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Title: Migratory Bird Best Management Practices Source Document for Los Alamos National Laboratory, Revised June 2020

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Author(s):

Biological Resources Program
Environmental Protection and Compliance Division

Intended for:

Reference purposes



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Cover photo: The Swainson's hawk (*Buteo swainsoni*) migrates over 6,000 miles every spring and fall between its North American breeding grounds and South American wintering grounds. It is threatened by habitat destruction, a reduction in its prey, and pesticide use.
Photo: Karen Hollingsworth

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I. INTRODUCTION

The Migratory Bird Treaty Act of 1918 (MBTA) is the main driver for protection of migratory birds in the United States (U.S.). The original 1918 statute implemented the 1916 Convention between the U.S. and Great Britain (for Canada) for the protection of migratory birds. Later amendments implemented treaties between the U.S. and Mexico, the U.S. and Japan, and the U.S. and the Soviet Union (now Russia). See Appendix A for a listing of primary international conventions and domestic legislation for migratory birds.

DEFINITION OF MIGRATORY BIRDS

In the biological sense, a migratory bird is a bird that has a seasonal and somewhat predictable pattern of movement. For the sake of the MBTA, migratory birds are defined as all species covered by the four bilateral treaties. Generally, this definition includes all native birds in the U.S. except those non-migratory species—such as quail and turkey—that are managed by individual states.

PROHIBITIONS UNDER THE MIGRATORY BIRD TREATY ACT

Under the provisions of the MBTA, it is unlawful “by any means or manner to pursue, hunt, take, capture [or] kill” any migratory birds except as permitted by regulations issued by the U.S. Fish and Wildlife Service (USFWS). The term “take” is not defined in the MBTA, but the USFWS has defined it by regulation to mean to “pursue, hunt, shoot, wound, kill, trap, capture, or collect” any migratory bird or any part, nest, or egg of any migratory bird covered by the conventions, or to attempt those activities.

The USFWS has developed a system of permits for specific types of activities that involve the take of migratory birds, including those governing scientific collection and bird banding and lethal and non-lethal measures taken to prevent depredation of agricultural crops and to protect public health and safety. Existing migratory bird permit regulations do not authorize take resulting from activities such as forestry or agricultural operations, construction or operation of power lines, and other activities where an otherwise legal action might reasonably be expected to take migratory birds but is not the intended purpose of the action. Birds that are trapped in buildings may be humanely captured but must be released immediately into the wild or, if injured, transported to a permitted rehabilitator.

Under the provisions of the MBTA, the unauthorized take of migratory birds is a strict liability criminal offense. As such, even when engaged in an otherwise legal activity, violations can occur if bird death or injury results. The USFWS works collaboratively to ensure that best practices are followed to minimize unintended harm to birds and their habitats.

The USFWS has enforced the MBTA with discretion, focusing on individuals or organizations that take birds with disregard for the law, particularly where no valid conservation measures have been employed. In doing so, the USFWS has been able to focus its limited resources on working cooperatively with various industries, agencies, and individuals to reduce impacts on migratory birds. When necessary, the USFWS has taken enforcement actions to stop activities that threaten migratory bird populations.

II. MIGRATORY BIRD MANAGEMENT

This document, prepared by LANL biological resources subject matter experts, describes migratory bird best management practices for Los Alamos National Laboratory (LANL). It provides site-wide mitigation measures that reduce risks to birds protected under the MBTA at LANL. By avoiding or minimizing the impact of LANL activities on migratory bird populations, LANL will reduce or eliminate any potential violation of the MBTA, as well as the possibility of enforcement action.

DRIVERS

The main driver for protection of migratory birds in the U.S. is the MBTA (16 U.S.C. 703–712; Ch. 128; July 13, 1918; 40 Stat. 755). The 1960 statute (Public Law 86-732) amended the MBTA by altering earlier penalty provisions. Public Law 99-645, the *1986 Emergency Wetlands Resources Act*, amended the MBTA to require that felony violations under the Act must be “knowingly” committed. Public Law 105-312 also amends the law to allow the fine for misdemeanor convictions under the MBTA to be up to \$15,000 rather than \$5,000.

Although some courts have held that the MBTA does not apply to federal agencies, in July 2000, the U.S. Court of Appeals for the District of Columbia Circuit ruled that the prohibitions of the MBTA do apply to federal agencies and that a federal agency’s taking and killing of migratory birds without a permit violated the MBTA. On March 13, 2002, the U.S. District Court for the District of Columbia ruled that military training exercises of the Department of the Navy that incidentally take migratory birds without a permit violate the MBTA.

On December 2, 2002, President G. W. Bush signed the *2003 National Defense Authorization Act*. Section 315 of the Authorization Act provides that, no later than one year after its enactment, the Secretary of the Interior (Secretary) shall exercise authority under section 704(a) of the MBTA to prescribe regulations to exempt the Armed Forces for the incidental taking of migratory birds during military readiness activities authorized by the Secretary of Defense or the Secretary of the military department concerned. All other Federal agencies must adhere to the MBTA.

Under Executive Order 13186, the USFWS issued Director’s Order 172 on *Service Guidance to Conserve Migratory Birds* (Appendix B). Identifying goals for federal program activities, the USFWS highlighted the need to identify means and measures to avoid and/or minimize potential for take of migratory birds, eggs, and active nests, including (1) project modification; (2) time-of-year restrictions on vegetation clearing; (3) avoidance of cavity trees, colonial bird nests, and other active nests; and (4) avoidance of nests of species of concern. The USFWS also seeks to ensure that environmental analyses of federal activities, under the *National Environmental Policy Act* (NEPA) or other established environmental review processes, evaluate the effects of actions and agency plans on migratory birds, particularly on species of concern. Additionally, the USFWS called out the need for compliance with communication tower and power line guidelines and wind power guidelines as they are developed in project assessments.

On September 12, 2013, a Memorandum of Understanding (MOU) from 2006 (DOE 2006) was updated and finalized (DOE 2013) between the USFWS and the Department of Energy (DOE). Under the revised MOU (Appendix C), subject to the availability of appropriations and in harmony with the DOE missions and capabilities, the DOE agreed to (among other things) the following:

1. In keeping with the MBTA and the Bald and Golden Eagle Act, and other applicable laws, engage the USFWS for coordination regarding proposed actions that could have direct and indirect adverse effects on migratory birds or their habitats. This effort will typically be accomplished through DOE's continued use of the NEPA process to analyze the potential environmental effects of proposed actions, including potentially significant effects to migratory birds, and to consider reasonable alternatives to those actions, including potential means to address adverse environmental effects. Environmental impact statements will consider the means to mitigate adverse environmental effects from those actions as required by 40 CFR 1502.16.
2. Before the start of DOE operations and activities that could have significant adverse effects on migratory birds and their habitats, engage the USFWS to initiate appropriate actions to avoid or minimize the take of migratory birds. Potential impacts will be identified through DOE's continued use of EMS as the management framework that DOE components use at DOE sites for compliance with applicable environmental laws and regulations. This effort could include establishing programs with objectives and targets to improve the conservation of migratory birds and, where appropriate, restore and/or enhance bird habitats at each DOE site. This effort could also result in the development of site-specific, species-specific conservation plans that describe conservation opportunities to avoid or minimize facility- and project-related effects for migratory birds and their habitat.
3. Engage the USFWS in the development and implementation of strategies to continually improve the conservation of migratory birds and their habitats in the conduct of environmental cleanup activities at DOE sites. Statutory authorities on the protection of migratory birds and their habitats are recognized as potential applicable or relevant and appropriate requirements (ARARs) in project plans—developed by DOE and approved by the U.S. Environmental Protection Agency—for environmental legacy cleanup being conducted at DOE sites under the Comprehensive Environmental Response, Compensation, and Liability Act.
4. Engage the USFWS on the exchange of best available scientific information regarding current and emerging technological measures and practices to avoid or minimize adverse effects of energy technologies on migratory birds through such forums as the National Wind Coordinating Collaborative biennial Wind-Wildlife Research Meeting.
5. Consider USFWS recommendations and suggested practices regarding energy development to avoid or minimize direct and indirect effects on migratory birds and their habitats.
6. Operate according to management plans developed by DOE for various bird species. At LANL, federally protected bird species are managed under the *LANL Habitat Management Plan* (LANL 2017), and state-listed or other sensitive bird species are managed under the *Sensitive Species Best Management Practices*

Source Document (LANL 2020). This document, *Migratory Bird Best Management Practices Source Document for Los Alamos National Laboratory, Revised June 2020*, covers management strategies for all birds.

7. Advise private parties and landowners who are seeking to interconnect electricity-generating sources to DOE-owned power transmission grids to coordinate with the servicing USFWS Regional Office to determine applicable conservation requirements under the MBTA.
8. Advise the public of this MOU through a notice published in the *Federal Register*.

ROLES AND RESPONSIBILITIES

LANL Biological Resources Subject Matter Experts

- Prepare, maintain, and update Migratory Bird Best Management Practices.
- Conduct project reviews in the Integrated Review Tool.
- Identify best management practices for projects and activities that mitigate risks to migratory birds.
- Conduct nest searches during the breeding season to support project activities, as needed.
- Work collaboratively with federal and state agencies, tribal nations, and other interested non-governmental entities to identify, protect, restore, enhance, monitor, and manage important migratory bird areas.
- Maintain a robust monitoring program for migratory birds at LANL.
- Coordinate trainings such as the Avian Protection Plan Workshop taught by the New Mexico Avian Protection Working Group.
- Implement the 2013 MOU (Appendix C) as funding and opportunities arise.
- Promote MBTA issues and awareness through outreach and briefings.
- Ensure that staff is involved in local avian management meetings and conferences for collaboration with other conservation experts.

Program or Project Managers

- Incorporate best management practices for protection of migratory birds into project planning and implementation.
- Preferentially select project locations in existing developed areas to reduce greenfield (undeveloped area) conversion at LANL.

Integrated Work Document Preparers

- Contact biological resources subject matter experts when directed to do so by the Work Management System (WMS) according to LANL P300 *Integrated Work Management*.
- Ensure that best management practices identified in the WMS or by subject matter experts are incorporated into the job activities.

Environmental Management System Specialists

- Ensure that potential impacts to migratory birds are considered when identifying environmental aspects and impacts of work activities, and incorporate best management practices into procedures.

Workers

- Identify areas of conflict with migratory birds during tailgate meetings and pre-job briefings to raise awareness.
- Report occurrences of bird mortality or injury to supervisors and to biological resources subject matter experts.
- Follow procedures as defined in their work documents.

RISKS TO MIGRATORY BIRDS AT LANL

For LANL lands, many of the most significant risks to migratory birds can be mitigated and include

- loss, alteration, or fragmentation of habitat;
- mortality resulting from collisions with building windows and guyed towers;
- collisions and electrocutions on power lines;
- the potential take of eggs and nestlings during operations that disturb vegetation during the breeding season;
- and open-top pipes that can trap birds.

III. BEST MANAGEMENT PRACTICES FOR PROTECTION OF MIGRATORY BIRDS

DISTURBANCE OF VEGETATION OR NESTS

Eggs and nestlings are the life stages of migratory birds that are most vulnerable to inadvertent take through disturbance or destruction of nests. Avoidance is the most effective means of minimizing these takes of migratory birds. Where practicable, LANL will schedule the removal of trees or shrubs outside of the breeding season. The peak of the breeding season for most songbird species includes mid-May, June, July, and early August (NMBBAP 2001, Travis 1992). Larger birds such as raptors, falcons, and owls breed from March through August. Any active nests, including nests of larger birds, are protected and should not be disturbed.

Mitigation Measures for Vegetation Removal:

1. The best management practice to protect nests is to schedule tree and shrub removal outside of the peak bird-nesting season: May 15 through July 15. During this time, EPC-ES biologists can survey trees and shrubs immediately before removal. If active nests are discovered outside of the breeding season, then work will be paused, and EPC-ES biologists must be notified.
2. Do not remove standing dead trees unless there is a hazard to workers.

3. Any active bird nests encountered regardless of the time of year are protected, including nests built within structures or equipment. Contact a LANL biological resources subject matter expert if an active nest is encountered during work activities. Do not disturb active nests. An active nest is a nest with eggs and/or nestling birds.

COLLISIONS WITH BUILDINGS AND WINDOWS

Migratory birds collide with human-made structures during the day and at night. Annual bird mortality resulting from window collisions in the U.S. is estimated to be between 365 and 988 million birds (Klem et al. 2009, Loss et al. 2014). Birds are easily deceived by and strike reflected images of habitat and sky on windows installed in the conventional vertical position. Lights on buildings or towers have been shown to cause mortality in migrating birds (Manville 2009). The USFWS provides best management practices in the document *Reducing Bird Collisions with Buildings and Building Glass Best Practices*

(<https://www.fws.gov/migratorybirds/pdf/management/reducingbirdcollisionswithbuildings.pdf>, last accessed 04/02/2020).

Mitigation Measures for Building and Window Collision:

1. For new or remodeled buildings, designers can use features such as overhangs, shutters, louvers, mesh, and awnings to reduce glass reflections or reduce visibility into transparent areas. Another option is to install windows at an angle so that the pane reflects the ground instead of the surrounding sky and habitat.
2. Reduce the exterior reflectivity of windows by applying the window film *CollidEscape* (<http://www.collidescape.org/>, last accessed on 04/02/2020) or installing a permanent sunscreen over the window.
3. For buildings higher than two stories tall, turn off or dim lights near windows at night.
4. Program building lighting systems to achieve a measurable reduction in night-lighting from 9 p.m. to 6 a.m., or—ideally—ensure that all lights are switched off during that period.
5. Extinguish all exterior vanity lighting (roof-top floods, perimeter spots, etc.) during migration periods (February 15 through May 15 and August 15 through November 30).
6. When lights must be left on at night, examine and adopt alternatives to bright, all-night, floor-wide lighting. Options include installing motion-sensitive lighting, using desk lamps and task lighting, re-programming timers, adopting lower-intensity lighting, reducing perimeter lighting, re-scheduling work and night cleaning, establishing interior working areas, and using blinds and curtains.
7. Report all observed bird mortalities and injuries to a LANL biological resources subject matter expert. If the event is a collision with a building or window, identify the location so that problem areas can be identified and rectified.

The document, *Bird-safe Building Guidelines*, offers many more design suggestions, mitigation, and case study examples for reducing bird collisions; available online at (<http://www.nycaudubon.org/pdf/BirdSafeBuildingGuidelines.pdf>), last accessed 04/03/2020).

COMMUNICATIONS TOWERS

The USFWS estimates that communications towers kill four to five million birds annually (Shire et al. 2000). Towers supported by guy wires kill significantly more birds than towers that are self-supporting (Gehring et al. 2004).

Two independent mechanisms of bird mortality occur at towers. The first is when birds, flying in poor visibility, do not see the structure in time to avoid it (i.e., blind collision). Towers that are lighted at night for aviation safety might help reduce bird collisions caused by poor visibility, but they bring about a second mechanism for mortality. During low-cloud-ceiling or foggy conditions, lights on a tower refract off water particles in the air, creating an illuminated area around the tower. Birds tend to remain in the lighted space by the tower, and mortality occurs when they fly into the structure or its guy wires—or even other migrating birds as more and more passing birds cram into the relatively small, lighted space. The lights apparently do not attract birds from afar but rather tend to hold birds that pass within the vicinity.



Mitigation Measures for Towers:

From the USFWS *Recommended Best Practices for Communication Tower Design, Siting, Construction, Operation, Maintenance, and Decommissioning*, available online at <https://www.fws.gov/migratorybirds/pdf/management/usfwscommtowerguidance.pdf>, last accessed 04/03/2020).

1. Any company/applicant/licensee proposing to construct a new communications tower should be strongly encouraged to co-locate the communications equipment on an existing communications tower or other structure (e.g., billboard, water tower, or building mount).
2. If co-location is not feasible and a new tower or towers are to be constructed, communications service providers should be strongly encouraged to construct towers no more than 199 feet (60 meters) above ground level (AGL) using construction techniques that do not require guy wires (e.g., use a lattice structure, monopole, etc.). Such towers should be unlighted if Federal Aviation Administration (FAA) regulations permit.

3. If constructing multiple towers, providers should consider the cumulative impacts of all of those towers to migratory birds and threatened and endangered species as well as the impacts of each individual tower.
4. If possible, new towers should be sited within existing “antenna farms” (clusters of towers). Towers should not be sited in or near wetlands, in other known bird concentration areas (e.g., state or federal refuges, staging areas, rookeries, or large areas of nesting birds), in known migratory or daily movement flyways, or in habitat of threatened or endangered species. Towers should not be sited in areas with a high incidence of fog, mist, and low ceilings.
5. If taller (>199 feet [60 meters] AGL) towers that require lights for aviation safety must be constructed, the minimum amount of pilot warning and obstruction avoidance lighting required by the FAA should be used. Unless otherwise required by the FAA, only white (preferable) or red strobe lights should be used at night, and these should be the minimum number, minimum intensity, and minimum number of flashes per minute (longest duration between flashes) allowable by the FAA. The use of solid red or pulsating red warning lights at night should be avoided. Current research indicates that solid or pulsating (beacon) red lights attract night-migrating birds at a much higher rate than white strobe lights. Red strobe lights have not yet been studied.
6. Tower designs that use guy wires for support that are proposed to be located in known raptor or waterbird concentration areas or daily movement routes or in major diurnal migratory bird movement routes or stopover sites should have daytime visual markers on the wires to prevent collisions by these diurnally moving species. For guidance on markers, see Avian Power Line Interaction Committee reports (APLIC 1994, 2006, and 2012).
7. Towers and appending facilities should be sited, designed, and constructed to avoid or minimize habitat loss within and adjacent to the tower “footprint.” However, a larger tower footprint is preferable to the use of guy wires in construction. Road access and fencing should be minimized to reduce or prevent habitat fragmentation and disturbance and to reduce above-ground obstacles to birds in flight.
8. If significant numbers of breeding, feeding, or roosting birds are known to habitually use the proposed tower construction area, relocation of the tower to an alternate site should be recommended. If relocation is not an option, seasonal restrictions on construction could be advisable to avoid disturbance during periods of high bird activity.
9. To reduce the number of towers needed in the future, providers should be encouraged to design new towers structurally and electrically to accommodate the applicant/licensee’s antennas and comparable antennas for at least two additional users (minimum of three users for each tower structure), unless this design would require the addition of lights or guy wires to an otherwise unlighted and/or unguyed tower.
10. Security lighting for on-ground facilities and equipment should be down-shielded to keep light within the boundaries of the site.

11. If a tower is constructed or is proposed for construction, USFWS personnel or researchers from the Communications Tower Working Group should be allowed access to the site to evaluate bird use; to conduct dead-bird searches; to place net catchments below the towers but above the ground; and to place radar, global positioning system, infrared, thermal imagery, and acoustical monitoring equipment, as necessary, to assess and verify bird movements and to gain information on the impacts of various tower sizes, configurations, and lighting systems.
12. Towers no longer in use or determined to be obsolete should be removed within 12 months of cessation of use.

POWER LINES

Bird electrocution is caused most often by a bird's simultaneous contact of an energized conductor and a ground or a second energized conductor. This contact produces a completed circuit and electrocution.

Electrocutions often can be quite violent, causing power outages and starting forest fires. Generally, the electric lines involved in these events are the everyday distribution structures. In areas where raptors and other large birds are likely to use line structures for perches, the problem has been the design of the line and the transformers, arrestors, and switches attached to them.



A major part of the solution requires identifying problem pole locations and taking remedial action. Reporting records from maintenance activity or observations of electrocutions can identify not only problem poles and pole configurations but also regions of special concern along lines. With this information, crews can retrofit poles with raptor-protection devices or rebuild poles that are raptor safe. New construction standards can also be adapted to reflect raptor-safe configurations.

The most complete and up-to-date documents on raptor and avian protection for power lines are *Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006* (APLIC 2006) and *Reducing Avian Collisions with Power Lines: The State of the Art in 2012* (APLIC 2012).

Currently, LANL biological resources subject matter experts report all documented electrocutions of birds on power lines to the USFWS using an online reporting tool. LANL utilities personnel have agreed to retrofit all power poles with documented electrocutions to mitigate future electrocution events.

Mitigation Measures for Power Lines:

1. New power lines should comply with the suggested practices adopted by the electrical industry (APLIC 2006, 2012). Priority should be given to poles likely to be used by raptors or other birds that have a high electrocution risk.
 - (A) A minimum of 60 inches [1.5 meters] (48 inches [1.2 meters] vertical and 60 inches [1.5 meters] diagonal) spacing between electrically conductive points on the power line through spacing in new construction or shielding (e.g., phase to phase or phase to ground);
 - (B) The use of covered/insulated coverings over bare conductors at structures.
2. Report observed bird mortalities and injuries to a LANL database. Biological resources subject matter experts will track trends. If the event is an electrocution, identify the pole so that problem areas can be identified and rectified. Observed bird mortalities or injuries can be reported to subject matter experts. Contact information can be found online at (http://int.lanl.gov/environment/bio/controls/migratory_birds.shtml, last accessed 04/02/2020).
3. Retrofit old power poles that are identified as problems. *Suggested Practices for Avian Protection on Power Lines* states that “95 percent of all eagle electrocutions could be eliminated by correcting 2 percent of all the poles.” Fabricated products are available to retrofit poles to make them unattractive for perching or to provide insulation to prevent phase-to-phase and phase-to-ground contact by birds (Dwyer et al. 2017).

Because of their large size, eagles are particularly susceptible to electrocution risks. Bald Eagles are known to occur at LANL during the winter (November 1 through March 31), most commonly along the Rio Grande. LANL biological resources subject matter experts give special scrutiny to power line projects in areas that were previously managed as Bald Eagle habitat under the Endangered Species Act to minimize the potential for electrocutions. Bald Eagles are currently protected under both the MBTA and the Bald and Golden Eagle Protection Act.

The LANL Engineering Manual PD 342, Section G4010 – Site Electrical Distribution (Revision 4, 01/15/19), requires wildlife protection mitigation techniques (pp. 34–35). These measures include requirements that new or modified overhead distribution lines in bald eagle habitat (TAs 33, 70, and 71) provide no less than 60 inches of phase-to-phase conductor spacing and no less than 60 inches of phase-conductor-to-grounded-conductor or grounded-object spacing and the use of appropriate insulation for dead-ends, jumpers, and bushing covers.

OPEN-TOP PIPES

Open-top vertical pipes are a hazard to birds, lizards, small mammals, and other wildlife that get into these pipes and are unable to get out. Birds, small mammals, and reptiles enter the pipes to nest or find shelter, but the smooth interior and tight confines of the pipes prevent individuals from escaping, leading to a slow death by stress, dehydration, or starvation (Hathcock and Fair 2014, Malo et al. 2016, Harris et al. 2019). Open

bollards, open pipes used as fence or gate posts, and open vent tubes all pose threats to migratory birds.

The most common bird species affected are cavity-nesting birds such as Northern Flickers, Western Bluebirds, and Ash-throated Flycatchers. Cavity-nesting owls can also be prone to open-top pipes. Best management practices include identifying any open-top pipe locations and blocking the entrances.

Mitigation Measures for Open-top Pipes:

1. Install covers on any new open-top pipes that are greater than 2 inches in diameter.
2. Identify any existing open-top pipe locations, cover them with fitted tops, or fill them with cement, dirt, or gravel.
3. Contact a LANL biological resources subject matter expert if an open-top pipe that could be covered is encountered.

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APPENDIX A: PRIMARY INTERNATIONAL CONVENTIONS AND MAJOR DOMESTIC LEGISTATION FOR THE CONSERVATION OF MIGRATORY BIRDS AND THEIR HABITATS IN THE UNITED STATES

YEAR AUTHORITY

- 1900 Lacey Act (Amended 1981)
1913 Weeks-McLean Law (Migratory Bird Conservation Act 1913)
1916 Convention for the Protection of Migratory Birds (Canada)
1918 Migratory Bird Treaty Act
1929 Migratory Bird Conservation Act
1934 Migratory Bird Hunting and Conservation Stamp Act (Duck Stamp Act)
1936 Migratory Bird Convention with Mexico (amended 1972)
1940 Pan American (or Western Hemisphere) Convention
1940 Bald Eagle Protection Act
1956 Waterfowl Depredations Prevention Act
1961 Wetlands Loan Act of 1961 (Amended 1969, 1976)
1972 Migratory Bird Convention with Japan
1972 Convention on Wetlands of International Importance Especially as Waterfowl Habitats
1973 Endangered Species Act
1973 Convention on International Trade in Endangered Species of Wild Fauna and Flora
1976 Migratory Bird Convention with the Union of Soviet Socialist Republics
1978 Antarctic Conservation Act
1980 Fish and Wildlife Conservation Act (Amended 1988, 1989)
1982 Convention on Conservation of Antarctic Living Marine Resources
1986 Emergency Wetlands Resources Act
1987 Driftnet Impact Monitoring, Assessment, and Control Act of 1987
1989 North American Wetlands Conservation Act
1990 Coastal Wetlands Planning, Protection, and Restoration Act
1992 Wild Bird Conservation Act
2000 Neotropical Migratory Bird Conservation Act
2001 Responsibilities of Federal Agencies to Protect Migratory Birds (Executive Order 13186)
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APPENDIX B: EXECUTIVE ORDER 13186

3853

Federal Register

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Presidential Documents

Title 3—

Executive Order 13186 of January 10, 2001

The President

Responsibilities of Federal Agencies To Protect Migratory Birds

By the authority vested in me as President by the Constitution and the laws of the United States of America, and in furtherance of the purposes of the migratory bird conventions, the Migratory Bird Treaty Act (16 U.S.C. 703–711), the Bald and Golden Eagle Protection Act (16 U.S.C. 668–668d), the Fish and Wildlife Coordination Act (16 U.S.C. 661–666c), the Endangered Species Act of 1973 (16 U.S.C. 1531–1544), the National Environmental Policy Act of 1969 (42 U.S.C. 4321–4347), and other pertinent statutes, it is hereby ordered as follows:

Section 1. Policy. Migratory birds are of great ecological and economic value to this country and to other countries. They contribute to biological diversity and bring tremendous enjoyment to millions of Americans who study, watch, feed, or hunt these birds throughout the United States and other countries. The United States has recognized the critical importance of this shared resource by ratifying international, bilateral conventions for the conservation of migratory birds. Such conventions include the Convention for the Protection of Migratory Birds with Great Britain on behalf of Canada 1916, the Convention for the Protection of Migratory Birds and Game Mammals-Mexico 1936, the Convention for the Protection of Birds and Their Environment- Japan 1972, and the Convention for the Conservation of Migratory Birds and Their Environment-Union of Soviet Socialist Republics 1978.

These migratory bird conventions impose substantive obligations on the United States for the conservation of migratory birds and their habitats, and through the Migratory Bird Treaty Act (Act), the United States has implemented these migratory bird conventions with respect to the United States. This Executive Order directs executive departments and agencies to take certain actions to further implement the Act.

Sec. 2. Definitions. For purposes of this order:

(a) “Take” means take as defined in 50 C.F.R. 10.12, and includes both “intentional” and “unintentional” take.

(b) “Intentional take” means take that is the purpose of the activity in question.

(c) “Unintentional take” means take that results from, but is not the purpose of, the activity in question.

(d) “Migratory bird” means any bird listed in 50 C.F.R. 10.13.

(e) “Migratory bird resources” means migratory birds and the habitats upon which they depend.

(f) “Migratory bird convention” means, collectively, the bilateral conventions (with Great Britain/Canada, Mexico, Japan, and Russia) for the conservation of migratory bird resources.

(g) “Federal agency” means an executive department or agency, but does not include independent establishments as defined by 5 U.S.C. 104.

(h) “Action” means a program, activity, project, official policy (such as a rule or regulation), or formal plan directly carried out by a Federal agency. Each Federal agency will further define what the term “action” means with respect to its own authorities and what programs should be included

in the agency-specific Memoranda of Understanding required by this order. Actions delegated to or assumed by nonfederal entities, or carried out by nonfederal entities with Federal assistance, are not subject to this order. Such actions, however, continue to be subject to the Migratory Bird Treaty Act.

(i) "Species of concern" refers to those species listed in the periodic report "Migratory Nongame Birds of Management Concern in the United States," priority migratory bird species as documented by established plans (such as Bird Conservation Regions in the North American Bird Conservation Initiative or Partners in Flight physiographic areas), and those species listed in 50 C.F.R. 17.11.

Sec. 3. Federal Agency Responsibilities. (a) Each Federal agency taking actions that have, or are likely to have, a measurable negative effect on migratory bird populations is directed to develop and implement, within 2 years, a Memorandum of Understanding (MOU) with the Fish and Wildlife Service (Service) that shall promote the conservation of migratory bird populations.

(b) In coordination with affected Federal agencies, the Service shall develop a schedule for completion of the MOUs within 180 days of the date of this order. The schedule shall give priority to completing the MOUs with agencies having the most substantive impacts on migratory birds.

(c) Each MOU shall establish protocols for implementation of the MOU and for reporting accomplishments. These protocols may be incorporated into existing actions; however, the MOU shall recognize that the agency may not be able to implement some elements of the MOU until such time as the agency has successfully included them in each agency's formal planning processes (such as revision of agency land management plans, land use compatibility guidelines, integrated resource management plans, and fishery management plans), including public participation and NEPA analysis, as appropriate. This order and the MOUs to be developed by the agencies are intended to be implemented when new actions or renewal of contracts, permits, delegations, or other third party agreements are initiated as well as during the initiation of new, or revisions to, land management plans.

(d) Each MOU shall include an elevation process to resolve any dispute between the signatory agencies regarding a particular practice or activity.

(e) Pursuant to its MOU, each agency shall, to the extent permitted by law and subject to the availability of appropriations and within Administration budgetary limits, and in harmony with agency missions:

(1) support the conservation intent of the migratory bird conventions by integrating bird conservation principles, measures, and practices into agency activities and by avoiding or minimizing, to the extent practicable, adverse impacts on migratory bird resources when conducting agency actions;

(2) restore and enhance the habitat of migratory birds, as practicable;

(3) prevent or abate the pollution or detrimental alteration of the environment for the benefit of migratory birds, as practicable;

(4) design migratory bird habitat and population conservation principles, measures, and practices, into agency plans and planning processes (natural resource, land management, and environmental quality planning, including, but not limited to, forest and rangeland planning, coastal management planning, watershed planning, etc.) as practicable, and coordinate with other agencies and nonfederal partners in planning efforts;

(5) within established authorities and in conjunction with the adoption, amendment, or revision of agency management plans and guidance, ensure that agency plans and actions promote programs and recommendations of comprehensive migratory bird planning efforts such as Partners-in-Flight, U.S. National Shorebird Plan, North American Waterfowl Management Plan, North American Colonial Waterbird Plan, and other planning efforts, as well as guidance from other sources, including the Food and Agricultural

Organization's International Plan of Action for Reducing Incidental Catch of Seabirds in Longline Fisheries;

(6) ensure that environmental analyses of Federal actions required by the NEPA or other established environmental review processes evaluate the effects of actions and agency plans on migratory birds, with emphasis on species of concern;

(7) provide notice to the Service in advance of conducting an action that is intended to take migratory birds, or annually report to the Service on the number of individuals of each species of migratory birds intentionally taken during the conduct of any agency action, including but not limited to banding or marking, scientific collecting, taxidermy, and depredation control;

(8) minimize the intentional take of species of concern by: (i) delineating standards and procedures for such take; and (ii) developing procedures for the review and evaluation of take actions. With respect to intentional take, the MOU shall be consistent with the appropriate sections of 50 C.F.R. parts 10, 21, and 22;

(9) identify where unintentional take reasonably attributable to agency actions is having, or is likely to have, a measurable negative effect on migratory bird populations, focusing first on species of concern, priority habitats, and key risk factors. With respect to those actions so identified, the agency shall develop and use principles, standards, and practices that will lessen the amount of unintentional take, developing any such conservation efforts in cooperation with the Service. These principles, standards, and practices shall be regularly evaluated and revised to ensure that they are effective in lessening the detrimental effect of agency actions on migratory bird populations. The agency also shall inventory and monitor bird habitat and populations within the agency's capabilities and authorities to the extent feasible to facilitate decisions about the need for, and effectiveness of, conservation efforts;

(10) within the scope of its statutorily-designated authorities, control the import, export, and establishment in the wild of live exotic animals and plants that may be harmful to migratory bird resources;

(11) promote research and information exchange related to the conservation of migratory bird resources, including coordinated inventorying and monitoring and the collection and assessment of information on environmental contaminants and other physical or biological stressors having potential relevance to migratory bird conservation. Where such information is collected in the course of agency actions or supported through Federal financial assistance, reasonable efforts shall be made to share such information with the Service, the Biological Resources Division of the U.S. Geological Survey, and other appropriate repositories of such data (e.g., the Cornell Laboratory of Ornithology);

(12) provide training and information to appropriate employees on methods and means of avoiding or minimizing the take of migratory birds and conserving and restoring migratory bird habitat;

(13) promote migratory bird conservation in international activities and with other countries and international partners, in consultation with the Department of State, as appropriate or relevant to the agency's authorities;

(14) recognize and promote economic and recreational values of birds, as appropriate; and

(15) develop partnerships with non-Federal entities to further bird conservation.

(f) Notwithstanding the requirement to finalize an MOU within 2 years, each agency is encouraged to immediately begin implementing the conservation measures set forth above in subparagraphs (1) through (15) of this section, as appropriate and practicable.

(g) Each agency shall advise the public of the availability of its MOU through a notice published in the **Federal Register**.

Sec. 4. Council for the Conservation of Migratory Birds. (a) The Secretary of Interior shall establish an interagency Council for the Conservation of Migratory Birds (Council) to oversee the implementation of this order. The Council's duties shall include the following: (1) sharing the latest resource information to assist in the conservation and management of migratory birds; (2) developing an annual report of accomplishments and recommendations related to this order; (3) fostering partnerships to further the goals of this order; and (4) selecting an annual recipient of a Presidential Migratory Bird Federal Stewardship Award for contributions to the protection of migratory birds.

(b) The Council shall include representation, at the bureau director/administrator level, from the Departments of the Interior, State, Commerce, Agriculture, Transportation, Energy, Defense, and the Environmental Protection Agency and from such other agencies as appropriate.

Sec. 5. Application and Judicial Review. (a) This order and the MOU to be developed by the agencies do not require changes to current contracts, permits, or other third party agreements.

(b) This order is intended only to improve the internal management of the executive branch and does not create any right or benefit, substantive or procedural, separately enforceable at law or equity by a party against the United States, its agencies or instrumentalities, its officers or employees, or any other person.



THE WHITE HOUSE,
January 10, 2001.

[PR Doc. 01-1387
Filed 1-12-01; 8:45 am]
Billing code 3195-01-P

APPENDIX C: MOU BETWEEN DOE AND THE USFWS

**MEMORANDUM OF UNDERSTANDING
between
THE UNITED STATES DEPARTMENT OF ENERGY
and
THE UNITED STATES FISH AND WILDLIFE SERVICE**

**Regarding Implementation of Executive Order 13186,
“Responsibilities of Federal Agencies to Protect Migratory Birds”**

Prepared by:

**United States Department of Energy
and
United States Fish and Wildlife Service**

September 12, 2013

**MEMORANDUM OF UNDERSTANDING
between
THE UNITED STATES DEPARTMENT OF ENERGY
and
THE UNITED STATES FISH AND WILDLIFE SERVICE**

**Regarding Implementation of Executive Order 13186,
“Responsibilities of Federal Agencies to Protect Migratory Birds”**

This Memorandum of Understanding (MOU) is entered into by and between the United States Department of Energy (DOE or the Department) and the United States Department of the Interior, Fish and Wildlife Service (FWS), herein collectively referred to as the Parties.

A. Purpose and Scope

This MOU meets the requirements under Section 3 of Executive Order 13186, (66 FR 3853, January 17, 2001), concerning the responsibilities of Federal agencies to promote the conservation of migratory bird populations. The purpose of this MOU is to strengthen migratory bird conservation through enhanced collaboration between DOE and the FWS, in coordination with state, tribal, and local governments. This MOU does not remove the Parties' legal requirements under the Migratory Bird Treaty Act (MBTA) and other pertinent statutes; thus it does not authorize the take of migratory birds. This MOU identifies specific areas in which cooperation between the Parties will substantially contribute to the conservation and management of migratory birds and their habitats. This MOU replaces the previous 2006 MOU between DOE and the FWS.

B. Authorities

This MOU is entered under the provisions of the following laws and other authorities available to the Parties:

- Bald and Golden Eagle Protection Act of 1940, as amended (16 U.S.C. §§ 668-668d) (Eagle Act)
- Department of Energy Organization Act of 1977, as amended (42 U.S.C. § 7256)

- Endangered Species Act of 1973, as amended (16 U.S.C. §§ 1531-1544) (ESA)
- Executive Order 13186, Responsibilities of Federal Agencies to Protect Migratory Birds, 2001 (66 FR 3853) (EO 13186)
- Executive Order 13112, Invasive Species, 1999 (64 FR 6183) (EO 13112)
- Fish and Wildlife Coordination Act of 1934, as amended (16 U.S.C. §§ 661-666c) (FWCA)
- Migratory Bird Conservation Act of 1929, as amended (16 U.S. C. §§ 715-715s) (MBCA)
- Migratory Bird Treaty Act of 1918, as amended (16 U.S.C. §§ 703-711) (MBTA)
- National Environmental Policy Act of 1969, as amended (42 U.S.C. §§ 4321-4347) (NEPA)

C. Missions of Both Parties

DOE

The mission of DOE is to ensure America's security and prosperity by addressing its energy, environmental, and nuclear challenges through transformative science and technology solutions. DOE contributes to the future of the Nation by fostering energy efficiency and the development of clean and renewable energy technologies; enhancing nuclear security through defense and nonproliferation efforts; and advancing innovation and discovery in science and technology. The Department, including the National Nuclear Security Administration (NNSA), operates 24 preeminent research laboratories and sites (collectively DOE Sites or sites), four power marketing administrations (Bonneville Power Administration (BPA), Southeastern Power Administration (SEPA), Southwestern Power Administration (SWPA), and Western Area Power Administration (WAPA)), as well as undertakes remediation of the environmental legacy of Cold War activities at DOE sites across the country. All components of DOE - including NNSA and the four power marketing administrations - are covered by this MOU.

- The NNSA is responsible for the management and security of the nation's nuclear weapons,

nuclear nonproliferation, and naval reactor programs. It also responds to nuclear and radiological emergencies in the United States and abroad. Additionally, NNSA Federal agents provide safe and secure transportation of nuclear weapons and components and special nuclear materials, and carry out other missions supporting the national security.

- The BPA mission is to create and deliver the best value for customers and constituents in concert with others to assure the Pacific Northwest has an adequate, efficient, economical and reliable power supply; a transmission system that is adequate to the task of integrating and transmitting power from Federal and non-Federal generating units; and mitigation of the Federal Columbia River Power System's impacts on fish and wildlife.
- The SEPA is responsible for marketing electric power and energy generated at reservoirs operated by the U.S. Army Corps of Engineers. Southeastern does not own transmission facilities and must contract with other utilities to provide transmission, or "wheeling" services, for the Federal power.
- The SWPA markets hydroelectric power from U.S. Army Corps of Engineers multipurpose dams. Southwestern operates and maintains 1,380 miles of high-voltage transmission lines, substations, and a communications system.
- WAPA markets and delivers reliable, renewable, cost-based hydroelectric power and related services from 56 power plants operated mainly by the Bureau of Reclamation and U.S. Army Corps of Engineers. Western operates and maintains the transmission system from its four regional offices.

FWS

As a Federal agency within the U.S. Department of the Interior, the mission of the FWS is to work with others to conserve, protect, manage, and enhance fish, wildlife, plants, and their habitats for the continuing benefit of the American people. The FWS Division of Migratory Bird Management serves as a focal point in the United States for policy development and strategic planning, program implementation, and evaluation of actions designed to conserve migratory birds and their habitats.

The FWS is legally mandated to implement the conservation provisions of the MBTA, which includes responsibilities for managing migratory bird populations, domestic and international coordination, and the development and enforcement of regulations that govern the take of migratory birds. The MBCA and the FWCA mandate migratory bird habitat conservation, including protection through acquisition, enhancement, and/or management to avoid and minimize adverse impacts.

FWS programs that involve bird conservation activities include:

1. The Division of Migratory Bird Management and the Migratory Bird Programs in the FWS Regional Offices serve as focal points for policy development and strategic planning. These offices develop and implement monitoring and management initiatives that help maintain healthy populations of migratory birds and their habitats and provide continued opportunities for citizens to enjoy bird-related recreation.
2. The Division of Bird Habitat Conservation is instrumental in supporting habitat conservation partnerships through the administration of bird conservation grant programs and development of Joint Ventures that serve as major vehicles for implementing the various bird conservation plans across the country.
3. Ecological Services Field Offices across the country serve as the primary contacts for technical assistance and environmental reviews involving migratory bird issues. The Field Offices coordinate with the Regional Migratory Bird Offices, as necessary, regarding MBTA and Eagle Act permits and overall migratory bird conservation.
4. The Office of Law Enforcement is the principal FWS program that enforces the legal provisions of the MBTA, Eagle Act, ESA, and other laws pertaining to migratory bird conservation.
5. The National Wildlife Refuge System manages National Wildlife Refuges (NWRs) and Waterfowl Production Areas across the country, many of which were established to protect and conserve migratory birds. NWRs not only protect important bird habitat, but also focus on monitoring migratory bird populations and restoring and maintaining native habitats.

6. The Science Applications program works with other Service programs and partners to ensure that the necessary science and tools are available for planning and implementing the most efficient and effective conservation actions to protect fish and wildlife including migratory birds. They facilitate regional self-directed science management partnerships called Landscape Conservation Cooperatives to develop and apply shared science capacity to conservation.

D. Statement of Mutual Interest and Benefit

DOE manages approximately 2.28 million acres of land, of which a substantial amount is undeveloped and includes wetlands, shrub-steppe, shortgrass prairie, desert, and forested areas. Much of these lands provide habitat for a variety of wildlife, including many species of migratory birds. DOE takes its environmental stewardship role seriously and advocates an environmental management system (EMS) approach, conforming to the ISO 14001:2004 (E) International Standard, towards compliance with applicable environmental laws and regulations and preservation of natural and cultural resources. Migratory birds are a part of the natural and human-made environment at DOE sites, and proper management of migratory birds and their habitats on DOE lands fosters vigorous and diverse species groupings. DOE recognizes that some of its activities have the potential to affect migratory birds (e.g., transmission lines, power poles, invasive weed-control, and various construction and deconstruction activities). To lessen the adverse effects on migratory birds, whenever appropriate and feasible, DOE components currently:

1. Use bird-friendly transmission lines, insulators, and power poles designed to minimize bird collisions and electrocutions, as suggested by the Avian Power Line Interaction Committee (APLIC).
2. Sponsor workshops with Federal and private entities on minimizing electrocutions of birds and bird collisions with electric utility structures.
3. Collaborate with public and private entities on research related to the conservation of migratory birds and their habitats.
4. Monitor environmental cleanups and construction and deconstruction activities, and,

- when necessary and feasible, use conservation measures such as netting or noise devices to discourage migratory bird nesting or schedule such activities to avoid nesting seasons;
5. Use invasive weed management practices that pose minimal risks to migratory birds; reseed areas with appropriate native plant species to encourage migratory bird use.
 6. Operate according to habitat management plans developed by DOE for various bird species such as the bald eagle, Mexican spotted owl, wood stork and southwestern willow flycatcher, and other FWS Birds of Conservation Concern.
 7. Restore and enhance the habitat of migratory birds, as practicable.

Pursuant to *E.O. 13423, Strengthening Federal Environmental, Energy, and Transportation Management, and E.O. 13514, Federal Leadership in Environmental, Energy, and Economic Performance*, DOE components will continue to use EMSs at all DOE sites as a systematic and structured approach to identify and address the environmental consequences of operations and mission activities. In addition, DOE routinely uses the NEPA process to evaluate the potential environmental effects of proposed Federal actions such as those carried out by the renewable energy financial assistance and loan guarantee programs, including potentially significant effects to migratory birds, and to consider reasonable alternatives to those actions. Environmental Impact Statements will consider the means to mitigate adverse environmental impacts from those actions as required by 40 CFR § 1502.16. Federal environmental laws such as the ESA, Eagle Act, and the MBTA also apply to DOE, including DOE activities involving funding of third parties. In cooperation with applicants, DOE prepares environmental review documents, consults with relevant Federal, State, local, and Tribal agencies, and oversees public involvement in the environmental review of DOE's proposed actions.

DOE has a long history of collaboration on issues related to migratory birds. For example, DOE has for many years sought to address adverse environmental effects of energy technologies through interagency collaboration and research and development activities, such as serving on the FWS's Wind Turbine Siting Guidelines Federal Advisory Committee,

co-leading the Solar Energy Development Programmatic Environmental Impact Statement with the U.S. Department of the Interior, Bureau of Land Management, and developing monitoring, avoidance and minimization technologies through partnerships such as the Bats and Wind Energy Cooperative.

Both Parties have interests and responsibilities in the conservation and management of America's natural heritage and natural resources. The Parties agree that migratory birds are important components of biological diversity, and that their conservation and management will help to sustain ecological integrity and will serve the growing public demand for outdoor recreation, conservation education, wildlife viewing, and hunting opportunities. Further, the Parties mutually agree that it is important to: 1) conserve migratory birds and their habitats; 2) recognize that actions that may provide long-term benefits to migratory bird populations may have short-term effects on individual birds or local populations; and 3) recognize that restoration of migratory bird populations and habitats can be a long-term endeavor. It is in the interests of both Parties that potential adverse effects, direct and indirect, are assessed, and then avoided or minimized, to the extent practicable and within each Agency's authority to do so. In consideration of these premises, the Parties agree as follows.

E. Responsibilities of Both Parties

To the extent allowed by law, subject to the availability of appropriations and within Administration budgetary limits, and in accord with DOE and the FWS missions and capabilities, both Parties shall:

1. Protect, enhance, and manage habitats of migratory birds, to the extent practicable. This includes:
 - a. Implementing management practices that avoid or minimize adverse effects on migratory bird populations and their nesting, foraging, migration, staging or wintering habitats. Examples include:
 - (1)When designing new projects, ensuring that they avoid important migratory bird habitats and otherwise avoid or minimize direct and indirect effects of new projects on migratory birds and their habitats, and when practicable and appropriate, restore and

- enhance bird habitat.
- (2) Instituting management practices for controlling non-native plants and animals to protect migratory birds and their habitats.
 - (3) Using effective techniques to minimize the risk of collisions with structures including power lines, buildings, and communication devices.
 - (4) Shielding night lights at facilities that might attract night-flying migrant.
 - (5) Constructing or utilizing engineered constraint systems to prevent migratory birds from nesting or roosting in areas of recognized hazard.
- b. Working collaboratively with Federal and State agencies, Tribal Nations and other interested non-governmental entities to identify, protect, restore, enhance, monitor and manage important migratory bird areas.
 - c. Preventing or abating the pollution detrimental to migratory birds and their habitats.
- 2. Promote monitoring, research, and information exchange related to migratory bird conservation and program actions that may affect migratory birds, and provide access to information on environmental contaminants and other avian stressors that are relevant to the conservation of migratory birds. This includes:
 - a. As practicable and compatible with other study needs and program mandates, collaborating on warranted studies: (1) on migratory bird species that may be affected by agency actions, infrastructure, or facilities; and (2) to identify habitat conditions essential to sustain migratory bird populations.
 - b. Sharing inventory, monitoring, and research results with other Federal and State agencies and Tribal Nations, as appropriate, and among DOE elements, as practicable, and with national repositories such as the Avian Knowledge Network.
 - c. Developing partnerships with other agencies and non-Federal entities to further bird conservation, as practicable.
 - 3. Identify and pursue training opportunities for appropriate DOE and DOE contractor employees in appropriate methods and techniques to: 1) inventory and monitor migratory

birds; 2) assess population status of migratory birds; 3) assess temporal and spatial bird use within project areas; 4) evaluate effects of projects on migratory birds; and 5) develop management practices that avoid or minimize adverse effects and promote beneficial proactive approaches to migratory bird conservation.

4. Participate annually, or as appropriate, in the interagency Council for the Conservation of Migratory Birds. As identified in its charter, the duties of the Council include the following:
 - a. Sharing the latest resource information to assist in the conservation and management of migratory birds.
 - b. Developing an annual report of accomplishments and recommendations related to E.O. 13186.
 - c. Fostering partnerships to further the goals of E.O. 13186.
 - d. Selecting an annual recipient of a Presidential Migratory Bird Federal Stewardship Award for contributions to the protection of migratory birds.
5. Periodically evaluate the measures taken under this MOU, which may include those measures listed in sec. E.1.a, to protect, restore and enhance migratory birds, including avoiding or minimizing the take of migratory birds, to determine whether the most effective conservation measures are employed. These efforts will be coordinated through the FWS's Division of Migratory Birds.
6. Support efforts to promote the ecological, economic, and recreational values of migratory birds by supporting outreach and educational activities and materials, as appropriate.

F. Responsibilities of the DOE

To the extent allowed by law, subject to the availability of appropriations and within Administration budgetary limits, and in accord with the Department's missions and capabilities, the DOE shall:

1. In keeping with the MBTA and Eagle Act, and other applicable laws, engage the FWS for coordination regarding proposed actions that may have direct and indirect adverse effects

on migratory birds or their habitats. This will typically be accomplished through DOE's continued use of the NEPA process to analyze the potential environmental effects of proposed actions, including potentially significant effects to migratory birds, and to consider reasonable alternatives to those actions including potential means to address adverse environmental effects. Environmental Impact Statements will consider the means to mitigate adverse environmental effects from those actions as required by 40 CFR 1502.16. DOE will evaluate information provided by the FWS on specific and programmatic actions, including Federally funded energy projects, concerning the presence, effects on, and conservation of migratory birds, and consider recommendations provided by the FWS with regard to those birds in departmental decision-making. When appropriate, recipients of financial assistance will be notified to contact the FWS to discuss compliance with appropriate laws protecting migratory birds, independent of DOE's funding decision. In such instances, DOE will direct the recipients to the appropriate FWS Regional Migratory Bird Permit Office.

2. Engage the FWS for coordination prior to DOE operations and activities with significant adverse effects on migratory birds and their habitats, to initiate appropriate actions to avoid or minimize the take of migratory birds. Identification of potential impacts will be accomplished through DOE's continued use of EMS as the management framework that DOE components use at DOE sites for compliance with applicable environmental laws and regulations. This may include the establishment of programs with objectives and targets to improve the conservation of migratory birds and, where appropriate, restore and/or enhance bird habitats at each DOE site. This may also result in the development of site-specific, species-specific conservation plans that describe conservation opportunities to avoid or minimize facility- and project-related effects for migratory birds and their habitat.
3. Engage the FWS on the development and implementation of strategies to continually improve the conservation of migratory birds and their habitats in the conduct of environmental cleanup activities at DOE sites. Statutory authorities on the protection of

migratory birds and their habitats are recognized as potential ARARs¹ in project plans, developed by DOE and approved by the U.S. Environmental Protection Agency, for environmental legacy cleanup being conducted at DOE sites under the Comprehensive Environmental Response, Compensation, and Liability Act. For example, the environmental cleanup of the DOE Hanford site in Richland, Washington, includes monitoring of bird populations and habitats, as appropriate and feasible, to facilitate decisions about the need for, and effectiveness of, conservation efforts. DOE will continue to make information relevant to migratory bird conservation at its environmental cleanup sites available to the FWS.

4. Engage the FWS on the development and implementation of strategies to improve or enhance the conservation of migratory birds and their habitats at the following National Environmental Research Parks and other ecological resource preservation areas established across the DOE Complex:

- Hanford Site, Richland, WA
- Idaho National Laboratory, Idaho Falls, ID
- Fermilab, Batavia, IL
- Nevada National Security Site, near Las Vegas, NV
- Los Alamos National Laboratory, Los Alamos, NM
- Savannah River Site, Aiken, SC
- Oak Ridge Site, Oak Ridge, TN

Ecological Resource Preservation Areas have been established at:

- Brookhaven National Laboratory, Upton, NY
- Lawrence Livermore National Laboratory, Livermore, CA
- Sandia National Laboratories, Albuquerque, NM
- Sandia National Laboratories, Livermore, CA (wildlife reserve)

At these parks and preservation areas, DOE evaluates the environmental consequences of energy use and development as well as strategies to mitigate these effects. DOE may conduct research, among other activities at these DOE sites, to develop strategies for the

¹ Applicable or Relevant and Appropriate Requirements (ARARs)

preservation and enhancement of habitat for migratory birds; maintenance of bird populations; restoration of populations that have been reduced or extirpated by human activities; and minimization of human impacts on native species.

5. Engage the FWS on the development and implementation of strategies to improve or enhance the conservation of migratory birds and their habitats at water impoundment structures (e.g., dams and retention ponds) at the following DOE sites:
 - Savannah River Site, Aiken, SC
 - Oak Ridge Site, Oak Ridge, TN
 - Fermilab, Batavia, IL
6. Engage the FWS on the exchange of best available scientific information regarding current and emerging technological measures and practices to avoid or minimize adverse effects of energy technologies on migratory birds through such forums as the National Wind Coordinating Collaborative biennial Wind-Wildlife Research Meeting. Another mechanism for information sharing is the National Renewable Energy Laboratory (NREL)-administered Wind-Wildlife Impacts Literature Database (WILD), which can be found at <http://www.nrel.gov/wind/wild/>. WILD is a publicly available, online, searchable bibliographic database of documents, including journal articles, conference proceedings, government publications, books, utility company reports, etc., that focuses on the effects of wind energy development on wildlife. NREL also maintains an online listing of NREL-published documents and reports on avian issues available at http://www.nrel.gov/wind/avian_reports.html.
7. Consider FWS recommendations and suggested practices regarding energy development to avoid or minimize direct and indirect effects on migratory birds and their habitats.
8. Advise private parties and landowners seeking to interconnect electricity generating sources to DOE owned power transmission grids, to coordinate with the servicing FWS Regional Office to determine applicable conservation requirements under the MBTA.
9. Advise the public of this MOU through a notice published in the *Federal Register*.

G. Responsibilities of the FWS

Unless otherwise specified, the following activities will be coordinated through the appropriate Regional Migratory Bird Programs. To the extent permitted by law and subject to the availability of appropriations and Administration budgetary limits, and to the extent that the following obligations are in accord with agency missions and capabilities, the FWS shall:

1. Work to identify special migratory bird habitats (e.g., migration corridors, stopover habitats, nesting habitats) under the stewardship of DOE.
2. Provide assistance to identify particular species and habitats that would benefit most from agency land management decisions.
3. Initiate new or provide greater support for long-term research and monitoring programs for birds on DOE and adjacent lands, as funding and appropriate opportunities allow.
4. Through the FWS Division of Migratory Birds, keep DOE informed of the latest directions in bird conservation that might affect DOE activities, lands or policies by providing information on:
 - a. Changes to the MBTA and its regulations and procedures, or other acts and their regulations affecting migratory birds;
 - b. Population trends of species that might be affected by activities on DOE lands;
 - c. Changes to the list of Birds of Conservation Concern;
 - d. Changes in, updates to, or additions to national and regional bird conservation plans (e.g., Partners in Flight bird conservation plans, United States Shorebird Conservation Plan, North American Waterbird Conservation Plan, and the North American Waterfowl Management Plan); and
 - e. Updated protection measures for reducing human-caused bird mortality as new information becomes available.

H. Definitions

Action - a program, activity, project, official policy (such as a rule or regulation), or formal plan directly carried out by a Federal agency.

Avian Knowledge Network (AKN) - is an international network of governmental and non-governmental institutions and individuals linking avian conservation, monitoring and science through efficient data management and coordinated development of useful solutions using best-science practices based on the data. With data collections covering North, Central and South America and all migratory bird flyways, AKNs collective knowledge and best practices to answer conservation information needs are growing through common data structure and collaborative problem-solving. <http://www.avianknowledge.net/>

Birds of Conservation Concern - published by the Fish and Wildlife Services' Division of Migratory Bird Management, refers to the list of migratory and non-migratory birds of the United States and its Territories that are of conservation concern. The most current version of the list, Birds of Conservation Concern 2008, is available at: (<http://www.fws.gov/migratorybirds>).

CFR - Code of Federal Regulations.

Effects - a change or changes to natural resources and the components, structures, and functioning of affected ecosystems.

Energy facilities - power generation or energy transmission infrastructure.

Incidental take – see Take.

Intentional take – see Take.

Migratory bird - an individual of any species protected by the Migratory Bird Treaty Act. A list of migratory birds can be found in 50 CFR § 10.13: <http://www.gpo.gov/fdsys/pkg/CFR-2002-title50-vol1/pdf/CFR-2002-title50-vol1-sec10-13.pdf>.

North American Waterbird Conservation Plan (NAWCP) - a coalition of Federal and State government agencies, non-governmental organizations, and private interests focusing on the conservation of waterbirds, primarily marsh birds and colonial waterbirds: <http://www.waterbirdconservation.org/nawcp.html>.

North American Waterfowl Management Plan (NAWMP) - a coalition of Federal and State

government agencies, non-governmental organizations, and private interests focusing on the conservation of waterfowl:

(<http://www.fws.gov/birdhabitat/NAWMP/files/ImplementationFramework.pdf>).

National Environmental Policy Act (NEPA) - requires Federal agencies to prepare a detailed analysis of the environmental impacts of their proposal and alternatives and to include public involvement in the decision making process for actions significantly affecting the quality of the human environment.

Partners in Flight (PIF) - a cooperative effort involving partnerships among Federal and State government agencies, non-governmental organizations, conservation groups, foundations, universities, and industry focusing on the conservation of land birds (www.partnersinflight.org).

DOE site - refers to the location where DOE or related contractors, organizations or other entities conduct operations. These include contractor-operated DOE owned or leased facilities at discrete locations across the U.S. In the case of Government Owned Government Operated (GOGO) facilities (including Power Administrations), it refers to the DOE operating organization. See site descriptions at DOE National Laboratories and Technology Centers at <http://energy.gov/organization/labs-techcenters.htm> and at NNSA at <http://www.nnsa.energy.gov/aboutus/ourlocations>.

Species of Concern – refers to several categories of birds including: 1) species listed in the periodic report, Birds of Conservation Concern, published by the FWS Division of Migratory Bird Management (<http://www.fws.gov/migratorybirds>); 2) priority migratory bird species documented in the comprehensive bird conservation plans (North American Waterbird Conservation Plan, U.S. Shorebird Conservation Plan, Partners in Flight Bird Conservation Plans); 3) species or populations of waterfowl identified as high, or moderately high, continental priority in the North American Waterfowl Management Plan; 4) listed threatened and endangered bird species in 50 CFR § 17.11; and 5) MBTA-listed gamebirds of management concern (as listed in the Birds of Management Concern list (<http://www.fws.gov/migratorybirds>).

Take – to pursue, hunt, shoot, wound, kill, trap, capture or collect or attempt to pursue, hunt, wound, kill, trap, capture or collect (50 CFR § 10.12). The Executive Order further defines “take” to include intentional take, meaning take that is the purpose of the activity in question, and unintentional (incidental) take, meaning take that results from, but is not the purpose of, the activity in question. Intentional and unintentional take constitute take as defined by the MBTA. The regulations implementing the Eagle Act define take to mean pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, destroy, molest, or disturb bald and golden eagles (50 CFR § 22.3).

Unintentional take – See Take.

United States Shorebird Conservation Plan (USSCP) - an effort undertaken by a partnership of Federal and State government agencies, non-governmental organizations, and private entities to ensure stable and self-sustaining populations of all shorebird species are restored and protected (<http://www.fws.gov/shorebirdplan/USShorebird.htm>).

I. Dispute Resolution

Prevention of potential conflicts or resolutions of disagreements between the Parties will be attempted first at staff levels and elevated through the respective organizational levels if necessary. Conflict prevention or traditional Alternative Dispute Resolution processes will be used to attempt to achieve consensus.

Collaborative processes, including informal meetings or negotiations, will be used to avoid or minimize a dispute. If the dispute already has developed, more traditional processes may be appropriate, such as mediation or a negotiation assisted by a neutral third party. Notification of potential conflict or a dispute by either Party must be put in writing and attempts to resolve the matter at the Field level should occur within 30 days of the date of written notification. If there is no resolution at this level within 30 days, either Party may elevate the issue to the appropriate officials.

J. Agreement

It is mutually agreed and understood that:

1. This MOU in no way alters or diminishes any Party's responsibilities under any statute or other legal authority.
2. Either Party may terminate this MOU, in whole or in part, at any time before the date of expiration by providing the other Party 30 day's written notice to that effect.
3. Changes to this MOU shall be made by means of written modification(s) bilaterally executed by the Parties. This instrument in no way alters a Party's obligations to conduct environmental analyses, including compliance with NEPA requirements. Modification of this MOU may be made by the issuance of a written amendment(s) signed and dated by the signatories.
4. This MOU in no way restricts either Party from participating in similar activities with other public or private agencies, governments, organizations, or individuals.
5. Documents furnished to a Party under this MOU may be subject to the Freedom of Information Act (FOIA, 5 U.S.C. § 552). A Party shall not release documents originating in the other Party to a FOIA requester. Rather, the Party shall forward such document(s) to the originating Party for review, determination, and response directly to the requester.
6. This is not a binding contract but is an MOU, which broadly states basic understandings between the Parties hereto of the tasks and methods for performing the tasks, described herein. The details of the levels of support to be furnished one organization by the other with respect to funding shall be developed in specific interagency agreements or other agreements, subject to the availability of funds. This MOU shall not be used to obligate or commit funds or as the basis for the transfer of funds. This instrument does not establish authority for noncompetitive award of any contract or other agreement. Any contract or agreement for training or other service must fully comply with all applicable requirements for competition.
7. Any press releases that reference this MOU, or the relationship established between the Parties of this MOU, shall have prior approval of both Parties.
8. Periodic meetings of the Parties shall be scheduled to review progress and identify

opportunities for advancing the understandings in this MOU. Collaboration under this MOU shall be in accordance with the applicable statutes and regulations governing the respective Parties.

9. This MOU does not require changes to current contracts, permits or other third-party agreements. The MOU recognizes that DOE may not be able to implement some elements of the MOU until such time as DOE has successfully included them in formal planning processes.
10. This MOU is intended only to improve the internal management of the Executive Branch of the Federal Government and does not create any right or benefit, substantive or procedural, separately enforceable at law or equity by a party against the United States, its agencies or instrumentalities, its officers or employees, or any other person.
11. This MOU takes effect upon the signature of DOE and FWS and shall remain in effect for five years from the date of execution. This MOU may be extended or amended upon written request of either DOE or FWS and the subsequent written concurrence of the other Party.
12. The principal contacts for this MOU are as follows:

Josh Silverman

Director, Office of Sustainability Support
Office of Health, Safety, and Security
U.S. Department of Energy
1000 Independence Avenue, SW
Washington, DC 20585

Signatories:

Glenn Podonsky
Chief Health, Safety and Security Officer
U.S. Department of Energy

DATE

9/11/13

Brad Bortner

Chief, Division of Migratory Bird Management
U.S. Fish and Wildlife Service
U.S. Department of the Interior
4401 N. Fairfax Drive, MS 4107
Arlington, VA 22203



for

Dan Ashe
Director
U.S. Fish and Wildlife Service
U.S. Department of the Interior

DATE

AUG 26 2013

Bruce Held
Acting Administrator
National Nuclear Security Administration
U.S. Department of Energy

DATE EBW/HK SEP 12 2013