United States Department of the Interior

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IN REPLY REFER TO:

AFWFO

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Memorandum

To: Regional Environmental Officer – Office of Environmental Policy and Compliance

From: Regional Director - Region 7

Subject: Comments on Draft Environmental Impact Statement for Resumption of Year-Round Firing Opportunities at Fort Richardson, Alaska, January 2010

The U.S. Fish and Wildlife Service (Service) has reviewed the U.S. Army Garrison, Fort Richardson (Army), Draft Environmental Impact Statement (DEIS) analyzing resumption of year-round live-fire training opportunities at Fort Richardson. We provide a summary of our comments below and an attachment with more detailed comments on the proposed activities. The Service believes that Alternative 1 (No Action) would maximize conservation benefits for migratory birds, relative to the other alternatives analyzed in the DEIS. The No Action alternative would continue to limit indirect live-fire training at Fort Richardson to winter-time firing at the Eagle River Flats (ERF) Impact Area when ice conditions permit. This approach has been very successful thus far, greatly reducing mortality of migratory birds at ERF. The other proposed alternatives appear to have greater potential for harming avian resources managed by the Army and the Service.

Should Alternative 2, the Army's preferred alternative, be adopted, we recommend that all training activities cease during periods of peak migration. Our recommended approach will ensure that: 1) bird disturbance is minimal during times when the most number of birds are present, and 2) reduce the risk of large numbers of birds being disturbed from the (ERF) impact area and potentially increasing the number of birds flying into Elmendorf Air Force Base (AFB) airspace.

Under Alternative 2, we appreciate the inclusion of habitat protection buffers around feeding ponds for protection of migratory birds; however, we are concerned that during training, rounds may miss their targets and stray into these buffer areas.

The inclusion of a Monitoring Plan was a helpful addition to the preliminary draft. The Plan addressed several of our concerns about how the Army will determine the impact of the proposed year-round firing regime on migratory birds and the environment.

Under Alternative 2 the Service recommends the Army:

1. Cease all training activity during peak spring and fall migration. Currently, the proposal is to only stop firing High Explosive (HE) ordnance, but continue with all other types of training.
2. Conduct mortality monitoring on a weekly basis using transects, beginning when birds arrive in spring and continuing through fall. The DEIS currently proposes that mortality monitoring begin in mid-August. Even weekly monitoring may not be adequate given the speed at which carcasses disappear, but we consider this approach better than the proposed option.
3. Conduct sampling of white phosphorus (WP) and inspect cap integrity weekly throughout the period when birds are present (spring through fall), instead of sampling twice a year during the peak migration.
4. Develop a contingency plan or decision tree that clearly describes what actions would be taken if an increased number of birds start dying again from WP poisoning.
5. Consult with the Service's Migratory Bird Management Office to determine when 'peak' migration is occurring.
6. Monitor for hexachloroethane (HC) residues.
7. Develop a contingency plan that clearly outlines steps that will be taken if an unacceptable number of birds fly into critical airspace around Elmendorf AFB because training activities have disturbed them out of ERF. The DEIS states that Elmendorf AFB will be informed if birds are moving out of ERF onto this airspace, but there is no discussion of alternatives for preventing a human safety hazard.
8. Consult with the Service as soon as possible to determine the need for a permit under the Bald and Golden Eagle Protection Act. We recommend that the Army go to http://region7.fws.gov/eaglepermit/index.htm (50 CFR Part 22: 26 and 27) for the latest information on the new eagle take regulations.

We appreciate the Army's continued efforts to work with us to conserve migratory bird resources. If you have questions regarding these comments, please contact Catherine Berg at 271-1630.

Attachment

Attachment
Comments on Draft EIS for Year Round Firing at Eagle River Flats

Executive Summary
The U.S. Army, Alaska (Army) proposes to consult with the U.S. Fish and Wildlife Service (Service) regarding Bald Eagles under Alternative 3 (upland training site), but do not mention Bald Eagles at all within Alternative 2 (preferred alternative). The Army will need to consult with USFWS on Alternative 2 because they will likely need a 'take' permit for bald eagle disturbance if there are nesting birds in and around Eagle River Flats (ERF). New regulations were enacted in November 2009 under the Bald and Golden Eagle Protection Act. The Army should work with the Service to ensure they are in compliance with this law.

The DEIS states (page ES-12) that *"studies indicate that munitions constituents are not entering the food chain and deposition of these chemicals is not believe to pose any risk to fish or wildlife."* We note that the types of munitions and amounts fired will greatly increase under Alternative 2. Conclusions based on winter-only firing may not fully apply to summer conditions, which could influence chemical fate and toxicity. We believe there is uncertainty associated with this proposed action, and some of the DEIS projections about lack of potential fish or wildlife impacts may be understated. Our concerns are outlined below in more detail. We recommend that the Army acknowledge this uncertainty when discussing potential for future impacts.

It is unclear how the Army will assess bird disturbance. Bird mortality transects are addressed later in the document, and there is discussion of tracking bird movements onto Elmendorf Air Force Base (AFB), but no routine monitoring of disturbance on ERF is proposed. We recommend this issue be a subject of further discussion between the Service and the Army.

Chapter 3
Chapter 3 goes into great detail about the chemical constituents historically tested for at ERF. The Executive Summary identifies new smoking agents (e.g., hexachloroethane or HC) that will be used with the Howitzer rounds. However, HC is not discussed in the context of the other munitions compounds. Perhaps HC was not used previously; if that is the case, it should be noted in the EIS. The toxicity and/or expected environmental fate of HC should be described in the context of the other compounds found at the site.

The Army conducted years of research and remediation and spent millions of dollars because of high bird mortality at ERF associated with White Phosphorus (WP) exposure. We have concerns that the DEIS does not fully describe this history, which would provide the public with additional context when considering the proposed actions. For example the DEIS only presents one year of mortality data (1996) for waterfowl. While recognizing that data pre-1996 may not have been collected using the same protocols as those collected in 1996, using only one year of data (1996) and one number of bird deaths (1,000) does not address the cumulative magnitude of waterfowl deaths over the previous decades. This presentation of the historic data may inadvertently suggest to the public

that the regulatory agencies and the Army responded to a very small number of birds deaths. The Army should include the cumulative number of waterfowl deaths over the preceding decades to better portray the magnitude of this issue.

Low Order Detonations Section: The DEIS discusses the crater testing and munitions residues from Low Order (LO) detonations. What it fails to discuss is that the crater testing was conducted with just a few mortars. As mentioned earlier in the section, tens of thousands of mortars rounds were fired annually pre-1990. If previous use data are an indication of what will happen under Alternative 2, then significantly more LO residue will occur in the environment. Thus, although concentrations of energetic compounds decreased substantially in the test site, the analysis in the DEIS did not account for the quantity of mortars that will likely be fired each year under the new plan. Additionally, the DEIS reported that the compounds deteriorated after 82 days, which is most of a summer (i.e. bird) season in Alaska. We have concerns that birds at ERF will be exposed to LO detonation residues.

Chapter 4

We recommend that a more detailed monitoring and mitigation plan be developed for birds, on par with what is proposed for the protection of beluga whales

The DEIS seems to dismiss the potential that birds could be exposed to WP should existing caps be breached or if birds are displaced into areas that were not remediated. The DEIS mentions that target exclusion zones will be established, but does not acknowledge that many of their practice rounds miss their targets during training. For example, as reported in Appendix F, only 3 of 14 practice rounds hit the 200 x 200 meter (m) target area, and four were over 500 m from the original target. Thus, it is likely that rounds will hit areas within the established buffer zones.

We also have concerns about the proposed timing and intensity of monitoring. In the monitoring plan, the proposal is to conduct ground based mortality surveys, but these will not start until August 15 and will end in October. We believe that it is critical for the Army to also assess mortality during spring migration and the summer nesting season.

The DEIS does not discuss what the Army will do to ameliorate the situation should a cap be breached. The DEIS mentions that reinitiating the CERCLA process will be necessary, but a clear plan which outlines immediate response actions is lacking, should birds begin dying again. We recommend that the DEIS clearly describe contingency plans that would be implemented should the proposed avoidance and minimization strategies fail.

As part of the proposed mitigation under Alternative 2, the Army will work with Elmendorf AFB and the Federal Aviation Administration to minimize bird-aircraft strike hazards. The Service is also concerned that increased activity in the ERF impact area during summer months will increase bird movement into Elmendorf AFB airspace. Although, the mitigation measures include development of Standard Operating Procedures (SOPs) to observe and report waterfowl movement in response to detonations,

it does not identify follow-up actions that will be taken. The Service is concerned that birds will be disturbed from ERF and move into areas in which they will then be hazed or otherwise harassed to keep them out of critical airspace. It appears that birds will have few options and could be continuously disturbed, hazed or depredated to prevent human safety incidents. We recommend that the EIS discuss remedies available to Elmendorf AFB should birds increase use of critical airspace after being disturbed from the impact area and potential ramifications for migratory birds.

Monitoring Plan

The Monitoring Plan identifies the 'observation of white smoke' as an indicator of disturbance of WP munitions. The Service is concerned that WP could be re-exposed at a smaller scale and in wetlands, where visible white smoke would not be produced, or if produced it would be difficult to detect from a distance. If munitions routinely create craters that are deeper than the depth of remediation, small WP particles could be exposed or brought to the surface and made available to birds.

We note that WP sampling and assessment of cap integrity is to be conducted twice a year, during periods of peak bird migration. While the Service concurs that these are important times to monitor, migratory birds could potentially be exposed to WP throughout the summer and we recommend that WP sampling also be conducted weekly throughout the summer.

Additionally, the DEIS proposes that waterfowl mortality transects will be conducted from August 15 to October 15. We recommend that monitoring should commence when birds arrive in spring and weekly transects should continue through fall and the end of the migration period to provide a more accurate account of bird mortality resulting from the resumption of year-round firing on ERF. Doing so will also allow the Army to ensure they are meeting their continued CERCLA responsibilities and requirements for that site.

Additional Concerns

Howitzer rounds using HC as a smoking agent are being proposed for use at ERF because rounds with WP can no longer be used. A discussion of the toxicity and environmental fate of HC should be included in the discussion of effects of munitions compounds on wildlife.

We also have concerns about the sample sizes used to assess the potential for re-distribution of WP within ERF. The 14 High Explosive (HE) 120-mm mortar rounds fired into ERF in June, 2007, and analyzed for crater depth and WP distribution, presented in Appendix F, yielded no WP. However, this represents only a small fraction of the 720 HE 120-mm mortar rounds, and the 2,348 HE mortar rounds (all sizes) that could potentially be fired during one year (Table 2.2.c), or the 2,998 105-mm Howitzer HE rounds that could be fired during a year (Table 2.2.d). The estimates also do not include the potential firing of 6,656 Full Range Training Mortar Rounds (of all sizes) that although not explosive, have some capability for disturbance and redistribution of WP by impacting ERF soils at high velocity.

Chapter 4 describes the physical results of habitat alteration by munitions cratering, but does not discuss potential changes to wildlife behavior or productivity. Habitat alteration could lead to loss of foraging areas or creation of new ones. New forage ponds could be contaminated with chemical compounds from munitions detonation. Birds or other animals could be forced to move or use other habitats in the area. The changes in the physical landscape could have consequences for wildlife and should be more thoroughly discussed.

The Service does not concur that craters created by HE rounds will result in creation of good foraging habitat for shorebirds. We are concerned that shorebird foraging in areas recently contaminated with munitions residues may result in avian exposure to these residues.