



AVIAN AND BAT PROTECTION PLAN

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TABLE OF CONTENTS

1. INTRODUCTION	4
1.1. PURPOSE OF THE DOCUMENT	5
1.2. USE OF THE DOCUMENT	6
1.3. STRUCTURE OF THE DOCUMENT	6
2. AENA'S ENVIRONMENTAL COMMITMENT	6
3. REGULATORY REQUIREMENTS	7
3.1. CANADA	7
3.1.1. Migratory Birds Convention Act	7
3.1.2. Species at Risk Act	8
3.1.3. Canadian Environmental Assessment Act	8
3.2. FEDERAL – U.S.	10
3.2.1. Endangered Species Act	10
Section 7(a)(2) Requirements	10
Section 7(a)(2) Compliance	10
Section 9 Requirements	12
<i>Incidental Take Statements</i>	14
<i>Habitat Conservation Plans and Incidental Take Permits</i>	14
<i>General Conservation Plans</i>	14
<i>Safe Harbor Agreements</i>	15
<i>Candidate Conservation Agreements</i>	15
<i>Conservation Agreements and Memoranda of Understanding</i>	16
<i>Conservation Banking</i>	16
<i>Bird Letters</i>	16
3.2.2. Migratory Bird Treaty Act	17
3.2.3. Liability Avoidance and Mitigation under the Migratory Bird Treaty Act	18
<i>Bird Letters and Avian and Bat Protection Plans</i>	18
3.2.4. Bald and Golden Eagle Protection Act	19
3.2.5. Liability Avoidance and Mitigation under the Bald and Golden Eagle Protection Act	21
<i>Special and Incidental Take Permits</i>	21
4. D-PROCESS AND THE TIERED APPROACH TO DEVELOPMENT	21
4.1. PURPOSE –	21
4.2. COORDINATION AND IMPLEMENTATION OF TIERED PROCESS	23
4.3. SITING CONSIDERATIONS ADDRESSED IN THE TIERED PROCESS	23
4.3.1. Tier I – Desktop Preliminary Evaluation or Screening of Potential Sites	23
4.3.2. Tier II – Field Validation and/or Tier I Verification	24
4.3.3. Tier III - Field Studies to Document Site Environmental Conditions and Predict Project Impacts	25
4.3.4. Tier IV - Post-Construction Monitoring Studies	25
5. REPORTING	26
5.1. PRE-CONSTRUCTION	26

5.2. CONSTRUCTION	26
5.3. POST-CONSTRUCTION/OPERATIONS	27
6. ADAPTIVE MANAGEMENT	27
6.1. MORTALITY REDUCTION AND CONSERVATION MEASURES	28
6.2. ENHANCEMENT OPTIONS	29
Canada	29
U.S.	29
7. TRAINING	29
7.1. PRE-CONSTRUCTION	29
7.2. CONSTRUCTION	30
7.3. POST-CONSTRUCTION/OPERATIONS	30
8. QUALITY ASSURANCE / QUALITY CONTROL (QA/QC)	30
8.1. ABPP PROCEDURAL REVIEW AND UPDATES	30
8.2. ORGANIZATIONAL CHART AND PROCESS DIAGRAM.....	30
8.3. COMPLIANCE	31
9. PUBLIC AWARENESS AND OUTREACH –	31
OUTLINE & EXECUTION STRATEGY	31
10. REFERENCES	32

APPENDICES

- Appendix A State Wind Development Guidelines – U.S.
- Appendix B Canada Wind Development Guidelines – Federal & Provincial
- Appendix C Species-specific Enhancement Options
- Appendix D Internal Operations Training – example
- Appendix E Resources

1. INTRODUCTION

Since the early 1970's avian mortality from power lines has been a growing concern for state wildlife management agencies, special interest groups, and the U.S. Fish and Wildlife Service (USFWS). The overriding concern was in the violation of the Migratory Bird Treaty Act that occurred each year from activities performed by the electrical utility companies that resulted in killing protected birds. The main activity was the construction and operation of transmission and distribution lines that were prone, by design, to electrocute perching birds and pose a risk for bird collisions. "In the 1970s, USFWS began work with National Audubon Society, several utilities, various federal agencies, the Edison Electric Institute, and the Electric Power Research Institute to begin addressing Whooping Crane collisions and eagle electrocutions at power lines. In 1975, the first Suggested Practices electrocution avoidance document was published, followed by a more detailed update in 1981. In 1989 the electric utility industry and the USFWS formally collaborated to address the issues of avian electrocution and collision mortality that were occurring from electrical transmission and distribution systems. The result of this collaboration was the formation of the Avian Power Line Interaction Committee (APLIC) and the development of Avian Protection Plans (APP). The work accomplished by APLIC and the USFWS resulted in the identification, monitoring, and reduction in avian electrocution and collision.

In 1996 the concept and foundation for development of APPs were first introduced in the Suggested Practices for Raptor Protection, followed with development of an APP for Moon Lake Electric Association in 1999. Several other APPs have been subsequently developed and implemented, and numerous others are under development or being finalized. The concept of the APP is one that establishes an institutional foundation and commitment to identify and address known causes of mortality that occur from performing required business-related activities. Although these activities may be necessary for operation and are permissible, they may result in mortality that is in violation of federal law and subject to prosecution or project suspension. In September 2009, USFWS released new rules that] would permit the "take" of Bald and Golden Eagles by disturbance and "take resulting in mortality" TRM. The new 50 CFR 22.26 would authorize limited take of Bald and Golden Eagles where the taking is associated with, but not the purpose of an activity, and cannot practicably be avoided. The new 50 CFR 22.27 would provide for intentional take of eagle nests where it is necessary to alleviate a safety hazard to people or eagles, to ensure public health and safety, where a nest prevents use of a human-engineered structure, and where an activity or the mitigation for the activity will provide a net benefit to eagles. Only inactive nests will be allowed to be taken except in cases of safety emergencies. See pp. 18-19, Section 3.2.4 BGEPA for additional details. However, in the case of the Migratory Bird Treaty Act (MBTA) there are no provisions for the USFWS to allow the unpermitted "take" – including injury and killing – of 1,007 protected migratory birds.

Unpermitted take includes by “unintentional, incidental, or accidental” means and proof of intent is not required. The Act protects migratory birds and their parts including eggs, nests (eagle nests are protected year-round, other migratory bird nests only during the active nesting season), and their feathers. Federal permits are required to “possess” migratory birds and their parts, and for other purposes. Non-migratory species like Ruffed Grouse, Wild Turkey and exotic species like the European Starling, English Sparrow, Monk Parakeet, and Asian Pheasant are not protected by the Act. Although the MBTA and BGEPA have no provision for allowing unpermitted take, the USFWS realizes that some birds will be killed even if all reasonable measures to avoid it are used. By establishing a corporate Acciona ABPP and the articulated commitment to do business in a manner that addresses biological impacts, including all reasonable steps necessary to avoid or minimize take of avian species, the USFWS’s Office of Law Enforcement (OLE) will carry 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 unpermitted “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 investigative and 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 have been developed but have not been implemented.

As a result of AENA North America’s (AENA) commitment to sustainability and the desire to maintain the highest corporate standard by which wind energy is developed and produced we have taken the concept of the APP and augmented its usefulness. Using the strong and successful history of the APP concept, and combining it with impacts related to the operation of wind energy projects, we have designed the AENA Avian and Bat Protection Plan (ABPP). This document details principles that have been designed to provide guidance to AENA employees, transparency to agencies, and trust to special interest groups in how our company develops, constructs, and operates wind projects within the U.S. and Canada. Specifics of the principles of this document were developed by a team of AENA staff from development, construction, and operations. Sections of the document detail all aspects of how AENA will perform work to identify, monitor, reduce, and account for mortality of avian and bat species at all current and future wind farms operating in the U.S. and Canada.

1.1. Purpose of the Document

The purpose of the ABPP is to provide 5 important products:

1. Consistent and up-to-date direction to AENA staff in how to avoid, reduce and monitor avian and bat mortality;
2. Accountability of AENA to federal and state/provincial agencies;

3. Credibility of AENA to agencies, and special interests groups;
4. Improved efficiency in integration and follow-through on steps between development, construction, and operation of wind projects; and
5. A baseline of accepted and credible processes in addressing avian and bat mortality that will be maintained and grow through time and experience.

1.2 Use of the Document

The ABPP has been developed to be a desk reference of information on all aspects of avian and bat mortality assessment, reduction and reporting as it may occur from how AENA develops, constructs, and operates wind projects. All appropriate AENA staff should be aware of this resource and development, construction, and operations staff should have access to it for use when needed. All Vice Presidents should provide easy access of the ABPP to their staff, and Environmental Managers should ensure the broad distribution and use of the document within the Western, Central, Eastern and Canadian regions of North America. Making desk copies and internet versions of the ABPP available will increase the usability of the document and improve the overall success of its implementation in the field.

1.3 Structure of the Document

The ABPP sections are structured in tabbed form in order to be a referenced quickly and augmented when necessary. The ABPP is not a static document produced to meet any particular permitting needs. It is a dynamic document that will expand and change through time as science, policy, technology, and corporate philosophy reach higher and more informed levels or standards. The ABPP will guide the way of doing business in a manner that results in regulatory and public interest benefits as a byproduct of AENA corporate goals through the performance of our jobs.

2. AENA'S ENVIRONMENTAL COMMITMENT

AENA has taken its role in Pioneering Development and Sustainability to the core of its strategy. The company is dedicated to maintaining the highest levels of environmental responsibility while also increasing the company's bottom line. AENA has made a commitment to execute all of its projects with an emphasis on eco-efficiency and environmental accountability. The company makes sustainable development an integral part of its business strategy and operations, and AENA views this as a long-term investment in both its company and in our world.

As global energy markets continue to change, AENA is well positioned to assist its customers, and society at large, in solving the most pressing environmental issues. From concerns about global warming to unstable oil and gas markets, the need for clean and commercially viable

energy is at an all-time high. AENA's portfolio of clean energy technology is setting the precedent as demands on the world's energy markets continue to expand.

Renewable energy is an industry experiencing tremendous growth. AENA is leading the charge, with knowledge and experience, and developing new and varying technologies to improve the way energy is produced.

Fundamental principles across all AENA's activities include quality, respect for the environment and a commitment to excellence. This approach is defined in the following Principles for Action:

- Efficiency and excellence in internal management by applying a management system integrating economic, technical, environmental and social aspects, and more generally all aspects that contribute to sustainability;
- Consideration for the environmental effects of our activities through all stages of development in order to minimize environmental impact and promote responsible use of resources at all times;
- Monitoring and controlling our processes and activities using feedback indicators to collect information that helps us improve our products, services and management processes;
- Compliance with customer requirements to gain their satisfaction. We aim to meet client needs and expectations, and convey that we are not merely suppliers, but partners, operating at all times with absolute professionalism, ethics and transparency; and
- Collaboration with suppliers, creating relations based on trust, loyalty, transparency, mutual respect and reciprocity, promoting their involvement in questions of the environment, quality and occupational risk prevention for common processes.

3. REGULATORY REQUIREMENTS

3.1. CANADA

3.1.1. Migratory Birds Convention Act

The Migratory Birds Convention of 1916 is an international treaty implemented in Canada by the federal *Migratory Birds Convention Act, 1994* (MBCA) and accompanying regulations. The MBCA (Section 5) prohibits any person to possess a migratory bird or nest, or buy, sell,

exchange or give a migratory bird or nest or make it the subject of a commercial transaction except as authorized by the regulations. Therefore, permits are required for the handling of migratory birds or bird carcasses. The *Migratory Birds Regulations* (MBR), in Section 6, prohibit the disturbance, destruction, and taking of a nest or egg of a migratory bird; or the possession of a live migratory bird, or its carcass, skin, nest or egg, except under authority of a permit. It is important to note that under the current MBR, no permits can be issued for the incidental take of migratory birds caused by development projects or other economic activities. Section 5.1 of the MBCA also prohibits the deposit of harmful substances to migratory birds in waters or an area frequented by migratory birds or in a place from which the substance may enter such waters or such an area anywhere in Canada and in Canada's maritime exclusive economic zone.

3.1.2. Species at Risk Act

The *Species at Risk Act* (SARA) protects plants and animals listed in Schedule 1 of the Act (the List of Wildlife Species at Risk). The SARA also requires that every person required by federal law to ensure that an Environmental Assessment (EA) is conducted must:

- notify the competent minister(s) in the likelihood that a project will affect a listed wildlife species or its critical habitat;
- identify the adverse effects of the project on the listed wildlife species and its critical habitat; and, if the project is carried out,
- ensure that measures are taken to avoid or lessen the adverse effects and to monitor them. The measures must be taken in a way that is consistent with any applicable recovery strategies and action plans.

It is important to note that each provincial jurisdiction also has regulations concerning local species at risk, as well as setback matrices relating to species nests. Each provincial jurisdiction's regulation is included in Appendix B.

3.1.3. Canadian Environmental Assessment Act

The *Canadian Environmental Assessment Act* (CEAA) and its regulations are the principal legislative basis for federal involvement in environmental assessment. An EA under CEAA will be triggered when the federal government is the proponent of a project, grants an interest in land for the purpose of enabling the project to be carried out in whole or part, provides funds, or makes a regulatory decision that is prescribed on the Law List Regulations in respect of the project. A federal authority responsible for decisions with respect to a project that triggers the Act is legally required to ensure that the environmental effects of the proposed project are considered, that the significance of those effects is understood and that mitigation measures are

identified and applied where required. For more information on the *Canadian Environmental Assessment Act* and its regulations, including triggers and requirements, please consult the Canadian Environmental Assessment Agency website at http://www.ceaa-acee.gc.ca/index_e.htm.

The most frequent CEAA trigger for wind farms has been the provision of federal funds through the Wind Power Production Incentive Program. In such cases, Natural Resources Canada (NRCan) is the responsible authority for the federal environmental assessment. NRCan has developed overall guidance on the EA requirements for wind farms (excluding offshore projects); please consult the: “Environmental Impact Statement Guidelines for Screenings of Inland Wind Farms Under the *Canadian Environmental Assessment Act*” located in Appendix B of this document and at <http://www.canren.gc.ca/programs/index.asp?Cald=190&PgId=1155>.

As a Federal Authority under the *Canadian Environmental Assessment Act*, Environment Canada (EC) is called upon to provide expert advice to other federal departments on migratory birds, including species at risk and their habitats, among other issues, for projects on private and public land. The EC regional EA offices are usually the first point of contact for EA information within the department; contact information is provided at http://www.ec.gc.ca/ea-ee/home/regions_e.asp. Environment Canada Regional Environmental Assessment Coordinators may also request information or provide advice on other issues such as potential adverse effects on sensitive habitats, non-avian wildlife species at risk, sensitive species such as bats, or other issues such as water quality.

Provinces and territories are responsible for some bird species (including raptors, blackbirds, non-migratory game birds), as well as mammals including bats, and other plant, insect and vertebrate animal species (see Appendix C), and their input may be needed in the environmental assessment. In addition, appropriate provincial or territorial environmental assessment guidelines may also apply. In some cases, a harmonized EA process may be developed combining all requirements. Links to provincial and territorial agencies are available on the Canadian Environmental Assessment website at http://www.ceaa-acee.gc.ca/003/prov_e.htm.

Note also that the scope of the project will be defined according to federal guidelines, and impacts resulting from other facilities, such as access roads and transmission lines, may also need to be addressed.

3.2. FEDERAL – U.S. (Legal White Paper 2008)

3.2.1. Endangered Species Act

By delegation of authority from the respective Secretaries of the Interior and Commerce, the ESA is administered by the U.S. Fish and Wildlife Service (“FWS”) and the National Marine Fisheries Service (“NMFS”), with the former having primary responsibility for terrestrial and freshwater species and the latter having primary responsibility for marine life. The purpose of the ESA is to

“provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved, to provide a program for the conservation of such endangered species and threatened species, and to take such steps as may be appropriate to achieve the purposes of [certain] treaties and conventions”

In furtherance of this purpose, Sections 7 and 9 of the ESA contain independent provisions that may set species- and habitat related standards relevant to wind energy projects. Questions regarding the application of Section 7 or 9 should be directed to AENA U.S. Environmental Managers.

Section 7(a)(2) Requirements

Section 7(a)(2) requirements relate to Federal agency actions. Section 7(a)(2) requires that:

“each Federal agency shall, in consultation with . . . the Secretary, insure that any action authorized, funded or carried out by such agency . . . is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of [designated critical] habitat of such species.”

The broad statutory description of agency action means that the Section 7(a)(2) standards apply to private actions that require Federal permits, licenses, or other forms of authorization, or that receive federal grants or other forms of federal funding.

Section 7(a)(2) Compliance

Except in the extremely rare circumstance where a specially convened committee of cabinet members excuses compliance, there is no method for avoiding compliance with Section 7(a)(2), although typically only the relevant Federal agencies are liable for non compliance. As noted above, Section 7(a)(2) addresses Federal agency actions, but private landowners or project proponents frequently encounter Section 7(a)(2)'s requirements in the context of federal

permitting or licensing actions, particularly “wetland permits” issued under Section 404 of the Clean Water Act.

Regulations establish three different processes for compliance with Section 7(a)(2) based on the degree of impact the Federal agency action may have on listed species or designated critical habitat. The FWS and NMFS also have published comprehensive guidance on the Section 7(a)(2) processes in the form of a detailed handbook ([Seehttp://www.fws.gov/endangered/consultations/s7hndbk/s7hndbk.htm](http://www.fws.gov/endangered/consultations/s7hndbk/s7hndbk.htm)). If the Federal agency finds that the proposed agency action (in the case of federal permits, both the permit issuance and the private land use or project authorized by the permit) will not affect a listed species or critical habitat, the action may proceed without involvement of the FWS in a consultation process. Otherwise, the Federal agency typically prepares a Biological Assessment (BA) to determine the effects of the proposed agency action. If the Federal agency finds that the action is “not likely to adversely affect” a listed species or critical habitat, the action may proceed if the FWS concurs in writing (termed “informal consultation”). If the Federal agency determines that the action is likely to affect adversely a listed species or critical habitat (or the FWS does not concur in the agency’s not-likely-to-adversely-affect determination), the Federal agency and the FWS engage in what is termed “formal consultation” as prescribed in Section 7(b). The formal consultation process begins with submission of the BA to the FWS and proceeds under statutory and regulatory deadlines.

The initial product of formal consultation is a Biological Opinion (BO) issued by the FWS. If the FWS finds that the proposed action passes the Section 7(a)(2) standards (jeopardy to the species or adverse modification of critical habitat is not likely), it will so advise the Federal agency in the BO and then typically suggest “reasonable and prudent measures” to minimize any impacts of “takes” that might occur. Unlike the voluntary mechanisms for avoidance of take liability discussed below, the FWS is limited under Section 7(a)(2) to proposing measures to “minimize” take impacts and may not propose measures to mitigate for those impacts. If the FWS finds instead that the action would result in jeopardy or adverse modifications, it will suggest to the Federal agency “reasonable and prudent alternatives” to the proposed agency action. FWS regulations limit the degree to which the reasonable and prudent measures or alternatives may alter the agency action.

Federal agencies engaged in formal consultation are not required to follow the biological opinions and reasonable and prudent measures or alternatives; however, the agencies seldom depart significantly from them. If the Federal agencies incorporate reasonable and prudent measures or a reasonable and prudent alternative in permits, licenses, and the like, then the authorized parties and certain other affected parties (e.g., the owner of land leased to a

permitted project) are also covered (including, as discussed below, granted immunity from certain possible take of listed species).

Regulations require re-initiation of the Section 7(a)(2) process for a Federal agency action in certain circumstances. The principal circumstances calling for re-initiation occur: (1) when the scientific understanding of the action's impacts on listed species or critical habitat covered by the original Section 7(a)(2) process changes significantly and results in harsher impacts than those analyzed in that process; (2) when a new species is listed or new critical habitat is designated that would be impacted by the agency action; or (3) when (described in Section II(B)(1) below) the amount of incidental take allowed by an incidental take statement is exceeded. The re-initiation of the Section 7(a)(2) process may lead to the FWS proposing new reasonable and prudent measures or alternatives for the proposed agency action.

Section 9 Requirements

Section 9 sets a standard applicable to all persons, whether they are subject to any Federal agency action. Section 9(a)(1)(B) prohibits the "take" of endangered species of fish and wildlife within the United States or its territorial waters. A "take" is defined with extraordinary breadth to mean "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." In addition, as discussed below in Section II.B.9, Section 4(d) authorizes the FWS to apply the Section 9 prohibitions to threatened species. The FWS has by regulation applied those prohibitions to most threatened species. Therefore, a "take" of individual members of a listed endangered or threatened species of fish or wildlife ("wildlife") constitutes a violation of the ESA.

With regard to the impacts of habitat modification on listed species covered by the Section 9 take prohibition, the FWS has by regulation defined "harm" as "an act which actually kills or injures wildlife," which "may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering." Injury or death to a listed wildlife species can be the direct or indirect result of habitat modification or degradation, such that the act "impair[s] essential behavioral patterns, including breeding, feeding or sheltering." To be actionable, habitat modification or degradation must be "significant," and land use activities that result in habitat modification or degradation are not sufficient in themselves to constitute a "take" of listed wildlife under Section 9 and the "harm" regulation. Instead, only a land use activity that "actually kills or injures wildlife" will constitute a "take" of a listed wildlife species. Accordingly, "harm" requires proof of actual injury—the mere potential for injury to listed wildlife is not "harm." Moreover, the regulation determines "harm" by reference to an individual member of a listed wildlife species.

The FWS also by regulation defined “harass,” but has—unlike the regulatory definition of “harm”—excluded consideration of habitat modification in the context of “harass.” While “harm” requires “actual” injury to wildlife, the definition of “harass” includes a “negligent act or omission which creates the likelihood of injury to wildlife by annoying it” to a significant extent. Under the regulatory intent, instead of covering physical modifications of habitat, the “harass” rule addresses the annoying effects of persistent noise, light, or motion. In promulgating the definition, the FWS stated:

“The concept of environmental damage being considered a “taking” has been retained but is now found in a new definition of the word “harm” By moving the concept of environmental degradation from the proposed definition of “harass” to the definition of “harm,” potential restrictions on environmental modifications are expressly limited to those actions causing actual death or injury to a protected species of fish or wildlife.”

There are three notable differences between the standards of Section 9 and Section 7(a)(2). Unlike the Section 7(a)(2) jeopardy standard, the Section 9 take standard only considers injuries to an individual member of a listed species. The take standard applies only to listed wildlife species, while the Section 7(a)(2) standards apply to all listed species, plants as well as wildlife. Moreover, the Section 9 standard applies to any habitat of listed wildlife species, while the Section 7(a)(2) critical habitat standard applies only to designated critical habitat of listed species.

Avoidance of Liability for Noncompliance with the Section 9 “Take” Prohibition in the Endangered Species Act

The ESA has a well-developed array of techniques for avoidance of liability for certain types of “take” otherwise prohibited under Section 9. Because the Section 9 standard is violated if an agency action or private land use or project takes even a single member of a listed wildlife species, it is quite stringent. Because the standard applies to all persons, it is also quite pervasive.

In 1982 Congress enacted amendments to the ESA that established the basis for these take liability-avoidance techniques. In so doing, Congress recognized that few agency actions or private land uses or projects that occur in the vicinity of a listed wildlife species could be designed to avoid entirely the possibility of take of even a single member of that species. The FWS has developed several additional techniques by regulation or practice. These statutory provisions, regulations, and practices apply to takes that are “incidental” to an otherwise lawful activity—commonly referred to as an “incidental take.” In the following subsections, there are

descriptions of: one technique under Section 7(b)(4) for avoiding take liability in connection with Federal agency actions; and multiple techniques under Sections 10(a)(1)(A) and (B) for avoiding take liability for private land uses or projects.

Incidental Take Statements

The single technique for take liability avoidance for Federal agency actions under Section 7 is limited to those actions that undergo formal consultation (*i.e.*, actions for which a no effect or “not likely to adversely affect” listed species or critical habitat finding cannot be made). Section 7(b)(4) provides that, if the biological opinion issued by the FWS concludes that the proposed Federal agency action complies with the Section 7(a)(2) jeopardy and critical habitat standards, the FWS will issue an incidental take statement (“ITS”) to the agency. The ITS will allow a specified amount of incidental take (stated either in number of species members or in acreage or other measurement of occupied or suitable habitat) over a specified term, if the Federal agency complies with the reasonable and prudent measures recommended by the FWS.

Habitat Conservation Plans and Incidental Take Permits

Section 10(a)(1)(B) of the ESA authorizes the Secretary to issue an Incidental Take Permit (“ITP”) that will authorize take of a listed wildlife species by a non-federal landowner engaged in an otherwise lawful activity covered by a Habitat Conservation Plan (“HCP”). The ITP will allow a specified amount of incidental take (stated either in number of wildlife species members or in acreage or other measurement of occupied or suitable habitat) over a specified term, if the permittee continues to comply with the ITP. The incidental taking of a listed species must be covered by the HCP and identified in the ITP. An HCP must be included in every application for an ITP.

In approving an HCP and issuing an ITP, the FWS or NMFS, as applicable, must find that the taking will be incidental, that the applicant will minimize and mitigate to the maximum extent practicable the impacts of the taking, that the applicant will ensure proper funding for the plan, and that the taking will not appreciably reduce the likelihood of the survival and recovery of the species in the wild. The FWS and NMFS have published comprehensive guidance on HCPs and the incidental take permitting process in the form of a detailed handbook, including an addendum which sets forth a five-point policy that provides clarifying guidance of these agencies for those applying for an incidental take permit under Section 10 of the ESA.

General Conservation Plans

A general conservation plan (“GCP”) allows the FWS to develop a Section 10(a)(1)(B) conservation plan suitable for the needs of a local area, complete all NEPA requirements for a Section 10(a)(1)(B) ITP issuance, and then issue individual permits to landowners who wish to apply for an ITP and demonstrate compliance with the terms and

conditions of the GCP. The development of a GCP is undertaken by the FWS, rather than an individual applicant, and is ideally based upon a conservation strategy for the species and addresses the needs of the local community. Basically, the GCP has everything that is contained in a traditional HCP, including No-Surprises assurances, except the names of the applicant and future permittees. The GCP is not a substitute for a regional multiple action HCP which a county or other jurisdiction may use. Such a large-scale effort would be better developed using the traditional HCP approach because of the complexity of fully analyzing all activities under a regional multiple action HCP.

Safe Harbor Agreements

A safe harbor agreement is a voluntary agreement in which a non-federal landowner works with the FWS to develop management actions that will contribute to the recovery of a listed species for an agreed-upon time period. Management actions can include habitat maintenance and reintroduction of listed species onto the land. In exchange for implementing these management actions, the FWS provides regulatory assurance to the landowner by issuing an enhancement of survival permit pursuant to Section 10(a)(1)(A) of the ESA. This permit provides that property that is part of a safe harbor agreement can be altered and returned to agreed-upon baseline conditions at the end of the agreement time period, even if it involves the taking of listed species. This permit also may include No-Surprises assurances similar to those discussed under Section II(B)(2).

Candidate Conservation Agreements

A candidate conservation agreement is a formal agreement between a non-federal landowner and the FWS that addresses the conservation needs of candidate or at-risk species. The goal of candidate conservation agreements is to prevent the listing of these species. A nonfederal landowner that enters into a candidate conservation agreement with the FWS typically receives certain regulatory assurances. In the case of a candidate conservation agreement with assurances, the agreement provides incentives for the non-federal landowner to voluntarily implement conservation measures for candidate or at-risk species. In exchange for implementing conservation measures that will remove or reduce the threat to candidate or at-risk species, the FWS provides regulatory assurances to the landowner by issuing an enhancement of survival permit pursuant to Section 10(a)(1)(A) of the ESA. This permit provides that no additional conservation measures will be required of the landowner if the species becomes listed in the future, even if it involves the taking of listed wildlife species. In addition, this permit allows permit holders to take wildlife species and modify habitat conditions to those baseline conditions agreed upon and specified in the agreement.

Conservation Agreements and Memoranda of Understanding

A few FWS Regions have experimented with a basic contract between the FWS and a landowner—called a “conservation agreement” or memorandum of understanding (“MOU”)—which describes land use activities the landowner intends to take and methods the landowner will use to provide protection for potentially affected listed species. The FWS’ signing of a conservation agreement or MOU constitutes an agency action which permits the FWS to issue a biological opinion and ITS which provides incidental take immunity to the landowner as well as the FWS. “Net conservation benefit” is the standard for conservation agreements identical to the standard applied by rule to safe harbor agreements. This technique benefits the landowner by requiring significantly less time and fewer procedural steps to secure the incidental take immunity than does an ITP, but it lacks the No-Surprises assurances landowners obtain with an ITP.

Conservation Banking

Conservation banks are lands that are permanently protected and managed for listed or asterisk species, with the concept modeled on the concept of wetland mitigation banking. The FWS approves these banks to sell mitigation credits to developers who need to offset adverse environmental impacts elsewhere. Thus, conservation banking utilizes traditional concepts of supply and demand to facilitate the buying and selling of mitigation credits. By selling mitigation credits, landowners can generate income, preserve their property, and participate in conservation management plans. Developers who purchase these habitat or species mitigation credits are able to offset their negative environmental impacts in one simple transaction. One instance in which conservation banking can be utilized is to assist in the obtainment of incidental take permits pursuant to Section 10 of the ESA. In applying for an incidental take permit, a landowner must submit an HCP that reports actions that will be taken to minimize and mitigate any adverse impacts on listed species. This mitigation may involve the purchase of mitigation credits from a conservation bank.

Bird Letters

Landowners are encouraged to engage in open communication with the FWS on how to avoid a Section 9 violation, and the FWS has a history of providing advice and recommendations to landowners. Historically, this advice has been rendered in the form of letters providing guidelines to avoid take of listed wildlife species or simple declarations of the FWS that it “believes” the landowner’s property would not provide suitable habitat for particular listed species or that the landowner’s activity would not likely result in a take of listed wildlife species. Although these so-called “bird letters” do not as a legal matter preclude future liability, the expectation is that the government will use enforcement discretion regarding landowners who have cooperated with the FWS in avoiding the taking of a listed species.

3.2.2. Migratory Bird Treaty Act

The MBTA is a criminal environmental law which implements international treaties that the United States has entered into with Canada, Mexico, Japan, and Russia in order to protect over 1000 species of birds that migrate across the United States and its territories. The MBTA states as follows:

“Unless and except as permitted by regulations . . . it shall be unlawful at any time, by any means, or in any manner to pursue, hunt, take, capture, kill, attempt to take, capture, or kill, possess, offer for sale, sell . . . offer to purchase, purchase . . . ship, export, import...transport or cause to be transported...any migratory bird, any part, nest, or eggs of any such bird, or any product . . . composed in whole or in part, of any such bird or any part, nest, or egg thereof.

FWS regulations broadly define “take” to mean “pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to pursue, hunt, shoot, wound, kill, trap, capture, or collect.” An unauthorized “take” of any one of the protected bird species constitutes a violation of the MBTA. By delegation of authority from the Secretary, the FWS administers the MBTA. The MBTA’s applicability to habitat modification and destruction is unclear. Unlike the ESA, the definition of “take” in the MBTA does not include “harm” (or “harass”). And the MBTA itself is silent in regard to habitat modification and destruction. However, Executive Order 13186 (the Migratory Bird Executive Order) does address habitat enhancement and protection, and should be reviewed as a source that may provide an opportunity to minimize impacts and mitigate for habitat damage at Acciona’s wind development projects.

Unlike the ESA, the MBTA has no provision which expressly authorizes the issuance of permits by the FWS authorizing incidental, accidental or unintentional take. The MBTA does authorize the Secretary to determine when, to what extent, if any, and by what means it is compatible with the terms of the related treaties

“to allow hunting, taking, capture, killing, possession, sale, purchase, shipment, transportation, carriage, or export of any . . . [protected] bird, or any part, nest, or egg there of”

and to adopt regulations governing the same. Pursuant to this authority the FWS has promulgated regulations which set forth requirements for the issuance of permits for a wide variety of specific purposes, including falconry, scientific collecting, conservation education taxidermy, and waterfowl sale and disposal, as well as for the hunting of migratory waterfowl. To date, however, the FWS has not issued rules expressly providing for a permitting program for

incidental take (although the FWS, in very limited circumstances, has granted individual permits). As discussed in Section I(C), the FWS recently finalized rulemaking under a similar statute, the BGEPA, which authorizes incidental takes of bald and golden eagles in certain circumstances.

Congress intended the unpermitted “take” of even one migratory bird to be in violation of the statute. The MBTA is enforced by the FWS through the U.S. Department of Justice (“DOJ”) and there is no private cause of action enabling others to bring suit to enforce this law. The MBTA imposes only criminal penalties on those who violate the MBTA. The general misdemeanor provision of the MBTA is likely to be the most applicable provision in a wind energy context. Under this provision, a violator may be fined up to \$15,000 and/or imprisoned for up to six months for an unauthorized take of a protected bird, regardless of intent. Under the felony provision of the MBTA, anyone who “shall knowingly (1) take by any manner . . . any protected bird with intent to sell, barter or offer to barter such bird, or (2) sell, offer for sale, barter or offer to barter, any protected bird” is subject to a felony violation and may be fined up to \$250,000 (\$500,000 for organizations) and/or imprisoned for up to two years. Neither this provision, nor a misdemeanor provision which imposes fines and/or penalties for placing or directing the placement of bait for a protected bird, is expected to be applicable in a wind energy context. To date no actions under the MBTA or the BGEPA have been brought against the developer of a wind energy project, although agents of OLE have expressed recent concerns about take of Golden Eagles and Bald Eagle and other protected birds to several wind developers. The FWS has stated that it carries out its mission to protect migratory birds through investigations and enforcement and by fostering relationships with individuals, companies, and industries that have programs to minimize their impacts on migratory birds. Because, the FWS has not promulgated regulations expressly providing for the issuance of permits for unintentional take, the FWS investigates and exercises 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 have been developed and not implemented.

3.2.3. Minimizing Liability and Mitigation under the Migratory Bird Treaty Act

Bird Letters and Avian and Bat Protection Plans

Like the ESA bird letters, MBTA bird letters are generally enforcement discretion documents that outline the FWS’ willingness not to recommend prosecution for MBTA takings if a project proponent agrees to follow certain “best management practices.” This enforcement discretion approach can take several forms, including project-specific letters, general guidance, and the proffer of enforcement/prosecutorial discretion in avian protection plans. In particular, it has been used for avian protection plans for power lines prepared by electric utilities and

acknowledged by the FWS. The MBTA is a strict liability statute where a proof of “intent” is not required. However, the USFWS’s Office of Law Enforcement prefers to use the 3 “E’s” when working with an individual, agency or corporation. These are education, exchange of information, and lastly enforcement. There is a key take-home message to Acciona and other wind developers. It is important for Acciona to contact the Service’s nearest Ecological Service’s Field Office before the proposed initiation of a project – not after a site has been selected, a land-owner agreement has been signed, a power-purchase agreement negotiated, and a bank loan approved or acquired for a facility. By contacting the USFWS at the ‘get-go,’ the Service can work with Acciona or its consultants to preferably avoid or minimize impacts to migratory birds protected by MBTA and BGEPA.

3.2.4. Bald and Golden Eagle Protection Act

The BGEPA provides specific protections to bald and golden eagles. Under the BGEPA, it generally is unlawful for anyone to “take, possess, sell, purchase, barter, offer to sell, purchase or barter, transport, export or import, at any time or in any manner, any bald eagle . . . or any golden eagle, alive or dead, or any part, nest, or egg thereof” As defined in the BGEPA, “take” for this purpose includes “pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb.” Recently, the FWS clarified the meaning of the word “disturb” in the BGEPA in anticipation of the ultimate removal of the bald eagle from the list of threatened species and thus loss of protection under the ESA. Under the new regulation, “disturb” means

“to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, (1) injury to an eagle, (2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or (3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior.”

Although there are differences in the meaning of these terms, as noted by the FWS, the term “disturb” in the BGEPA significantly overlaps with the terms “harm” and “harass” in the ESA. An unauthorized “take” of either of the protected eagles constitutes a violation of the BGEPA and MBTA. By delegation of authority from the Secretary, the FWS administers the BGEPA. The United States Supreme Court has described BGEPA as both “exhaustive” and “consistently framed to encompass a full catalog of prohibited acts.” Relying on this language, one court has held that the BGEPA prohibits electrocutions of eagles. Such a decision suggests that the “taking” of a bald or golden eagle by a wind turbine could be prosecutable under the BGEPA.

Unlike the ESA—but like the MBTA—the definition of “take” in the BGEPA does not include “harm” or any other term that has been interpreted by the FWS to encompass death or injury

arising from habitat modification. However, where habitat modification (e.g., wind turbine placement) can occur and take resulting in mortality results, without a Part 22.26 permit, this activity would be illegal.

The BGEPA provides that the Secretary may authorize certain otherwise prohibited activities through promulgation of regulations. Specifically, the Secretary is authorized to prescribe regulations permitting the

“taking, possession, and transportation of [bald and golden eagles] . . . for the scientific or exhibition purposes of public museums, scientific societies, and zoological parks, or for the religious purposes of Indian tribes, or . . . for the protection of wildlife or agricultural or other interests in any particular locality [provided such permits are] compatible with the preservation of the bald eagle or the golden eagle.”

In late 2009, the USFWS implemented 2 rules authorizing new permits under BGEPA. The new 50 CFR 22.26 would authorize the limited take of Bald and Golden Eagles where the taking is associated with, but not the purpose of an activity, and cannot practicably be avoided. The new 50 CFR 22.27 would provide for the intentional take of eagle nests where it becomes necessary to alleviate a safety hazard to people or eagles, to ensure public health and safety, where a nest prevents use of a human-engineered structure, and where the activity or mitigation for the activity will provide a net benefit to the eagles. Only inactive nests would be allowed to be taken except in the case of safety emergencies.

These new rules and regulations pertaining to take do not alter or increase in any way the existing prohibitions against take in the statute – the prohibitions have been there since the Act was implemented. The new rules are intended to provide a mechanism where non-purposeful take of Bald and Golden Eagles can be legally authorized. However, the BGEPA provides the Secretary of Interior with the authority to issue eagle-take permits only if there is the ability to determine that the take is compatible with the preservation of the eagle. This must be “...consistent with the goal of increasing or stable breeding populations.” For Golden Eagles – and in some areas for Bald Eagles – a landscape-scale, multi-party approach to management that would offset impacts from take may be the best tool available to acquire permits. For long-term Take Resulting in Mortality (TRM) – such as that associated with the wind industry – permits for take for Golden Eagles would need to be programmatic; under certain circumstances, individual permits may be issued for Bald Eagle take. Applicants would need to avoid and minimize potential take to the maximum degree that is technically achievable. Permits for long-term TRM may require additional, comprehensive NEPA review.

Like the MBTA, the FWS enforces the BGEPA through the DOJ and there is no private cause of action enabling others to bring suit to enforce this law. The BGEPA imposes both civil and criminal penalties on those who violate the BGEPA. In order to be criminally liable, a violator “shall knowingly, or with wanton disregard for the consequences of his act take, possess, sell, purchase, barter . . . transport . . . at any time or in any manner any [eagle] . . . or any part, nest, or egg thereof.” If convicted of a criminal violation under the BGEPA, the first offense is a misdemeanor for which the violator may be fined up to \$100,000 (\$200,000 for an organization) and/or imprisoned for up to one year, and in the case of a second or subsequent conviction for such a violation the offense becomes a felony for which the violator may be fined up to \$250,000 (\$500,000 for an organization) and/or imprisoned up to two years. Civil penalties may be imposed regardless of intent up to a maximum of \$5,000 for each violation.

3.2.5. Liability Avoidance and Mitigation under the Bald and Golden Eagle Protection Act

Special and Incidental Take Permits

As discussed under MBTA, the Secretary may authorize otherwise prohibited activities by regulation and the Secretary recently proposed a permit program under the BGEPA.

4. D-PROCESS AND THE TIERED APPROACH TO DEVELOPMENT–

4.1. Purpose –

AENA has established a step-wise progressive approach to the development process. This process relies on a series of five scheduled reviews of development milestones that are performed by an interdisciplinary team of AENA managers and internal specialists. The term given this review is the “D-Process”. The purpose of this approach is to break the development process into phases *D-0 through D-4* so that details or issues that arise in earlier stages of development can be identified and managed before committing resources in subsequent stages of development.

Relative to the protection and conservation of natural resources in the development, construction, and operation of AENA wind energy projects, the D-Process will be used to track, develop, and manage environmental issues as they arise. By formalizing what will be included with respect to natural resources in the D-Process, AENA Environmental Managers, developers, and engineers can perform the necessary work to avoid, minimize, or mitigate the potential impacts from the construction, operation, and decommissioning of projects. Each milestone review in the D-Process, as it is related to natural resources, will have subsets of field study, assessments, and reviews that support management decisions to either proceed with,

postpone, or discontinue further development stages. In North America, the subsets of work that will ultimately support the milestones for review by AENA management have been inspired by the Draft recommendations to the Secretary of the Interior recognized as a Tiered Approach by the Wind Turbine Federal Advisory Committee 2010 in the U.S. (Wind Turbine Federal Advisory Committee 2010), and the guidelines issued by both Environment Canada and Natural Resources Canada.

AENA will benefit by using the scientific principles in these FAC recommendations because they:

- Provide a consistent scientifically-defensible methodology for conducting pre-construction risk assessments and post-construction impact assessments to guide siting decisions by AENA and agencies;
- Encourage communication and coordination between AENA and relevant state, provincial and federal agencies during all phases of wind energy project development;
- Provide mechanisms to encourage the adoption and use of the Guidelines by all federal agencies, as well as the wind energy industry, while recognizing the primary role of the lead agency in coordinating specific project assessments;
- Complement interactions between state, tribal/First Nation, federal and other agencies in an effort to address wind/wildlife interactions;
- Provide a clear and consistent approach that increases predictability and reduces the risk of liability exposure under wildlife laws;
- Provide sufficient flexibility to accommodate the diverse geographic and habitat features of different wind development sites;
- Present mechanisms for determining compensatory mitigation, when appropriate, in the event of unforeseen impacts to wildlife during construction or operation of a wind energy project; and
- Define scientifically rigorous and cost-effective study designs that improve the ability to predict direct and indirect wildlife impacts locally and regionally.

4.2. COORDINATION AND IMPLEMENTATION OF TIERED PROCESS

To maintain consistency with the intent of the tiered process and incorporation into the D-Process, AENA Environmental Managers will coordinate and review the work that goes into Tiers I - IV. Work related to the tiered process will be performed by internal Environmental Managers and third party firms with demonstrated expertise and experience in the environmental fields required. AENA staff will review and approve scopes of work, staffing, technical ability and expertise proposed by parties external to AENA. All scopes of work and proposed staffing pertaining to the use, interpretation, or deliverables related to the tiered process established by the Federal Advisory Committee will be reviewed and approved by AENA Regional Environmental Managers.

4.3. SITING CONSIDERATIONS ADDRESSED IN THE TIERED PROCESS

These siting considerations and questions will be asked to determine if a potential site should be evaluated further in the D-process or abandoned. The information used to answer these questions should be acquired through publicly available data or discussions with people or agencies knowledgeable in the areas related to the specific questions. Internal staff or available staff resources should be used to perform Tier-1 landscape-scale evaluations.

4.3.1. Tier I – Desktop Preliminary Evaluation or Screening of Potential Sites

- Are there species of concern present on the proposed site, or is habitat (including designated critical habitat) present for these species?
- Does the landscape contain areas where development is precluded by law or areas designated as sensitive according to scientifically credible information? Examples of designated areas include, but are not limited to: ‘areas of scientific importance’; ‘areas of significant value’; federally-designated critical habitat; high-priority conservation areas for non-government organizations; or other local, state, regional, federal, tribal, or international categorizations.
- Are there known critical areas of wildlife congregation, including, but not limited to, maternity roosts, hibernacula, staging areas, winter ranges, nesting sites, migration stopovers or corridors, leks, or other areas of seasonal importance?
- Are there large areas of intact habitat with the potential for fragmentation, with respect to species of habitat fragmentation concern needing large contiguous blocks of habitat?

These questions will be asked to determine if a potential site should be evaluated further. The information used to answer these questions should be acquired through publicly available data or discussions with people or agencies knowledgeable in the areas related to the specific questions. Internal staff or available staff resources should be used to perform Tier-1 evaluations.

4.3.2. Tier II – Field Validation and/or Tier I Verification

These questions will be asked to verify if the assumptions in the Tier I evaluation are still valid, or if there are new constraints that were not captured in the desktop study. The results of the Tier II investigation will be used to determine whether or not to proceed with the D-process, and to develop a scope of study for Tier III.

- Are the species of concern identified in Tier I actually present on the proposed site, or is habitat (including designated critical habitat) present for these species? Are there other species/habitat present that were not identified in Tier I?
- Does subsequent evaluation of Tier I assumptions verify that the landscape contain areas where development is precluded by law or designated as sensitive according to scientifically credible information? Examples of designated areas include, but are not limited to: 'areas of scientific importance'; 'areas of significant value'; federally-designated critical habitat; high-priority conservation areas for non-governmental organizations; or other local, state, regional, federal, tribal, or international categorization
- Are there rare or unusual plant communities present or likely to be present at the site(s), or plant communities that otherwise have a special designation, based on the habitat that exists?
- Does subsequent evaluation of Tier I assumptions suggest that there are known critical staging areas or areas of congregation of species of concern, including, but not limited to, maternity roosts, hibernacula, staging areas, winter ranges, nesting sites, migration stopovers or corridors, leks, or other areas of seasonal importance?
- Does subsequent evaluation of Tier I assumptions verify that there are large areas of intact habitat with the potential for fragmentation, with respect to species of concern with needs for large contiguous blocks of habitat?
- Does subsequent evaluation of Tier I assumptions suggest which species of birds and bats, especially those known to be at risk caused by wind energy facilities, use the proposed site based on an assessment of site attributes?

4.3.3. Tier III - Field Studies to Document Site Environmental Conditions and Predict Project Impacts

Tier III is the first tier in which quantitative and scientifically rigorous studies will be conducted to assess the potential risk of the proposed project. Specifically, these studies will provide pre-construction information to:

- Further evaluate a site for determining whether the wind energy project should be developed or abandoned
- Design and operate a site to avoid or minimize significant adverse impacts if a decision is made to develop
- Design compensatory mitigation measures if significant adverse habitat impacts cannot acceptably be avoided or minimized
- Determine what post-Construction studies are necessary
- If warranted, provide the pre-construction component of Tier 5 studies necessary to estimate impacts

Questions to be answered are as follows:

- Do field studies indicate that species of concern are present on or likely to use the proposed site?
- Do field studies indicate the potential for significant adverse impacts on the affected population of the species of habitat fragmentation concern?
- What is the distribution, relative abundance, behavior, and site use of species of concern identified in Tiers 1 or 2, and to what extent do these factors expose these species to risk from the proposed project?
- What are the potential risks of adverse impacts of the proposed project to individuals and local populations of species of concern and their habitats? (In the case of rare or endangered species, what are the possible adverse impacts to entire species and their habitats?)
- If significant adverse impacts are predicted to species of concern, can these impacts be mitigated?
- Are there studies that should be initiated at this stage that would be continued in either Tier 4 or Tier 5?

4.3.4. Tier IV - Post-Construction Monitoring Studies

Any determination of post-construction study scopes should be developed collaboratively between AENA Environmental Managers and agency staff. If little or no natural habitat or species resources would be impacted, few – if any – follow-up surveys would be required. If

pre-construction surveys indicated significant numbers of birds in the area, then post-construction follow-up surveys would normally be required over 1-2 years to determine changes in bird use of the area associated with construction of the turbines. If the site contains concentrations of birds or species thought to be particularly vulnerable to colliding with turbines, then studies may be required to determine the nature of mortalities or displacement of species. Post-construction surveys, spread over 2 or more years of operation of the wind facility may be warranted for sites experiencing higher than expected avian/bat mortality as determined by the site specific pre-construction assessment. If post-construction studies are required, these questions should be answered through performing post-construction studies:

- What is the bird and bat fatality rate for the project?
- What are the fatality rates of species of concern?
- How do the estimated fatality rates compare to the predicted fatality rates?
- Do bird and bat fatalities vary within the project site in relation to site characteristics?
- How do the fatality rates compare to the fatality rates from existing projects in similar landscapes with similar species composition and use?
- What is the composition of fatalities in relation to migrating and resident birds and bats at the site?
- Do fatality data suggest the need for mitigation measures to reduce risk?
- If the site contains any significant concentrations of birds at any time of year, have the numbers of birds using the site reduced?

5. REPORTING

5.1. Pre-Construction

AENA is committed to thorough, transparent, and timely reporting of all study results and mortality incidents. During the pre-construction development phase, AENA Regional Environmental Managers will internally review all reports upon their delivery promptly. Once thoroughly reviewed internally, AENA will provide results of the reports to state and federal agencies within a reasonable timeframe in order to facilitate the desired collaboration with agencies.

5.2. Construction

AENA projects will report findings of any fatalities on a monthly basis or per federal, state or provincial regulations or permit conditions. If specific monitoring is required during construction (i.e. breeding bird monitoring), biological monitors will be required to report incidents, findings, etc. to AENA on a weekly basis. AENA will then report to agencies on a monthly basis. In the event of a significant effect on a state or federal endangered or threatened species, monitors

are instructed to relate the information upon recognition, and AENA will report any finding immediately to state/federal agencies upon acknowledgement from the construction team/biological monitor.

5.3. Post-Construction/Operations

During both formal and informal post-construction monitoring, all avian and bat incidents (mortality and injuries) will be documented on the Avian and Bat Mortality Reporting Form (see Appendix D) and subsequently will be entered into an AENA database system on a monthly basis. [Any fatalities or injuries to state or federal endangered or threatened species, AENA will report any finding immediately upon recognition.] Annually, AENA Regional Environmental Managers will develop a comprehensive report on avian and bat fatalities and other incidents of all North American AENA-owned projects. Included in the report will be a summary of the number and type of fatalities, a summary of what actions AENA has taken to reduce any significant impacts, and what future efforts will be undertaken to study or mitigate effects on wildlife, if necessary. AENA will provide the annual results of these efforts to state and federal agencies by February 15 of each year.

USFWS's Office of Law Enforcement currently maintains a confidential database that more than 30 electric utilities use to report transmission/distribution system avian incidents. The USFWS is in the process of modifying that database to allow it to be used for reporting wind project incidents for both birds and bats. If the USFWS expands the database to include wind facilities, AENA will volunteer to report avian and bat incidents (as such, the USFWS database will be used instead of AENA's database).

CWS, CanWEA, Ontario Ministry of Natural Resources and Bird Studies Canada also maintain a wind and wildlife database, where information can be stored from pre-and post-construction monitoring programs, to allow for better evaluation of wind power effects.

6. ADAPTIVE MANAGEMENT

Results and work products produced throughout the tiered process will be used to guide management decisions that are made in the D-process but extend beyond development and into all phases of construction, operations, repowering, and decommissioning. The foundation for guiding management decisions made during the D-process should be well-founded and science-based risk assessments. This work will establish a baseline for identifying the need for future actions that may be required to avoid, minimize or mitigate impacts to avian and bat species. Well founded risk assessment and forecasted avian and/or bat mortalities should be evaluated by AENA Environmental Managers periodically to determine if assumptions and forecasts used to predict mortality were correct. If unexpected levels of mortality are determined to exist at a project, site corrective action will be evaluated to avoid, minimize or mitigation for

the impacts. Implementing a system by which mortality risk assessments established during the development of a project are monitored during the operation of a project allows AENA to modify practices (e.g. add pylons, site turbines differently etc) or operations for long-term reductions in avian and bat mortality. Uncertainty in mortality predictions from work performed within the tiered process should establish the first step necessary to establish a feed-back loop that may identify the need for, and actions taken to, address unexpected mortality. Modifications made in response to monitoring operational mortalities and comparing them to predictive mortality is termed Adaptive Management. Adaptive management should be applied in all situations at project sites where observed avian or bat mortality is not consistent with predicted mortality.

6.1. Mortality Reduction and Conservation Measures

Mortality predictions and avian and bat risk assessments performed in the tiered process will be used in conjunction with any agency requirements to determine if modification should be made to how a project is operated. Observed mortality will be monitored and reported at all operational sites by operations staff in accordance with AENA's operational monitoring and reporting protocols (see Sections 6 and 8).

AENA acknowledges the importance of understanding potential impacts to avian and bat species during the operation of wind energy projects. Adaptive management will be implemented to avoid, minimize, and mitigate for unexpected impacts in accordance with all state, provincial, federal, local laws, and AENA's sustainability policy pertaining to the protection of avian and bat species.

Adaptive management assessment techniques will be incorporated to assess the level of unexpected avian or bat mortalities. Observed mortalities will be evaluated for the likely causes of mortality and possible mortality reduction coordinated with the appropriate state, provincial, and federal agencies. Conservation/mortality reduction measures will be implemented to address the cause of the mortality. Details of these measures will be determined from site specific assessment and will focus on reducing mortality relative to what has been observed.

In addition to, or overlapping with, mitigation efforts for unavoidable impacts to state, provincial and federal endangered and threatened species, AENA will make efforts to enhance populations/habitats of these important resources. AENA will collaborate with utilities and the agencies to help create a "net-benefit" effect to these species. Enhancement options could be in the form of on-site or off-site habitat conservation and restoration, education for the surrounding areas on species conservation, habitat management for the reintroduction of species or the protection of important sites, and should allow for the implementation of cutting-edge strategies.

6.2. Enhancement Options

The following sensitive species fall within the geographical range of projects that are currently being developed or operated by AENA in North America and have been determined by AENA to warrant specific consideration. Other species will be added as development activities expand. Management options pertaining to these species can be found in Appendix C.

Canada

Northern bobwhite (*Colinus virginianus*)
Acadian flycatcher (*Empidonax vireescens*)
Barn owl (*Tyto alba*)
Piping plover (*circumcinctus* subspecies)
Piping plover (*melodus* subspecies)
Chimney swift (*Chaetura pelagica*)
Eastern loggerhead shrike (*Lanius ludovicianus migrans*)

U.S.

Lesser Prairie Chicken, (*Tympanuchus pallidicinctus*)
Sage Grouse, (*Centrocercus genus*)
Indiana Bat, (*myotis sodalis*)
Whooping Crane, (*Grus americana*)
Golden Eagle, (*Aquila chrysaetos*)
Bald Eagle, (*Haliaeetus leucocephalus*)
Golden cheek warbler (*Dendroica chrysoparia*)
Interior Least Tern (*Sterna antillarum athalassos*)

7. TRAINING

Training of all applicable staff is an important aspect of the successful implementation of this ABPP. Acciona's Regional Environmental Managers will keep abreast of recent cutting edge study methods and mitigation techniques to ensure the most up to date and effective means of protecting natural resources. The following section outlines describes the type of training and the personnel who should receive specialized training:

7.1. Pre-construction

All applicable personnel, including Project Developers and consultants, will have a thorough understanding of the D-process and the ABPP tiered process.

7.2. Construction

All applicable construction personnel will receive guidance on the importance of disclosing the presence of birds, particularly dead birds, nests or colonies. Training of all applicable staff with access to the construction site will include a detailed review of the ABPP. Training will generally cover issues pertaining to the environmental constraints and issues specific to the site, including sensitive habitats to be avoided (such as buffers around raptor nests or habitat of sensitive species) and how they are marked in the field; practices to minimize impacts to wildlife (such as project-specific speed limits); and procedures for handling injured or dead birds and other wildlife. Materials to support this training will be provided by Environmental Managers and will include photos of species of concern, maps showing sensitive areas to be avoided, and forms for reporting mortality and injury.

7.3. Post-Construction/Operations

All applicable staff such as managers, supervisors, line crews, engineering, dispatch etc. will receive training on this ABPP. Training will include a general orientation to local, provincial/state and Federal laws and procedures for handling dead or injured birds, and AENA's operational mortality monitoring and reporting. Materials to support this training will include a power point presentation (see Appendix D for an example); copies of the ABPP; and short courses on how dead or injured birds and bats should be handled. Posters of project-specific species of interests will be present at the site. New materials and updates will be provided on an as-needed basis. New hires at an operating wind farm will receive training from a bi-annually scheduled webinar. Refresher training will be held on a yearly basis.

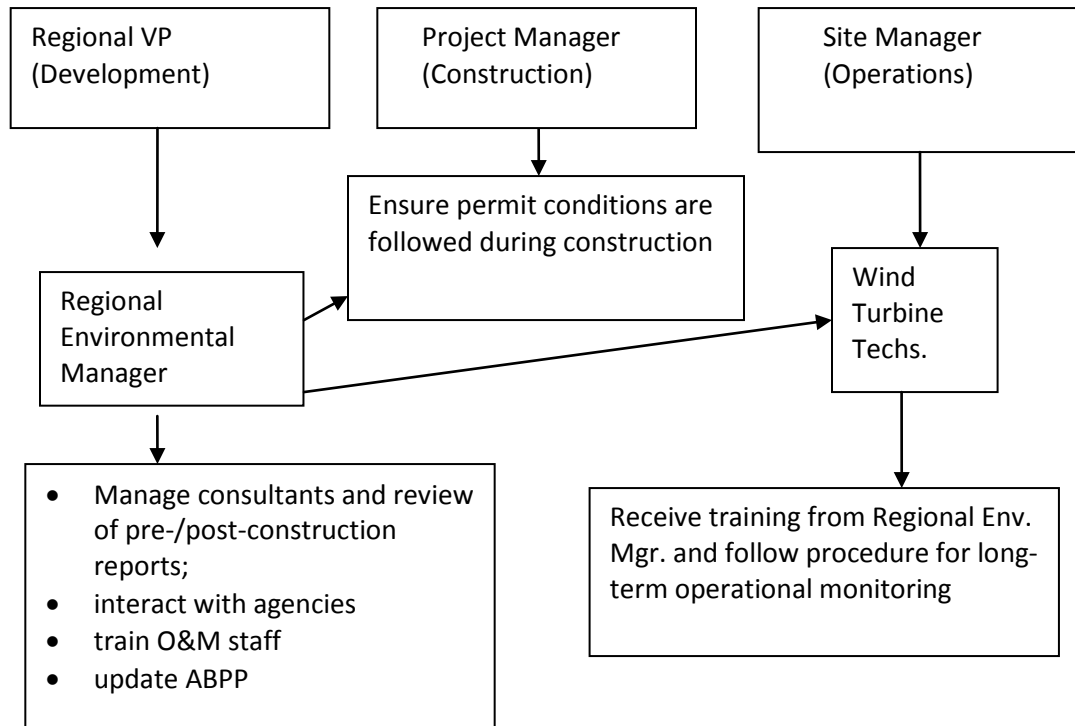
8. QUALITY ASSURANCE / QUALITY CONTROL (QA/QC)

8.1. ABPP Procedural Review and Updates

As appropriate, AENA, North America will periodically review and update the ABPP to ensure the consistent and up-to-date with the state-of-the-science and regulatory requirements. Environmental Managers will convene annually to review and revise the document, as necessary. As development activities expand to new jurisdictions, Environmental Managers will augment relevant sections of this document.

8.2. Organizational Chart and Process Diagram

This section presents an organizational chart/diagram for how all aspects of the ABPP are to be carried out, reviewed, accepted, and authorized.



8.3. Compliance

Compliance with the corporate ABPP and project-specific environmental plans and procedures will be integrated into the annual internal AENA Environment, Health, and Safety (EHS) audit process. Any noted deficiencies and recommendations will be given corrective action plans, which will be implemented on a schedule that matches the urgency of the deficiency. Action plans will be followed up as part of the audit process. In addition, projects will be reviewed annually by AENA Environmental Managers to confirm that operating project staff have adequate training and training materials, and that avian or bat mortality monitoring forms are being completed and provided to Environmental Managers on a regular basis.

9. PUBLIC AWARENESS AND OUTREACH – OUTLINE & EXECUTION STRATEGY

AENA has made sustainability our business. We know that without effective measures of corporate responsibility, our business will not be sustainable. Our vision is to respond to the challenge of sustainable development while contributing to economic growth, social welfare and environmental balance in order to assure the safety of our ecosystems and better lives for present and future generations.

AENA will establish transparency and make public our avian and bat-related environmental studies both before and after project completion. Our studies will be held accountable to the standards outlined in our avian and bat protection plan, as well as to the environmental organizations, permitting entities and the public.

AENA will proactively arrange public open houses and agency meetings in order to present and cooperate with the public on avian and bat studies related the project. AENA will work through our Environmental Managers, Project Development Management, operations and maintenance personnel, and our marketing and communications program to carry out our obligation to communicate transparently our avian and bat works related to our projects and in accordance with our ABPP.

“Public” is defined to include, but is not limited to, the following groups:

- -Environmental organizations
- -Permitting entities
- -Non-government organizations
- -General public
- -Media
- -Trade organizations

Ongoing commitment: As AENA demonstrates continued commitment to making our avian and bat studies and protection plan available to the public, we will also ensure that our environmental, operations and development employees are receptive to any nuances and accomplishments which will be influential to the plan’s effectiveness and transparency.

10. REFERENCES

Legal White Paper, Appendix B (pp. B1-B24) in Wind Turbine Guidelines Committee, 2008

Wind Turbine Federal Advisory Committee's Recommendations to the Secretary of the Interior, March 4, 2010.