] Section 1502.14(e) requires the section of the EIS on alternatives to "identify the agency's preferred alternative if one or more exists, in the draft statement, and identify such alternative in the final statement . . ." Since the Navy has not done this, communities cannot evaluate potential noise levels. Since the Navy has also announced that it will not provide a public comment period for the Final EIS, communities will have no chance to evaluate the consequences or even comment on the preferred alternative.

**9. The Navy states that it evaluated noise for the Olympic Peninsula in 2010** with the Northwest Training Range Complex EIS, but that document did not do so. The Navy claims its documents are "tiered" for this purpose, but they are not. Had the activities

contemplated by the proposed Electronic Warfare Range been evaluated by that EIS, the ground-based mobile emitters should have been listed as an emission source. They were not. For Electronic Combat and Electronic Attack, the only areas listed by activity and training area, warfare type, and Range and Training Site were the Darrington Area and W-237. Neither is on the Olympic Peninsula. Had noise been properly evaluated, the Olympic MOAs should have been listed. They were not. Therefore, noise from Growler activities has not been evaluated in this or any previous for the Olympic Peninsula.

**10. The Navy has neither measured, modeled, nor considered direct, indirect or cumulative effects of jet noise** in any areas outside the immediate environs of NASWI runways. Actual noise measurements have not been made anywhere. However, computer modeling for the 10-mile radius of the "Affected Noise Environment" around Naval Air Station Whidbey Island (NASWI) extends to the year 2021 and clearly demonstrates the Navy's ability to model noise. Therefore it makes no sense to fail to measure or model highly impacted areas such as the West End of the Olympic Peninsula, with its very different terrain and weather conditions, as demonstrated by separate NOAA weather forecasts for each region. For example, the Hoh River is surrounded by steep-sloped mountains that amplify and echo noise. Port Townsend is on a peninsula surrounded on three sides by water, which echoes sound. Port Angeles gets reflected sound from the Strait of Juan de Fuca to its north and from the Olympic Mountains to its south. Yet no noise modeling or measurements have been done for these areas.

**11. The Navy's claim that areas outside the narrow boundaries of its study area do not exceed noise standards is suspect**, first because the standards used by the Navy are unrealistic, second, because the Navy has never measured or modeled noise in these areas, and third, because the "library" of sounds that comprise the basis for the Navy's computer modeling is not available for public inspection. The Navy uses the less realistic Day-Night Average Sound Level (DNL) rather than the Effective Perceived Noise Level, as provided in Federal Aviation Regulation 36. DNL uses A-weighting for the decibel measurement, which means jet noise is averaged with quiet over the course of a year to come up with a 65 dB average. This means peak noise levels in these un-measured and un-modeled communities and wildlands may far exceed 65 dB as long as the constant average with quiet periods over a year stays below 65 dB. This is unrealistic, and claims by the DEIS that wildlife are "presumably habituated" to noise do not apply when that noise is sporadic and intense.

**12. Commercial airport noise standards should not apply to military jets** because commercial jets do not have afterburners, do not engage in aerial combat maneuvers, do not fly at low altitudes or practice landing on runways so short they can only be used for emergencies, do not possess the flight characteristics of Growlers, and do not have weaponry that is capable of making a parcel of forest hum with electromagnetic energy. FAA policy does not preclude use of the more accurate Effective Perceived Noise Level as the standard, nor are local jurisdictions prevented from setting a lower threshold of compatibility for new land-use developments. FAA policy allows for supplemental or alternative measurements. So, the continued use of DNL may be to the Navy's benefit, but does not benefit the public.

**13. The Navy's noise analysis does not allow for peak noise experiences,** nor does the DNL method they use take into account low-frequency noise, which is produced at tremendous levels by Growlers.

**14. The NOISEMAP software used for computer modeling is severely outdated**, and a report from a Department of Defense commission concluded that noise measurements using this software "...do not properly account for the complex operational and noise characteristics of the new aircraft." This report concluded that current computer models could be legally indefensible. (https://www.serdp-estcp.org/Program-Areas/Weapons-Systems-and-Platforms/Noise-and-Emissions/Noise/WP-1304)

**15. The Navy describes its activities using the term "event," but does not define it.** Therefore, the time, duration, and number of jets in a single "event" remain unknown, and real impacts from recent increases remain unevaluated. As a result of leaving out vast geographical areas where noise impacts will occur (and are occurring now), the DEIS eliminates far too many direct, indirect and cumulative effects to be considered a valid or complete analysis. Limiting the scope like this amounts to a segmentation of impacts that forecloses the public's ability to comment and gain legal standing. By law, the public has the right to address the full scope of impacts, not just a narrow sliver of them.

**16. New information that was not disclosed** in previous Navy EISs include flight operations on weekends (not mentioned in the current DEIS but specified on page 11 of the Forest Service's draft permit, viewable at: https://www.fs.usda.gov/project/?project=42759). It has long been understood that the Navy would cooperate with local governments, especially in communities that depend on tourism, by not conducting noise-producing operations on weekends. Further, the singling out of one user group for an exemption from noise is outrageous and unfair. According to the permit, weekend flying may be permitted so long as it does not interfere with "...opening day and associated opening weekend of Washington State's Big Game Hunting Season for use of rifle/guns." While such an exemption is under Forest Service and not Navy control, the Navy must realize that municipalities and local governments, along with economically viable and vulnerable tourism and recreation entities who are not being considered, have not been given the opportunity to comment. The impression is that our national forests are no longer under public control.

**17. Low flights will make even more noise than before:** While the Navy has repeatedly told the public over the past few years that Growlers will fly at a minimum of 6,000 feet above sea level, the DEIS quotes guidance from the Aircraft Environmental Support Office: "Aircraft are directed to avoid towns and populated areas by 1 nm (nautical mile) or overfly 1,000 feet AGL (above ground level) and to avoid airports by 3 nm or overfly 1,500 AGL." This guidance further states, "Over sparsely populated areas, aircraft may not be operated closer than 500 feet to any person, vessel, vehicle, or structure." If this official guidance directs Growlers to fly at such low altitudes, why did the Navy not disclose this in any previous NEPA documents? For an aircraft capable of 150 decibels at takeoff, this new information represents a significant new level of noise impacts that have been neither previously disclosed nor analyzed.

**18. Sound levels for these low flights are not listed in the DEIS:** Table 3.1-2, titled "Representative Sound Levels for Growler Aircraft in Level Flight," on page 3-6, does not show sound exposure levels for Growlers flying at either 1,000 feet or 1,500 feet AGL, as mentioned in the official guidance. Why has this important information been omitted? The public needs to know how much actual noise exposure there will be, along with the threats posed to public and environmental health. This, therefore, is significant new information about impacts that were not disclosed in the DEIS, and requires either that a Supplemental EIS be prepared, or that a public comment period of adequate length be provided on the Final EIS. For public health and safety reasons, the Navy must revise its guidance to significantly increase the distances that Growler jets are currently allowed to fly over towns, airports, individual people, vessels, vehicles, and structures. 500 to 1,000 feet is far too close, and 1,500 feet over an airport is far too dangerous a proximity to supersonic Growler jets.

**19. No mitigation for schools:** The DEIS states that in the case of local schools, no mitigation measures for any of the 3 proposed alternatives were identified, "...but may be developed and altered based on comments received." Some schools will be interrupted by jet noise hundreds of times per day. Yet the Navy suggests that future mitigation measures might be brought up by the public (and subsequently ignored) and thus will be "...identified in the Final EIS or Record of Decision." Such information would be new, could significantly alter the Proposed Actions, and would therefore require another public comment period, in which case the Navy's proposal to *not* allow a comment period on the Final EIS would be unlawful.

**20. The current DNL noise modeling method and data in no way reflect exposure accuracy, given the new information** about low flight levels from official guidance. Therefore, such analyses must be included in a Supplemental EIS or in the Final EIS, with a new public process of adequate length, including an official comment period.

**21. Crash potential is higher:** With no alternatives provided to the public that reduce noise, and with such permissive guidance that allows such low-altitude flight, the potential for Navy Growler student pilots to create tragic outcomes or cause extreme physical, physiological, economic and other harms to communities and wildlands, whether accidentally or on purpose, is unacceptable.

**22. Contamination of drinking water** in residential and commercial areas near the runways, due to use of hazardous chemicals, is completely ignored by the DEIS. It concludes, "No significant impacts related to hazardous waste and materials would occur due to construction activities or from the addition and operation of additional Growler aircraft." While these chemicals have never been analyzed, they have been used in conjunction with Growler training and other flight operations for years; therefore, hazardous materials analysis for these chemicals should not be excluded just because Growlers are not the only aircraft this foam has been used for. It is irresponsible for the DEIS to content that there are no significant impacts. As previously stated, with flights at OLF Coupeville alone increasing from 3,200 in 2010 to as many as 35,100, no one can

claim that a 1,000 percent flight increase in 7 years for which no groundwater or soil contaminant analyses have been done is not significant.

**23. Navy knew about contamination in advance:** It is clear that before the November 10 publication of this DEIS, the Navy was well aware of potential problems with contamination of residential drinking water due to what it calls "historic" use of fire suppressants for flight operations. In May 2016 the USEPA issued drinking water health advisories for two PFCs, and the Navy announced in June that it was in the process of "identifying and for removal and destruction all legacy perfluorooctane sulfonate (and PFOA) containing AFFF [aqueous film forming foam]." Yet the DEIS dismisses all concerns with an incredible statement about actions that took place nearly 20 years ago: "Remediation construction was completed in September 1997, human exposure and contaminated groundwater exposures are under control, and the OUs at Ault Field and the Seaplane Base are ready for anticipated use (USEPA, 2016e)." The statement is ludicrously outdated, and recent events refute it. Three days before the DEIS was published, on November 7, 2016, the Navy sent a letter to more than 100 private and public drinking water well owners expressing concern that perfluoroalkyl substances (PFAS) found beneath the OLF had spread beyond Navy property. Yet the word "perfluoroalkyl" or "PFAS" is not mentioned once in the entire 1400-page DEIS, nor is it mentioned the 2005 or 2012 EAs. A Department of Defense publication makes it clear that there is no current technology that can treat soil or groundwater that has been contaminated with these chemicals. (https://dec.alaska.gov/spar/ppr/hazmat/Chemical-&-Material-Emerging-Risk-Alert-for-AFFF.pdf)

**24. No mention of contaminated soil is found in the DEIS**: It confines its discussion to soil compression and compaction effects from new construction, and concludes there will be no impacts to groundwater. It is therefore puzzling to consider that while extensive evaluations for a variety of hazardous materials were included in the October 2015 Northwest Training and Testing Final EIS, why would the Navy omit such contaminants as the ones mentioned above, from the Growler DEIS? This is the equivalent of a doctor refusing to look at an EKG that clearly shows a heart attack, and diagnosing the patient with anxiety. The Navy needs to include this information in a public NEPA process as an impact of its flight activities. It needs to accept responsibility for this contamination, and pay the costs incurred by finding a permanent alternative source of water for affected residents, and by reimbursing these people for medical costs created by unwitting consumption of Navy-contaminated water.

**25. Impacts to wildlife have been piecemealed:** It does not make sense to separate impacts from just one portion of an aircraft's flight operations and say that's all you're looking at. But because the scope of the DEIS is limited to areas adjacent to runways, analysis of impacts to wildlife from connected flight operations that occur outside these narrow confines are omitted. Threatened and endangered species, sensitive species and other wildlife and critical habitat areas are adversely impacted by noise from takeoffs, landings and other flight operations well beyond the Navy's study area. For example, the increase in aerial combat maneuvers (dogfighting) from 160 to 550 annual "events," which by their erratic nature cannot safely occur near runways, is a 244 percent increase that has been neither examined nor analyzed in this or any previous NEPA process.

Dogfighting requires frequent use of afterburners, which are far louder and use as much as ten times the amount of fuel as normal flight does. Impacts to wildlife and habitat were completely omitted.

**26. Pages of boilerplate language do not constitute analysis of impacts to wildlife:** Except for standardized language copied from wildlife agencies about species life histories, along with lists of various county critical areas ordinances and state wildlife regulations, the DEIS fails to evaluate direct, indirect or cumulative impacts to wildlife. Instead, it offers the excruciating conclusion that the potential for noise impacts and collisions with birds is "greatest during flight operations." However, continues the DEIS, except for the marbled murrelet, the occurrence of these sensitive species in the study area is "highly unlikely," largely because "no suitable habitat is present." This begs the question: if the scope of this DEIS measured the true impacts of jet noise, it is highly *likely* that suitable habitat for many of these species would be found. And if impacts had not been segmented for decades, there might be suitable habitat remaining in the study area.

**27. Old research cited but new research not:** In citing published scientific research, the Navy included a 1988 synthesis of published literature on domestic animals and wildlife, but failed to consider the latest peer-reviewed research summarized in 2015, which lists multiple consequences of noise greater than 65 dB. (http://onlinelibrary.wiley.com/doi/10.1111/brv.12207/abstract) The DEIS also failed to consider an important 2014 study called "Anthropogenic EM Noise Disrupts Magnetic Compass Orientation in Migratory Birds," (http://www.nature.com/nature/journal/v509/n7500/full/nature13290.html) A federal agency cannot cherry-pick scientific research for its own convenience; it must consider the *best available science*. This DEIS fails that test.

Thank you for considering these comments.
Sincerely,

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Nordland, WA 98358

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**15. The Navy describes its activities using the term "event," but does not define it.** Therefore, the time, duration, and number of jets in a single "event" remain unknown, and real impacts from recent increases remain unevaluated. As a result of leaving out vast geographical areas where noise impacts will occur (and are occurring now), the DEIS eliminates far too many direct, indirect and cumulative effects to be considered a valid or complete analysis. Limiting the scope like this amounts to a segmentation of impacts that forecloses the public's ability to comment and gain legal standing. By law, the public has the right to address the full scope of impacts, not just a narrow sliver of them.

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**22. Contamination of drinking water** in residential and commercial areas near the runways, due to use of hazardous chemicals, is completely ignored by the DEIS. It concludes, "No significant impacts related to hazardous waste and materials would occur due to construction activities or from the addition and operation of additional Growler aircraft." While these chemicals have never been analyzed, they have been used in conjunction with Growler training and other flight operations for years; therefore, hazardous materials analysis for these chemicals should not be excluded just because Growlers are not the only aircraft this foam has been used for. It is irresponsible for the DEIS to content that there are no significant impacts. As previously stated, with flights at OLF Coupeville alone increasing from 3,200 in 2010 to as many as 35,100, no one can

claim that a 1,000 percent flight increase in 7 years for which no groundwater or soil contaminant analyses have been done is not significant.

**23. Navy knew about contamination in advance:** It is clear that before the November 10 publication of this DEIS, the Navy was well aware of potential problems with contamination of residential drinking water due to what it calls "historic" use of fire suppressants for flight operations. In May 2016 the USEPA issued drinking water health advisories for two PFCs, and the Navy announced in June that it was in the process of "identifying and for removal and destruction all legacy perfluorooctane sulfonate (and PFOA) containing AFFF [aqueous film forming foam]." Yet the DEIS dismisses all concerns with an incredible statement about actions that took place nearly 20 years ago: "Remediation construction was completed in September 1997, human exposure and contaminated groundwater exposures are under control, and the OUs at Ault Field and the Seaplane Base are ready for anticipated use (USEPA, 2016e)." The statement is ludicrously outdated, and recent events refute it. Three days before the DEIS was published, on November 7, 2016, the Navy sent a letter to more than 100 private and public drinking water well owners expressing concern that perfluoroalkyl substances (PFAS) found beneath the OLF had spread beyond Navy property. Yet the word "perfluoroalkyl" or "PFAS" is not mentioned once in the entire 1400-page DEIS, nor is it mentioned the 2005 or 2012 EAs. A Department of Defense publication makes it clear that there is no current technology that can treat soil or groundwater that has been contaminated with these chemicals. (https://dec.alaska.gov/spar/ppr/hazmat/Chemical-&-Material-Emerging-Risk-Alert-for-AFFF.pdf)

**24. No mention of contaminated soil is found in the DEIS**: It confines its discussion to soil compression and compaction effects from new construction, and concludes there will be no impacts to groundwater. It is therefore puzzling to consider that while extensive evaluations for a variety of hazardous materials were included in the October 2015 Northwest Training and Testing Final EIS, why would the Navy omit such contaminants as the ones mentioned above, from the Growler DEIS? This is the equivalent of a doctor refusing to look at an EKG that clearly shows a heart attack, and diagnosing the patient with anxiety. The Navy needs to include this information in a public NEPA process as an impact of its flight activities. It needs to accept responsibility for this contamination, and pay the costs incurred by finding a permanent alternative source of water for affected residents, and by reimbursing these people for medical costs created by unwitting consumption of Navy-contaminated water.

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Dogfighting requires frequent use of afterburners, which are far louder and use as much as ten times the amount of fuel as normal flight does. Impacts to wildlife and habitat were completely omitted.

**26. Pages of boilerplate language do not constitute analysis of impacts to wildlife:** Except for standardized language copied from wildlife agencies about species life histories, along with lists of various county critical areas ordinances and state wildlife regulations, the DEIS fails to evaluate direct, indirect or cumulative impacts to wildlife. Instead, it offers the excruciating conclusion that the potential for noise impacts and collisions with birds is "greatest during flight operations." However, continues the DEIS, except for the marbled murrelet, the occurrence of these sensitive species in the study area is "highly unlikely," largely because "no suitable habitat is present." This begs the question: if the scope of this DEIS measured the true impacts of jet noise, it is highly *likely* that suitable habitat for many of these species would be found. And if impacts had not been segmented for decades, there might be suitable habitat remaining in the study area.

**27. Old research cited but new research not:** In citing published scientific research, the Navy included a 1988 synthesis of published literature on domestic animals and wildlife, but failed to consider the latest peer-reviewed research summarized in 2015, which lists multiple consequences of noise greater than 65 dB. (http://onlinelibrary.wiley.com/doi/10.1111/brv.12207/abstract) The DEIS also failed to consider an important 2014 study called "Anthropogenic EM Noise Disrupts Magnetic Compass Orientation in Migratory Birds," (http://www.nature.com/nature/journal/v509/n7500/full/nature13290.html) A federal agency cannot cherry-pick scientific research for its own convenience; it must consider the *best available science*. This DEIS fails that test.

Thank you for considering these comments.
Sincerely,

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Nordland, WA 98358

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Dear Christine Littleton,

I am writing in regards to the Navy's Environmental Impact statement proposing an increase in EA-18G "Growler" Airfield Operations at NAS Whidbey Island Complex, and request that the EPA fundamentally revise the DEIS due to the deficiencies noted below.

**1. Jet noise outside the immediate environs of the runways on Whidbey Island is not being evaluated, yet impacts are significant**. Noise from EA-18G Growlers is affecting communities far outside the vicinity of Naval Air Station Whidbey Island, yet the only area the Draft Environmental Impact Statement (DEIS) analyzes in its "study area" is what falls within 6 to 10 miles of the corners of runways. Growler aircraft, which are capable of 150 decibels (dB), use these runways to get airborne and to land; therefore, what happens outside the study area cannot be ignored as if it does not exist, because *all* flight operations are functionally connected to takeoffs and landings. By considering only takeoff and landing noise and exhaust emissions at Ault Field and Outlying Field (OLF) Coupeville, the DEIS fails to consider the wider area of functionally connected impacts caused by naval flight operations. By failing to consider the interdependent parts of a larger action that cannot proceed without takeoffs and landings, as well as their impacts, the DEIS fails to evaluate cumulative effects.

**2. Impacts to cultural and historic sites are not adequately considered.** The Navy so narrowly defined the Area of Potential Effect (APE) for cultural and historic resources that it also fails to consider significant nearby impacts. The State Historic Preservation Officer confirmed this in a January 9, 2017 letter to the Navy. (http://westcoastactionalliance.org/wp-content/uploads/2017/01/SHPO-Letter-102214-23-USN_122916-2.docx ) She said that not only will cultural and historic properties within existing APE boundaries be adversely affected, but additional portions of Whidbey Island, Camano Island, Port Townsend vicinity and the San Juan Islands are also within noise areas that will receive harmful levels of sound and vibration from Growler activity. The US Department of Housing and Urban Development posted noise abatement and control standards that classify the 65 dB levels being used by the Navy as "normally unacceptable" and above 75 as being "unacceptable." (https://www.hudexchange.info/programs/environmental-review/noise-abatement-and-control/) Residents in these outlying areas, who live many miles from these runways, have recorded noise at least twice that loud. Therefore, by failing to include these areas, this DEIS

violates both the National Environmental Policy Act (NEPA) and the National Historic Preservation Act (NHPA).

**3. Piecemealing projects to avoid analyzing cumulative effects is illegal.** The Navy has, to date, piecemealed its aircraft training and testing activities affecting Whidbey Island, the San Juans, and the Olympic Peninsula into at least six separate actions:

1. 4 squadrons of P-8A Poseidon Multi-Mission Aircraft;
2. A 2005 EA (57 Growler jets); 2010 EIS (reaffirming the 57 Growlers that replaced Prowlers);
3. 2012 EA (26 Growlers including 5 from a reserve unit);
4. 2014 EA (Growler electronic warfare activity);
5. 2015 EIS discussing electronic warfare training and testing activity;
6. The current 2016-2017 DEIS (36 Growlers);
7. And, likely, a seventh process, as confirmed by news reports and a Navy official at a recent open house, for 42 more jets to bring the Growler fleet total to 160.

Therefore, it has been impossible for the public to know just how many Growlers there would be, or what their impacts would be, or what limits, if any, the Navy intends to establish. In just four documents—the 2014 EA, Forest Service permit Draft Decision, and the 2010 and 2015 EISs, there are more than 6,000 pages of complex technical material. The number of Growler flights at Outlying Field (OLF) Coupeville *alone* went from 3,200 per year to a proposed 35,100 in 2017. That's more than a 1,000 percent increase at this runway alone, yet according to the Navy, there are "no significant impacts." The National Environmental Policy Act (NEPA 40 C.F.R. §1502.4) "...does not allow an approach that would permit dividing a project into multiple 'actions,' each of which individually has an insignificant environmental impact, but which collectively have a substantial impact."

The DEIS evaluates not the totality of impacts from the current fleet of 118 Growlers, nor the projected total of 160 of these aircraft, but slices out 36 of them for an incremental, piecemealed look, and concludes from both the construction activities and the addition of just these 36 new Growlers to the fleet, that no significant impacts will occur in the following categories: public health, bird-animal strike hazards to aircraft, accident potential zones, emissions of all types, archaeological resources, American Indian traditional resources, biological resources, marine species, groundwater, surface water, potable water, socioeconomics, housing, environmental justice, and hazardous waste. To state the obvious, impacts from this many Growlers, when taken together, are likely to be significant. Segmenting their impacts has allowed the Navy to avoid accountability.

**4. The DEIS does not analyze impacts to groundwater or soil from use of firefighting foam** on its runways during Growler operations, despite the fact that before this DEIS was published, the Navy began notifying 2,000 people on Whidbey Island that highly toxic carcinogenic chemicals had migrated from Navy property into their drinking water wells, contaminating them and rendering these people dependent on bottled water.

**5. The DEIS fails to discuss, describe or even mention any potential impacts associated with electromagnetic radiation** in devices employed by the Growlers in locating and interacting with the ground transmitters. It fails to mention any potential impacts associated with aircrew practicing using electromagnetic weaponry, that will allow the Navy to make good on its 2014 statement that this training and testing is "turning out fully trained, combat-ready Electronic Attack crews."

**6. The current comment period on a Draft EIS should not be the last chance** the public will have for input. However, Navy announced on its web site that it does not intend to allow a public comment period on the Final EIS. The "30-day waiting period" proposed for the Final EIS is not a public comment period, and thus would be unresponsive to serious and longstanding public concerns on matters that will affect our lives as well as the lives of people doing business throughout the region, plus the visitors who are the tourism lifeblood of our economy, and the wildlife that inhabits the region. The Navy must allow the public to participate throughout the process, in order to be able to be able to assess the full scope of direct, indirect and cumulative impacts. This is doubly important because so many impacts have been excluded from analysis. A federal agency <u>is required</u> to prepare a supplement to either a draft or final EIS, and allow the public to comment, if there are significant new circumstances or information relevant to environmental concerns, that bear on the proposed action or its impacts.

**7. There are no alternatives proposed in this DEIS that would reduce noise**. This violates NEPA §1506.1, which states, "...no action concerning the proposal shall be taken which would have an adverse environmental impact or limit the choice of reasonable alternatives." According to a memo from the President's Council on Environmental Quality (CEQ) to all federal agencies, "Reasonable alternatives include those that are practical or feasible from the technical and economic standpoint and using common sense, rather than simply desirable from the standpoint of the applicant." (https://energy.gov/sites/prod/files/G-CEQ-40Questions.pdf) The three alternatives presented by the Navy are merely a shell game of choices among the same number of flights, but for different percentages of activity at runways. This pits communities against each other, as the runway that receives more flights will determine the "loser" among these communities.

**8. The Navy has exacerbated the problem stated in #8 by not identifying a preferred alternative** in the DEIS. According to the CEQ memo, "[NEPA] Section 1502.14(e) requires the section of the EIS on alternatives to "identify the agency's preferred alternative if one or more exists, in the draft statement, and identify such alternative in the final statement . . ." Since the Navy has not done this, communities cannot evaluate potential noise levels. Since the Navy has also announced that it will not provide a public comment period for the Final EIS, communities will have no chance to evaluate the consequences or even comment on the preferred alternative.

**9. The Navy states that it evaluated noise for the Olympic Peninsula in 2010** with the Northwest Training Range Complex EIS, but that document did not do so. The Navy claims its documents are "tiered" for this purpose, but they are not. Had the activities

contemplated by the proposed Electronic Warfare Range been evaluated by that EIS, the ground-based mobile emitters should have been listed as an emission source. They were not. For Electronic Combat and Electronic Attack, the only areas listed by activity and training area, warfare type, and Range and Training Site were the Darrington Area and W-237. Neither is on the Olympic Peninsula. Had noise been properly evaluated, the Olympic MOAs should have been listed. They were not. Therefore, noise from Growler activities has not been evaluated in this or any previous for the Olympic Peninsula.

**10. The Navy has neither measured, modeled, nor considered direct, indirect or cumulative effects of jet noise** in any areas outside the immediate environs of NASWI runways. Actual noise measurements have not been made anywhere. However, computer modeling for the 10-mile radius of the "Affected Noise Environment" around Naval Air Station Whidbey Island (NASWI) extends to the year 2021 and clearly demonstrates the Navy's ability to model noise. Therefore it makes no sense to fail to measure or model highly impacted areas such as the West End of the Olympic Peninsula, with its very different terrain and weather conditions, as demonstrated by separate NOAA weather forecasts for each region. For example, the Hoh River is surrounded by steep-sloped mountains that amplify and echo noise. Port Townsend is on a peninsula surrounded on three sides by water, which echoes sound. Port Angeles gets reflected sound from the Strait of Juan de Fuca to its north and from the Olympic Mountains to its south. Yet no noise modeling or measurements have been done for these areas.

**11. The Navy's claim that areas outside the narrow boundaries of its study area do not exceed noise standards is suspect**, first because the standards used by the Navy are unrealistic, second, because the Navy has never measured or modeled noise in these areas, and third, because the "library" of sounds that comprise the basis for the Navy's computer modeling is not available for public inspection. The Navy uses the less realistic Day-Night Average Sound Level (DNL) rather than the Effective Perceived Noise Level, as provided in Federal Aviation Regulation 36. DNL uses A-weighting for the decibel measurement, which means jet noise is averaged with quiet over the course of a year to come up with a 65 dB average. This means peak noise levels in these un-measured and un-modeled communities and wildlands may far exceed 65 dB as long as the constant average with quiet periods over a year stays below 65 dB. This is unrealistic, and claims by the DEIS that wildlife are "presumably habituated" to noise do not apply when that noise is sporadic and intense.

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Sincerely,

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U.S. EPA, Region 10
1200 Sixth Avenue, Suite 900
Seattle, WA 98101

Dear Christine Littleton,

I am writing in regards to the Navy's Environmental Impact statement proposing an increase in EA-18G "Growler" Airfield Operations at NAS Whidbey Island Complex, and request that the EPA fundamentally revise the DEIS due to the deficiencies noted below.

**1. Jet noise outside the immediate environs of the runways on Whidbey Island is not being evaluated, yet impacts are significant**. Noise from EA-18G Growlers is affecting communities far outside the vicinity of Naval Air Station Whidbey Island, yet the only area the Draft Environmental Impact Statement (DEIS) analyzes in its "study area" is what falls within 6 to 10 miles of the corners of runways. Growler aircraft, which are capable of 150 decibels (dB), use these runways to get airborne and to land; therefore, what happens outside the study area cannot be ignored as if it does not exist, because *all* flight operations are functionally connected to takeoffs and landings. By considering only takeoff and landing noise and exhaust emissions at Ault Field and Outlying Field (OLF) Coupeville, the DEIS fails to consider the wider area of functionally connected impacts caused by naval flight operations. By failing to consider the interdependent parts of a larger action that cannot proceed without takeoffs and landings, as well as their impacts, the DEIS fails to evaluate cumulative effects.

**2. Impacts to cultural and historic sites are not adequately considered.** The Navy so narrowly defined the Area of Potential Effect (APE) for cultural and historic resources that it also fails to consider significant nearby impacts. The State Historic Preservation Officer confirmed this in a January 9, 2017 letter to the Navy. (http://westcoastactionalliance.org/wp-content/uploads/2017/01/SHPO-Letter-102214-23-USN_122916-2.docx ) She said that not only will cultural and historic properties within existing APE boundaries be adversely affected, but additional portions of Whidbey Island, Camano Island, Port Townsend vicinity and the San Juan Islands are also within noise areas that will receive harmful levels of sound and vibration from Growler activity. The US Department of Housing and Urban Development posted noise abatement and control standards that classify the 65 dB levels being used by the Navy as "normally unacceptable" and above 75 as being "unacceptable." (https://www.hudexchange.info/programs/environmental-review/noise-abatement-and-control/) Residents in these outlying areas, who live many miles from these runways, have recorded noise at least twice that loud. Therefore, by failing to include these areas, this DEIS

violates both the National Environmental Policy Act (NEPA) and the National Historic Preservation Act (NHPA).

**3. Piecemealing projects to avoid analyzing cumulative effects is illegal.** The Navy has, to date, piecemealed its aircraft training and testing activities affecting Whidbey Island, the San Juans, and the Olympic Peninsula into at least six separate actions:

1. 4 squadrons of P-8A Poseidon Multi-Mission Aircraft;
2. A 2005 EA (57 Growler jets); 2010 EIS (reaffirming the 57 Growlers that replaced Prowlers);
3. 2012 EA (26 Growlers including 5 from a reserve unit);
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6. The current 2016-2017 DEIS (36 Growlers);
7. And, likely, a seventh process, as confirmed by news reports and a Navy official at a recent open house, for 42 more jets to bring the Growler fleet total to 160.

Therefore, it has been impossible for the public to know just how many Growlers there would be, or what their impacts would be, or what limits, if any, the Navy intends to establish. In just four documents—the 2014 EA, Forest Service permit Draft Decision, and the 2010 and 2015 EISs, there are more than 6,000 pages of complex technical material. The number of Growler flights at Outlying Field (OLF) Coupeville *alone* went from 3,200 per year to a proposed 35,100 in 2017. That's more than a 1,000 percent increase at this runway alone, yet according to the Navy, there are "no significant impacts." The National Environmental Policy Act (NEPA 40 C.F.R. §1502.4) "…does not allow an approach that would permit dividing a project into multiple 'actions,' each of which individually has an insignificant environmental impact, but which collectively have a substantial impact."

The DEIS evaluates not the totality of impacts from the current fleet of 118 Growlers, nor the projected total of 160 of these aircraft, but slices out 36 of them for an incremental, piecemealed look, and concludes from both the construction activities and the addition of just these 36 new Growlers to the fleet, that no significant impacts will occur in the following categories: public health, bird-animal strike hazards to aircraft, accident potential zones, emissions of all types, archaeological resources, American Indian traditional resources, biological resources, marine species, groundwater, surface water, potable water, socioeconomics, housing, environmental justice, and hazardous waste. To state the obvious, impacts from this many Growlers, when taken together, are likely to be significant. Segmenting their impacts has allowed the Navy to avoid accountability.

**4. The DEIS does not analyze impacts to groundwater or soil from use of firefighting foam** on its runways during Growler operations, despite the fact that before this DEIS was published, the Navy began notifying 2,000 people on Whidbey Island that highly toxic carcinogenic chemicals had migrated from Navy property into their drinking water wells, contaminating them and rendering these people dependent on bottled water.

**13. The Navy's noise analysis does not allow for peak noise experiences,** nor does the DNL method they use take into account low-frequency noise, which is produced at tremendous levels by Growlers.

**14. The NOISEMAP software used for computer modeling is severely outdated**, and a report from a Department of Defense commission concluded that noise measurements using this software "...do not properly account for the complex operational and noise characteristics of the new aircraft." This report concluded that current computer models could be legally indefensible. (https://www.serdp-estcp.org/Program-Areas/Weapons-Systems-and-Platforms/Noise-and-Emissions/Noise/WP-1304)

**15. The Navy describes its activities using the term "event," but does not define it.** Therefore, the time, duration, and number of jets in a single "event" remain unknown, and real impacts from recent increases remain unevaluated. As a result of leaving out vast geographical areas where noise impacts will occur (and are occurring now), the DEIS eliminates far too many direct, indirect and cumulative effects to be considered a valid or complete analysis. Limiting the scope like this amounts to a segmentation of impacts that forecloses the public's ability to comment and gain legal standing. By law, the public has the right to address the full scope of impacts, not just a narrow sliver of them.

**16. New information that was not disclosed** in previous Navy EISs include flight operations on weekends (not mentioned in the current DEIS but specified on page 11 of the Forest Service's draft permit, viewable at: https://www.fs.usda.gov/project/?project=42759). It has long been understood that the Navy would cooperate with local governments, especially in communities that depend on tourism, by not conducting noise-producing operations on weekends. Further, the singling out of one user group for an exemption from noise is outrageous and unfair. According to the permit, weekend flying may be permitted so long as it does not interfere with "...opening day and associated opening weekend of Washington State's Big Game Hunting Season for use of rifle/guns." While such an exemption is under Forest Service and not Navy control, the Navy must realize that municipalities and local governments, along with economically viable and vulnerable tourism and recreation entities who are not being considered, have not been given the opportunity to comment. The impression is that our national forests are no longer under public control.

**17. Low flights will make even more noise than before:** While the Navy has repeatedly told the public over the past few years that Growlers will fly at a minimum of 6,000 feet above sea level, the DEIS quotes guidance from the Aircraft Environmental Support Office: "Aircraft are directed to avoid towns and populated areas by 1 nm (nautical mile) or overfly 1,000 feet AGL (above ground level) and to avoid airports by 3 nm or overfly 1,500 AGL." This guidance further states, "Over sparsely populated areas, aircraft may not be operated closer than 500 feet to any person, vessel, vehicle, or structure." If this official guidance directs Growlers to fly at such low altitudes, why did the Navy not disclose this in any previous NEPA documents? For an aircraft capable of 150 decibels at takeoff, this new information represents a significant new level of noise impacts that have been neither previously disclosed nor analyzed.

**18. Sound levels for these low flights are not listed in the DEIS:** Table 3.1-2, titled "Representative Sound Levels for Growler Aircraft in Level Flight," on page 3-6, does not show sound exposure levels for Growlers flying at either 1,000 feet or 1,500 feet AGL, as mentioned in the official guidance. Why has this important information been omitted? The public needs to know how much actual noise exposure there will be, along with the threats posed to public and environmental health. This, therefore, is significant new information about impacts that were not disclosed in the DEIS, and requires either that a Supplemental EIS be prepared, or that a public comment period of adequate length be provided on the Final EIS. For public health and safety reasons, the Navy must revise its guidance to significantly increase the distances that Growler jets are currently allowed to fly over towns, airports, individual people, vessels, vehicles, and structures. 500 to 1,000 feet is far too close, and 1,500 feet over an airport is far too dangerous a proximity to supersonic Growler jets.

**19. No mitigation for schools:** The DEIS states that in the case of local schools, no mitigation measures for any of the 3 proposed alternatives were identified, "...but may be developed and altered based on comments received." Some schools will be interrupted by jet noise hundreds of times per day. Yet the Navy suggests that future mitigation measures might be brought up by the public (and subsequently ignored) and thus will be "...identified in the Final EIS or Record of Decision." Such information would be new, could significantly alter the Proposed Actions, and would therefore require another public comment period, in which case the Navy's proposal to *not* allow a comment period on the Final EIS would be unlawful.

**20. The current DNL noise modeling method and data in no way reflect exposure accuracy, given the new information** about low flight levels from official guidance. Therefore, such analyses must be included in a Supplemental EIS or in the Final EIS, with a new public process of adequate length, including an official comment period.

**21. Crash potential is higher:** With no alternatives provided to the public that reduce noise, and with such permissive guidance that allows such low-altitude flight, the potential for Navy Growler student pilots to create tragic outcomes or cause extreme physical, physiological, economic and other harms to communities and wildlands, whether accidentally or on purpose, is unacceptable.

**22. Contamination of drinking water** in residential and commercial areas near the runways, due to use of hazardous chemicals, is completely ignored by the DEIS. It concludes, "No significant impacts related to hazardous waste and materials would occur due to construction activities or from the addition and operation of additional Growler aircraft." While these chemicals have never been analyzed, they have been used in conjunction with Growler training and other flight operations for years; therefore, hazardous materials analysis for these chemicals should not be excluded just because Growlers are not the only aircraft this foam has been used for. It is irresponsible for the DEIS to content that there are no significant impacts. As previously stated, with flights at OLF Coupeville alone increasing from 3,200 in 2010 to as many as 35,100, no one can

claim that a 1,000 percent flight increase in 7 years for which no groundwater or soil contaminant analyses have been done is not significant.

**23. Navy knew about contamination in advance:** It is clear that before the November 10 publication of this DEIS, the Navy was well aware of potential problems with contamination of residential drinking water due to what it calls "historic" use of fire suppressants for flight operations. In May 2016 the USEPA issued drinking water health advisories for two PFCs, and the Navy announced in June that it was in the process of "identifying and for removal and destruction all legacy perfluorooctane sulfonate (and PFOA) containing AFFF [aqueous film forming foam]." Yet the DEIS dismisses all concerns with an incredible statement about actions that took place nearly 20 years ago: "Remediation construction was completed in September 1997, human exposure and contaminated groundwater exposures are under control, and the OUs at Ault Field and the Seaplane Base are ready for anticipated use (USEPA, 2016e)." The statement is ludicrously outdated, and recent events refute it. Three days before the DEIS was published, on November 7, 2016, the Navy sent a letter to more than 100 private and public drinking water well owners expressing concern that perfluoroalkyl substances (PFAS) found beneath the OLF had spread beyond Navy property. Yet the word "perfluoroalkyl" or "PFAS" is not mentioned once in the entire 1400-page DEIS, nor is it mentioned the 2005 or 2012 EAs. A Department of Defense publication makes it clear that there is no current technology that can treat soil or groundwater that has been contaminated with these chemicals. (https://dec.alaska.gov/spar/ppr/hazmat/Chemical-&-Material-Emerging-Risk-Alert-for-AFFF.pdf)

**24. No mention of contaminated soil is found in the DEIS**: It confines its discussion to soil compression and compaction effects from new construction, and concludes there will be no impacts to groundwater. It is therefore puzzling to consider that while extensive evaluations for a variety of hazardous materials were included in the October 2015 Northwest Training and Testing Final EIS, why would the Navy omit such contaminants as the ones mentioned above, from the Growler DEIS? This is the equivalent of a doctor refusing to look at an EKG that clearly shows a heart attack, and diagnosing the patient with anxiety. The Navy needs to include this information in a public NEPA process as an impact of its flight activities. It needs to accept responsibility for this contamination, and pay the costs incurred by finding a permanent alternative source of water for affected residents, and by reimbursing these people for medical costs created by unwitting consumption of Navy-contaminated water.

**25. Impacts to wildlife have been piecemealed:** It does not make sense to separate impacts from just one portion of an aircraft's flight operations and say that's all you're looking at. But because the scope of the DEIS is limited to areas adjacent to runways, analysis of impacts to wildlife from connected flight operations that occur outside these narrow confines are omitted. Threatened and endangered species, sensitive species and other wildlife and critical habitat areas are adversely impacted by noise from takeoffs, landings and other flight operations well beyond the Navy's study area. For example, the increase in aerial combat maneuvers (dogfighting) from 160 to 550 annual "events," which by their erratic nature cannot safely occur near runways, is a 244 percent increase that has been neither examined nor analyzed in this or any previous NEPA process.

Dogfighting requires frequent use of afterburners, which are far louder and use as much as ten times the amount of fuel as normal flight does. Impacts to wildlife and habitat were completely omitted.

**26. Pages of boilerplate language do not constitute analysis of impacts to wildlife:** Except for standardized language copied from wildlife agencies about species life histories, along with lists of various county critical areas ordinances and state wildlife regulations, the DEIS fails to evaluate direct, indirect or cumulative impacts to wildlife. Instead, it offers the excruciating conclusion that the potential for noise impacts and collisions with birds is "greatest during flight operations." However, continues the DEIS, except for the marbled murrelet, the occurrence of these sensitive species in the study area is "highly unlikely," largely because "no suitable habitat is present." This begs the question: if the scope of this DEIS measured the true impacts of jet noise, it is highly *likely* that suitable habitat for many of these species would be found. And if impacts had not been segmented for decades, there might be suitable habitat remaining in the study area.

**27. Old research cited but new research not:** In citing published scientific research, the Navy included a 1988 synthesis of published literature on domestic animals and wildlife, but failed to consider the latest peer-reviewed research summarized in 2015, which lists multiple consequences of noise greater than 65 dB. (http://onlinelibrary.wiley.com/doi/10.1111/brv.12207/abstract) The DEIS also failed to consider an important 2014 study called "Anthropogenic EM Noise Disrupts Magnetic Compass Orientation in Migratory Birds," (http://www.nature.com/nature/journal/v509/n7500/full/nature13290.html) A federal agency cannot cherry-pick scientific research for its own convenience; it must consider the *best available science*. This DEIS fails that test.

Thank you for considering these comments.

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**5. The DEIS fails to discuss, describe or even mention any potential impacts associated with electromagnetic radiation** in devices employed by the Growlers in locating and interacting with the ground transmitters. It fails to mention any potential impacts associated with aircrew practicing using electromagnetic weaponry, that will allow the Navy to make good on its 2014 statement that this training and testing is "turning out fully trained, combat-ready Electronic Attack crews."

**6. The current comment period on a Draft EIS should not be the last chance** the public will have for input. However, Navy announced on its web site that it does not intend to allow a public comment period on the Final EIS. The "30-day waiting period" proposed for the Final EIS is not a public comment period, and thus would be unresponsive to serious and longstanding public concerns on matters that will affect our lives as well as the lives of people doing business throughout the region, plus the visitors who are the tourism lifeblood of our economy, and the wildlife that inhabits the region. The Navy must allow the public to participate throughout the process, in order to be able to be able to assess the full scope of direct, indirect and cumulative impacts. This is doubly important because so many impacts have been excluded from analysis. A federal agency <u>is required</u> to prepare a supplement to either a draft or final EIS, and allow the public to comment, if there are significant new circumstances or information relevant to environmental concerns, that bear on the proposed action or its impacts.

**7. There are no alternatives proposed in this DEIS that would reduce noise**. This violates NEPA §1506.1, which states, "...no action concerning the proposal shall be taken which would have an adverse environmental impact or limit the choice of reasonable alternatives." According to a memo from the President's Council on Environmental Quality (CEQ) to all federal agencies, "Reasonable alternatives include those that are practical or feasible from the technical and economic standpoint and using common sense, rather than simply desirable from the standpoint of the applicant." (https://energy.gov/sites/prod/files/G-CEQ-40Questions.pdf) The three alternatives presented by the Navy are merely a shell game of choices among the same number of flights, but for different percentages of activity at runways. This pits communities against each other, as the runway that receives more flights will determine the "loser" among these communities.

**8. The Navy has exacerbated the problem stated in #8 by not identifying a preferred alternative** in the DEIS. According to the CEQ memo, "[NEPA] Section 1502.14(e) requires the section of the EIS on alternatives to "identify the agency's preferred alternative if one or more exists, in the draft statement, and identify such alternative in the final statement . . ." Since the Navy has not done this, communities cannot evaluate potential noise levels. Since the Navy has also announced that it will not provide a public comment period for the Final EIS, communities will have no chance to evaluate the consequences or even comment on the preferred alternative.

**9. The Navy states that it evaluated noise for the Olympic Peninsula in 2010** with the Northwest Training Range Complex EIS, but that document did not do so. The Navy claims its documents are "tiered" for this purpose, but they are not. Had the activities

contemplated by the proposed Electronic Warfare Range been evaluated by that EIS, the ground-based mobile emitters should have been listed as an emission source. They were not. For Electronic Combat and Electronic Attack, the only areas listed by activity and training area, warfare type, and Range and Training Site were the Darrington Area and W-237. Neither is on the Olympic Peninsula. Had noise been properly evaluated, the Olympic MOAs should have been listed. They were not. Therefore, noise from Growler activities has not been evaluated in this or any previous for the Olympic Peninsula.

**10. The Navy has neither measured, modeled, nor considered direct, indirect or cumulative effects of jet noise** in any areas outside the immediate environs of NASWI runways. Actual noise measurements have not been made anywhere. However, computer modeling for the 10-mile radius of the "Affected Noise Environment" around Naval Air Station Whidbey Island (NASWI) extends to the year 2021 and clearly demonstrates the Navy's ability to model noise. Therefore it makes no sense to fail to measure or model highly impacted areas such as the West End of the Olympic Peninsula, with its very different terrain and weather conditions, as demonstrated by separate NOAA weather forecasts for each region. For example, the Hoh River is surrounded by steep-sloped mountains that amplify and echo noise. Port Townsend is on a peninsula surrounded on three sides by water, which echoes sound. Port Angeles gets reflected sound from the Strait of Juan de Fuca to its north and from the Olympic Mountains to its south. Yet no noise modeling or measurements have been done for these areas.

**11. The Navy's claim that areas outside the narrow boundaries of its study area do not exceed noise standards is suspect**, first because the standards used by the Navy are unrealistic, second, because the Navy has never measured or modeled noise in these areas, and third, because the "library" of sounds that comprise the basis for the Navy's computer modeling is not available for public inspection. The Navy uses the less realistic Day-Night Average Sound Level (DNL) rather than the Effective Perceived Noise Level, as provided in Federal Aviation Regulation 36. DNL uses A-weighting for the decibel measurement, which means jet noise is averaged with quiet over the course of a year to come up with a 65 dB average. This means peak noise levels in these un-measured and un-modeled communities and wildlands may far exceed 65 dB as long as the constant average with quiet periods over a year stays below 65 dB. This is unrealistic, and claims by the DEIS that wildlife are "presumably habituated" to noise do not apply when that noise is sporadic and intense.

**12. Commercial airport noise standards should not apply to military jets** because commercial jets do not have afterburners, do not engage in aerial combat maneuvers, do not fly at low altitudes or practice landing on runways so short they can only be used for emergencies, do not possess the flight characteristics of Growlers, and do not have weaponry that is capable of making a parcel of forest hum with electromagnetic energy. FAA policy does not preclude use of the more accurate Effective Perceived Noise Level as the standard, nor are local jurisdictions prevented from setting a lower threshold of compatibility for new land-use developments. FAA policy allows for supplemental or alternative measurements. So, the continued use of DNL may be to the Navy's benefit, but does not benefit the public.

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**23. Navy knew about contamination in advance:** It is clear that before the November 10 publication of this DEIS, the Navy was well aware of potential problems with contamination of residential drinking water due to what it calls "historic" use of fire suppressants for flight operations. In May 2016 the USEPA issued drinking water health advisories for two PFCs, and the Navy announced in June that it was in the process of "identifying and for removal and destruction all legacy perfluorooctane sulfonate (and PFOA) containing AFFF [aqueous film forming foam]." Yet the DEIS dismisses all concerns with an incredible statement about actions that took place nearly 20 years ago: "Remediation construction was completed in September 1997, human exposure and contaminated groundwater exposures are under control, and the OUs at Ault Field and the Seaplane Base are ready for anticipated use (USEPA, 2016e)." The statement is ludicrously outdated, and recent events refute it. Three days before the DEIS was published, on November 7, 2016, the Navy sent a letter to more than 100 private and public drinking water well owners expressing concern that perfluoroalkyl substances (PFAS) found beneath the OLF had spread beyond Navy property. Yet the word "perfluoroalkyl" or "PFAS" is not mentioned once in the entire 1400-page DEIS, nor is it mentioned the 2005 or 2012 EAs. A Department of Defense publication makes it clear that there is no current technology that can treat soil or groundwater that has been contaminated with these chemicals. (https://dec.alaska.gov/spar/ppr/hazmat/Chemical-&-Material-Emerging-Risk-Alert-for-AFFF.pdf)

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Dogfighting requires frequent use of afterburners, which are far louder and use as much as ten times the amount of fuel as normal flight does. Impacts to wildlife and habitat were completely omitted.

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**27. Old research cited but new research not:** In citing published scientific research, the Navy included a 1988 synthesis of published literature on domestic animals and wildlife, but failed to consider the latest peer-reviewed research summarized in 2015, which lists multiple consequences of noise greater than 65 dB. (http://onlinelibrary.wiley.com/doi/10.1111/brv.12207/abstract) The DEIS also failed to consider an important 2014 study called "Anthropogenic EM Noise Disrupts Magnetic Compass Orientation in Migratory Birds," (http://www.nature.com/nature/journal/v509/n7500/full/nature13290.html) A federal agency cannot cherry-pick scientific research for its own convenience; it must consider the *best available science*. This DEIS fails that test.

Thank you for considering these comments.

Sincerely, (b) (6)

Nordland, WA 98358

U.S. EPA, Region 10
1200 Sixth Avenue, Suite 900
Seattle, WA 98101

Dear Christine Littleton,

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**1. Jet noise outside the immediate environs of the runways on Whidbey Island is not being evaluated, yet impacts are significant**. Noise from EA-18G Growlers is affecting communities far outside the vicinity of Naval Air Station Whidbey Island, yet the only area the Draft Environmental Impact Statement (DEIS) analyzes in its "study area" is what falls within 6 to 10 miles of the corners of runways. Growler aircraft, which are capable of 150 decibels (dB), use these runways to get airborne and to land; therefore, what happens outside the study area cannot be ignored as if it does not exist, because *all* flight operations are functionally connected to takeoffs and landings. By considering only takeoff and landing noise and exhaust emissions at Ault Field and Outlying Field (OLF) Coupeville, the DEIS fails to consider the wider area of functionally connected impacts caused by naval flight operations. By failing to consider the interdependent parts of a larger action that cannot proceed without takeoffs and landings, as well as their impacts, the DEIS fails to evaluate cumulative effects.

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violates both the National Environmental Policy Act (NEPA) and the National Historic Preservation Act (NHPA).

**3. Piecemealing projects to avoid analyzing cumulative effects is illegal.** The Navy has, to date, piecemealed its aircraft training and testing activities affecting Whidbey Island, the San Juans, and the Olympic Peninsula into at least six separate actions:

1. 4 squadrons of P-8A Poseidon Multi-Mission Aircraft;
2. A 2005 EA (57 Growler jets); 2010 EIS (reaffirming the 57 Growlers that replaced Prowlers);
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6. The current 2016-2017 DEIS (36 Growlers);
7. And, likely, a seventh process, as confirmed by news reports and a Navy official at a recent open house, for 42 more jets to bring the Growler fleet total to 160.

Therefore, it has been impossible for the public to know just how many Growlers there would be, or what their impacts would be, or what limits, if any, the Navy intends to establish. In just four documents—the 2014 EA, Forest Service permit Draft Decision, and the 2010 and 2015 EISs, there are more than 6,000 pages of complex technical material. The number of Growler flights at Outlying Field (OLF) Coupeville *alone* went from 3,200 per year to a proposed 35,100 in 2017. That's more than a 1,000 percent increase at this runway alone, yet according to the Navy, there are "no significant impacts." The National Environmental Policy Act (NEPA 40 C.F.R. §1502.4) "...does not allow an approach that would permit dividing a project into multiple 'actions,' each of which individually has an insignificant environmental impact, but which collectively have a substantial impact."

The DEIS evaluates not the totality of impacts from the current fleet of 118 Growlers, nor the projected total of 160 of these aircraft, but slices out 36 of them for an incremental, piecemealed look, and concludes from both the construction activities and the addition of just these 36 new Growlers to the fleet, that no significant impacts will occur in the following categories: public health, bird-animal strike hazards to aircraft, accident potential zones, emissions of all types, archaeological resources, American Indian traditional resources, biological resources, marine species, groundwater, surface water, potable water, socioeconomics, housing, environmental justice, and hazardous waste. To state the obvious, impacts from this many Growlers, when taken together, are likely to be significant. Segmenting their impacts has allowed the Navy to avoid accountability.

**4. The DEIS does not analyze impacts to groundwater or soil from use of firefighting foam** on its runways during Growler operations, despite the fact that before this DEIS was published, the Navy began notifying 2,000 people on Whidbey Island that highly toxic carcinogenic chemicals had migrated from Navy property into their drinking water wells, contaminating them and rendering these people dependent on bottled water.

**5. The DEIS fails to discuss, describe or even mention any potential impacts associated with electromagnetic radiation** in devices employed by the Growlers in locating and interacting with the ground transmitters. It fails to mention any potential impacts associated with aircrew practicing using electromagnetic weaponry, that will allow the Navy to make good on its 2014 statement that this training and testing is "turning out fully trained, combat-ready Electronic Attack crews."

**6. The current comment period on a Draft EIS should not be the last chance** the public will have for input. However, Navy announced on its web site that it does not intend to allow a public comment period on the Final EIS. The "30-day waiting period" proposed for the Final EIS is not a public comment period, and thus would be unresponsive to serious and longstanding public concerns on matters that will affect our lives as well as the lives of people doing business throughout the region, plus the visitors who are the tourism lifeblood of our economy, and the wildlife that inhabits the region. The Navy must allow the public to participate throughout the process, in order to be able to be able to assess the full scope of direct, indirect and cumulative impacts. This is doubly important because so many impacts have been excluded from analysis. A federal agency <u>is required</u> to prepare a supplement to either a draft or final EIS, and allow the public to comment, if there are significant new circumstances or information relevant to environmental concerns, that bear on the proposed action or its impacts.

**7. There are no alternatives proposed in this DEIS that would reduce noise**. This violates NEPA §1506.1, which states, "...no action concerning the proposal shall be taken which would have an adverse environmental impact or limit the choice of reasonable alternatives." According to a memo from the President's Council on Environmental Quality (CEQ) to all federal agencies, "Reasonable alternatives include those that are practical or feasible from the technical and economic standpoint and using common sense, rather than simply desirable from the standpoint of the applicant." (https://energy.gov/sites/prod/files/G-CEQ-40Questions.pdf) The three alternatives presented by the Navy are merely a shell game of choices among the same number of flights, but for different percentages of activity at runways. This pits communities against each other, as the runway that receives more flights will determine the "loser" among these communities.

**8. The Navy has exacerbated the problem stated in #8 by not identifying a preferred alternative** in the DEIS. According to the CEQ memo, "[NEPA] Section 1502.14(e) requires the section of the EIS on alternatives to "identify the agency's preferred alternative if one or more exists, in the draft statement, and identify such alternative in the final statement . . ." Since the Navy has not done this, communities cannot evaluate potential noise levels. Since the Navy has also announced that it will not provide a public comment period for the Final EIS, communities will have no chance to evaluate the consequences or even comment on the preferred alternative.

**9. The Navy states that it evaluated noise for the Olympic Peninsula in 2010** with the Northwest Training Range Complex EIS, but that document did not do so. The Navy claims its documents are "tiered" for this purpose, but they are not. Had the activities

contemplated by the proposed Electronic Warfare Range been evaluated by that EIS, the ground-based mobile emitters should have been listed as an emission source. They were not. For Electronic Combat and Electronic Attack, the only areas listed by activity and training area, warfare type, and Range and Training Site were the Darrington Area and W-237. Neither is on the Olympic Peninsula. Had noise been properly evaluated, the Olympic MOAs should have been listed. They were not. Therefore, noise from Growler activities has not been evaluated in this or any previous for the Olympic Peninsula.

**10. The Navy has neither measured, modeled, nor considered direct, indirect or cumulative effects of jet noise** in any areas outside the immediate environs of NASWI runways. Actual noise measurements have not been made anywhere. However, computer modeling for the 10-mile radius of the "Affected Noise Environment" around Naval Air Station Whidbey Island (NASWI) extends to the year 2021 and clearly demonstrates the Navy's ability to model noise. Therefore it makes no sense to fail to measure or model highly impacted areas such as the West End of the Olympic Peninsula, with its very different terrain and weather conditions, as demonstrated by separate NOAA weather forecasts for each region. For example, the Hoh River is surrounded by steep-sloped mountains that amplify and echo noise. Port Townsend is on a peninsula surrounded on three sides by water, which echoes sound. Port Angeles gets reflected sound from the Strait of Juan de Fuca to its north and from the Olympic Mountains to its south. Yet no noise modeling or measurements have been done for these areas.

**11. The Navy's claim that areas outside the narrow boundaries of its study area do not exceed noise standards is suspect**, first because the standards used by the Navy are unrealistic, second, because the Navy has never measured or modeled noise in these areas, and third, because the "library" of sounds that comprise the basis for the Navy's computer modeling is not available for public inspection. The Navy uses the less realistic Day-Night Average Sound Level (DNL) rather than the Effective Perceived Noise Level, as provided in Federal Aviation Regulation 36. DNL uses A-weighting for the decibel measurement, which means jet noise is averaged with quiet over the course of a year to come up with a 65 dB average. This means peak noise levels in these un-measured and un-modeled communities and wildlands may far exceed 65 dB as long as the constant average with quiet periods over a year stays below 65 dB. This is unrealistic, and claims by the DEIS that wildlife are "presumably habituated" to noise do not apply when that noise is sporadic and intense.

**12. Commercial airport noise standards should not apply to military jets** because commercial jets do not have afterburners, do not engage in aerial combat maneuvers, do not fly at low altitudes or practice landing on runways so short they can only be used for emergencies, do not possess the flight characteristics of Growlers, and do not have weaponry that is capable of making a parcel of forest hum with electromagnetic energy. FAA policy does not preclude use of the more accurate Effective Perceived Noise Level as the standard, nor are local jurisdictions prevented from setting a lower threshold of compatibility for new land-use developments. FAA policy allows for supplemental or alternative measurements. So, the continued use of DNL may be to the Navy's benefit, but does not benefit the public.

**13. The Navy's noise analysis does not allow for peak noise experiences,** nor does the DNL method they use take into account low-frequency noise, which is produced at tremendous levels by Growlers.

**14. The NOISEMAP software used for computer modeling is severely outdated**, and a report from a Department of Defense commission concluded that noise measurements using this software "...do not properly account for the complex operational and noise characteristics of the new aircraft." This report concluded that current computer models could be legally indefensible. (https://www.serdp-estcp.org/Program-Areas/Weapons-Systems-and-Platforms/Noise-and-Emissions/Noise/WP-1304)

**15. The Navy describes its activities using the term "event," but does not define it.** Therefore, the time, duration, and number of jets in a single "event" remain unknown, and real impacts from recent increases remain unevaluated. As a result of leaving out vast geographical areas where noise impacts will occur (and are occurring now), the DEIS eliminates far too many direct, indirect and cumulative effects to be considered a valid or complete analysis. Limiting the scope like this amounts to a segmentation of impacts that forecloses the public's ability to comment and gain legal standing. By law, the public has the right to address the full scope of impacts, not just a narrow sliver of them.

**16. New information that was not disclosed** in previous Navy EISs include flight operations on weekends (not mentioned in the current DEIS but specified on page 11 of the Forest Service's draft permit, viewable at: https://www.fs.usda.gov/project/?project=42759). It has long been understood that the Navy would cooperate with local governments, especially in communities that depend on tourism, by not conducting noise-producing operations on weekends. Further, the singling out of one user group for an exemption from noise is outrageous and unfair. According to the permit, weekend flying may be permitted so long as it does not interfere with "...opening day and associated opening weekend of Washington State's Big Game Hunting Season for use of rifle/guns." While such an exemption is under Forest Service and not Navy control, the Navy must realize that municipalities and local governments, along with economically viable and vulnerable tourism and recreation entities who are not being considered, have not been given the opportunity to comment. The impression is that our national forests are no longer under public control.

**17. Low flights will make even more noise than before:** While the Navy has repeatedly told the public over the past few years that Growlers will fly at a minimum of 6,000 feet above sea level, the DEIS quotes guidance from the Aircraft Environmental Support Office: "Aircraft are directed to avoid towns and populated areas by 1 nm (nautical mile) or overfly 1,000 feet AGL (above ground level) and to avoid airports by 3 nm or overfly 1,500 AGL." This guidance further states, "Over sparsely populated areas, aircraft may not be operated closer than 500 feet to any person, vessel, vehicle, or structure." If this official guidance directs Growlers to fly at such low altitudes, why did the Navy not disclose this in any previous NEPA documents? For an aircraft capable of 150 decibels at takeoff, this new information represents a significant new level of noise impacts that have been neither previously disclosed nor analyzed.

**18. Sound levels for these low flights are not listed in the DEIS:** Table 3.1-2, titled "Representative Sound Levels for Growler Aircraft in Level Flight," on page 3-6, does not show sound exposure levels for Growlers flying at either 1,000 feet or 1,500 feet AGL, as mentioned in the official guidance. Why has this important information been omitted? The public needs to know how much actual noise exposure there will be, along with the threats posed to public and environmental health. This, therefore, is significant new information about impacts that were not disclosed in the DEIS, and requires either that a Supplemental EIS be prepared, or that a public comment period of adequate length be provided on the Final EIS. For public health and safety reasons, the Navy must revise its guidance to significantly increase the distances that Growler jets are currently allowed to fly over towns, airports, individual people, vessels, vehicles, and structures. 500 to 1,000 feet is far too close, and 1,500 feet over an airport is far too dangerous a proximity to supersonic Growler jets.

**19. No mitigation for schools:** The DEIS states that in the case of local schools, no mitigation measures for any of the 3 proposed alternatives were identified, "...but may be developed and altered based on comments received." Some schools will be interrupted by jet noise hundreds of times per day. Yet the Navy suggests that future mitigation measures might be brought up by the public (and subsequently ignored) and thus will be "...identified in the Final EIS or Record of Decision." Such information would be new, could significantly alter the Proposed Actions, and would therefore require another public comment period, in which case the Navy's proposal to *not* allow a comment period on the Final EIS would be unlawful.

**20. The current DNL noise modeling method and data in no way reflect exposure accuracy, given the new information** about low flight levels from official guidance. Therefore, such analyses must be included in a Supplemental EIS or in the Final EIS, with a new public process of adequate length, including an official comment period.

**21. Crash potential is higher:** With no alternatives provided to the public that reduce noise, and with such permissive guidance that allows such low-altitude flight, the potential for Navy Growler student pilots to create tragic outcomes or cause extreme physical, physiological, economic and other harms to communities and wildlands, whether accidentally or on purpose, is unacceptable.

**22. Contamination of drinking water** in residential and commercial areas near the runways, due to use of hazardous chemicals, is completely ignored by the DEIS. It concludes, "No significant impacts related to hazardous waste and materials would occur due to construction activities or from the addition and operation of additional Growler aircraft." While these chemicals have never been analyzed, they have been used in conjunction with Growler training and other flight operations for years; therefore, hazardous materials analysis for these chemicals should not be excluded just because Growlers are not the only aircraft this foam has been used for. It is irresponsible for the DEIS to content that there are no significant impacts. As previously stated, with flights at OLF Coupeville alone increasing from 3,200 in 2010 to as many as 35,100, no one can

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[redacted]

Nordland, WA 98358

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**6. The current comment period on a Draft EIS should not be the last chance** the public will have for input. However, Navy announced on its web site that it does not intend to allow a public comment period on the Final EIS. The "30-day waiting period" proposed for the Final EIS is not a public comment period, and thus would be unresponsive to serious and longstanding public concerns on matters that will affect our lives as well as the lives of people doing business throughout the region, plus the visitors who are the tourism lifeblood of our economy, and the wildlife that inhabits the region. The Navy must allow the public to participate throughout the process, in order to be able to be able to assess the full scope of direct, indirect and cumulative impacts. This is doubly important because so many impacts have been excluded from analysis. A federal agency is required to prepare a supplement to either a draft or final EIS, and allow the public to comment, if there are significant new circumstances or information relevant to environmental concerns, that bear on the proposed action or its impacts.

**7. There are no alternatives proposed in this DEIS that would reduce noise**. This violates NEPA §1506.1, which states, "...no action concerning the proposal shall be taken which would have an adverse environmental impact or limit the choice of reasonable alternatives." According to a memo from the President's Council on Environmental Quality (CEQ) to all federal agencies, "Reasonable alternatives include those that are practical or feasible from the technical and economic standpoint and using common sense, rather than simply desirable from the standpoint of the applicant." (https://energy.gov/sites/prod/files/G-CEQ-40Questions.pdf) The three alternatives presented by the Navy are merely a shell game of choices among the same number of flights, but for different percentages of activity at runways. This pits communities against each other, as the runway that receives more flights will determine the "loser" among these communities.

**8. The Navy has exacerbated the problem stated in #8 by not identifying a preferred alternative** in the DEIS. According to the CEQ memo, "[NEPA] Section 1502.14(e) requires the section of the EIS on alternatives to "identify the agency's preferred alternative if one or more exists, in the draft statement, and identify such alternative in the final statement . . ." Since the Navy has not done this, communities cannot evaluate potential noise levels. Since the Navy has also announced that it will not provide a public comment period for the Final EIS, communities will have no chance to evaluate the consequences or even comment on the preferred alternative.

**9. The Navy states that it evaluated noise for the Olympic Peninsula in 2010** with the Northwest Training Range Complex EIS, but that document did not do so. The Navy claims its documents are "tiered" for this purpose, but they are not. Had the activities

contemplated by the proposed Electronic Warfare Range been evaluated by that EIS, the ground-based mobile emitters should have been listed as an emission source. They were not. For Electronic Combat and Electronic Attack, the only areas listed by activity and training area, warfare type, and Range and Training Site were the Darrington Area and W-237. Neither is on the Olympic Peninsula. Had noise been properly evaluated, the Olympic MOAs should have been listed. They were not. Therefore, noise from Growler activities has not been evaluated in this or any previous for the Olympic Peninsula.

**10. The Navy has neither measured, modeled, nor considered direct, indirect or cumulative effects of jet noise** in any areas outside the immediate environs of NASWI runways. Actual noise measurements have not been made anywhere. However, computer modeling for the 10-mile radius of the "Affected Noise Environment" around Naval Air Station Whidbey Island (NASWI) extends to the year 2021 and clearly demonstrates the Navy's ability to model noise. Therefore it makes no sense to fail to measure or model highly impacted areas such as the West End of the Olympic Peninsula, with its very different terrain and weather conditions, as demonstrated by separate NOAA weather forecasts for each region. For example, the Hoh River is surrounded by steep-sloped mountains that amplify and echo noise. Port Townsend is on a peninsula surrounded on three sides by water, which echoes sound. Port Angeles gets reflected sound from the Strait of Juan de Fuca to its north and from the Olympic Mountains to its south. Yet no noise modeling or measurements have been done for these areas.

**11. The Navy's claim that areas outside the narrow boundaries of its study area do not exceed noise standards is suspect**, first because the standards used by the Navy are unrealistic, second, because the Navy has never measured or modeled noise in these areas, and third, because the "library" of sounds that comprise the basis for the Navy's computer modeling is not available for public inspection. The Navy uses the less realistic Day-Night Average Sound Level (DNL) rather than the Effective Perceived Noise Level, as provided in Federal Aviation Regulation 36. DNL uses A-weighting for the decibel measurement, which means jet noise is averaged with quiet over the course of a year to come up with a 65 dB average. This means peak noise levels in these un-measured and un-modeled communities and wildlands may far exceed 65 dB as long as the constant average with quiet periods over a year stays below 65 dB. This is unrealistic, and claims by the DEIS that wildlife are "presumably habituated" to noise do not apply when that noise is sporadic and intense.

**12. Commercial airport noise standards should not apply to military jets** because commercial jets do not have afterburners, do not engage in aerial combat maneuvers, do not fly at low altitudes or practice landing on runways so short they can only be used for emergencies, do not possess the flight characteristics of Growlers, and do not have weaponry that is capable of making a parcel of forest hum with electromagnetic energy. FAA policy does not preclude use of the more accurate Effective Perceived Noise Level as the standard, nor are local jurisdictions prevented from setting a lower threshold of compatibility for new land-use developments. FAA policy allows for supplemental or alternative measurements. So, the continued use of DNL may be to the Navy's benefit, but does not benefit the public.

**13. The Navy's noise analysis does not allow for peak noise experiences,** nor does the DNL method they use take into account low-frequency noise, which is produced at tremendous levels by Growlers.

**14. The NOISEMAP software used for computer modeling is severely outdated**, and a report from a Department of Defense commission concluded that noise measurements using this software "...do not properly account for the complex operational and noise characteristics of the new aircraft." This report concluded that current computer models could be legally indefensible. (https://www.serdp-estcp.org/Program-Areas/Weapons-Systems-and-Platforms/Noise-and-Emissions/Noise/WP-1304)

**15. The Navy describes its activities using the term "event," but does not define it.** Therefore, the time, duration, and number of jets in a single "event" remain unknown, and real impacts from recent increases remain unevaluated. As a result of leaving out vast geographical areas where noise impacts will occur (and are occurring now), the DEIS eliminates far too many direct, indirect and cumulative effects to be considered a valid or complete analysis. Limiting the scope like this amounts to a segmentation of impacts that forecloses the public's ability to comment and gain legal standing. By law, the public has the right to address the full scope of impacts, not just a narrow sliver of them.

**16. New information that was not disclosed** in previous Navy EISs include flight operations on weekends (not mentioned in the current DEIS but specified on page 11 of the Forest Service's draft permit, viewable at: https://www.fs.usda.gov/project/?project=42759). It has long been understood that the Navy would cooperate with local governments, especially in communities that depend on tourism, by not conducting noise-producing operations on weekends. Further, the singling out of one user group for an exemption from noise is outrageous and unfair. According to the permit, weekend flying may be permitted so long as it does not interfere with "...opening day and associated opening weekend of Washington State's Big Game Hunting Season for use of rifle/guns." While such an exemption is under Forest Service and not Navy control, the Navy must realize that municipalities and local governments, along with economically viable and vulnerable tourism and recreation entities who are not being considered, have not been given the opportunity to comment. The impression is that our national forests are no longer under public control.

**17. Low flights will make even more noise than before:** While the Navy has repeatedly told the public over the past few years that Growlers will fly at a minimum of 6,000 feet above sea level, the DEIS quotes guidance from the Aircraft Environmental Support Office: "Aircraft are directed to avoid towns and populated areas by 1 nm (nautical mile) or overfly 1,000 feet AGL (above ground level) and to avoid airports by 3 nm or overfly 1,500 AGL." This guidance further states, "Over sparsely populated areas, aircraft may not be operated closer than 500 feet to any person, vessel, vehicle, or structure." If this official guidance directs Growlers to fly at such low altitudes, why did the Navy not disclose this in any previous NEPA documents? For an aircraft capable of 150 decibels at takeoff, this new information represents a significant new level of noise impacts that have been neither previously disclosed nor analyzed.

**18. Sound levels for these low flights are not listed in the DEIS:** Table 3.1-2, titled "Representative Sound Levels for Growler Aircraft in Level Flight," on page 3-6, does not show sound exposure levels for Growlers flying at either 1,000 feet or 1,500 feet AGL, as mentioned in the official guidance. Why has this important information been omitted? The public needs to know how much actual noise exposure there will be, along with the threats posed to public and environmental health. This, therefore, is <u>significant new information about impacts</u> that were not disclosed in the DEIS, and requires either that a Supplemental EIS be prepared, or that a public comment period of adequate length be provided on the Final EIS. For public health and safety reasons, the Navy must revise its guidance to <u>significantly</u> increase the distances that Growler jets are currently allowed to fly over towns, airports, individual people, vessels, vehicles, and structures. 500 to 1,000 feet is far too close, and 1,500 feet over an airport is far too dangerous a proximity to supersonic Growler jets.

**19. No mitigation for schools:** The DEIS states that in the case of local schools, no mitigation measures for any of the 3 proposed alternatives were identified, "...but may be developed and altered based on comments received." Some schools will be interrupted by jet noise hundreds of times per day. Yet the Navy suggests that future mitigation measures might be brought up by the public (and subsequently ignored) and thus will be "...identified in the Final EIS or Record of Decision." Such information would be new, could significantly alter the Proposed Actions, and would therefore require another public comment period, in which case the Navy's proposal to *not* allow a comment period on the Final EIS would be unlawful.

**20. The current DNL noise modeling method and data in no way reflect exposure accuracy, given the new information** about low flight levels from official guidance. Therefore, such analyses must be included in a Supplemental EIS or in the Final EIS, with a new public process of adequate length, including an official comment period.

**21. Crash potential is higher:** With no alternatives provided to the public that reduce noise, and with such permissive guidance that allows such low-altitude flight, the potential for Navy Growler student pilots to create tragic outcomes or cause extreme physical, physiological, economic and other harms to communities and wildlands, whether accidentally or on purpose, is unacceptable.

**22. Contamination of drinking water** in residential and commercial areas near the runways, due to use of hazardous chemicals, is completely ignored by the DEIS. It concludes, "No significant impacts related to hazardous waste and materials would occur due to construction activities or from the addition and operation of additional Growler aircraft." While these chemicals have never been analyzed, they have been used in conjunction with Growler training and other flight operations for years; therefore, hazardous materials analysis for these chemicals should not be excluded just because Growlers are not the only aircraft this foam has been used for. It is irresponsible for the DEIS to content that there are no significant impacts. As previously stated, with flights at OLF Coupeville alone increasing from 3,200 in 2010 to as many as 35,100, no one can

claim that a 1,000 percent flight increase in 7 years for which no groundwater or soil contaminant analyses have been done is not significant.

**23. Navy knew about contamination in advance:** It is clear that before the November 10 publication of this DEIS, the Navy was well aware of potential problems with contamination of residential drinking water due to what it calls "historic" use of fire suppressants for flight operations. In May 2016 the USEPA issued drinking water health advisories for two PFCs, and the Navy announced in June that it was in the process of "identifying and for removal and destruction all legacy perfluorooctane sulfonate (and PFOA) containing AFFF [aqueous film forming foam]." Yet the DEIS dismisses all concerns with an incredible statement about actions that took place nearly 20 years ago: "Remediation construction was completed in September 1997, human exposure and contaminated groundwater exposures are under control, and the OUs at Ault Field and the Seaplane Base are ready for anticipated use (USEPA, 2016e)." The statement is ludicrously outdated, and recent events refute it. Three days before the DEIS was published, on November 7, 2016, the Navy sent a letter to more than 100 private and public drinking water well owners expressing concern that perfluoroalkyl substances (PFAS) found beneath the OLF had spread beyond Navy property. Yet the word "perfluoroalkyl" or "PFAS" is not mentioned once in the entire 1400-page DEIS, nor is it mentioned the 2005 or 2012 EAs. A Department of Defense publication makes it clear that there is no current technology that can treat soil or groundwater that has been contaminated with these chemicals. (https://dec.alaska.gov/spar/ppr/hazmat/Chemical-&-Material-Emerging-Risk-Alert-for-AFFF.pdf)

**24. No mention of contaminated soil is found in the DEIS**: It confines its discussion to soil compression and compaction effects from new construction, and concludes there will be no impacts to groundwater. It is therefore puzzling to consider that while extensive evaluations for a variety of hazardous materials were included in the October 2015 Northwest Training and Testing Final EIS, why would the Navy omit such contaminants as the ones mentioned above, from the Growler DEIS? This is the equivalent of a doctor refusing to look at an EKG that clearly shows a heart attack, and diagnosing the patient with anxiety. The Navy needs to include this information in a public NEPA process as an impact of its flight activities. It needs to accept responsibility for this contamination, and pay the costs incurred by finding a permanent alternative source of water for affected residents, and by reimbursing these people for medical costs created by unwitting consumption of Navy-contaminated water.

**25. Impacts to wildlife have been piecemealed:** It does not make sense to separate impacts from just one portion of an aircraft's flight operations and say that's all you're looking at. But because the scope of the DEIS is limited to areas adjacent to runways, analysis of impacts to wildlife from connected flight operations that occur outside these narrow confines are omitted. Threatened and endangered species, sensitive species and other wildlife and critical habitat areas are adversely impacted by noise from takeoffs, landings and other flight operations well beyond the Navy's study area. For example, the increase in aerial combat maneuvers (dogfighting) from 160 to 550 annual "events," which by their erratic nature cannot safely occur near runways, is a 244 percent increase that has been neither examined nor analyzed in this or any previous NEPA process.

Dogfighting requires frequent use of afterburners, which are far louder and use as much as ten times the amount of fuel as normal flight does. Impacts to wildlife and habitat were completely omitted.

**26. Pages of boilerplate language do not constitute analysis of impacts to wildlife:** Except for standardized language copied from wildlife agencies about species life histories, along with lists of various county critical areas ordinances and state wildlife regulations, the DEIS fails to evaluate direct, indirect or cumulative impacts to wildlife. Instead, it offers the excruciating conclusion that the potential for noise impacts and collisions with birds is "greatest during flight operations." However, continues the DEIS, except for the marbled murrelet, the occurrence of these sensitive species in the study area is "highly unlikely," largely because "no suitable habitat is present." This begs the question: if the scope of this DEIS measured the true impacts of jet noise, it is highly *likely* that suitable habitat for many of these species would be found. And if impacts had not been segmented for decades, there might be suitable habitat remaining in the study area.

**27. Old research cited but new research not:** In citing published scientific research, the Navy included a 1988 synthesis of published literature on domestic animals and wildlife, but failed to consider the latest peer-reviewed research summarized in 2015, which lists multiple consequences of noise greater than 65 dB. (http://onlinelibrary.wiley.com/doi/10.1111/brv.12207/abstract) The DEIS also failed to consider an important 2014 study called "Anthropogenic EM Noise Disrupts Magnetic Compass Orientation in Migratory Birds," (http://www.nature.com/nature/journal/v509/n7500/full/nature13290.html) A federal agency cannot cherry-pick scientific research for its own convenience; it must consider the *best available science*. This DEIS fails that test.

Thank you for considering these comments.
Sincerely,

(b) (6)

Nordland, Wa.
98358
Marrowstone Island

U.S. EPA, Region 10
1200 Sixth Avenue, Suite 900
Seattle, WA 98101

Dear Christine Littleton,

I am writing in regards to the Navy's Environmental Impact statement proposing an increase in EA-18G "Growler" Airfield Operations at NAS Whidbey Island Complex, and request that the EPA fundamentally revise the DEIS due to the deficiencies noted below.

**1. Jet noise outside the immediate environs of the runways on Whidbey Island is not being evaluated, yet impacts are significant**. Noise from EA-18G Growlers is affecting communities far outside the vicinity of Naval Air Station Whidbey Island, yet the only area the Draft Environmental Impact Statement (DEIS) analyzes in its "study area" is what falls within 6 to 10 miles of the corners of runways. Growler aircraft, which are capable of 150 decibels (dB), use these runways to get airborne and to land; therefore, what happens outside the study area cannot be ignored as if it does not exist, because *all* flight operations are functionally connected to takeoffs and landings. By considering only takeoff and landing noise and exhaust emissions at Ault Field and Outlying Field (OLF) Coupeville, the DEIS fails to consider the wider area of functionally connected impacts caused by naval flight operations. By failing to consider the interdependent parts of a larger action that cannot proceed without takeoffs and landings, as well as their impacts, the DEIS fails to evaluate cumulative effects.

**2. Impacts to cultural and historic sites are not adequately considered.** The Navy so narrowly defined the Area of Potential Effect (APE) for cultural and historic resources that it also fails to consider significant nearby impacts. The State Historic Preservation Officer confirmed this in a January 9, 2017 letter to the Navy. (http://westcoastactionalliance.org/wp-content/uploads/2017/01/SHPO-Letter-102214-23-USN_122916-2.docx ) She said that not only will cultural and historic properties within existing APE boundaries be adversely affected, but additional portions of Whidbey Island, Camano Island, Port Townsend vicinity and the San Juan Islands are also within noise areas that will receive harmful levels of sound and vibration from Growler activity. The US Department of Housing and Urban Development posted noise abatement and control standards that classify the 65 dB levels being used by the Navy as "normally unacceptable" and above 75 as being "unacceptable." (https://www.hudexchange.info/programs/environmental-review/noise-abatement-and-control/) Residents in these outlying areas, who live many miles from these runways, have recorded noise at least twice that loud. Therefore, by failing to include these areas, this DEIS

violates both the National Environmental Policy Act (NEPA) and the National Historic Preservation Act (NHPA).

**3. Piecemealing projects to avoid analyzing cumulative effects is illegal.** The Navy has, to date, piecemealed its aircraft training and testing activities affecting Whidbey Island, the San Juans, and the Olympic Peninsula into at least six separate actions:

1. 4 squadrons of P-8A Poseidon Multi-Mission Aircraft;
2. A 2005 EA (57 Growler jets); 2010 EIS (reaffirming the 57 Growlers that replaced Prowlers);
3. 2012 EA (26 Growlers including 5 from a reserve unit);
4. 2014 EA (Growler electronic warfare activity);
5. 2015 EIS discussing electronic warfare training and testing activity;
6. The current 2016-2017 DEIS (36 Growlers);
7. And, likely, a seventh process, as confirmed by news reports and a Navy official at a recent open house, for 42 more jets to bring the Growler fleet total to 160.

Therefore, it has been impossible for the public to know just how many Growlers there would be, or what their impacts would be, or what limits, if any, the Navy intends to establish. In just four documents—the 2014 EA, Forest Service permit Draft Decision, and the 2010 and 2015 EISs, there are more than 6,000 pages of complex technical material. The number of Growler flights at Outlying Field (OLF) Coupeville *alone* went from 3,200 per year to a proposed 35,100 in 2017. That's more than a 1,000 percent increase at this runway alone, yet according to the Navy, there are "no significant impacts." The National Environmental Policy Act (NEPA 40 C.F.R. §1502.4) "...does not allow an approach that would permit dividing a project into multiple 'actions,' each of which individually has an insignificant environmental impact, but which collectively have a substantial impact."

The DEIS evaluates not the totality of impacts from the current fleet of 118 Growlers, nor the projected total of 160 of these aircraft, but slices out 36 of them for an incremental, piecemealed look, and concludes from both the construction activities and the addition of just these 36 new Growlers to the fleet, that no significant impacts will occur in the following categories: public health, bird-animal strike hazards to aircraft, accident potential zones, emissions of all types, archaeological resources, American Indian traditional resources, biological resources, marine species, groundwater, surface water, potable water, socioeconomics, housing, environmental justice, and hazardous waste. To state the obvious, impacts from this many Growlers, when taken together, are likely to be significant. Segmenting their impacts has allowed the Navy to avoid accountability.

**4. The DEIS does not analyze impacts to groundwater or soil from use of firefighting foam** on its runways during Growler operations, despite the fact that before this DEIS was published, the Navy began notifying 2,000 people on Whidbey Island that highly toxic carcinogenic chemicals had migrated from Navy property into their drinking water wells, contaminating them and rendering these people dependent on bottled water.

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claim that a 1,000 percent flight increase in 7 years for which no groundwater or soil contaminant analyses have been done is not significant.

**23. Navy knew about contamination in advance:** It is clear that before the November 10 publication of this DEIS, the Navy was well aware of potential problems with contamination of residential drinking water due to what it calls "historic" use of fire suppressants for flight operations. In May 2016 the USEPA issued drinking water health advisories for two PFCs, and the Navy announced in June that it was in the process of "identifying and for removal and destruction all legacy perfluorooctane sulfonate (and PFOA) containing AFFF [aqueous film forming foam]." Yet the DEIS dismisses all concerns with an incredible statement about actions that took place nearly 20 years ago: "Remediation construction was completed in September 1997, human exposure and contaminated groundwater exposures are under control, and the OUs at Ault Field and the Seaplane Base are ready for anticipated use (USEPA, 2016e)." The statement is ludicrously outdated, and recent events refute it. Three days before the DEIS was published, on November 7, 2016, the Navy sent a letter to more than 100 private and public drinking water well owners expressing concern that perfluoroalkyl substances (PFAS) found beneath the OLF had spread beyond Navy property. Yet the word "perfluoroalkyl" or "PFAS" is not mentioned once in the entire 1400-page DEIS, nor is it mentioned the 2005 or 2012 EAs. A Department of Defense publication makes it clear that there is no current technology that can treat soil or groundwater that has been contaminated with these chemicals. (https://dec.alaska.gov/spar/ppr/hazmat/Chemical-&-Material-Emerging-Risk-Alert-for-AFFF.pdf)

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Dogfighting requires frequent use of afterburners, which are far louder and use as much as ten times the amount of fuel as normal flight does. Impacts to wildlife and habitat were completely omitted.

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Thank you for considering these comments.
Sincerely,

(b) (6)

U.S. EPA, Region 10
1200 Sixth Avenue, Suite 900
Seattle, WA 98101

Dear Christine Littleton,

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**1. Jet noise outside the immediate environs of the runways on Whidbey Island is not being evaluated, yet impacts are significant**. Noise from EA-18G Growlers is affecting communities far outside the vicinity of Naval Air Station Whidbey Island, yet the only area the Draft Environmental Impact Statement (DEIS) analyzes in its "study area" is what falls within 6 to 10 miles of the corners of runways. Growler aircraft, which are capable of 150 decibels (dB), use these runways to get airborne and to land; therefore, what happens outside the study area cannot be ignored as if it does not exist, because *all* flight operations are functionally connected to takeoffs and landings. By considering only takeoff and landing noise and exhaust emissions at Ault Field and Outlying Field (OLF) Coupeville, the DEIS fails to consider the wider area of functionally connected impacts caused by naval flight operations. By failing to consider the interdependent parts of a larger action that cannot proceed without takeoffs and landings, as well as their impacts, the DEIS fails to evaluate cumulative effects.

**2. Impacts to cultural and historic sites are not adequately considered.** The Navy so narrowly defined the Area of Potential Effect (APE) for cultural and historic resources that it also fails to consider significant nearby impacts. The State Historic Preservation Officer confirmed this in a January 9, 2017 letter to the Navy. (http://westcoastactionalliance.org/wp-content/uploads/2017/01/SHPO-Letter-102214-23-USN_122916-2.docx ) She said that not only will cultural and historic properties within existing APE boundaries be adversely affected, but additional portions of Whidbey Island, Camano Island, Port Townsend vicinity and the San Juan Islands are also within noise areas that will receive harmful levels of sound and vibration from Growler activity. The US Department of Housing and Urban Development posted noise abatement and control standards that classify the 65 dB levels being used by the Navy as "normally unacceptable" and above 75 as being "unacceptable." (https://www.hudexchange.info/programs/environmental-review/noise-abatement-and-control/) Residents in these outlying areas, who live many miles from these runways, have recorded noise at least twice that loud. Therefore, by failing to include these areas, this DEIS

violates both the National Environmental Policy Act (NEPA) and the National Historic Preservation Act (NHPA).

**3. Piecemealing projects to avoid analyzing cumulative effects is illegal.** The Navy has, to date, piecemealed its aircraft training and testing activities affecting Whidbey Island, the San Juans, and the Olympic Peninsula into at least six separate actions:

1. 4 squadrons of P-8A Poseidon Multi-Mission Aircraft;
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6. The current 2016-2017 DEIS (36 Growlers);
7. And, likely, a seventh process, as confirmed by news reports and a Navy official at a recent open house, for 42 more jets to bring the Growler fleet total to 160.

Therefore, it has been impossible for the public to know just how many Growlers there would be, or what their impacts would be, or what limits, if any, the Navy intends to establish. In just four documents—the 2014 EA, Forest Service permit Draft Decision, and the 2010 and 2015 EISs, there are more than 6,000 pages of complex technical material. The number of Growler flights at Outlying Field (OLF) Coupeville *alone* went from 3,200 per year to a proposed 35,100 in 2017. That's more than a 1,000 percent increase at this runway alone, yet according to the Navy, there are "no significant impacts." The National Environmental Policy Act (NEPA 40 C.F.R. §1502.4) "...does not allow an approach that would permit dividing a project into multiple 'actions,' each of which individually has an insignificant environmental impact, but which collectively have a substantial impact."

The DEIS evaluates not the totality of impacts from the current fleet of 118 Growlers, nor the projected total of 160 of these aircraft, but slices out 36 of them for an incremental, piecemealed look, and concludes from both the construction activities and the addition of just these 36 new Growlers to the fleet, that no significant impacts will occur in the following categories: public health, bird-animal strike hazards to aircraft, accident potential zones, emissions of all types, archaeological resources, American Indian traditional resources, biological resources, marine species, groundwater, surface water, potable water, socioeconomics, housing, environmental justice, and hazardous waste. To state the obvious, impacts from this many Growlers, when taken together, are likely to be significant. Segmenting their impacts has allowed the Navy to avoid accountability.

**4. The DEIS does not analyze impacts to groundwater or soil from use of firefighting foam** on its runways during Growler operations, despite the fact that before this DEIS was published, the Navy began notifying 2,000 people on Whidbey Island that highly toxic carcinogenic chemicals had migrated from Navy property into their drinking water wells, contaminating them and rendering these people dependent on bottled water.

**5. The DEIS fails to discuss, describe or even mention any potential impacts associated with electromagnetic radiation** in devices employed by the Growlers in locating and interacting with the ground transmitters. It fails to mention any potential impacts associated with aircrew practicing using electromagnetic weaponry, that will allow the Navy to make good on its 2014 statement that this training and testing is "turning out fully trained, combat-ready Electronic Attack crews."

**6. The current comment period on a Draft EIS should not be the last chance** the public will have for input. However, Navy announced on its web site that it does not intend to allow a public comment period on the Final EIS. The "30-day waiting period" proposed for the Final EIS is not a public comment period, and thus would be unresponsive to serious and longstanding public concerns on matters that will affect our lives as well as the lives of people doing business throughout the region, plus the visitors who are the tourism lifeblood of our economy, and the wildlife that inhabits the region. The Navy must allow the public to participate throughout the process, in order to be able to be able to assess the full scope of direct, indirect and cumulative impacts. This is doubly important because so many impacts have been excluded from analysis. A federal agency is required to prepare a supplement to either a draft or final EIS, and allow the public to comment, if there are significant new circumstances or information relevant to environmental concerns, that bear on the proposed action or its impacts.

**7. There are no alternatives proposed in this DEIS that would reduce noise**. This violates NEPA §1506.1, which states, "...no action concerning the proposal shall be taken which would have an adverse environmental impact or limit the choice of reasonable alternatives." According to a memo from the President's Council on Environmental Quality (CEQ) to all federal agencies, "Reasonable alternatives include those that are practical or feasible from the technical and economic standpoint and using common sense, rather than simply desirable from the standpoint of the applicant." (https://energy.gov/sites/prod/files/G-CEQ-40Questions.pdf) The three alternatives presented by the Navy are merely a shell game of choices among the same number of flights, but for different percentages of activity at runways. This pits communities against each other, as the runway that receives more flights will determine the "loser" among these communities.

**8. The Navy has exacerbated the problem stated in #8 by not identifying a preferred alternative** in the DEIS. According to the CEQ memo, "[NEPA] Section 1502.14(e) requires the section of the EIS on alternatives to "identify the agency's preferred alternative if one or more exists, in the draft statement, and identify such alternative in the final statement . . ." Since the Navy has not done this, communities cannot evaluate potential noise levels. Since the Navy has also announced that it will not provide a public comment period for the Final EIS, communities will have no chance to evaluate the consequences or even comment on the preferred alternative.

**9. The Navy states that it evaluated noise for the Olympic Peninsula in 2010** with the Northwest Training Range Complex EIS, but that document did not do so. The Navy claims its documents are "tiered" for this purpose, but they are not. Had the activities

contemplated by the proposed Electronic Warfare Range been evaluated by that EIS, the ground-based mobile emitters should have been listed as an emission source. They were not. For Electronic Combat and Electronic Attack, the only areas listed by activity and training area, warfare type, and Range and Training Site were the Darrington Area and W-237. Neither is on the Olympic Peninsula. Had noise been properly evaluated, the Olympic MOAs should have been listed. They were not. Therefore, noise from Growler activities has not been evaluated in this or any previous for the Olympic Peninsula.

**10. The Navy has neither measured, modeled, nor considered direct, indirect or cumulative effects of jet noise** in any areas outside the immediate environs of NASWI runways. Actual noise measurements have not been made anywhere. However, computer modeling for the 10-mile radius of the "Affected Noise Environment" around Naval Air Station Whidbey Island (NASWI) extends to the year 2021 and clearly demonstrates the Navy's ability to model noise. Therefore it makes no sense to fail to measure or model highly impacted areas such as the West End of the Olympic Peninsula, with its very different terrain and weather conditions, as demonstrated by separate NOAA weather forecasts for each region. For example, the Hoh River is surrounded by steep-sloped mountains that amplify and echo noise. Port Townsend is on a peninsula surrounded on three sides by water, which echoes sound. Port Angeles gets reflected sound from the Strait of Juan de Fuca to its north and from the Olympic Mountains to its south. Yet no noise modeling or measurements have been done for these areas.

**11. The Navy's claim that areas outside the narrow boundaries of its study area do not exceed noise standards is suspect**, first because the standards used by the Navy are unrealistic, second, because the Navy has never measured or modeled noise in these areas, and third, because the "library" of sounds that comprise the basis for the Navy's computer modeling is not available for public inspection. The Navy uses the less realistic Day-Night Average Sound Level (DNL) rather than the Effective Perceived Noise Level, as provided in Federal Aviation Regulation 36. DNL uses A-weighting for the decibel measurement, which means jet noise is averaged with quiet over the course of a year to come up with a 65 dB average. This means peak noise levels in these un-measured and un-modeled communities and wildlands may far exceed 65 dB as long as the constant average with quiet periods over a year stays below 65 dB. This is unrealistic, and claims by the DEIS that wildlife are "presumably habituated" to noise do not apply when that noise is sporadic and intense.

**12. Commercial airport noise standards should not apply to military jets** because commercial jets do not have afterburners, do not engage in aerial combat maneuvers, do not fly at low altitudes or practice landing on runways so short they can only be used for emergencies, do not possess the flight characteristics of Growlers, and do not have weaponry that is capable of making a parcel of forest hum with electromagnetic energy. FAA policy does not preclude use of the more accurate Effective Perceived Noise Level as the standard, nor are local jurisdictions prevented from setting a lower threshold of compatibility for new land-use developments. FAA policy allows for supplemental or alternative measurements. So, the continued use of DNL may be to the Navy's benefit, but does not benefit the public.

**13. The Navy's noise analysis does not allow for peak noise experiences,** nor does the DNL method they use take into account low-frequency noise, which is produced at tremendous levels by Growlers.

**14. The NOISEMAP software used for computer modeling is severely outdated**, and a report from a Department of Defense commission concluded that noise measurements using this software "...do not properly account for the complex operational and noise characteristics of the new aircraft." This report concluded that current computer models could be legally indefensible. (https://www.serdp-estcp.org/Program-Areas/Weapons-Systems-and-Platforms/Noise-and-Emissions/Noise/WP-1304)

**15. The Navy describes its activities using the term "event," but does not define it.** Therefore, the time, duration, and number of jets in a single "event" remain unknown, and real impacts from recent increases remain unevaluated. As a result of leaving out vast geographical areas where noise impacts will occur (and are occurring now), the DEIS eliminates far too many direct, indirect and cumulative effects to be considered a valid or complete analysis. Limiting the scope like this amounts to a segmentation of impacts that forecloses the public's ability to comment and gain legal standing. By law, the public has the right to address the full scope of impacts, not just a narrow sliver of them.

**16. New information that was not disclosed** in previous Navy EISs include flight operations on weekends (not mentioned in the current DEIS but specified on page 11 of the Forest Service's draft permit, viewable at: https://www.fs.usda.gov/project/?project=42759). It has long been understood that the Navy would cooperate with local governments, especially in communities that depend on tourism, by not conducting noise-producing operations on weekends. Further, the singling out of one user group for an exemption from noise is outrageous and unfair. According to the permit, weekend flying may be permitted so long as it does not interfere with "...opening day and associated opening weekend of Washington State's Big Game Hunting Season for use of rifle/guns." While such an exemption is under Forest Service and not Navy control, the Navy must realize that municipalities and local governments, along with economically viable and vulnerable tourism and recreation entities who are not being considered, have not been given the opportunity to comment. The impression is that our national forests are no longer under public control.

**17. Low flights will make even more noise than before:** While the Navy has repeatedly told the public over the past few years that Growlers will fly at a minimum of 6,000 feet above sea level, the DEIS quotes guidance from the Aircraft Environmental Support Office: "Aircraft are directed to avoid towns and populated areas by 1 nm (nautical mile) or overfly 1,000 feet AGL (above ground level) and to avoid airports by 3 nm or overfly 1,500 AGL." This guidance further states, "Over sparsely populated areas, aircraft may not be operated closer than 500 feet to any person, vessel, vehicle, or structure." If this official guidance directs Growlers to fly at such low altitudes, why did the Navy not disclose this in any previous NEPA documents? For an aircraft capable of 150 decibels at takeoff, this new information represents a significant new level of noise impacts that have been neither previously disclosed nor analyzed.

**18. Sound levels for these low flights are not listed in the DEIS:** Table 3.1-2, titled "Representative Sound Levels for Growler Aircraft in Level Flight," on page 3-6, does not show sound exposure levels for Growlers flying at either 1,000 feet or 1,500 feet AGL, as mentioned in the official guidance. Why has this important information been omitted? The public needs to know how much actual noise exposure there will be, along with the threats posed to public and environmental health. This, therefore, is significant new information about impacts that were not disclosed in the DEIS, and requires either that a Supplemental EIS be prepared, or that a public comment period of adequate length be provided on the Final EIS. For public health and safety reasons, the Navy must revise its guidance to significantly increase the distances that Growler jets are currently allowed to fly over towns, airports, individual people, vessels, vehicles, and structures. 500 to 1,000 feet is far too close, and 1,500 feet over an airport is far too dangerous a proximity to supersonic Growler jets.

**19. No mitigation for schools:** The DEIS states that in the case of local schools, no mitigation measures for any of the 3 proposed alternatives were identified, "...but may be developed and altered based on comments received." Some schools will be interrupted by jet noise hundreds of times per day. Yet the Navy suggests that future mitigation measures might be brought up by the public (and subsequently ignored) and thus will be "...identified in the Final EIS or Record of Decision." Such information would be new, could significantly alter the Proposed Actions, and would therefore require another public comment period, in which case the Navy's proposal to *not* allow a comment period on the Final EIS would be unlawful.

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[redacted]

Nordland, [illegible]

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The DEIS evaluates not the totality of impacts from the current fleet of 118 Growlers, nor the projected total of 160 of these aircraft, but slices out 36 of them for an incremental, piecemealed look, and concludes from both the construction activities and the addition of just these 36 new Growlers to the fleet, that no significant impacts will occur in the following categories: public health, bird-animal strike hazards to aircraft, accident potential zones, emissions of all types, archaeological resources, American Indian traditional resources, biological resources, marine species, groundwater, surface water, potable water, socioeconomics, housing, environmental justice, and hazardous waste. To state the obvious, impacts from this many Growlers, when taken together, are likely to be significant. Segmenting their impacts has allowed the Navy to avoid accountability.

**4. The DEIS does not analyze impacts to groundwater or soil from use of firefighting foam** on its runways during Growler operations, despite the fact that before this DEIS was published, the Navy began notifying 2,000 people on Whidbey Island that highly toxic carcinogenic chemicals had migrated from Navy property into their drinking water wells, contaminating them and rendering these people dependent on bottled water.

**5. The DEIS fails to discuss, describe or even mention any potential impacts associated with electromagnetic radiation** in devices employed by the Growlers in locating and interacting with the ground transmitters. It fails to mention any potential impacts associated with aircrew practicing using electromagnetic weaponry, that will allow the Navy to make good on its 2014 statement that this training and testing is "turning out fully trained, combat-ready Electronic Attack crews."

**6. The current comment period on a Draft EIS should not be the last chance** the public will have for input. However, Navy announced on its web site that it does not intend to allow a public comment period on the Final EIS. The "30-day waiting period" proposed for the Final EIS is not a public comment period, and thus would be unresponsive to serious and longstanding public concerns on matters that will affect our lives as well as the lives of people doing business throughout the region, plus the visitors who are the tourism lifeblood of our economy, and the wildlife that inhabits the region. The Navy must allow the public to participate throughout the process, in order to be able to be able to assess the full scope of direct, indirect and cumulative impacts. This is doubly important because so many impacts have been excluded from analysis. A federal agency is required to prepare a supplement to either a draft or final EIS, and allow the public to comment, if there are significant new circumstances or information relevant to environmental concerns, that bear on the proposed action or its impacts.

**7. There are no alternatives proposed in this DEIS that would reduce noise**. This violates NEPA §1506.1, which states, "...no action concerning the proposal shall be taken which would have an adverse environmental impact or limit the choice of reasonable alternatives." According to a memo from the President's Council on Environmental Quality (CEQ) to all federal agencies, "Reasonable alternatives include those that are practical or feasible from the technical and economic standpoint and using common sense, rather than simply desirable from the standpoint of the applicant." (https://energy.gov/sites/prod/files/G-CEQ-40Questions.pdf) The three alternatives presented by the Navy are merely a shell game of choices among the same number of flights, but for different percentages of activity at runways. This pits communities against each other, as the runway that receives more flights will determine the "loser" among these communities.

**8. The Navy has exacerbated the problem stated in #8 by not identifying a preferred alternative** in the DEIS. According to the CEQ memo, "[NEPA] Section 1502.14(e) requires the section of the EIS on alternatives to "identify the agency's preferred alternative if one or more exists, in the draft statement, and identify such alternative in the final statement . . ." Since the Navy has not done this, communities cannot evaluate potential noise levels. Since the Navy has also announced that it will not provide a public comment period for the Final EIS, communities will have no chance to evaluate the consequences or even comment on the preferred alternative.

**9. The Navy states that it evaluated noise for the Olympic Peninsula in 2010** with the Northwest Training Range Complex EIS, but that document did not do so. The Navy claims its documents are "tiered" for this purpose, but they are not. Had the activities

contemplated by the proposed Electronic Warfare Range been evaluated by that EIS, the ground-based mobile emitters should have been listed as an emission source. They were not. For Electronic Combat and Electronic Attack, the only areas listed by activity and training area, warfare type, and Range and Training Site were the Darrington Area and W-237. Neither is on the Olympic Peninsula. Had noise been properly evaluated, the Olympic MOAs should have been listed. They were not. Therefore, noise from Growler activities has not been evaluated in this or any previous for the Olympic Peninsula.

**10. The Navy has neither measured, modeled, nor considered direct, indirect or cumulative effects of jet noise** in any areas outside the immediate environs of NASWI runways. Actual noise measurements have not been made anywhere. However, computer modeling for the 10-mile radius of the "Affected Noise Environment" around Naval Air Station Whidbey Island (NASWI) extends to the year 2021 and clearly demonstrates the Navy's ability to model noise. Therefore it makes no sense to fail to measure or model highly impacted areas such as the West End of the Olympic Peninsula, with its very different terrain and weather conditions, as demonstrated by separate NOAA weather forecasts for each region. For example, the Hoh River is surrounded by steep-sloped mountains that amplify and echo noise. Port Townsend is on a peninsula surrounded on three sides by water, which echoes sound. Port Angeles gets reflected sound from the Strait of Juan de Fuca to its north and from the Olympic Mountains to its south. Yet no noise modeling or measurements have been done for these areas.

**11. The Navy's claim that areas outside the narrow boundaries of its study area do not exceed noise standards is suspect**, first because the standards used by the Navy are unrealistic, second, because the Navy has never measured or modeled noise in these areas, and third, because the "library" of sounds that comprise the basis for the Navy's computer modeling is not available for public inspection. The Navy uses the less realistic Day-Night Average Sound Level (DNL) rather than the Effective Perceived Noise Level, as provided in Federal Aviation Regulation 36. DNL uses A-weighting for the decibel measurement, which means jet noise is averaged with quiet over the course of a year to come up with a 65 dB average. This means peak noise levels in these un-measured and un-modeled communities and wildlands may far exceed 65 dB as long as the constant average with quiet periods over a year stays below 65 dB. This is unrealistic, and claims by the DEIS that wildlife are "presumably habituated" to noise do not apply when that noise is sporadic and intense.

**12. Commercial airport noise standards should not apply to military jets** because commercial jets do not have afterburners, do not engage in aerial combat maneuvers, do not fly at low altitudes or practice landing on runways so short they can only be used for emergencies, do not possess the flight characteristics of Growlers, and do not have weaponry that is capable of making a parcel of forest hum with electromagnetic energy. FAA policy does not preclude use of the more accurate Effective Perceived Noise Level as the standard, nor are local jurisdictions prevented from setting a lower threshold of compatibility for new land-use developments. FAA policy allows for supplemental or alternative measurements. So, the continued use of DNL may be to the Navy's benefit, but does not benefit the public.

**13. The Navy's noise analysis does not allow for peak noise experiences,** nor does the DNL method they use take into account low-frequency noise, which is produced at tremendous levels by Growlers.

**14. The NOISEMAP software used for computer modeling is severely outdated**, and a report from a Department of Defense commission concluded that noise measurements using this software "...do not properly account for the complex operational and noise characteristics of the new aircraft." This report concluded that current computer models could be legally indefensible. (https://www.serdp-estcp.org/Program-Areas/Weapons-Systems-and-Platforms/Noise-and-Emissions/Noise/WP-1304)

**15. The Navy describes its activities using the term "event," but does not define it.** Therefore, the time, duration, and number of jets in a single "event" remain unknown, and real impacts from recent increases remain unevaluated. As a result of leaving out vast geographical areas where noise impacts will occur (and are occurring now), the DEIS eliminates far too many direct, indirect and cumulative effects to be considered a valid or complete analysis. Limiting the scope like this amounts to a segmentation of impacts that forecloses the public's ability to comment and gain legal standing. By law, the public has the right to address the full scope of impacts, not just a narrow sliver of them.

**16. New information that was not disclosed** in previous Navy EISs include flight operations on weekends (not mentioned in the current DEIS but specified on page 11 of the Forest Service's draft permit, viewable at: https://www.fs.usda.gov/project/?project=42759). It has long been understood that the Navy would cooperate with local governments, especially in communities that depend on tourism, by not conducting noise-producing operations on weekends. Further, the singling out of one user group for an exemption from noise is outrageous and unfair. According to the permit, weekend flying may be permitted so long as it does not interfere with "...opening day and associated opening weekend of Washington State's Big Game Hunting Season for use of rifle/guns." While such an exemption is under Forest Service and not Navy control, the Navy must realize that municipalities and local governments, along with economically viable and vulnerable tourism and recreation entities who are not being considered, have not been given the opportunity to comment. The impression is that our national forests are no longer under public control.

**17. Low flights will make even more noise than before:** While the Navy has repeatedly told the public over the past few years that Growlers will fly at a minimum of 6,000 feet above sea level, the DEIS quotes guidance from the Aircraft Environmental Support Office: "Aircraft are directed to avoid towns and populated areas by 1 nm (nautical mile) or overfly 1,000 feet AGL (above ground level) and to avoid airports by 3 nm or overfly 1,500 AGL." This guidance further states, "Over sparsely populated areas, aircraft may not be operated closer than 500 feet to any person, vessel, vehicle, or structure." If this official guidance directs Growlers to fly at such low altitudes, why did the Navy not disclose this in any previous NEPA documents? For an aircraft capable of 150 decibels at takeoff, this new information represents a significant new level of noise impacts that have been neither previously disclosed nor analyzed.

**18. Sound levels for these low flights are not listed in the DEIS:** Table 3.1-2, titled "Representative Sound Levels for Growler Aircraft in Level Flight," on page 3-6, does not show sound exposure levels for Growlers flying at either 1,000 feet or 1,500 feet AGL, as mentioned in the official guidance. Why has this important information been omitted? The public needs to know how much actual noise exposure there will be, along with the threats posed to public and environmental health. This, therefore, is significant new information about impacts that were not disclosed in the DEIS, and requires either that a Supplemental EIS be prepared, or that a public comment period of adequate length be provided on the Final EIS. For public health and safety reasons, the Navy must revise its guidance to significantly increase the distances that Growler jets are currently allowed to fly over towns, airports, individual people, vessels, vehicles, and structures. 500 to 1,000 feet is far too close, and 1,500 feet over an airport is far too dangerous a proximity to supersonic Growler jets.

**19. No mitigation for schools:** The DEIS states that in the case of local schools, no mitigation measures for any of the 3 proposed alternatives were identified, "...but may be developed and altered based on comments received." Some schools will be interrupted by jet noise hundreds of times per day. Yet the Navy suggests that future mitigation measures might be brought up by the public (and subsequently ignored) and thus will be "...identified in the Final EIS or Record of Decision." Such information would be new, could significantly alter the Proposed Actions, and would therefore require another public comment period, in which case the Navy's proposal to *not* allow a comment period on the Final EIS would be unlawful.

**20. The current DNL noise modeling method and data in no way reflect exposure accuracy, given the new information** about low flight levels from official guidance. Therefore, such analyses must be included in a Supplemental EIS or in the Final EIS, with a new public process of adequate length, including an official comment period.

**21. Crash potential is higher:** With no alternatives provided to the public that reduce noise, and with such permissive guidance that allows such low-altitude flight, the potential for Navy Growler student pilots to create tragic outcomes or cause extreme physical, physiological, economic and other harms to communities and wildlands, whether accidentally or on purpose, is unacceptable.

**22. Contamination of drinking water** in residential and commercial areas near the runways, due to use of hazardous chemicals, is completely ignored by the DEIS. It concludes, "No significant impacts related to hazardous waste and materials would occur due to construction activities or from the addition and operation of additional Growler aircraft." While these chemicals have never been analyzed, they have been used in conjunction with Growler training and other flight operations for years; therefore, hazardous materials analysis for these chemicals should not be excluded just because Growlers are not the only aircraft this foam has been used for. It is irresponsible for the DEIS to content that there are no significant impacts. As previously stated, with flights at OLF Coupeville alone increasing from 3,200 in 2010 to as many as 35,100, no one can

claim that a 1,000 percent flight increase in 7 years for which no groundwater or soil contaminant analyses have been done is not significant.

**23. Navy knew about contamination in advance:** It is clear that before the November 10 publication of this DEIS, the Navy was well aware of potential problems with contamination of residential drinking water due to what it calls "historic" use of fire suppressants for flight operations. In May 2016 the USEPA issued drinking water health advisories for two PFCs, and the Navy announced in June that it was in the process of "identifying and for removal and destruction all legacy perfluorooctane sulfonate (and PFOA) containing AFFF [aqueous film forming foam]." Yet the DEIS dismisses all concerns with an incredible statement about actions that took place nearly 20 years ago: "Remediation construction was completed in September 1997, human exposure and contaminated groundwater exposures are under control, and the OUs at Ault Field and the Seaplane Base are ready for anticipated use (USEPA, 2016e)." The statement is ludicrously outdated, and recent events refute it. Three days before the DEIS was published, on November 7, 2016, the Navy sent a letter to more than 100 private and public drinking water well owners expressing concern that perfluoroalkyl substances (PFAS) found beneath the OLF had spread beyond Navy property. Yet the word "perfluoroalkyl" or "PFAS" is not mentioned once in the entire 1400-page DEIS, nor is it mentioned the 2005 or 2012 EAs. A Department of Defense publication makes it clear that there is no current technology that can treat soil or groundwater that has been contaminated with these chemicals. (https://dec.alaska.gov/spar/ppr/hazmat/Chemical-&-Material-Emerging-Risk-Alert-for-AFFF.pdf)

**24. No mention of contaminated soil is found in the DEIS**: It confines its discussion to soil compression and compaction effects from new construction, and concludes there will be no impacts to groundwater. It is therefore puzzling to consider that while extensive evaluations for a variety of hazardous materials were included in the October 2015 Northwest Training and Testing Final EIS, why would the Navy omit such contaminants as the ones mentioned above, from the Growler DEIS? This is the equivalent of a doctor refusing to look at an EKG that clearly shows a heart attack, and diagnosing the patient with anxiety. The Navy needs to include this information in a public NEPA process as an impact of its flight activities. It needs to accept responsibility for this contamination, and pay the costs incurred by finding a permanent alternative source of water for affected residents, and by reimbursing these people for medical costs created by unwitting consumption of Navy-contaminated water.

**25. Impacts to wildlife have been piecemealed:** It does not make sense to separate impacts from just one portion of an aircraft's flight operations and say that's all you're looking at. But because the scope of the DEIS is limited to areas adjacent to runways, analysis of impacts to wildlife from connected flight operations that occur outside these narrow confines are omitted. Threatened and endangered species, sensitive species and other wildlife and critical habitat areas are adversely impacted by noise from takeoffs, landings and other flight operations well beyond the Navy's study area. For example, the increase in aerial combat maneuvers (dogfighting) from 160 to 550 annual "events," which by their erratic nature cannot safely occur near runways, is a 244 percent increase that has been neither examined nor analyzed in this or any previous NEPA process.

Dogfighting requires frequent use of afterburners, which are far louder and use as much as ten times the amount of fuel as normal flight does. Impacts to wildlife and habitat were completely omitted.

**26. Pages of boilerplate language do not constitute analysis of impacts to wildlife:** Except for standardized language copied from wildlife agencies about species life histories, along with lists of various county critical areas ordinances and state wildlife regulations, the DEIS fails to evaluate direct, indirect or cumulative impacts to wildlife. Instead, it offers the excruciating conclusion that the potential for noise impacts and collisions with birds is "greatest during flight operations." However, continues the DEIS, except for the marbled murrelet, the occurrence of these sensitive species in the study area is "highly unlikely," largely because "no suitable habitat is present." This begs the question: if the scope of this DEIS measured the true impacts of jet noise, it is highly *likely* that suitable habitat for many of these species would be found. And if impacts had not been segmented for decades, there might be suitable habitat remaining in the study area.

**27. Old research cited but new research not:** In citing published scientific research, the Navy included a 1988 synthesis of published literature on domestic animals and wildlife, but failed to consider the latest peer-reviewed research summarized in 2015, which lists multiple consequences of noise greater than 65 dB. (http://onlinelibrary.wiley.com/doi/10.1111/brv.12207/abstract) The DEIS also failed to consider an important 2014 study called "Anthropogenic EM Noise Disrupts Magnetic Compass Orientation in Migratory Birds," (http://www.nature.com/nature/journal/v509/n7500/full/nature13290.html) A federal agency cannot cherry-pick scientific research for its own convenience; it must consider the *best available science*. This DEIS fails that test.

Thank you for considering these comments.
Sincerely,

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