



September 25, 2009

Michael Hermes
Director of Properties and Trails
Roaring Fork Transportation Authority
0766 Industrial Place
Carbondale, CO 81623

Re: Great Blue Heron Predation Event/Abandonment

Dear Mike;

The purpose of this letter is to provide an update on the great blue herons (*Ardea herodias*) at Rock Bottom Ranch (RBR). I would like to acknowledge the invaluable assistance of Mary Harris and Jim Biebl with the heron monitoring effort and for their help with confirming the sequence of events described below.

The RBR-East heronry (The one adjacent to the ACES campus) was not active in 2009. The herons began their return to the RBR-West heronry (RBR-W) around April 8th and by April 12th there were 12-14 herons coming and going with 4 adults sitting, 4 other nests in the process of being rebuilt/maintained, and 2 brand new nests in the early stages of construction. On April 22nd there were 14 adults observed with 6 active nests with adults incubating eggs on 5 of the nests.

On May 1, the trail opened as scheduled. Through May 17th, all seemed well in the heronry with at least 2 nests with fledglings moving around inside and a total of 10 occupied nests. On May 18th, one nest was abandoned. On May 19th and 20th, 3 more abandoned and then a fifth on the 21st. There didn't appear to be any discernible cause for this abandonment. Both Mary Harris and Jim Biebl reported the regular use of the trail by 2 ATVs between Catherine Store and RBR in the evening. This was reported to RFTA. Ms. Harris confronted the ATV riders on May 28th, explained that the trail was closed to motorized use to protect wildlife and the use ceased.

On May 28th, some of the herons had returned to the heronry and appeared to be re-occupying. That afternoon, Ms. Harris and Mr. Biebl observed a golden eagle (*Aquila chrysaetos*) in one of the nests. The herons were flying around the nests or standing nearby emitting alarm calls but there was no physical contact with the eagle. Mr. Biebl observed the eagle consuming at least one nestling. On June 3rd the golden eagle was again observed on a heron nest preying on nestlings (Photo 1). When the eagle departed, 5 ravens (*Corvus corax*) and the pair of ospreys (*Pandion haliaetus*) that nest nearby attacked the eagle and drove it to the ground numerous times before it was able to escape. The eagle returned again on June 6th and consumed all 4 nestling in the largest nest. The



Photo 1. Golden eagle in great blue heron nest with adult heron (Photo taken June 3, 2009 by Brittany Biebl).

ospreys attacked again and the eagle eventually escaped. Following this predation event, the rest of the adult herons abandoned the heronry for good.

Additional Information

The ospreys returned to their nearby nest in 2009 on March 30th and began rebuilding their nest on April 7th (The nest had been disintegrating over the winter and 95% of it fell off the power pole the day before they arrived). The ospreys successfully fledged one nestling this year. The Woody Creek heronry and Cattle Creek heronries were quite successful this year. The Woody Creek heronry had 11 active nests and fledged more than 16 young (Photo 8). The Cattle Creek heronry had 14+ active nests and more than 18 young fledged.

Aspen Center for Environmental Studies (ACES) is in the process of developing a habitat management and restoration plan at RBR. This plan will include efforts to protect young cottonwoods from elk predation via elk-proof fencing. The cottonwood riparian forest is

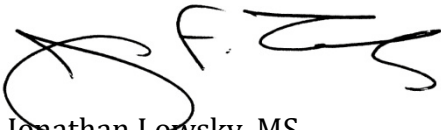
integral to the long-term persistence of the heronries but many of the trees are declining due to age. Without protection, elk will continue to browse the cottonwood suckers and saplings, the old trees will die and the herons (as well as many other species) will lose their nesting habitat.

Heronry and the Trail

It is unfortunate for so many reasons that the eagle attacked the heronry. First, the herons were on a trajectory toward their first successful breeding season in 3 years. Second, had the young successfully fledged, they would have been the first cohort born at RBR-W with the trail in place. Individuals fledged in proximity to human recreation are much more likely to be habituated to the human activity and less likely to respond negatively in future years. Third, the predation event could be the unknown factor in the previous abandonments. Perhaps the eagle attacked the heronry in 2007 and 2008 but no one observed the events and it was merely chance that the Biebls and Harris observed the eagle in the act this year. Nonetheless, now that the eagle (and we should assume that there is a mate out there as well) has developed a search image for heron nestlings, it is likely to return next year. Following the final abandonment this year, I observed an eagle circling above the heronry a number of times over the next couple of weeks.

Please let me know if you need any additional information or if you have any questions.

Sincerely,
COLORADO WILDLIFE SCIENCE, LLC



Jonathan Lowsky, MS
Wildlife Biologist/Principal



BACKGROUND & QUALIFICATIONS

Colorado Wildlife Science, LLC is a small ecological consulting firm based in Basalt, Colorado specializing in wildlife and ecological assessments, conservation easement baseline inventories, ecological planning, wildlife research and monitoring, habitat management, wetlands and riparian evaluation, and ecological restoration.

Owner and Principal Ecologist Jonathan Lowsky earned a Master of Science degree in Wildlife Biology from Colorado State University. With more than 17 years of professional experience Jonathan's career has focused on a diverse array of wildlife from bighorn sheep, elk, and songbirds to northern goshawks, flying squirrels and spotted bats.

Jonathan Lowsky and Colorado Wildlife Science have authored numerous ecological assessments, management plans, Threatened and Endangered Species Surveys, Conservation Easement Baseline and Present Condition Reports. Mr. Lowsky's experience includes biological assessments and evaluations for NEPA compliance, conservation planning, GIS mapping and modeling, wildlife research, and ecological monitoring design and implementation, as well as wetland and riparian delineations, evaluations, and restoration. He has authored numerous management plans and published scientific papers. An expert birder, certified wetlands delineator, and passionate observer of wildlife, Jonathan has spent countless hours studying and appreciating Colorado's diverse ecological communities.

Colorado Wildlife Science does all of its own work from wildlife and ecological surveys, research, and monitoring to GPS and GIS Mapping. As a result we have full control over the quality and accuracy of the work we produce for our clients.

