May 7, 2007

Midkiff & Associates, Inc. PO Box 12427 Zephyr Cove, NV 89448 775 588 1090

RE: Remote camera surveys for furbearers (e.g., pine martens) Homewood Ski Resort

Dear Mr. Midkiff:

This letter reports the results of Wildlife Resource Consultants' remote camera survey for pine martens (*Martes americana*) and other furbearers for Homewood Ski Resort. The project is situated in Placer County, California, in Township 14 north, Range 16 east, sections 1, 2, 11, and 12.

METHOD

The protocol for the photographic bait stations followed that described in <u>American Marten</u>, <u>Fisher</u>, Lynx, and Wolverine: Survey Methods for their Detection (Zielinski and Kucerea 1995, USDA Pacific Southwest Research Station). Two cameras were placed at least one mile apart at locations with the most appropriate habitat, and where track plate marten detections were recorded in 1996 and 1997 (U.S. Forest Service, Lake Tahoe Basin Management Unit, wildlife occurrence records).

One camera station was placed near the west shore of Lake Louise (UTM: 0743548, 4328656; elevation 7,746 feet) and the other one was established near the bottom of the Dutch Treat ski run (UTM: 0744564, 4328928; elevation 6,994 feet) (Figure 1). The UTM locations are approximate due to heavy tree cover that interferes with the satellite reception. The two camera stations used Trail Master 550 (Passive Infrared Trail Monitor) in conjunction with the Trail Master 35-1 camera kit. The two remote cameras operated for three weeks, from March 18 through April 8, 2007.

Stations were baited with a whole chicken that was attached to a tree by threading wire through the chicken's cavity and wrapping the wire around the bird and a nail. Opened cans of Kal Kan dog food were also hung by wire and used as bait during weeks two and three. In addition, both stations were baited with scent lure the first week.

RESULTS

Pine martens were detected during weeks 2 through 3 at the Dutch Treat ski run station and week 3 at the Lake Louise station.

Wildlife Resource Consultants PO Box 68 Cedarville CA 96104 530 708 0691

Dutch Flat ski run Station

The number of recorded events (i.e., the receiver is also an event recorder that stores the date, time, event number when the beam is broken, and whether a picture is taken each time the beam is broken) during the first week the camera was set up was 247. The number of events recorded during the second week was 747 while the number of events recorded during the third week was 620.

Marten tracks and scats were noted around the base and vicinity of the bait tree when the bait was replaced and the film changed the second week. Photographs of martens were taken March 29, March 30, April 2, and April 3.

March 30

Martens were photographed throughout a 24-hour time period on March 29, beginning at 3:50 hours and ending at 22:49 hours.

Three photographs of a similar-looking marten were taken at 3:50, 3:59, and 4:35. Although these photographs were taken nine, 36, and 45 minutes apart, based on size, coat color, and coat condition, it appears to be the same animal.

Ten photographs of a new marten with a damaged coat on the left rib area (hereafter referred to as scar marten) were taken between 5:13 and 5:36.

Seven pictures of a large marten were taken during the day at 11:15 through 11:37. This animal appears much larger than the previous two martens with a richer brown colored tail and haunches.

Two photographs of a marten were taken at 19:17 and 19:21 hours. This animal could be the marten that was first photographed at 3:50 hours (hereafter referred to as bald spot, due to the small patch of missing fur visible on its left hind leg, perhaps from a bite mark).

Five photographs of scar marten were taken beginning at 20:53, 20:56, 21:33, 21:37 and 21:39.

A marten was photographed at 22:49. Based on size and coat color, this marten appears to be the bald spot marten, the same animal first photographed at 3:50 hours and again at 19:17 and 19:21 hours. On March 30, it appears the bald spot animal was again photographed at 5:02 hours.

Two photographs of scar marten were taken at 5:07 and again at perhaps 5:09. The time is cut off on the second photograph. Because the chicken was gone when the film was changed, it is assumed that the martens continued to consume the chicken. Further events could not be photographed as the roll of film was finished.

In summary, on March 29, it appears that a minimum of two martens (the small dark furred bald spot marten and the scar marten), and probably three (the very large individual photographed during the day), were photographed at the Dutch Flat ski run Station.

April 2

Two photographs of the small dark furred marten called bald spot were taken at 1:34 and again at 2:07.

Wildlife Resource Consultants PO Box 68 Cedarville CA 96104 530 708 0691 Three photographs of a marten were taken April 3 at 9:50, 9:52, and 10:06. This animal appears to be the same large individual previously photographed during the day.

April 3

Three photographs of a marten were taken at 4:05, 4:08, and 4:13. No clearly identifying features of the marten (e.g., scar, bite marks) are evident.

Lake Louise Station

The number of recorded events during the first week the camera was set up was only two; they were the photographs taken when the camera station was established. The bait was untouched. The number of events recorded during the second week was 401. Events recorded could have been due to snowfall, although the bait was also missing. The number of events recorded during the third week was 545.

No evidence of marten activity (e.g., tracks, scat) was noted around the station when snow was present. Photographs of martens were taken April 4 when no snow was on the ground in the vicinity of the station. Snow remaining in the general area was firm and would not show any tracks.

April 4

Ten photographs of a marten were taken beginning some time at night. Unfortunately, the time feature on the Trail Master failed to properly record the time. The same marten appears to be photographed for the series of ten shots. The marten is the same size, very glossy, with dark brown fur extending from its tail onto its rump and hind legs.

DISCUSSION

Marten occur at Homewood Ski Resort and are found in the central portion of the resort's busy area (Dutch Flat ski run camera station) as well as on the periphery (Lake Louise camera station). It can be assumed that they use the whole resort area where suitable habitat is present. Martens have been reported to occur outside the ski resort's boundary. A Homewood Ski Resort ski patroller, Danney Bartlett, reported that he saw a pine marten about mid-February at Richardson's bowl, an informally named site located approximately one mile north of Lake Louise. Mr. Bartlett's description of the animal and its behavior makes it likely he did see a pine marten.

Based on size, fur color, and unique marks (e.g., apparent scar), it appears that a minimum of two and possibly up to four marten may occupy Homewood Ski Resort. Due to its glossy smooth coat, which could be an artifact of the camera, the marten photographed at Lake Louise does not seem to be similar to any of the individuals photographed at the Dutch Flat ski run. However, it cannot be ruled out that is was one of the martens previously photographed since no martens were photographed at the Dutch Flat ski run at the same date and time.

In the Sierra Nevada, the home range size for martens is estimated between 790 to 889 acres. The Homewood Ski Resort is estimated at approximately 1,500 acres. Therefore, it would seem that the home ranges of the photographed martens overlap, as is known for males and females, or perhaps some individuals are transient or predispersal young.

While martens were detected at Homewood Ski Resort during the day in winter, no martens were detected at stations in the winter after daylight in the Final Report Baseline and Initial Monitoring Assessment of *Martes americana*, the American Marten, at Heavenly Ski Resort, Lake Tahoe

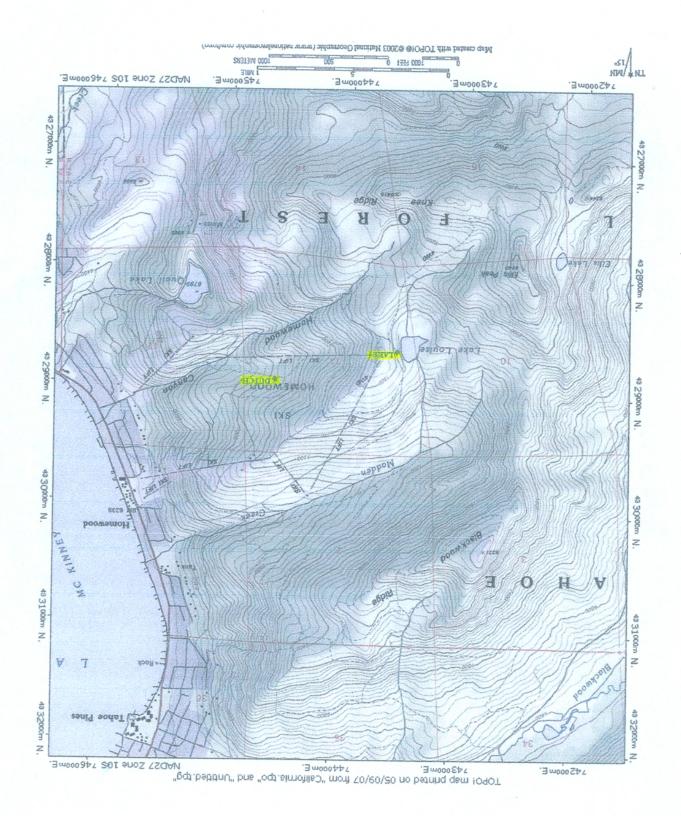
(Dr. Cablk and S. Spaulding, USFS, LTBMU). The Dutch Flat ski run camera station was situated between two ski runs. Although neither run is a main ski run, it can be assumed they had some skier activity during the day. The Lake Louise camera station was outside the patrolled ski area boundary, but not out of the ski area limits. Based on tracks, some skiers do ski in the vicinity of Lake Louise.

For a presence or absence survey, as soon as the target species is detected, the survey can end. However, the Dutch Flat ski run camera station was maintained for one extra week after the first series of detections.

No other furbearer species, such as fisher (*Martes pennanti*), wolverine (*Gulo gulo luteus*), or Sierra Nevada red fox (*Vulpes vulpes necator*) were identified at the camera stations.

Should you have any questions, please feel free to contact me.

Sincerely,



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Figure 1. Locations of the two camera stations used for the pine marten surveys at Homewood Ski Resort, March 18 through April 8, 2007.

July 10, 2007

Midkiff & Associates, Inc. PO Box 12427 Zephyr Cove, NV 89448 775 588 1090

RE: Protocol Spotted Owl Surveys - Homewood Ski Resort

Dear Mr. Midkiff:

This letter reports the results of Wildlife Resource Consultants' survey of the Homewood Ski Resort for spotted owls (*Strix occidentalis*). The project is situated in Placer County, California, in Township 14 north, Range 16 east, sections 1, 2, 11, and 12.

The surveys adhered to the *Protocol for Surveying for Spotted Owls in Proposed Management Activity Areas and Habitat Conservation Areas (March 12, 1991, Revised February 1993).* Ten call stations between $\frac{1}{4}$ to $\frac{1}{2}$ miles apart were established along roads (see Figure 1). The UTMs for these call stations are listed in Appendix A. Three nighttime surveys were conducted at the site: May 29, June 8, and June 27, 2007. No spotted owls were detected during the surveys.

Should you have any questions, please feel free to contact me.

Sincerely,





1:18,000

Homewood Wildlife Surveys 2007

Figure 1. Spotted Owl Call Stations

September 22, 2007

Midkiff & Associates, Inc. PO Box 12427 Zephyr Cove, NV 89448 775 588 1090

RE: Wildlife surveys - Homewood Ski Resort

Dear Mr. Midkiff:

This letter reports the results of Wildlife Resource Consultants' survey of the Homewood Ski Resort for the following species: northern goshawk (*Accipiter gentilis*), willow flycatcher (*Epidonax traillii*), osprey (*Pandion haliaetus*), amphibians, and bats. In addition, a general reconnaissance survey was performed and a list of species observed in the project area was compiled (see Table 2). The Homewood Ski Resort project area is situated in Placer County, California, in Township 14 north, Range 16 east, sections 1, 2, 11, and 12.

Northern goshawk

Method

Northern goshawks are listed as a species of concern by the U.S. Fish and Wildlife Service and are designated a sensitive species by the U.S. Forest Service (USFS) and a Species of Special Interest by the Tahoe Regional Planning Agency (TRPA). Potential northern goshawk habitat was surveyed using the *9 August 2000 Survey Methodology for Northern Goshawks in the Pacific Southwest Region, U.S. Forest Service.* Two site visits are required per survey year. The broadcast acoustic surveys were conducted July 13 and 14, and August 13 and 14, 2007. Prior to conducting the protocol surveys, a color aerial photograph (scale 1:6,000) was reviewed and a reconnaissance survey was performed to determine where the survey points should be placed. Sixty-one call stations were established so that all suitable habitat was within 150 meters of a calling station (see Figure 2).

Results and Discussions

No northern goshawks were detected during the surveys. The likelihood of goshawks nesting in the Homewood Ski Resort project area is considered low. Goshawks begin courtship activities in February, when the ski resort is open and busy with skiers. This species is highly susceptible to human disturbance, especially during courtship and nest building, and they are known to abandon nest areas following human intrusion. Moreover, the project area habitat does not contain preferred nesting habitat characteristics as it is primarily second-growth trees dissected by numerous ski runs. There are some patches of habitat that receive less human disturbance and that contain larger diameter trees (e.g., south portion Quail Lake). Such locations are the most likely sites for a goshawk nest territory. The USFS Lake Tahoe Basin Management Unit (LTBMU) does not have any records of goshawks nesting within one mile of the Homewood Ski Resort nor does the agency have any records of goshawks nesting in any other Lake Tahoe basin ski resorts (e.g., Heavenly).

Willow flycatcher

Method

The willow flycatcher is a USFS LTBMU sensitive and Management Indicator Species. Potentially suitable willow flycatcher habitat was surveyed using *A Willow Flycatcher Survey Protocol for California June 6, 2000 (Authors: Helen Bombay, Teressa Ritter, Brad Valentine).* Two surveys are required per survey year. Prior to conducting the protocol surveys, a color aerial photograph (scale 1:6,000) was reviewed and a reconnaissance survey was performed to determine where the survey points should be placed. The broadcast acoustic surveys were conducted June 16 and 17 and July 2 and 3, 2007. Forty-six call stations were established (see Figure 3). In suitable habitat, the survey points were spaced at a maximum distance of 50 meters apart. In some locations, call stations were farther than 50 meters apart because they were separated by unsuitable habitat.

Results and Discussions

No willow flycatchers were detected during the surveys. Suitable nesting habitat is present in the project area. Nesting habitat typically includes moist meadows with perennial streams and smaller spring-fed or boggy areas with willow (*Salix spp.*) or alder (*Alnus spp.*). Willow flycatcher nest territories generally contain open water (i.e., running water or standing water), boggy seeps, or saturated soil. Willow flycatchers have been found in riparian environments of various shapes and sizes ranging from small willow-surrounded lakes or ponds with a fringe of meadow or grassland to various willow-lined streams, grasslands, or boggy areas. These habitat types are present in the project area.

Wilson's warbler (*Wilsonia pusilla*) was commonly observed in the upper elevation reaches of Madden Creek. The yellow warbler (*Dendroica petechia*) was also observed along Madden Creek and at Quail Lake. Nesting yellow warblers are a California state species of concern.

Osprey

Method

Ospreys are a TRPA Species of Special Interest and are protected by the Migratory Bird Treaty Act. No specific protocol exists for detecting nesting ospreys. The survey technique relied on direct observations of ospreys and a search for indirect evidence (e.g., nests, prey remains, feathers). Three site visits were performed: June 8, 18, and July 1, 2007. A total of 10 hours were spent surveying forested habitat. The surveys were conducted on foot and by vehicle. Vehicle surveys were performed along all roads in the project area to search for potential osprey nests. The forest was scanned with binoculars for visual evidence of nesting activity such as perched birds or stick nests.

Results and Discussions

Ospreys were detected flying over the project area on several occasions and were observed foraging in Quail Lake on June 17. However, no osprey nests were located in the project area.

Amphibians

Method

Amphibian surveys were conducted using a standard, active visual encounter technique for eggs, larvae, metamorphs, and adults. Two biologists conducted the creek surveys on June 17 and 18, 2007. The biologists walked on different sides, one-way down Homewood Canyon (Creek) and Madden Creek. Logs and rocks were turned over in boggy areas (e.g., upper elevations of Madden Creek) to search for adult amphibians. Netting was performed in shallow water (< 1 meter) at Quail Lake and Lake Louise as well as in Madden Creek. One night of spotlighting was conducted at Lake Louise on June 17.

Results and Discussions

Adults, larvae, and newly metamorphosed pacific tree frogs (*Hyla regilla*) and western toads (*Bufo boreas*) were found in the project area. Pacific tree frogs were detected at Lake Louise, Quail Lake, along Madden Creek, and in the upper elevations of Homewood Canyon (Creek) (UTM: 0743641, 4327757). Western toads were only found in the latter location.

The mountain yellow-legged frog is a federal candidate species and USFS sensitive species, and the northern leopard frog is a sensitive species. Neither of these species was detected in the project area. Aquatic habitat with trout (e.g., Quail Lake, Lake Louise) is considered unsuitable habitat for mountain yellow-legged frogs due to predaceous trout. However, no trout were detected in Madden Creek, which could provide suitable habitat for mountain yellow-legged frogs.

Bats

Method

Acoustic surveys were conducted for bat species using Pettersson ultrasonic detectors (Model D240X). The detectors were turned on around 7:00 pm and operated throughout the night to sample the temporal activity of bats for one night at each location. Table 1 shows the detector locations. Bat surveys were conducted June 16 and 18, 2007. SonoBat[™] software was used to determine species identification. SonoBat extracts individual calls from recordings made by the Pettersson recorders, produces a sonogram of the call, and allows comparison with samples from known species.

SITE NUMBER	Survey Date	EASTING	NORTHING
1 - Lake Louise	June 16	0743521	4328681
2 - Lake Louise	June 16	0743509	4328512
3 – North summit	June 16	0743882	4328584
4 – Homewood lodge	June 16	0745815	4329072
5 – Homewood Canyon	June 18	0745085	4328811
6 – Madden Creek	June 18	0744247	4329935

Table 1. Location of bat detectors for the Homewood Ski Resort Project area (Zone 11, NAD 27).

Results and Discussions

The Lake Louse tapes (sites 1 and 2) and north summit tape (site 3) were bad recordings that contained no identifiable calls. However, bats were recorded at all three sites. It is possible that the winds during the night of June 16 adversely affected the quality of the recordings. Bats roost inside the Homewood lodge (i.e., vocalizations, scat, urine, and other evidence of their presence was noted). The Homewood lodge (site 4) tape contained bat calls, but most of the files were of non-bat noise. Although there were files with bat calls, the calls were masked by the background noise (e.g., refrigerators, other equipment). The bat call frequencies are wide ranging and a best guess is that they are a species of Myotis, but it cannot be confirmed. Only one bat species, the little brown Myotis (*Myotis lucifugus*), was recorded at sites 5 and 6. Only a few calls were recorded at each site.

Sierra Nevada mountain beaver

Method

Drainages with flowing or standing water were surveyed by one or two biologists. A single biologist walked up and down the drainage, while two biologists walked down a drainage on

opposite sides. The location of burrows and any sign (e.g., fresh plant clippings, runways) were recorded using a hand-held GPS unit.

Results and Discussions

Sierra Nevada mountain beavers were recorded in four drainages (see Figure 5). Active and inactive colonies were detected in all four drainages. The presence of mountain beaver burrows was the primary criteria for determining the presence of a colony. Active colonies had signs such as hay piles, fresh plant clippings, and clipped, maintained runways. Water flowed through many of the burrows. However, some burrows with clipped plants were located up to 15 meters from water.

Birds		
American goldfinch	Downy woodpecker	Red-breasted nuthatch
(Carduelis tristis)	(Picoides pubescens)	(Sitta canadensis)
American kestrel	Evening grosbeak	Red-naped sapsucker
(Falco sparverius)	(Coccothraustes	(Sphyrapicus nuchalis)
	vespertinus)	
American robin	Fox sparrow	Red-tailed hawk
(Turdus migratorius)	(Passerella iliaca)	(Buteo jamaicensis)
Barn swallow	Green tailed towhee	Red-winged blackbird
(Hirundo rustica)	(Pipilo chlorurus)	(Agelaius phoeniceus)
Black-headed grosbeak	House finch	Rufous-sided towhee
(Pheucticus melanocephalus)	(Carpodacus mexicanus)	(Pipilo erythrophthalmus)
Blue grouse	House wren	Solitary vireo
(Dendragapus obscurus)	(Troglodytes aedon)	(Vireo solitarius)
Brewer's blackbird	Hermit thrush	Song sparrow
(Euphagus cyanocephalus)	(Catharus guttatus)	(Melospiza melodia)
Brewer's sparrow	Lazuli bunting	Steller's jay
(Spizella breweri)	(Passerina ciris)	(Cyanocitta stelleri)
Broad-tailed hummingbird	MacGillivray's warbler	Warbling vireo
(Selasphorus platycercus)	(Oporornis tolmiei)	(Vireo gilvus)
Brown creeper	Mallard	Western bluebird
(Certhia americana)	(Anas platyrhynchos)	(Sialia mexicana)
Brown-headed cowbird	Mountain quail	Western wood-pewee
(Molothrus ater)	(Oreortyx pictus)	(Contopus sordidulus)
California quail	Mountain chickadee	White-breasted nuthatch
(Callipepla californica)	(Parus gambeli)	(Sitta carolinensis)
Calliope hummingbird	Mourning dove	White-headed woodpecker
(Stellula calliope)	(Zenaida macroura)	(Picoides albolarvatus)
Cassin's finch	Northern flicker	Wilson's warbler
(Carpodacus cassinii)	(Colaptes auratus)	(Wilsonia pusilla)
Common nighthawk	Northern harrier	White-crowned sparrow
(Chordeiles minor)	(Circus cyaneus)	(Zonotrichia leucophrys)
Common raven	Olive-sided flycatcher	Yellow-rumped warbler
(Corvus corax)	(Contopus borealis)	(Dendroica coronata)
Cooper's hawk	Orange-crowned warbler	Yellow warbler
(Accipiter cooperii)	(Vermivora bachmanii)	(Dendroica petechia)

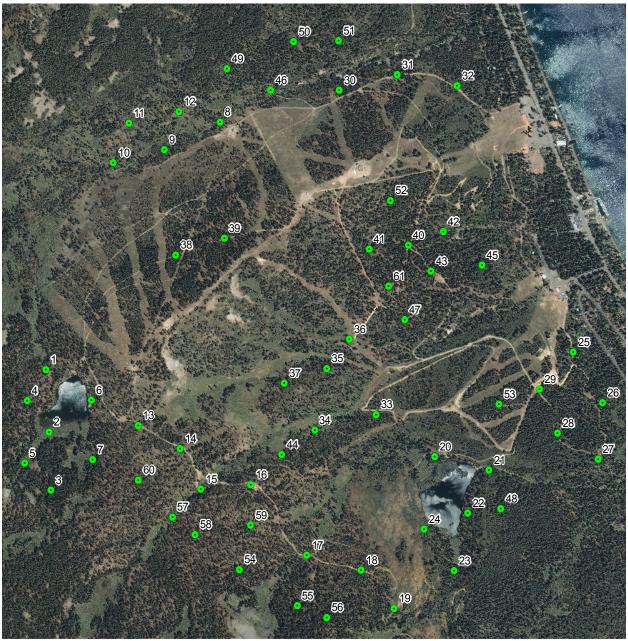
Table 2. Wildlife Species Observed in the Homewood Ski Resort Project Area, including those detected during camera surveys for furbearers and acoustic surveys for bats.

<u>Birds</u>		
Dark-eyed junco	Osprey	
(Junco hyemalis)	(Pandion haliaetus)	
Chipping sparrow	Pine grosbeak	
(Spizella passerina)	(Pinicola enucleator)	
<u>Mammals</u>		
Black bear	Little brown myotis	Raccoon*
(Ursus americanus)	(Myotis lucifugus)	(Procyon lotor)
California ground squirrel	Mountain cottontail	Sierra Nevada mountain
(Spermophilus beecheyi)	(Slyvilagus nuttallii)	beaver *
		(Aplodontia rufa)
Coyote	Mule deer *	Vole
(Canis latrans)	(Odocoileus hemionus)	(Microtus spp)
Chipmunk	Northern pocket gopher *	Western gray squirrel
(Tamias spp.)	(Thomomys talpoides)	(Sciurus griseus)
Douglas squirrel	Pine marten	Western jumping mouse
(Tamiasciurus douglasii)	(Martes americana)	(Zapus princeps)
Golden-mantled ground	Porcupine*	Woodrat *
squirrel	(Erithizon dorsatum)	(Neotoma spp.)
(Spermophilus lateralis)		
Reptiles and Amphibians		
Pacific tree frog	Western toad	
(Hyla regilla)	(Bufo boreas)	

* Species detected by sign such as tracks, scat, burrows

Should you have any questions, please feel free to contact me.

Sincerely,



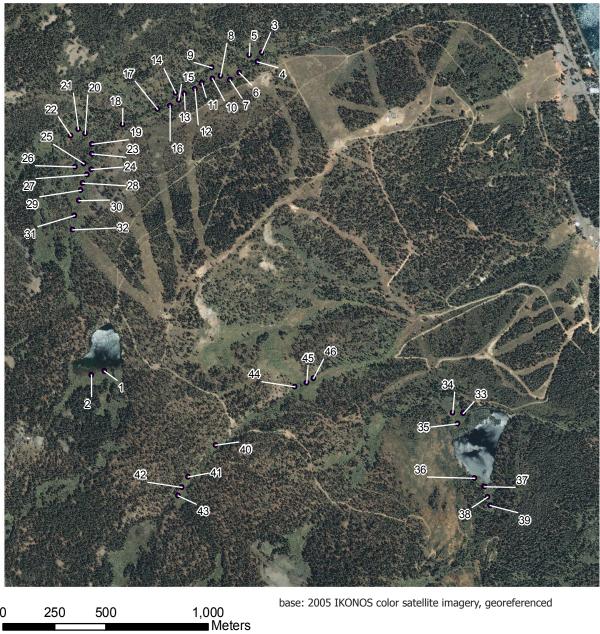
base: 2005 IKONOS co	lor satellite imagery,	georeferenced
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0	250	500	1,000
			Meters

1:18,000

Homewood Wildlife Surveys 2007

Figure 2. Northern Goshawk Call Stations



500 0 250

base: 2005 IKONOS color satellite imagery, georeferenced

1:18,000

Homewood Wildlife Surveys 2007

Figure 3. Willow Flycatcher Call Stations



1,000 Meters

0	250	500	

base: 2005 IKONOS color satellite imagery, georeferenced

1:18,000

Homewood Wildlife Surveys 2007

Figure 4. Drainages occupied by Sierra Nevada mountain beaver.

August 6, 2008

Todd Wees JMA Ventures, LLC PO Box 3938 Truckee, CA 96160

RE: Protocol Northern Goshawk Surveys - Homewood Ski Resort

Dear Mr. Wees:

This letter reports the results of Wildlife Resource Consultants' survey of the Homewood Ski Resort for northern goshawks (*Accipiter gentilis*). The Homewood Ski Resort project area is situated in Placer County, California, in Township 14 north, Range 16 east, sections 1, 2, 11, and 12.

Northern goshawks are listed as a species of concern by the U.S. Fish and Wildlife Service and are designated a sensitive species by the U.S. Forest Service (USFS) and a Species of Special Interest by the Tahoe Regional Planning Agency (TRPA). Potential northern goshawk habitat was surveyed using the *9 August 2000 Survey Methodology for Northern Goshawks in the Pacific Southwest Region, U.S. Forest Service.* Two site visits are required per survey year. The broadcast acoustic surveys were conducted June 24 and 25, July 30, and August 3, 2008. The 2008 survey utilized the same survey point locations as the 2007 survey. Sixty-one call stations were established so that all suitable habitat was within 150 meters of a calling station (see Figure 1).

No northern goshawks were detected during the surveys. This survey concludes the second year of a two-year, broadcast acoustic protocol survey for northern goshawks. As stated in the 2007 report:

The likelihood of goshawks nesting in the Homewood Ski Resort project area is considered low. Goshawks begin courtship activities in February, when the ski resort is open and busy with skiers. This species is highly susceptible to human disturbance, especially during courtship and nest building, and they are known to abandon nest areas following human intrusion. Moreover, the project area habitat does not contain preferred nesting habitat characteristics as it is primarily second-growth trees dissected by numerous ski runs. There are some patches of habitat that receive less human disturbance and that contain larger diameter trees (e.g., south portion Quail Lake). Such locations are the most likely sites for a goshawk nest territory. The USFS Lake Tahoe Basin Management Unit (LTBMU) does not have any records of goshawks nesting within one mile of the Homewood Ski Resort nor does the agency have any records of goshawks nesting in any other Lake Tahoe basin ski resorts (e.g., Heavenly).

Should you have any questions, please feel free to contact me.

Sincerely,