

Endicott Bear Den 2016/2017

Event Summary

On December 11, 2016, Hilcorp personnel noticed a hole and tracks in a snowdrift near the Big Skookum Bridge on the Endicott Causeway at location 70° 18' 5.49" N, 147° 53' 11.9" W. There had not been a hole there the previous day, and it appeared to be recently excavated. Personnel immediately recognized it as a potential polar bear den and reported it to security personnel and environmental program personnel. The U.S. Fish and Wildlife Service (Service) was notified by phone call from Elizabeth (Beth) Sharp to Christopher Putnam. A 1-mile no activity zone was put into place, with an exception for Hilcorp to use a handheld infrared camera to determine whether the hole was occupied. They found that the hole was emitting a large heat signature and was probably therefore an occupied polar bear den. A heavy snowfall and drifting snow closed the hole over the next few days, but infrared indicated the den continued to be occupied.

Immediate snow removal was necessary to retain emergency access to the site, so Hilcorp and USFWS developed a plan to restrict use of tracked snow blowers to no closer than 800 m away, and to use only quieter "snow pushers" within closer distances. The road was closed to non-essential traffic and a 5-mph speed limit was put in place. Crews plowed only one lane. The bear remained in the closed den throughout these activities.

No activity was detected at the den, and the bear showed apparent tolerance for human activity by establishing a den within about 10 meters of a road, so the decision was made to modify the standard 1-mile no activity zone to accommodate some ongoing traffic. The traffic management plan was developed based on the initial snow removal operation. The final plan was put into place on December 22 and was to continue until the bear opened the den. A "superquiet zone" was established within ¼ mile of the den (snow pusher only). Only one lane was to remain open for about a 100-foot stretch in front of the den on the opposite side of the road from the den to get traffic and equipment as far as possible from the den. Signs and barriers were put in place and security personnel maintained a log of all traffic crossing the bridge. Traffic was minimized by consolidating trips and vehicles and foregoing non-critical activities. Continued daily traffic included a water truck and personnel vans/busses. Weekly traffic included a trash haul and resupply trips. Snow removal continued as needed using the snow pusher. All personnel were directed to notify Security/Environmental if there was any indication that the bear had emerged from the den.

In January and February, personnel from UAF visited the site to attempt to capture infrared images from a UAS and staff from Polar Bears International set up a camera system to monitor the den from Endicott.

On March 18, 2017, the adult female was observed outside of the den with a single cub. Video recording continued, the female made various trips in and out of the den with the cub. Traffic over the bridge ceased, but continued

On April 1, tracks were observed leaving the den site and a female and single cub were observed approximately 2 miles distant to the Northeast.



Fig. 1 Den opening upon first detection



Fig. 2. Den location



Fig. 3. Infrared image of den entrance showing heat signature of the bear inside (white area).



Fig. 4 Female and cub on or around Mar 18, 2017