

The Criterion Project in Maryland could probably be considered the most deadly wind project in America. From ABC birds (Washington , D.C. , February 4, 2014) “Federal officials have already reported that this wind project has the highest per-turbine bird mortality ever estimated at a studied wind project in the United States and **the highest per-turbine bird mortality ever documented in North America** . It is regrettable that this project was allowed to be built in this sensitive area in the first place. This is what you get when you have siting guidelines that are voluntary as opposed to mandatory. We will be looking very closely at the Habitat Conservation Plan and Avian Protection Plan once they become available.”

Remember self reporting = non-reporting. Here are some notes about the rigged studies conducted at these turbines.....

The Criterion wind project mortality studies were conducted by West Inc. **This was basically a 7 month study with 190 daily searches of all their 28 - 2.5 MW turbines. The first reported mortality was 4/4/11 and the last was on 11/15/11.**

In the first year (2011) with daily searches they found or reported 262 bird carcasses and 706 bat carcasses with very small search areas. Hidden in the study is the fact that they only searched areas of about 56% of a 50 meter radius around the turbines. **Virtually every reported carcass came from a distance of 50 meters or less on these huge turbines.** Accounting for the carcasses missed in just this 50 meter radius increases reported mortality to $262/.56 = 468$ and $706/.56 = 1260$ bats for 7 months. This does not take into consideration that they probably avoided the primary direction of carcass throw with the areas not searched, a common practice.

These Criterion turbines are 2.5 MW with 80 meter towers and have 50 meter long blades. I now have evidence from three studies that indicates about 90% of wind turbine carcasses are thrown past the outer length of turbine blades upon impact.

I also know that searches for these turbines should have been 200 meters from towers or that bodies landing in this area should have been accounted. A 200 meter search area on these huge turbines is proportional to the 50 meter search areas used on the small 100 kW turbines (25 equal one 2.5 MW turbine) located at Altamont . With the thousands of searches around Altamont 's 100 kW turbines it was determined that about 85% of carcasses can be found within 50 meters. The remaining 15% can be found much further out and 95% can be expected within 125 meters from towers.

At the Criterion Wind Project accounting for the fact that at least 90% of the carcasses can likely be found past the 50 meter blade tips between 50-200 meters, greatly adds to the carcasses totals $468 \text{ birds} \times 10 = 4680 \text{ birds}$ and $1260 \times 10 = 12600 \text{ bats}$.

Then accounting for the 15% expected be found beyond the 200 meters produces a total of $4680/.85 = 5506$ birds and $12600/.85 = 14,823$ bats being killed by these 28 - 2.5 MW turbines. None of this takes into consideration the ridiculous searcher efficiency rates (.72 for bats and .70 small birds) produced or given for this study which I do not believe are possible.

With reasonable and even generous searcher efficiency rates factored in (.50 bats and .60 birds), **the total 12 month 2011 mortality from the Criterion Wind Project could be estimated to be over 25,000 bats and 7800 birds even without adjustments for scavenger removal. This represents a death rate of 111 birds/MW and 357 bats per/MW or nearly 468 birds and bats killed per MW.** For the 2011 West Inc. mortality study, the reported adjusted death rates for the Criterion turbines were 16 birds/MW and 39 bats/MW for 7 months

Another interesting thing about all this is that West Inc. (same outfit) conducted mortality studies at Altamont on the Diablo winds turbines with 75 meter search areas. Those turbines are 660 kW have shorter towers, and these smaller turbines each have about 3.8 times less rotor sweep.

In 2012 West Inc completely changed their studies and they conducted 12.75 times fewer searches. They found or reported 28 bird carcasses and 82 bat carcasses. By comparison, in 2011 West Inc. conducted 5316 turbine searches around all 28 turbines. In 2012 they conducted 417 searches around just 14 turbines. In 2012 they actually found more bodies per search with 12.75 times fewer searches around half as many turbines. For 2012 they are claiming a 51% reduction in mortality.

I believe rigged studies are covering up tens of thousands of bird and bat fatalities at the Criterion Wind Project in Maryland. I have been told by an eyewitness that said he watched the two Hispanic searchers on several occasions doing searches around the turbines during the same period when studies were being conducted. What he saw was nothing like what is described in the Standardized Carcass surveys information below. He also talked with them.

"During my last encounter with them, I pulled up to a high point and just watched as they did their searches. Again no real pattern, they would park on the road parallel to the turbine, get out and both walk past the turbine base, separated by approximately 40-50 feet and turn around near the tree line and return to the truck. I saw on several occasions that they stopped and picked something up and upon returning to the truck would place it in a 5 gallon bucket in the back of the truck... whatever was found, didn't appear to be documented, there was no measuring, no pictures and again it was tossed into a bucket with other "finds".

In complete contrast from the eyewitness below is a statement from Criterion mortality study.....

Standardized Carcass Surveys

The objective of the standardized searches was to systematically search the project for bird and bat casualties that were attributable to collision with the turbines. Standardized carcass surveys were conducted daily at all 28 turbines throughout the study period (April 5 – November 15). Personnel trained in proper search techniques conducted the searches. **During a carcass search, searchers walked at a rate of approximately 45-60 m/min (~145 to 195 ft/min) along each transect in the search plot searching both sides out to approximately 2 to 3 m (~7 to 10 ft).** Search area and speed were occasionally adjusted during any given search for the searcher to investigate potential casualties. Searches for any give day began at randomly-selected turbines shortly after sunrise, when there was enough ambient light for locating and identifying carcasses, and continued until all turbines had been searched. All bird and bat casualties located within the search areas, regardless of species, were recorded and a cause of death determined, if possible, based on field inspection of the carcass. The condition of each carcass found was recorded using the following categories:

All carcasses were labeled with a unique number, bagged and frozen for future reference and possible further analysis (e.g., genetic determination of species if needed). **A copy of the data sheet for each carcass was maintained, bagged and frozen with the carcass at all times. For all casualties found, data recorded included species, sex and age when possible, date and time collected, GPS location, condition (above), and any comments that indicated possible cause of death. All casualties were photographed as found and plotted on a map of the study area showing the location of the wind turbines and associated facilities such as overhead power lines and met towers.** In addition to carcasses, any injured bird or bat observed in the search plots was recorded and treated as a casualty. **Dominant vegetation cover and visibility index within a 1-m (~3-ft) radius of the carcass location were also recorded.**

I also double checked with this eyewitness about his account of the Criterion wind project studies sending him a follow-up email asking, **"This is very important. Did you see either of them take any notes, have anything to write down information, have a small hand held device to store information, or point a range finder back towards the turbine for distance reading?"**

Here is his answer **"Nope, nothing for recording that I saw..."**

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Jim,

It is interesting to read that the survey crews were “trained”. They may have wanted to do the training in Spanish to assure comprehension. I don’t type, so what follows takes effort.

During three separate trips up into the project site, I encountered the survey crew (a Hispanic male and female). On two occasions I noted they were starting out around 8am, with sunrise occurring around 5:30-6:00am, during the summer months. That seemed odd to me because there are so many scavengers in the area (coyotes, bobcats, foxes, crows, etc...)

The north end of the project begins near the end of Eagle Rock Road (where I live) and covers two parcels of land that exceed 1000 acres, those parcels are surrounded by 1000s of acres of wooded land, part of which is the Potomac State Park . The first turbine in this string is about 3000 feet from my house located on Frank Harvey’s land (interesting to note that Frank lived there until construction began, he then moved his family 2 miles south to his mothers land on Bethlehem Road) The southern end of this area starts close to Eagle Rock and ends within 200 feet of Turkey Rock along Backbone Ridge, this area is the second highest elevation in Maryland. The substation is located across the street from home (1200 feet north of my property line) and vehicular traffic for the crews pass the house daily. *Prior to construction there were 5 homes on this dead end road and we rarely saw traffic at all. The access roads are nearly 2 miles long along the ridge and turbine sites (pad areas) are notched off of the access road. The pad sites are of varying sizes with heavily wooded areas surrounding them. In some cases the base of the turbines are within 100 feet of the wood line.

Because I purchased a pass from the Walnut Bottom Hunt Club to enter the land with my ATV, I frequently went out to observe activities on the project site, which is when I encountered the survey crews doing carcass collections. During my first trip out and encountering the crews, I noted them pulling up to turbine sites in an unmarked white truck and getting out and wandering around, as if they lost something. I watched for awhile and they moved on to the next turbine and repeated the same wandering around. There was no pattern to the wanderings and they seemed to walk from the road to the wood area past the turbine base and return to the truck in nearly the same path and move on. I waved and was friendly, and they waved back and smiled.

During my second encounter with the crews, I saw nearly the same process and waved as I went passed. On my return trip, they were getting out of the truck as I approached, so I pulled up and attempted to see what they were doing. Both had very heavy Hispanic accents and broken

English, but they related that they were looking for “dead birds and bats”. The female didn’t seem to care for the bats by the way she reacted to the word. I asked if they had found any bats and they said “yes”. I thought what the hell they’re being chatty, so asked if they had found any Eagles or Indiana Bats. The male said they were not allowed to talk about what they found and if I understood him correctly, they had signed a paper saying they could not talk about anything they found. The male appeared to be getting very nervous so I moved on, so as not to upset the possibility of getting something later.

During my last encounter with them, I pulled up to a high point and just watched as they did their searches. Again no real pattern, they would park on the road parallel to the turbine, get out and both walk past the turbine base, separated by approximately 40-50 feet and turn around near the tree line and return to the truck. I saw on several occasions that they stopped and picked something up and upon returning to the truck would place it in a 5 gallon bucket in the back of the truck... whatever was found, didn’t appear to be documented, there was no measuring, no pictures and again it was tossed into a bucket with other “finds”.

Hopefully this helps to understand what was done (or not done) here on this end of the project site.

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