

**Testimony of Albert M. Manville, II, Ph.D., C.W. B., and Principal, Wildlife and Habitat Conservation Solutions, LLC, on Behalf of Friends of Amazon Creek, Before the City of Eugene City Planning Department in Opposition to AT&T/Crossfire's Application for a "Stealth" Cellular Communications Tower in the Upper Amazon Creek Corridor**

Re: CUP 14-003, please enter into the record.

Date: May 6, 2015

Introduction

I will make a strong case that the approval, placement and operation of a 75-ft "stealth" artificial evergreen tree, cellular (cell) communication tower in the center of the upper Amazon Creek corridor, Eugene, Oregon is inappropriate and incompatible with the City of Eugene's designation of the area as a protected nature area. The specific proposed tower location is at 4060 West Amazon Drive, situated on residentially zoned property owned by Crossfire Ministries. Approving this tower is not in the public and taxpayers' best interest, and will likely harm wildlife and wildlife habitat. In particular, of the more than 300 bird species observed in the Eugene area, potential harm to 7 already designated Birds of Conservation Concern (BCC; USFWS 2008) has troubling implications. The Federal Communications Commission (FCC) does not mandate 100% cell phone coverage and there is no provision under the 1996 Telecommunications Act (TCA) for such a requirement (Manville 2001, as discussed at the conference in the Levitt 2001 Proceedings). There are alternatives to building this structure, including in more developed areas that contain degraded habitats, collocated on another existing antenna structure, and away from habitat critically important to birds and other wildlife. All are preferable alternatives — discussed beyond.

I will assert that the City Ordinance No. 9.5750, "Telecommunication Devices — Siting Requirements and Procedures," is an inadequate document to be solely used by the City of Eugene's Planning Department to assess, approve or deny this AT&T/Crossfire cell tower permit application. While there is a growing database on effects of cell tower radiation to human health and safety which are prevented from introduction into testimony by Section 704 of the TCA, my focus in this testimony is on impacts from collisions and radiation to wildlife, specifically migratory birds — which represent environmental damage not addressed by Section 704.

Regarding impacts to wildlife, not only must the City of Eugene consider current FCC rules and regulations for licensing this cell tower, they must also consider the court ordered findings from the 2008 American Bird Conservancy et al. v. FCC lawsuit, which FCC lost on appeal in the Federal Court of Appeals for the District of Columbia Circuit. These include considerations under the Migratory Bird Treaty Act (MBTA) for impacts to protected migratory birds (above and beyond issues pertaining to the Endangered Species Act [ESA]), as well as compliance under the National Environmental Policy Act (NEPA) and its regulations. NEPA review includes opportunities for public review, comment, request for preparation of an Environmental Assessment (EA), and even litigation.

Additionally, and the focus of this testimony, are the rules and regulations implemented by the U.S. Fish and Wildlife Service (herein USFWS or Service) under the MBTA, and the Bald and Golden Eagle Protection Act (BGEPA), both which are strict liability, criminal statutes.

Lastly, the growing documented effects of low level, non-ionizing electromagnetic radiation which will be transmitted from and received by this tower are of growing concern to wildlife, including “take.” FCC’s current radiation standards are based solely on thermal heating, a standard 30 years out of date and inapplicable based on laboratory and field research on birds (and other animals) published in refereed scientific journals (summarized below), not to mention numerous other credible scientific findings (e.g., Panagopoulos and Margaritis 2008).

While FCC continues to fail to address low level impacts from non-ionizing radiation, the U.S. Department of Commerce’s National Telecommunications and Information Administration (NTIA) and its First Responder Network Authority (FirstNet) reacted positively to a letter sent from the Department of Interior to NTIA on February 7, 2014 (USDOJ 2014) — Enclosure A in that letter which I authored. FirstNet is building, operating and maintaining the first high-speed, nationwide wireless broadband network dedicated to public safety. FirstNet plans to systematically review the impacts of their nationwide broadcast network from injury, crippling loss and death to migratory birds from collisions with communication towers, and will begin addressing impacts from non-ionizing electromagnetic radiation emitted from them. Unlike the FCC which continues to deny effects from non-ionizing radiation, NTIA is acknowledging and addressing them through a systematic NEPA review process.

This complex situation and conflicting rules and regulations clearly suggest that members of the City Planning Department review each issue individually, but overall assess them collectively.

### Summary of My Training and Experience

I worked as a federal wildlife biologist for 17 years, retiring in June 2014 from my position as a Senior Wildlife Biologist with the Division of Migratory Bird Management, USFWS, Headquarters Office, Arlington, VA. I was the Service’s national lead on issues related to anthropogenic causes of bird mortality, including from communication towers. In that capacity, I chaired the Communication Tower Working Group (looking at both avian-tower collisions and avian-radiation impacts), working closely with the FCC, Federal Aviation Administration, other federal agencies, all the large tower and cell phone trade associations, several cell phone companies, scientists, academicians, and consultants. I was the USFWS project officer for the cutting edge tower lighting study at Michigan State Police communication towers (Gehring et al. 2009, Gehring et al. 2011), served as the project officer for a U.S. Coast Guard tall communication tower study, developed a cell tower research monitoring protocol for the U.S. Forest Service (Manville 2002), developed a peer-reviewed cell tower radiation monitoring protocol, and represented USFWS as lead reviewer on many communication tower projects from cell towers to tall, digital television towers.

I earned a B.S. in zoology from Allegheny College, Meadville, PA. Following a 4-year stint in the U.S. Navy where I was trained by the Department of State as a Mandarin Chinese linguist and interpreter working at the National Security Agency (including training on the use of

communication devices and equipment), I completed an M.S. in natural resources and wildlife management from the University of Wisconsin, Stevens Point, and earned a Ph.D. at Michigan State University in wildlife ecology and management. More recently, I was designated as a “Certified Wildlife Biologist” (C.W.B.) by The Wildlife Society.

I have served on the Board of Managers of the Washington Biologists’ Field Club, and was nominated for membership in the Cosmos Club. I also am a member of numerous professional societies. Additionally, I served on the Steering Committee of the Endangered Species Coalition before being offered a branch chief’s position in 1997 with the Division of Migratory Bird Management. In 1999, I received the Conservation Service Award from the Secretary of Interior for bird conservation efforts with the electric utility industry.

I have testified over 40 times before Congress and other governmental bodies in regard to environmental issues and conducted numerous research efforts globally. I have published more than 175 professional and popular papers, chapters, and book reviews, and given more than 160 invited public presentations. I served on the Editorial Advisory Board of the *Nature Conservancy Magazine*, was the wildlife consultant for the Walt Disney/Touchstone Pictures production of the movie *White Fang* (based on Jack London’s book), and I have conducted hundreds of radio and television interviews, and been extensively quoted in the print media. I have held teaching positions at Michigan State University, George Mason University, and the USDA Graduate School Evening Programs, and I currently (since 2000) am an Adjunct Professor for Johns Hopkins University’s Krieger School of Arts and Sciences, DC campus, teaching graduate classes in wildlife ecology, and conservation biology and wildlife management. In October 2014, I created a limited liability company certified by the Commonwealth of Virginia State Corporation Commission. The LLC is named, *Wildlife and Habitat Conservation Solutions LLC*.

### Why Are Migratory Birds Important?

#### *Migratory Birds:*

Migratory birds — i.e., those that migrate across U.S., Canadian and/or Mexican borders, of which 1,027 species are currently protected in the United States (50 C.F.R. 10.13 list), are a public trust resource, meaning they belong to everyone. Almost all North American continental birds are protected by the MBTA. The Act implements and regulates bilateral protocols with Canada, Mexico, Japan and Russia. It is a strict liability statute; proof of criminal intent in the injury or killing of birds is not required by authorities for cases to be made.

The statute and its regulations protect migratory birds, their parts, eggs, feathers and nests from un-permitted possession and “take” (i.e., un-permitted injury, crippling loss, or killing). Migratory bird nests are protected during the breeding season while eagle nests are protected year-round. Efforts are currently underway by USFWS to develop a permit where un-permitted “take” could be allowed under MBTA; that process began in 2001. A Federal permit is required to possess a migratory bird and its parts, but the MBTA currently provides *no* provision for the accidental or incidental “take” (causing injury, crippling loss, or death) of a protected migratory bird, even when otherwise normal, legal business practices or personal activities are involved, such as the operation of an AT&T/Crossfire cell tower that results in bird injuries and/or deaths.

The U.S. Congress noted the “take” of even one protected migratory bird to be a violation of the Statute, with fines and criminal penalties that can be extensive.

Eagles:

Bald and Golden Eagles are also protected by the BGEPA, another strict liability statute. “Take” under BGEPA is more expansive than under MBTA, and includes pursuit, shooting, poisoning, capturing, killing, trapping, collecting, molesting and disturbing both species (50 C.F.R. 22.3). It is important to note that eagles do not simply need to be killed or injured to be in violation of the Eagle Act. Un-permitted disturbance such as noise from AT&T’s tower construction or tower maintenance could disturb Bald Eagles. Example: An adult breeding pair of Bald Eagles is documented as nesting at Skinner Butte (*Eugene Register Guard*, 4/22/15) and may forage in the upper Amazon Creek corridor. “Disturbance take” could result in reduced survivorship of adults, juveniles and chicks, affecting their population viability. These are potential criminal offenses. While USFWS does not generally require that companies such as AT&T possess eagle “take” permits, without them, “disturbance take” and “take resulting in mortality” (50 C.F.R. 22.26), and for “take of nests” (50 C.F.R. 22.27) are potential criminal offenses.

Status of Migratory Birds:

Migratory birds are in trouble, including impacts from individual structures such as ATT’s proposed cell tower which cumulatively can have huge impacts to bird populations. There are growing numbers of Birds of Conservation Concern (BCCs; USFWS 2008) — species in decline but not yet ready for federal listing as threatened or endangered under ESA. Currently there are 273 species (out of 1,027 protected birds) and subspecies on the national BCC, Service Regional BCC and Bird Conservation Region BCC lists, providing an early warning of likely peril unless the population trends are reversed. At least 7 BCCs may be present in the Amazon Creek corridor (discussed below).

Additionally, there are 92 endangered and threatened bird species on the ESA List of Threatened and Endangered Species. Collectively, BCC and ESA-listed birds represent at least 366 bird species (36%) in decline — some seriously — with numbers of both listed and BCC species growing (Manville 2013a). Additionally, the USFWS is also tasked to maintain stable or increasing breeding populations of Bald and Golden Eagles under implementing regulations of BGEPA and compliance with NEPA — including for cell towers. As noted above, at least 1 breeding pair of Bald Eagles is nesting at nearby Skinner Butte, and could be impacted by the proposed tower either through collision with its metal branches while foraging in the upper Amazon Creek area, or by its radiation should they establish a nest in the tower itself or nest nearby.

Birds are critically important to us all, providing key ecosystem services that fuel a multi-billion dollar industry through pollination, insect and weed-seed control efforts in the agribusiness and forest products industries. Without migratory birds, there would be untold additional problems requiring more pesticide, herbicide, and other chemical use. Feeding, photographing, and watching migratory birds — popular activities that draw residents from all around Eugene to the Amazon Creek nature area — also fuels a \$32 billion/yr recreation industry in the U.S., representing an estimated 20% of the U.S. adult population involved in these endeavors. It is asserted that more adults in the U.S. feed, photograph and watch birds than play golf (Carter

2013, [MountainNature.com](http://MountainNature.com) 2015). Bird watching in the Amazon Creek corridor represents one of many opportunities for the public to become involved with nature ([FriendsofAmazonCreek.org](http://FriendsofAmazonCreek.org)). For example, the Edison Elementary School's River Spies Program ([riverspies.blogspot.com](http://riverspies.blogspot.com)) recently had young children directly engaged in a bird survey in the corridor. This proposed cell tower is out of character with the public's interest and these recreational endeavors.

### Impacts of Collisions and Radiation to Migratory Birds from Communication Towers

#### Collisions:

Migratory birds have been documented killed in single night, mass mortality collision events with communication towers, guy-support wires, and tower lights in the U. S. since 1948 — (Aronoff 1949, summarized in Manville 2007) — including at unguyed, unlit, < 200-ft above-ground-level (AGL) cell towers like AT&T's proposed tower. For example, in October 2005, W. Evans reported hundreds of migratory birds documented killed by collisions with short, unguyed and unlit cell towers in the Northeast, sometimes in significant numbers of hundreds of birds/cell tower/night (e.g., W. Evans cited in Manville 2007). While the probability of high levels of collisions with AT&T's proposed tower is small given its valley location and modest height, collision mortality or injury — especially with the rigid metal branches of the stealth tower while navigating through the neighborhood in inclement weather — is certainly likely.

During nighttime navigation, birds can be overwhelmed by inclement weather events, forcing bird fall-out, significant reductions in flight heights, and resultant confusion in identifying safe structures (Manville 2014a). Currently an estimated 6.8 million birds/yr are killed in the U.S. and Canada (Longcore et al. 2012). The vast majority of these bird deaths are in the U.S. In another review, at least 13 species of BCCs were estimated to suffer annual mortality of 1-9% of their estimated total population based solely on tower and tower structure collisions in the U.S. or Canada (Longcore et al. 2013). These include estimated annual mortality of > 2% for the Yellow Rail (a BCC species possibly present but scarce in Eugene in the summer and on the National BCC list), Swainson's Warbler, Pied-bill Grebe (a BCC possibly present in Eugene but scarce and on the BCC Regional list), Bay-breasted Warbler, Golden-winged Warbler, Worm-eating Warbler, Prairie Warbler, and Ovenbird. Up to 350 species of birds have been documented killed at communication towers (Manville 2014a). Each time more birds are injured or killed at individual communication towers such as that proposed by AT&T, these "takings" add to the overall impacts to bird populations not unlike the phenomenon of the "death by a thousand cuts."

More than 300 species of migratory birds have been recorded in the Eugene area (Welcome to Birding Eugene 2015). Of these — in addition to the Yellow Rail and Pied-billed Grebe mentioned above — at least 5 additional BCC species are designated on the USFWS's (2008:23) Bird Conservation Region (BCR) 4, Northwestern Interior Forest U.S. BCC list. These include the Horned Grebe, Peregrine Falcon (previously ESA delisted), Lesser Yellowlegs, Short-billed Dowitcher, and Olive-sided Flycatcher. Since these species are already in decline and in trouble, potential impacts from AT&T's proposed tower *could* further negatively affect them. By not building that tower in a sensitive natural area that attracts such birds, potential risk is reduced.

#### Radiation:

Not until recently have the effects of low-level, non-thermal electromagnetic radiation on domestic and wild birds been made public. For example, laboratory studies by T. Litovitz (2000 pers. comm.) and DiCarlo et al. (2002) from the standard 915 MHz cell phone frequency on domestic chicken embryos showed that radiation from extremely low levels (0.0001 the level emitted by the average digital cell phone) caused heart attacks and deaths in some embryos; controls were unaffected (DiCarlo et al. 2002). However, the effects of microwave (and other) radiation from communication towers on nesting and roosting wild birds are yet unstudied in the U.S. In Europe, impacts have been well documented. Balmori (2005) found strong negative correlations between levels of tower-emitted microwave radiation and bird breeding, nesting, and roosting in the vicinity of electromagnetic fields in Spain. He documented nest and site abandonment, plumage deterioration, locomotion problems, and death in House Sparrows, White Storks, Rock Doves, Magpies, Collared Doves, and other species. While these species had historically been documented to roost and nest in these areas, Balmori (2005) did not observe these symptoms prior to construction of the cellular phone towers. Balmori and Hallberg (2007) and Everaert and Bauwens (2007) found similar strong negative correlations among male House Sparrows.

The electromagnetic radiation standards used by the FCC continue to be based on thermal heating, a criterion now 30 years out of date and inapplicable today. This is primarily due to the lower levels of radiation output from microwave-powered communication devices such as cellular telephones and their cell towers, Wi-Fi, so called “smart meters,” and other sources of point-to-point communications; levels typically lower than from microwave ovens. FCC, to date, has been unwilling to update their regulatory standards.

In February 2014, the Director of the Department of Interior’s Office of Environmental Policy and Compliance sent a letter to the U.S. Commerce Department’s NTIA suggesting regulatory compliance by its FirstNet, a newly created entity, implementing development of emergency broadcast systems nationwide (USDOJ 2014). Included in those recommendations are inadequacies which NTIA has acknowledged and is now proceeding to address. These included inadequacies for conserving migratory birds in Enclosure A which I authored while working for the Division of Migratory Bird Management, USFWS. In it, I provided recommendations for addressing bird injury, crippling loss, and death from communication tower and metal branch collisions; and research needs for beginning to address impacts from non-ionizing electromagnetic radiation emitted from such towers.

Given the findings of the studies mentioned above, and an extensive meta-review of the published studies by Panagopoulos and Margaritis (2008), field studies should be conducted in the U.S. by third-party, independent research entities with no vested interest in the outcomes to validate potential impacts of communication tower radiation — both direct and indirect — to birds and other animals. However, to date, these have yet to be performed. Rather than building the Crossfire tower, AT&T should fund an independent radiation study in the U.S. I have already developed a preliminary study protocol.

#### Amazon Creek Corridor and AT&T/Crossfire’s Proposed Stealth Cell Tower

Until recently, companies such as AT&T applying for broadcast licenses through the FCC would normally have requested a “categorical exclusion” for review of a license application such as for

this proposed Crossfire tower (i.e., FCC Environmental Compliance regulation, Section 106 National Historic Preservation Act process). Only where a federally-listed migratory bird (Section 4, ESA) and/or its “critical habitat” (Section 3, ESA) were present at or near the tower site would environmental review have been required under FCC regulations. Otherwise, environmental review and public input would likely have been excluded. That situation is now changing.

It is true that City and state governments have been constrained in some ways by Section 704 of the Telecommunications Act of 1996. Although Section 704 states that new tower construction requires approval of the state or local governing authority (e.g., City of Eugene), it clarifies that local zoning authority may be preempted by FCC. However, new develops may arguably have changed this situation. Case law in 2 municipal cases have resulted in towns being able to supersede Section 704 provisions and deny cell tower permit approval. In *Sprint Spectrum v. Willoth*, Docket 98-7442, U.S. Court of Appeals 2nd Circuit, 1999, Sprint challenged the Planning Board of the Town of Ontario, New York, over their rejection of permits for several cell towers. Ontario, NY, prevailed. In *Verizon Wireless v. Clarkstown, NY*, Southern District of New York, 00 Cir. 3029 (CM), 2000, the court denied plaintiff’s claim that the town of Clarkstown had violated TCA by denying cell tower permit approval, and dismissed all claims against Clarkstown.

Due to the lawsuit by *The American Bird Conservancy et al. v. FCC* which the Commission lost on appeal (516 F.3d; D.C. Cir. 2008; *American Bird Conservancy*), effects of communication towers to migratory birds must now be included as part of the court ordered review process, and the public must be provided a meaningful opportunity to request an EA under NEPA for proposed towers that FCC considers “categorically excluded.” While the FCC’s interim rulemaking focused initially on tall (i.e., those  $\geq$  450 ft AGL) towers, that height limit has been discarded and the December 2011 statement by FCC Commissioner Michael J. Copps in regard to the order of remand (FCC 11-181) is telling. In the *Matter of Effects of Communication Towers on Migratory Birds*, WT Docket No. 03-187, Order of Remand, Commissioner Copps stated, “*Today, at long last, the Commission has responded to the DC Circuit’s rebuke to our previous rules that fell short of meeting our responsibilities under the National Environmental Policy Act, the Endangered Species Act, and the Migratory Bird Treaty Act. While I am disappointed it has taken nearly four years to respond to the court, I am encouraged these interim rules will give more parties greater opportunity to register their concerns about migratory birds when a tower goes up...*”

Summarizing FCC’s current position, the Commission must now address impacts to migratory birds in addition to any avian-ESA issues. As such, AT&T — whose frequencies are licensed by FCC — cannot ignore migratory bird issues including adjacent bird concentrations in the Amazon Creek area and adjacent Park areas; possible “take” from collisions with the metal, stealth tower arms; impacts of non-ionizing tower radiation on breeding, roosting, and feeding birds; Bald Eagles which could be disturbed or otherwise impacted by tower construction; and USFWS updated 2013 voluntary communication tower siting, placement, operation and decommissioning guidance (Manville 2013b). Before I retired from USFWS, I updated the Service’s voluntary 2000 communication tower guidance which I had previously co-authored, sharing the updates with the FCC (Manville 2013b).

It is also important to note that if the City of Eugene's Planning Department were to approve the AT&T/Crossfire permit application, and "take" from this tower were to occur, there could be potential culpability for both the City and AT&T. First, the "take" would be un-permitted. USFWS does not currently issue incidental take permits for accidental/incidental injuries or deaths. Instead, the agency recommends that towers be collocated on other existing structures; be built in already heavily developed areas with already degraded wildlife habitats; and that natural habitats important to birds and other wildlife be avoided. Implementing these efforts will minimize potential "take" as a consequence.

To understand how agents with the Service's Office of Law Enforcement and prosecuting environmental attorneys with the Department of Justice make and prosecute cases respectively, I quote from a power line manual (APLIC 2006) an explanation of how prosecution generally works. As the Service has previously stated (e.g., APLIC 2006:21), *"although the MBTA ha[s] no provision for allowing take, the USFWS realizes that some birds will be killed even if all reasonable measures to avoid it are used. The USFWS Office of Law Enforcement [OLE] carries out its mission to protect migratory birds through investigations and enforcement, as well as by fostering relationships with individuals, companies, and industries that have programs to minimize their impacts on migratory birds. Since a take cannot be authorized, it is not possible to absolve individuals, companies, or agencies from liability even if they implement avian mortality avoidance or similar conservation measures. However, the OLE does have enforcement discretion and focuses on those individuals, companies, or agencies that take migratory birds without regard for their actions and the law, especially when conservation measures had been developed but had not been implemented."*

Clearly, the Service's 2000 voluntary communication tower guidance and the same guidance I updated and provided to FCC in 2013 (Manville 2013b) have "conservation measures" which USFWS has recommended be implemented. While I am no longer a federal employee, I do as a private citizen continue to recommend that AT&T and the City of Eugene implement these guidelines. Recapping, these include collocating on another antenna structure, selecting a more environmentally benign site, building in a more degraded habitat, and avoiding wetlands.

Due to the proximity of the proposed tower to the Amazon Creek nature area, killing or injuring migratory birds would be incompatible with the purpose and intent of this City in designating the special status of this area. This is an important migration corridor for many species of songbirds, is likely used by the 2 BCC waterbirds mentioned above, and provides habitat protection and natural resource conservation as important tenets of this part of the Eugene parks system. In addition, millions of taxpayer dollars have been spent to create and maintain this green space and wildlife corridor (T. Taylor, Supervisor, Eugene Parks & Open Space Division public presentation). Construction of the tower is out of character and incompatible with the purpose and intent of this protected nature area. It will almost certainly create environmental damage not addressed through Section 704 of the Telecommunications Act, and because federal funds were in part used to develop and upgrade the Amazon Creek corridor, a federal "nexus" may have resulted. This nexus allows the public through the NEPA process to review, comment, testify, request an EA, and even litigate due to this funding situation since the area would be affected by the tower.

## Conclusions and Recommendations

While the proposed AT&T/Crossfire cell tower is of modest height (75 ft AGL) and will be constructed in a cryptic, stealth-like design mimicking a pine tree, ostensibly to draw little human notice and conceal its identity from the public, I am unaware of any evidence to show that such design is any less attractive to migratory birds seeking nesting or roosting structures. Furthermore, although un-guyed and unlit, migratory birds still have been documented killed by collisions with monopole and lattice towers, sometimes in significant numbers of hundreds of birds/cell tower/night (e.g., W. Evans cited in Manville 2007). Adjacent lighting from streetlights could, for example, result in significant bird attraction and collisions with rigid metal branches during inclement weather events.

The effects of low level radiation are also growing concerns. While FCC has yet to recognize them, NTIA has. The effects of radiation from studies conducted in Europe are troubling. The situation provides an opportunity for AT&T to fund an independent, third-party study to better understand the impacts of telecommunication structures on migratory birds and other species.

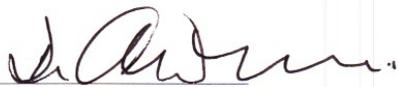
Summarizing, based on my previous review and analysis, here are the issues I recommend the City of Eugene Planning Department consider in addressing AT&T's Crossfire tower application:

- Is this cell tower necessary?
- The collision and RF safety of this proposed tower to migratory birds must be evaluated. Cell towers, including short stealth designs such as this one, are not benign structures.
- The potential environmental effects of this proposed tower to birds, and impacts on the Amazon Creek habitat area, must be assessed. This review not only includes City Ordinance No. 9.5750, but FCC rules and regulations (Section 106 NHPA), FCC court-ordered determinations and other recent case law, environmental damage that will be created other than what is addressed by Section 704 of the TCA (which deals only with human health, not environmental damage), existing regulations under the MBTA (which contains no incidental "take" provisions), and impacts due to potential violations of regulations under BGEPA, ESA and NEPA review processes.
- Is there potential culpability to the City of Eugene if the tower application is approved and "take" subsequently occurs?
- An assessment should be made of the 7 BCCs including validation that the Yellow Rail, Pied-bill Grebe, Horned Grebe, Peregrine Falcon, Lesser Yellowlegs, Short-billed Dowitcher, and Olive-sided Flycatcher may be present in the corridor and could be negatively affected if they are present.
- A recognition of potential "disturbance take" of Bald Eagles.
- There is a conundrum between FCC's outdated radiation standards based on thermal heating and NTIA's recognition that low level, non-ionizing radiation can affect migratory birds, and is being addressed through NEPA review. However, until independent research can be conducted and results analyzed, no recommendations can yet be provided on this issue — other than to proceed using the precautionary approach and to keep emissions as low as reasonably achievable.

- Use updated, 2013 USFWS voluntary communication tower guidelines, most especially including “conservation measures” which will minimize migratory bird “take” — i.e., collocation, selecting other existing degraded and developed sites, and avoiding designated natural habitat areas.
- Assess the overall compatibility of this proposed tower with the purposes, intents, public concerns and taxpayer-funded efforts involved with maintaining the Amazon Creek corridor natural area.

In conclusion, on behalf of Friends of Amazon Creek, I recommend that the City of Eugene Planning Department reject this particular cell tower application.

Respectfully submitted,



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