



# United States Department of the Interior

OFFICE OF THE SECRETARY  
WASHINGTON, D.C. 20240



ER-11/0809

Commission's Secretary  
Office of the Secretary  
Federal Communications Commission  
445 12th St., SW., Room TW-A325  
Washington, DC 20554

Dear Sir or Madam:

Re: Federal Communications Commission (FCC) Draft Programmatic Environmental Assessment (DPEA), Antenna Structure Registration (ASR) Program

The Department of the Interior's Fish and Wildlife Service (FWS) has reviewed the above referenced document and the Department submits the attached comments and supporting information. Although the DPEA includes a reasonable overview of the literature on communication tower impacts to migratory birds, and we commend the proposed revisions of FCC's extraordinary circumstances related to its Antenna Structure Registration (ASR) Program categorical exclusion, we have concerns about the DPEA's description of the purpose and need, alternatives, environmental consequences, and interpretation of impact significance. We do not support a finding of no significant impact for the ASR program, and we recommend a programmatic environmental impact statement (PEIS). Our attached comments are intended to further clarify specific issues and provisions in the DPEA.

Thank you for the opportunity to comment on the draft document. If you have any questions concerning these comments, please contact Diana Whittington, FWS NEPA Migratory Bird lead, (703) 358-2010.

Sincerely,

Willie R. Taylor  
Director, Office of Environmental  
Policy and Compliance

Attachments

## Attachment 1

### **Purpose and Need**

The Department of the Interior (Department) recommends that FCC create a programmatic approach to authorizing communication towers that, along with its goal of avoiding and minimizing hazards to air navigation, explicitly seeks to avoid or minimize bird mortality. The FCC could begin by revising the “Purpose” section to include a goal of reducing adverse effects to migratory birds, in particular, birds of conservation concern (BCC) that are drawn from the list of 1,007 species that are presently protected under the Migratory Bird Treaty Act (MBTA). Accordingly, the alternatives considered would then incorporate measures that are designed to avoid or minimize the environmental damages associated with those actions. We recommend that the FCC use the present opportunity to coordinate with the FWS to formulate systematic, consistent, and verifiable measures that would reduce bird mortalities at facilities regulated under the ASR.

The Department recommends that the FCC make a commitment to adopt through the NEPA process, the updates to the FWS voluntary communication tower guidance for use by industry when the revised guidelines become available. Updates to that guidance are awaiting changes in lighting standards by the FAA (the FAA is currently in the process of updating their 2007 lighting circular to eliminate L-810 lighting) and any rulemaking decisions by FCC in regard to communication towers and migratory birds (details recommended by the FWS to FCC in 2007 (Manville 2007)).

### **Alternatives**

The Department commends the FCC for considering new extraordinary circumstance for its categorical exclusions for areas such as ridgelines, coastal zones and bird staging areas considered important resources to migratory birds. We also recommend avoiding sites in the Western Hemisphere Shorebird Reserve Network.

The alternative to not allow categorical exclusions where a tower would be located within 660 feet (201 meters) of a Bald Eagle nest or 0.6 mile (1 kilometer) of a Golden Eagle nest will provide some protection from disturbance for many breeding pairs of eagles. However, the buffers do not take into account such factors as topography, relative vegetative screening, non-breeding areas, and pre-construction consideration of whether a tower could become an attractive nuisance for eagles in areas where nest substrate is a limiting factor. Instead, we recommend precluding development in important eagle use areas without coordination with the FWS to determine whether take of eagles is likely and a permit under the Bald and Golden Eagle Protection Act (BGEPA) is recommended, or whether there are otherwise significant individual or cumulative adverse effects to important eagle use areas. Important eagle use areas are defined in 50 CFR 22.23 as “an eagle nest, foraging area, or communal roost site that eagles rely on for breeding, sheltering, or feeding, and the landscape features surrounding such nest, foraging area, or roost site that are essential for the continued viability of the site for breeding, feeding, or sheltering eagles.”

The various alternatives in the DPEA focus on defining progressively smaller classes of applications that are categorically excluded from further NEPA analysis and larger classes of

applications for which EAs are required. We suggest an approach that would instead define progressively larger classes of categorically excluded actions by virtue of mitigative measures incorporated into the applications. Without the benefit of a more comprehensive PEIS that establishes consistent standards for site analysis, the DPEA may serve to increase the number of NEPA documents required without an expectation that doing so would reduce impacts. The primary outcome of the DPEA alternatives may simply be more EAs, which would become a burden on the regulated community, the FCC, and to other federal agencies. We recommend that FCC revise the approach taken in this DPEA and create a vehicle for evaluating alternatives to reducing bird impacts at new communication towers. Such a vehicle could avoid a substantial increase in the number of EAs by formulating and evaluating suites of appropriate mitigative measures programmatically.

### **Environmental Consequences**

During the August 16, 2011 meeting with the FCC, the FWS recommended the analysis and significance criteria based upon the degree of population declines of BCCs and to focus the overall analysis on BCCs. However, the DPEA conducts a description of the total number of land birds estimated to breed by State and Bird Conservation Region, without providing any supporting context for its relevance to the resource. Rather than assessing all birds as a single resource category for analysis, we recommend that the FCC refine its analysis to focus on:

- 1) The 54 BCC species that have been documented in the tower kill literature (**Attachment 3**). (MBTA); including
- 2) bald and golden eagles (also protected under the Bald and Golden Eagle Protection Act [BGEPA]); and
- 3) birds that the FWS has listed as threatened or endangered under the Endangered Species Act (ESA).

Towers and other structures that project into airspace used by birds unequivocally result in strikes and bird mortalities. In a strictly legal interpretation of the MBTA, BGEPA, and ESA, such take is unlawful unless it is authorized through mechanisms available under these statutes. Such take may also result in population-level consequences to especially vulnerable species, which the FCC should more thoroughly examine. At minimum, the FCC should address cumulative impacts on this group of species for which the incremental impact of tower mortality, when added to other past, present, and reasonably foreseeable future actions, is most likely significant, given their overall imperiled status.

We believe that tower collisions disproportionately affect neotropical migratory passerine species that migrate at night, such as the Swainson's warbler, Kentucky warbler, Golden-winged warbler and Henslow's sparrow (T. Longcore, pers. comm. September 13, 2011). Swainson's warbler and Kentucky warbler are both species that are declining due to losses of bottomland hardwood forests in the southeastern U.S., first for timber and later for conversion to agriculture. Golden-winged warbler and Henslow's sparrow are species that are suffering from loss of early-successional habitat due to industrialized agriculture, urban sprawl, and the re-growth of eastern forests. Neotropical migratory passerines are experiencing demonstrable habitat loss and degradation on both the breeding and wintering grounds, which is resulting in population

declines. The FCC analysis of cumulative impacts should address their relative vulnerability based on abundance, status, and population trends.

The temporal scale of analysis of cumulative effects should be over the temporal scale of the effects. The DPEA sets a temporal scale of analysis of 10 years, without any supporting justification of why the temporal scale is not over the life of the program. We recommend a temporal scale of the life of the program for the analysis of cumulative effects. The DPEA indicates that the FCC has initiated a programmatic consultation for the ASR with the FWS under the Endangered Species Act; however, no species-specific effects determinations or proposed conservation measures that would inform this consultation are included. We recommend folding this consultation into the process for a new programmatic EIS.

### **Significance and Findings**

The Department does not believe that this DPEA supports a finding of no significant impact. The DPEA acknowledges in the “Cumulative Impacts” chapter (pg. 6-1) that “impacts to migratory birds at the national level would be major and adverse” under all of the alternatives examined due to an estimated 5 million mortalities annually (less under alternatives that presume changes in FAA tower lighting requirements). However, the DPEA concludes in the “Findings” chapter that these impacts are not significant. The Council on Environmental Quality’s (CEQ) guidance on “Considering Cumulative Effects Under the National Environmental Policy Act” advises federal agencies that:

“Thresholds and criteria (i.e., levels of acceptable change) used to determine the significance of effects will vary depending on the type of resource being analyzed, the condition of the resource, and the importance of the resource as an issue (as identified through scoping)” (CEQ 1997:45).

The Department recommends that significance criteria for the document be based upon the degree of effects upon BCC species, rather than the current scheme. Criteria should be based upon the degree of effects to species categorized qualitatively rather than quantitatively by: 1) whether estimated population trends are positive or negative, and incremental degree of trend; 2) population goals; and 3) whether the species affected or their habitats may be vulnerable to climate change. Impacts to biological resources are meaningful in the context of species and populations, and many species of migratory birds that are known (or are likely) to collide with communication towers are declining in numbers. There is clear evidence that BCC species may be disproportionately affected and the cumulative effects to declining BCC species, without adequate conservation measures, may contribute to their consideration for listing under the ESA. As with the Affected Environment and Environmental Consequences sections, the Cumulative Impacts should focus on BCC species.

Because no comprehensive monitoring of effects of communication towers on BCC species has been conducted (USFWS 2008), there is a high degree of uncertainty about the effects to BCC species on differing scales (nationally or regionally), as well as a high degree of uncertainty of the effects of radiation especially to breeding birds. We believe this meets the significance criterion (40 CFR 1508.27 (b)(5)), “The degree to which the possible effects on the human

environment are highly uncertain or involve unique or unknown risks.” For this, and because a substantial portion of future and ongoing impacts from communication towers are likely unavoidable and significant, the FWS recommends that FCC undertake a Programmatic Environmental Impact Statement (PEIS) rather than finalize the present DPEA. This was a recommendation provided to FCC by the former FWS Director in 2000.

### **Other Recommendations**

The Department recommends including a consistent and comprehensive monitoring strategy with metrics designed to:

- evaluate cumulative impacts;
- reduce the uncertainty of effects (including radiation impacts especially to breeding birds);
- track implementation;
- determine the effectiveness of the measures employed; and
- for categorical exclusions, determine whether or not the level of NEPA conducted was appropriate.

If the FCC has not yet done so, the Department recommends that they invite federal land management agencies, and State and Tribal wildlife agencies to be cooperating agencies on a PEIS. This will ensure their regulatory and permitting needs are addressed, and will serve to reduce the time required to meet all the necessary requirements for industry.

### **Literature Cited**

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## Attachment 2

### **Brief History of U.S. Fish and Wildlife Service Involvement with Communication Towers and Migratory Birds**

In an effort to estimate the annual, lethal effects of communication towers on migratory birds, the Service published an estimate of 1.25 million birds deaths based on the effects of 505 “tall” towers existing in 1975 (Banks 1979). For unknown reasons, the Service discontinued publishing annual estimates of anthropocentric sources of mortality after 1979, including those from communication towers. In early 1998, a large kill of > 10,000 Lapland Longspurs, Meadow Larks, and other avian species occurred, with the carcasses retrieved beneath 3 communication towers and a lighted natural gas pumping facility in western Kansas.

Several national NGOs immediately contacted the Division of Migratory Bird Management, U.S. Fish and Wildlife Service (DMBM) asking what they were going to do to address the Kansas mortality event. In late 1998, Service biologists met with a radar ornithologist in Panama City, Florida, resulting in the development of a risk model designed to begin addressing bird deaths at communication towers (Manville 2001a). In 1999, a public workshop was convened at Cornell University, New York, to begin synthesizing what was known about avian-tower collisions. Results of the workshop, co-facilitated by W. Evans (Old Bird Inc.) and A. Manville (DMBM) and attended by leading avian experts as well as the FCC, were published electronically (Manville 2000).

Later in 1999, a consortium of agencies and groups – including FCC, FAA, DOT, USDA/APHIS, USDA/FS, FWS, states, the industry, NGOs, leading academicians, and interested consultants, and others, facilitated by RESOLVE – met and created the Communication Tower Working Group (CTWG) whose purpose was to better understand the science behind bird collisions. The FWS was asked by participants of the CTWG to chair the group (A. Manville consented) and a Research Subcommittee was created (chaired by R. Beason), consisting of leading ornithologists and radar specialists involved in communication tower research. Following meetings in 1999 and 2000, the CTWG developed protocols for conducting pilot studies; approved the framework for a nationwide monitoring study; and prioritized research needs for pilot studies on lighting attraction, behavior effects of lighting, dead bird searches, a critique for dangerous towers, and Geographic Information System needs. A proposal was submitted by members of the CTWG to one of the participating industry trade associations to fund a \$15 million, nationwide cumulative impacts monitoring study to better assess the effects to migratory birds of 250 towers stratified randomly nationwide. Unfortunately, no funding was ever garnered for this cumulative effects analysis.

Three pilot studies were peer-reviewed by members of the Ornithological Council of which one on lighting was funded and implemented beginning in the spring 2003. This study on  $n=24$  predominately Michigan State Police communication towers resulted in definitive findings about impacts of steady-burning red, L-810 lights – whose elimination (but still with red-blinking or red strobes operating) decreased mortality up to 71% at some experimental towers (Gehring et al. 2006, 2009). The study further provided evidence of the effects of tall towers on migratory birds

(Gehring et al. *J. Wildlife Management*, in press). The CTWG last met in 2005 updating research developments and the latest information on avian vision.

In 2000, DMBM contracted with P. Kerlinger (Curry & Kerlinger LLC) to update the public on the current available global literature regarding avian-communication tower collisions and studies. The Service released voluntary communication tower guidance for use by industry in September 2000. Updates to that guidance are awaiting changes in lighting standards by the FAA (updating their 2007 lighting circular to eliminate L-810 lighting) and any rulemaking decisions by FCC in regard to communication towers and migratory birds (details recommended by the Service to FCC in 2007 (Manville 2007)). Meanwhile, in efforts to update the Banks (1979) tower mortality estimate, Evans (1998) re-assessed mortality based on the increased number of towers to 2-4 million bird deaths per year, while Manville (2001a and 200b) further estimated mortality at 4-5 million bird deaths per year. In 2001, the first West-coast tower mortality study was conducted by Richland Towers in Sacramento, California, and a 3-year study on cellular towers in Coconino National Forest, Arizona, was conducted by the U.S. Forest Service based on study protocols developed by Derby et al. (2002) and Manville (2002).

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### Attachment 3

#### Additional Tower Collision Mortality Literature

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## Attachment 4

### **Examples of Information from Partners In Flight North American Landbird Conservation Plan on USFWS Birds of Conservation Concern (2008), documented in tower kills.**

Due to the degree of uncertainty regarding estimates for bird populations and trends, as well as the uncertainties regarding the effects of climate change, the information from the sources below should be used in a more qualitative than quantitative fashion. For example, a Continental population objective for an increase of 100% for a species should be taken as an indication that adverse effects to that species are more significant than to a species for which the objective is to maintain the population.

#### **A - Watch List Species having multiple causes for concern across entire range**

Species in this category in the Landbird Plan have a combination of small population, narrow distribution, high threats, and declining population trends. These species are of highest continental concern and should be afforded priority for conservation action at national and international scales.

*Golden-winged warbler* — Continental population objective is to increase by 100%; Bird of Conservation Concern in USFWS Regions 3, 4, and 5.

#### **Eastern Avifaunal Biome with Global Stewardship Responsibility**

*Henslow's sparrow* — Continental population objective is to increase by 100%; Eastern Avifaunal Biome supports 35% of the breeding population and 83% of the winter population; Bird of Conservation Concern in USFWS Regions 3, 4, 5, and 6.

*Bachman's sparrow* — Continental population objective is to increase by 100%; Eastern Avifaunal Biome supports 100% of the breeding population and 100% of the winter population; Bird of Conservation Concern in USFWS Regions 2, 3, and 4.

#### **B - Watch List Species that are moderately abundant or widespread with declines or high threats**

These species are on the Watch List primarily because they are declining and/or threatened throughout their ranges, although they remain fairly widespread or have moderately large populations. Many of these species may still number in the millions (e.g., Dickcissel, Wood Thrush), but their futures are threatened by serious reductions in population or geographic range.

#### **Eastern Avifaunal Biome with Global Stewardship Responsibility**

*Kentucky warbler* — Continental population objective is to increase by 50%; Eastern Avifaunal Biome supports 98% of the breeding population; Bird of Conservation Concern in USFWS Regions 3, 4, and 5.

*Cerulean warbler* — Continental population objective is to increase by 100%; Eastern Avifaunal Biome supports 97% of the breeding population; Bird of Conservation Concern in USFWS Regions 2, 3, 4, and 5.

*Prairie warbler* - Continental population objective is to increase by 50%; Eastern Avifaunal Biome supports 99% of the breeding population and 26% of the winter population; Bird of Conservation Concern in USFWS Regions 2, 3, 4, and 5.

*Prothonotary warbler* — Continental population objective is to increase by 50%; Eastern Avifaunal Biome supports 98% of the breeding population; Bird of Conservation Concern in USFWS Regions 2 and 4.

### **C - Watch List Species with restricted distribution or low population sizes**

Some (42) species are on the Watch List because they are restricted to a small range or have small global populations (often both). Species with small populations and restricted ranges are particularly vulnerable to relatively minor changes from current conditions, whether or not their populations are currently in decline.

*Swainson's warbler* — Continental objective is to maintain the population; Eastern Avifaunal Biome supports 99% of the breeding population; Bird of Conservation Concern in USFWS Regions 2, 3, 4, and 5.

### **Other Birds of Conservation Concern with documented tower kills**

Some species not included in the Landbird Plan, but included on the Birds of Conservation Concern (2008) list, or other lists of regionally important species, may have developing problems at broader scales.

*Golden-winged Warbler* - Bird of Conservation Concern in USFWS Regions 3, 4, and 5.

*Baird's Sparrow* - Bird of Conservation Concern in USFWS Regions 2 and 6.

*Sedge Wren* - Bird of Conservation Concern in USFWS Regions 2, 4, and 5.

*Common Yellowthroat* - Bird of Conservation Concern in USFWS Region 8.

*Bewick's wren* – Bird of Conservation Concern in USFWS Regions 3, 4, 5, and 6.