

# STATE OF ALASKA

**SARAH PALIN, GOVERNOR**

**DEPT. OF ENVIRONMENTAL CONSERVATION  
DIVISION OF SPILL PREVENTION AND RESPONSE  
CONTAMINATED SITES PROGRAM**

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March 19, 2007

Scott Lytle  
Anchorage International Airport  
State of Alaska DOT&PF  
P.O. Box 196960  
Anchorage, Alaska 99519-6960

Re: Lake Hood Shore Line Groundwater Use Determination

Dear Mr. Lytle:

The Alaska Department of Environmental Conservation, Contaminated Sites Program (ADEC) recently reviewed the March 27, 2001 determination regarding groundwater use at the Anchorage International Airport (ANC). That determination was specific to the unconfined aquifer above the Bootlegger Cove Formation and was applicable only to certain areas (or zones) established in the 2004 Final Airport-Wide Risk Management Plan.

The subject groundwater was not considered a current or future drinking water source (in accordance with 18 AAC 75.350) within the Airside and Commercial Remediation Management Zones (RMZs). However, the Ecological RMZ was excluded from the groundwater use determination in 2001. In order to evaluate the current status of the groundwater use determination and make any amendments to the 2001 determination that may be appropriate, the following information was considered.

### **Ecological Risk Management Zone**

The Ecological RMZ encompasses the numerous surface water bodies located on ANC. In addition, it described 200 feet of upland area adjacent to the lakes. ADEC recognizes the two habitats within the ecological RMZ that may support ecological receptors include: undeveloped upland habitats and surface water bodies.

The undeveloped uplands include wetland areas surrounding Meadow and Connor Lakes as well as the upland areas surrounding Lake Spenard and Lake Hood. The surface waters include Lakes Hood, Spenard, Delong, and Connors. The intent of establishing the Ecological RMZ was to ensure areas where contaminants may pose a risk to ecological receptors were adequately considered when risk management decisions were made.

Due to the nature and use of the land at the ANC, there are areas (the Airside and Commercial RMZs) that serve no ecological purpose. The land is either paved or developed for commercial airport activities. There are also areas (upland areas of Lakes Hood or Spenard) in the Ecological RMZ used for commercial aviation purposes. The Airport Wide Risk Management Plan noted that

those developed areas (within the Ecological RMZ) that are not expected to impact water quality standards and/or impact ecological receptors could be evaluated as if they were in the Commercial RMZ.

### Hydrogeologic Conditions

The area most developed within the Ecological RMZ is Lake Hood and Lake Spenard. Large portions of the shore line were altered to accommodate the aviation uses of the lakes. The native shoreline has been amended by a combination of dredging and filling areas resulting in a complex mixture of sand, silt, gravel, and peat organics. The shore line is paved with asphalt or concrete in numerous areas and is relatively flat. Lake Hood is relatively shallow (less than about 20 feet deep) with the water level varying less than 1 foot during the year. This is an indication that the groundwater flow into Lake Hood is minimal (in regards to volume and/or impacts.)

Groundwater along the shore line is relatively shallow (1 to 8 feet deep). There is documented impact to the shallow groundwater from the commercial aviation activities at a number of Lake Hood lease sites but there is no evidence, at this time, of its migration into the lake.

### ADEC Decision

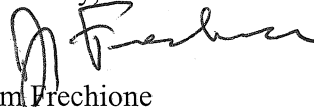
ADEC has determined that the shallow groundwater along the Lake Hood and Lake Spenard shore lines is not a current or future drinking water source. Therefore, the March 2001 groundwater use determination is amended to include the shallow groundwater in the Ecological RMZ in that determination. This essentially recognizes that the shallow groundwater aquifer on the ANC facility is not considered a current or future drinking water source in accordance with 18 AAC 75.350.

This determination recognizes that the Lake Hood Shore Line is used for commercial aviation purposes and that the groundwater is not a current or future drinking water source. However, the groundwater in the Ecological RMZ will be evaluated (and managed) to ensure that it does not transport contamination where it might impact surface water quality standards and/or ecological receptors that might be present.

This determination is based on information presented to date. However, if future information identifies an area of contamination bordering Lake Hood that may pose a risk to human health or the environment, ADEC reserves the right to reconsider this groundwater use determination on a site specific basis and make any changes or amendments to it, including the requirement for additional investigative and/or cleanup action.

If you have any questions regarding this letter please contact Todd Blessing at 269-7699 or me at 451-5175.

Sincerely,



Jim Frechione  
Environmental Manager

cc. Tom Johnston, ANC  
John Barsalou, ANC  
Steve Bainbridge, ADEC, Fairbanks  
Todd Blessing, ADEC, Anchorage  
Tom Mushovic, AFSC