## **Open letter to Scottish Natural Heritage (SNH)**

## Co-signed by Professor David Bellamy and Mark Duchamp

Dear Sirs,

It is disturbing to wildlife conservationists such as ourselves, and we know it is equally disturbing to our numerous Scottish friends, that you should assist in the destruction of Scotland's remarkable and precious wilderness. Your raison d'être is to preserve this natural heritage; yet you are time and again endorsing the installation of wind farms in unspoilt landscapes of great beauty, or in natural habitats that are essential to the conservation of endangered birds.

Bird reserves are not even spared from this destruction. On the Isle of Lewis, for instance, a wind farm is to be built in a designated Important Bird Area (Park UK224), and another in the Lewis Peatlands Special Protection Area (the Pentland Road road windfarm project).

Your modus operandi is to object at first, then to withdraw your objection based on scientifically worthless "revised" bird mortality predictions. More disturbing still: you are helping developers to come up with these lower estimates by suggesting that they use a slightly modified variable that has the effect of minimising mortality predictions well below current available evidence of such mortality.

The precautionary principle is one of the cornerstones of wildlife conservation; but you systematically ignore it and by and large espouse the interest of developers. You tell them they can use an "avoidance factor" set so high that the resulting mortality prediction is but 10% of what it should be if real-life mortality at wind farms were taken into account.

We first became aware of this during Mark's resistance against the approval of the Edinbane wind farm project, in one of Europe's most strikingly beautiful islands: the Isle of Skye. The location was in itself a crime against Scotland's natural heritage, but neither you nor your political masters thought anything of it.

Opposition was fierce because of the danger to the eagles, another of Skye's treasures besides a stunning landscape. The developer's first eagle mortality prediction was too high for comfort, so you invited him to do more studies and to review his copy, especially the mortality prediction. You too did some work, and modified a key parameter for the mortality calculations: from 95% the "avoidance factor" was increased to 98%, which has the effect of reducing mortality predictions exponentially. You also indicated that the predicted mortality should be no bigger than a certain number: this was tantamount to showing the fox how to get into the hen house.

Helped by your clue and by the new avoidance factor you had decreed, the developer presented his new prediction and you lifted your objection, which allowed the project to be approved. Yet the viability of the nearby Cuillins SPA, a nature reserve for golden eagles, is at stake in this tragedy.

Not only did you discard the precautionary principle in this exercise: you applied it in reverse. What conservationist in his right mind would tell a businessman something that may be summarized as follows: you predict your machines will kill too many eagles, so I'll help you reduce your prediction by manipulating the numbers - and for cosmetics, I'll ask you to do some more field studies.

Based on mortality evidence available from other countries, of which you are well aware, wind turbines at Edinbane are likely to kill ~150 golden eagles over 25 years, not ~15 as predicted by the developer under your guidance. The wind farm location is a hill where young eagles are seen flying daily, at a rate of about one sighting per hour. Edinbane is known to be a "dispersion area" for eagles, i.e. one where immature birds come to hunt, soar, and interact. It is also located on a commonly used eagle flightpath from one side of the island to the other. Placing lethal wind turbines on their route is not just an aberration: it is a crime against wildlife.

Some will say: when a bird is killed by a wind turbine, it is an accident. There is no intent of killing, so there is no crime. But you are guilty of gross negligence, to put it mildly. Numbers have been manipulated in order to minimise mortality prediction by an order of magnitude (from 150 eagle-kills down to 15); the precautionary principle has been laughed at; and the Wild Birds and Habitats Directives of the EU are being violated since there are alternative locations for the project.

Eagles don't avoid wind turbines: they are attracted to them. In California, Dr Smallwood has observed that golden eagles fly twice as often near wind turbines than they would by chance. This explains why so many collide with the blades, which travel at up to 300 km/h at the tip. Two thousand three hundred golden eagles have been killed that way in California, and you know that: an official report confirms it.

You strayed even further with the white-tailed sea eagles. With your consent, at Edinbane the risk for sea eagles has been estimated to be near zero whereas it is likely that dozens will be killed during the useful life of the wind farm. Indeed, many of these magnificent birds are being stricken dead every year by wind turbines in Norway, Sweden, Germany, and Japan. Ornithologists from these countries have sent us the statistics and the pictures.

In the autumn of 2003, a sea eagle was found dead next to a wind turbine on the Scottish island of Pabay, a couple of miles from Skye. An alleged autopsy report appeared on Internet saying that the bird in question had an unusually large heart, and that its death could have been caused by a heart failure in mid air (sic!).

Again in Scotland, golden eagles have been disappearing at or around the Beinn Ghlas wind farm, yet we are asked to believe that Beinn Ghlas is a success story regarding cohabitation with eagles. Beinn an Tuirc is another "success story" being cited in the press as evidence that eagles and wind farms, in Scotland, can live together in close contact. Yet in 2006 the male of the golden eagle breeding pair disappeared from its range at Beinn an Tuirc.

All of this is documented, and it is false to say that wind farms do not kill eagles in Scotland. It's just that the public is not aware of the eagles that die or disappear near wind farms.

More eagles, and other birds from protected species, will be colliding with power lines linking wind farms to the grid, resulting in more deaths. You, SNH, never requested that this added risk be assessed for Edinbane or any other wind farm project. Yet you do know that many birds, including eagles, are maimed or killed by overhead cables when they collide with them in poor visibility conditions. For instance, a scientific study has estimated that high tension lines kill on average 200 birds per kilometre/year (Koops – 1987). In migration zones, the toll is higher at 400-500 birds/km/yr (Convention on the Conservation of European Wildlife and Natural Habitats, BirdLife International 2003).

Based on the Koops study, it was estimated that high tension lines in the US could be killing 150 million birds a year, according to Mick Sagrillo of the American Wind Energy Association (2003). The same figure is also reported in Avian Collisions with Wind Turbines, a Summary of Existing Studies and Comparisons to Other Sources of Avian Collision Mortality in the United States - Western EcoSystems Technology Inc. (2001).

How many more eagles and other protected birds will die on Skye and across Scotland on account of new transmission lines built to accommodate wind farms? You have not commissioned any study on this added hazard, as far as we know. Yet the Scottish golden eagle population is already in demographic difficulty (Whitfield et al. 2006), and the sea eagles are even less numerous.

It was clearly irresponsible of you to withdraw your objection to Edinbane, and Mark denounced it many times. You are now applying the same tactics to the Eisgein and Pairc projects on the Isle of Lewis. If approved, these wind farms may kill over one hundred eagles, plus the migrating birds who stopover for food and rest before the long journey to Iceland and Greenland. And on the subject of migrating birds: you seem to be minded to endorse a large wind farm project on Shetland, an island that is a staging post for thousands of migrating birds on their route to and from the Arctic. How irresponsible of you if you do.

The Eisgein turbines will be erected in and around a designated Important Bird Area that arguably harbours the most important concentration of adult eagles in the whole of Scotland. But everything indicates that you are about to remove your objection to this project as you did for Edinbane. Indeed, you have now further increased your avoidance factor to 99%, which will have the result of reducing the developer's mortality prediction, even though with 98% it is already smaller than real life by an order of magnitude.

These manipulations are being done under the cover of science. But the famous mathematician John von Neuman once wrote: "Give me four adjustable parameters and I can simulate an elephant. Give me one more and I can wag its tail."

- Your avoidance factor is what wags the tail.

Besides the predictable slaughter of eagles, swans, geese and other birds protected by EU and UK legislations, the Eisgein wind farm may have a detrimental effect on a National Scenic Area, and even possibly on other important tourist attractions such as the Callanish Stones and a unique cultural event: the "Birth of the Moon".

Several hundred wind farms are to be built in Scotland, yet no cumulative study of their effects on protected bird species has been made. Eagles stand to be wiped out, but you have ignored Mark's request to consider the cumulative impact of thousands of wind turbines on their vulnerable population. You support the case-by-case approach, but it is a recipe for disaster. It makes a mockery of the cumulative effect principle, which is another cornerstone of wildlife conservation.

In the circumstances, we cannot but conclude that you are doing the opposite of what the Scottish people, who pay your salaries, are expecting you to do: that which is embedded in your name.

You are also projecting a degraded image of Scotland worldwide. In the international community of wildlife conservation, your country has gained a new reputation, where spin and the reckless destruction of pristine wilderness rise above anything else.

Your press releases often end with this line: "Scottish Natural Heritage is the Scottish Executive's statutory advisor in respect to the conservation, enhancement, enjoyment, understanding and sustainable use of the natural heritage."

- We think your slogan needs editing.

Co-signed:

**Professor David Bellamy** 

**Mark Duchamp**