

M-15 12 September 2007

**2006-2007 Winter Shut Down Fatality Tables
UC Monitoring Team**

We created the Winter Shut Down raptor fatality tables below using a series of filters suggested by the SRC. We filtered the data for all raptors found from October 2005 to May 2007 based on date, cause of death, notes, presence of bones, carcass condition, fatalities greater than month old, feather piles, and scavenging. Dates of fatalities used spanned November 1 to March 31. Even though the winter shutdown treatments end in February, some carcasses found in March could be attributed to the February treatment. Many times crew notes were useful in deciding when the fatality occurred. For example the crew might write “Bird died before shutdown” for some carcasses found shortly after the treatment began.

We considered only wind turbine-caused mortality, but we also assumed that, after filtering, the few fatalities labeled in the field as unknown causes of death were probable turbine-caused (we acknowledge one or more of these fatalities may not have been caused by wind turbines). We omitted electrocutions and predation-caused mortality from the data set. We also omitted carcasses consisting of old bones. The condition of the carcass suggested time since death. Fresh, gooey, and dried flesh helped suggest how long the bird had been dead. We omitted fatalities greater than one month old. We also omitted feather spots and carcasses showing signs of vertebrate scavenging. The term “question” in the tables below refers to fatalities that could be attributed to either the operational or non-operational (shut down) treatments.

The dates of the treatments during the Winter Shut Down period for Year 1 were November 1 – December 31, 2005, Northern (N) turbines were operational and Southern (S) turbines were non-operational. The treatments were reversed for the January 1 – February 28 2006, period. In Year 2 the opposite treatment schedule was implemented. Table 1a lists all raptor fatalities by species for combined years (Year 1 and 2). Table 1b lists fatalities by species per treatment for combined years. Tables 2a through 3b provide the same breakdown for each year.

Table 1a

Combined years (all raptors)		
Phase	Species	n
N. operational	GOEA	1
	RTHA	4
N. non-operational	BNOW	1
	RTHA	3
N. question	RTHA	1
S. operational	.AMKE	2
	BNOW	2
	GOEA	2
	RTHA	13
S. non-operational	RTHA	2

Table 1b

Combined years (all raptors)			
Phase	Species	n	Total
Operational N/S	.AMKE	2	24
	GOEA	3	
	RTHA	17	
	BNOW	2	
Non-Operational N/S	BNOW	1	6
	RTHA	5	
	question	1	

S. question	0	0
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Table 2a

Year 1 (all raptors)		
Phase	Species	n
N. operational	GOEA	1
N. non-operational	RTHA	1
N. question	RTHA	1
S. operational	.AMKE	1
	BNOW	2
	RTHA	6
S. Non-operational	RTHA	1
S. question	0	0

Table 2b

Year 1 (all raptors)			
Phase	Species	n	Total
Operational N/S	.AMKE	1	10
	BNOW	2	
	GOEA	1	
	RTHA	6	
Non-Operational N/S	RTHA	2	2
question	RTHA	1	1

Table 3a

Year 2 (all raptors)		
Phase	Species	n
N. operational	RTHA	4
N. non-operational	RTHA	2
	BNOW	1
N. question	0	0
S. operational	.AMKE	1
	GOEA	2
	RTHA	7
S. non-operational	RTHA	1
S. question	0	0

Table 3b

Year 2 (all raptors)			
Phase	Species	n	Total
Operational N/S	.AMKE	1	14
	GOEA	2	
	RTHA	11	
Non-Operational N/S	RTHA	3	4
	BNOW	1	
question	0	0	0