

Reference

**AVIAN PROTECTION PROGRAM  
FOR  
GEORGIA POWER COMPANY**

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This Avian Protection Program (APP) has been incorporated by reference into *Environmental Health and Safety (EHS) Guideline 104, PROTECTED, THREATENED OR ENDANGERED SPECIES/MIGRATORY BIRDS/AVIAN PROTECTION PROGRAM*, by reference and is therefore approved for use and implementation by all affected Georgia Power departments and organizations.

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## SAFETY

**SAFETY is FIRST.** Nothing in this APP is intended to imply that there is any substitute for safe working conditions for Georgia Power Company personnel or the safety of the public and our customers. Any actions necessary for safe operations should be taken in accordance with standard Company safety procedures.

## **PURPOSE**

### Regulatory Basis

All native species of North American birds are covered by the Migratory Bird Treaty Act (MBTA). Its main purpose is to protect migratory birds, their parts, nests, and eggs. Birds excluded by the MBTA include introduced and/or exotic species such as English Sparrows, European Starlings, Rock Doves (Common Pigeons), Non-migratory (upland) game birds (*which are protected by state and federal hunting regulations*), and Monk Parakeets. Eagles are also protected by the Bald and Golden Eagle Protection Act (BGEPA). In addition, many species of native birds are protected by the Endangered Species Act (ESA). These federal regulations contain a common term, "take". "Take" is defined in 50 CFR 10.12 to include: *Pursue, hunt, shoot, wound, kill, capture, or collect, or to attempt any of these acts.* Violation of any of these regulations can result in criminal or civil enforcement action against individual employees and/or Georgia Power Company (GPC or Company) by federal authorities, depending on the nature and severity of the violation. Examples of migratory bird "takes" investigated by federal law enforcement include such non-hunting violations as: pesticide poisoning, chemical poisoning, fisheries long lines, and gillnets, wind power facilities, electrocution, collision with electrical lines or communication towers, and destruction of active nests.

### Benefits of an Avian Protection Program and Management Support

Increased awareness of avian (bird) issues and development of an Avian Protection Program (APP or Program) will benefit Georgia Power Company, our customers, and the species. This will be accomplished by ultimate cost savings, improved power reliability, employee pride, increased customer satisfaction and loyalty, resource protection, positive recognition by resource agencies, and will ensure regulatory compliance.

Implicit in the APP is the support and commitment of Company management to support and implement the Company strategy and to minimize risks. Appropriate resources must be committed, budgets for O&M and Capital fixes must be approved, a system for tracking remedial costs and actions must be maintained and supported, and remedial measures must be implemented on a

timely basis. Cooperation with the resource agencies that results in positive relationships must be maintained. Raptor risk surveys and avian issues must be supported and implemented in retrofit and new construction of transmission, distribution, and substation facilities and other Company projects which may contribute to avian interactions. Above all, the Program must be proactive in setting and implementing Avian Protection guidelines.

### Bird Mortality

Bird mortality caused by electrocutions and collisions with power lines has received a great deal of attention in recent years by regulatory agencies, utility personnel, and the public. Positive and proactive attempts by Georgia Power Company to reduce or eliminate these avian interactions are essential to maintaining system reliability and are viewed by the agencies and the public as affirmative indicators of good environmental stewardship. They also demonstrate Georgia Power's commitment to fully comply with, or exceed, all environmental laws and regulations.

Mortalities of large birds due to electrocution on GPC systems, based on the information currently available, are primarily caused by vultures (buzzards) roosting or perching on transmission structures. Raptor mortalities due to electrocution have also been reported from transmission, distribution, and substation equipment. Other bird species have been reported to a lesser extent.

Avian mortalities due to collisions with conductors, guy wires, and overhead ground (static) wires have not been specifically documented on GPC system components, but are known to occur on other utilities' systems and communication systems. It is therefore likely, at least to a minimum extent, some collision mortality may have occurred. GPC has installed spiral vibration dampers to increase visibility on some of our transmission lines, especially along the coastal areas where the Federally Endangered Wood Stork is known to nest and forage.

### Bird Nests

Nesting birds have been documented on GPC equipment and structures. Examples of these nests include osprey and great blue heron nests on transmission structures, mourning dove nests on substation transformers, American kestrel nests in hollow transmission cross arms, and various woodpecker species constructing nest cavities in wooden poles. These nests have caused reliability problems and service outages due to the presence of the nest itself and/or contamination from the droppings of the nestlings and parents. Woodpecker nests in wooden poles compromise the structural integrity of the poles. Birds nesting in close proximity to energized equipment also present a safety concern for the parent birds, nestlings, equipment, employees, and the

public. Bird nests that may be problematic from a reliability or safety standpoint must be dealt with in a timely, efficient, and legal manner.

#### Georgia Power Company Program

The GPC Avian Protection Program is intended to be a dynamic program involving all affected departments. The Program will facilitate communications between the various departments and allow for determining the best solutions for individual problem areas based on engineering, cost, practicality, biological information, and compliance with applicable environmental laws and regulations. The Program also provides information and procedures on reporting avian interactions and mortalities, data management and analysis, design and material standards for new/retrofit work to bird safe structures, handling and disposal of birds and nesting materials as appropriate, procedures for reporting and handling problem nests, and information on obtaining necessary assistance from Company environmental personnel. The Program also addresses training of personnel in all aspects of their responsibilities as defined by the Program and state and federal laws and regulations governing native birds in the United States. In addition, the Program addresses ways in which monitoring and enhancement of avian populations may be carried out as well as addressing opportunities for cooperative projects with state and federal resource agencies and other interested organizations or institutions.

General oversight and management of the Company APP will be accomplished by the Environmental Field Services Supervisor with management support from the Environmental Laboratory Manager and Director of Environmental Affairs. Close coordination and participation by management and line personnel from all areas of Distribution, Transmission, Substation, Land, and any other affected Company operations areas will always be maintained.

## Definitions

**Avian Interaction** – Any condition which involves a direct, and usually adverse, relationship between any species of bird and electrical transmission, distribution, substation, and/or communication equipment such as bird electrocutions, collisions, or nesting activities on or with transmission or distribution structures, energized or non-energized conductors or guy wires, etc. or interruption of electrical service caused by bird activities or contamination of electrical components.

**Contamination** – Generally refers to fouling of electrical equipment, components, insulators, cross arms, etc. by the droppings of adult and/or juvenile birds. Sometimes is also the result of “streamers”, or bird excrement released at the time of a bird’s take-off or landing.

**Raptors** – Birds of prey with hooked beaks and talons for grasping and killing prey; includes eagles, hawks, falcons, kites, owls, and osprey.

**Raptor-safe** - Engineering practices to provide safety for large perching birds is referred to as raptor-safe construction standards. These design standards are consistent with raptor-safe specifications recommended by federal wildlife agencies. *The benefits of raptor-safe engineering practices are realized by many species of large perching birds, and are not confined to raptors as the name might suggest.*

**Problem Nest** – A nest that may cause electrocution and death to the birds, electrical outage, property damage, or otherwise interfere with power operations.

**Occupied (or Active) Nest** – A nest with an incubating adult (sitting on eggs), or eggs or young present. These normally occur during the breeding season from approximately February through August.

**Threatened and Endangered Species (T&E Species)** – Species that are threatened with extinction and protected by federal law (Endangered Species Act). All eagles are also protected by the Bald and Golden Eagle Protection Act.

**State T&E Species, Species of Concern, Rare, or Unusual Species** – Species that are threatened locally, or are rare or unusual in Georgia.

**Imminent Danger** – Due to the presence of a bird nest, there is an imminent danger of fire or electrocution to the birds, or imminent danger to human life or property. Imminent Danger is normally considered to be a rare situation.

## PROCEDURES

### Avian Interaction Reporting

All avian interactions must be reported to Environmental Affairs. Threatened and endangered species and injured birds must be reported immediately. The Region Environmental Representative (RER) will generally be the initial point of contact to report an avian interaction. The Region Environmental Representative will complete the Avian Interaction Report and forward it to Environmental Field Services (EFS).

EFS should be contacted if the Region Environmental Representative is unavailable and in all instances concerning removal or relocation of active or inactive nests. The primary contact person is the Environmental Affairs Supervisor, Environmental Field Services. He must be present on site whenever an active nest is moved or removed unless field personnel are instructed otherwise by him. Salvage (handling) of migratory bird, and especially raptor carcasses, other than eagles, also must be under the direction of the EFS Supervisor according to GPC's U.S. Fish & Wildlife Service (USFWS) permit. The permit contains specific conditions for handling, transport, possession, and disposal of such birds. **The carcass should not be moved or removed until EFS has been contacted and instructions are received.** *Under no circumstances should a Federally Listed Threatened or Endangered Species be handled or moved (Bald Eagle, Wood Stork, Red-cockaded Woodpecker). No attempts to capture injured birds should be made. Report T&E species and injured birds to EFS immediately.* Other EFS personnel should be contacted for assistance if the EFS Supervisor is unavailable. Appropriate EFS and RER contact information will be updated and distributed throughout the Company by both written and electronic means on a recurring basis.

Dead birds entangled in or on lines also present an unfavorable public impression and these instances should be reported to the RER and/or EFS and dealt with as soon as possible.

### Documentation

All avian interactions must be reported to Environmental Affairs using the Avian Interaction Report Form. As much information as possible, including photographs and a GPS position, should be collected. Especially important is the location of the interaction. Information such as the "official" line name, nearest structure number(s), switch or equipment numbers, street address, substation name, date, and type of bird is extremely useful. Structure type and configuration is also important to assist in determining if configuration contributed to the mortality. Photographs and additional information may be submitted as an

attachment or separate submission. Salvage and nest relocation situations require additional information for reporting to USFWS. All information will be included in the Avian Interaction database and Geographical Information System (GIS) program to aid in data analysis. The name and contact information of the person finding the bird or familiar with the interaction is the single most important piece of information to be included on the form so that follow-up can be made as necessary.

Interaction reports will be maintained in database format by EFS. A Geographical Information System will be utilized for additional data analysis so that interactions can be plotted on system maps and analyzed for patterns or recurring locations. This will help to determine problem locations by allowing for spatial analysis of existing data.

Information collected from the Avian Interaction Reports and other sources will be utilized to prepare the reports required by the USFWS Migratory Bird Special Purpose Salvage and Depredation Permits. Required reports will be submitted to the USFWS by EFS personnel in accordance with permit conditions.

#### Dealing with Problem Nests (Existing, Upgrade, & Rebuild Lines)

A problem nest is a nest that may cause electrocution and death to the birds, electrical outage, property damage, or otherwise interfere with power operations. In most cases this will be a raptor nest or nest belonging to one of the larger wading birds such as the Great Blue Heron.

If a nest does not meet these qualifications it is not a problem nest and should be left alone. If a problem is anticipated with a particular nest in the future, action should be taken **before** the nest is occupied.

Nest issues are not always straightforward. On April 15, 2003 the USFWS issued a Memorandum on Nest Destruction that details various technical issues and potential liabilities for "take" when destroying bird nests. These include nest identification as it pertains to T&E species and whether or not the nest is actually active. *If work is to be performed on a structure that is found to be a nesting site, the RER or EFS must be contacted prior to performing work that might adversely affect the nesting birds, except in the case of **Imminent Danger**.*

Prior to taking any action on a problem nest, personnel are required to determine:

1. The bird species using the nest. Is it an eagle, wood stork, or other endangered species?
2. The status of the nest. Is it occupied (active) with incubating or tending adults, eggs, or young present?

## Non-Eagle and Non-Endangered Species Nests

### Unoccupied Problem Nests

Unoccupied nests may be removed. However, simply removing the nest of a raptor (especially Osprey) may not result in a permanent solution because these birds return to the same location year after year. Several options are available for a more satisfactory long-term solution to the structural problem as well as one which is more environmentally sound. Constructing a nesting platform or modifying the structure to accommodate both nest and power operations usually prevents future complications and minimizes costs. Installation of nest or perch discouragers that have been approved for Company use may also be considered in these instances. EFS is available to provide timely consultations and recommendations for your particular situations and **it is required that you contact EFS prior to any nest relocation or removal activities except in situations of imminent danger.**

### Occupied Problem Nests

All occupied nests are protected by the Migratory Bird Treaty Act. The Environmental Affairs Supervisor, Environmental Field Services, holds a Migratory Bird Depredation Permit from the U.S. Fish and Wildlife Service. This permit allows GPC employees, under the direct control, supervision, or employment of the EFS Supervisor to relocate active nests of nonthreatened / nonendangered migratory birds for project purposes. The permit contains specific conditions for such activities. It also contains a requirement for annual reporting of all birds, nests, eggs, or young taken and/or relocated under the terms of the permit. **Instructions for proper nest removal or relocation procedures will be given upon contact with EFS.** *Under no circumstances should a Federally Listed Threatened or Endangered Species or its nest, eggs, or young, be handled or moved (Bald Eagle, Wood Stork, Red-cockaded Woodpecker).* Contact EFS prior to conducting any management activity on an occupied nest of any species except in situations of **imminent danger.**

**In the exceptional case of imminent danger,** nest material may be trimmed, conductors moved, or other appropriate action taken prior to receiving specific instructions from EFS. Practices to ensure the welfare of eggs or young birds, if present, must be followed. Any action taken on an occupied nest prior to EFS notification is highly unusual, and extreme caution is recommended to protect eggs or young and avoid violation of federal law. EFS should be contacted as soon as possible in these cases so that appropriate instructions may be provided.

When managing an **occupied nest** these actions should be taken:

1. Contact EFS before taking action.
2. EFS will ensure proposed action is in accordance with Permit.
3. EFS will provide guidelines and/or recommendations for management actions which will comply with USFWS Depredation Permit.

### Eagle or Endangered Species Nest

Eagle nests on transmission/distribution structures or other electrical equipment have not been documented in Georgia. Likewise, Wood Stork nesting on such equipment has not been documented. Nevertheless, such nests **could** occur. Other T&E avian species in the state are unlikely to nest on structures or electrical equipment or cause a problem if they did. However, that is not to say such a nest can not exist. The American Kestrel (a raptor) is known to utilize the hollow cross arms of some of our structures and has a sizeable population and number of nests in these structures. This bird is being considered for federal listing.

Species lists of Georgia Federally Listed T&E species and maps of their ranges may be found in the Appendices to this document.

All eagle and T&E species and their nests are protected by federal law whether or not the nest is occupied. Violations could result in fines to the Company or individuals involved in any unlawful actions.

EFS is available to provide timely consultations and recommendations for your particular situations and you **must contact EFS prior** to any nest relocation or removal activities for eagle or T&E species except in situations of imminent danger.

**In the case of imminent danger** nest material may be trimmed, conductors moved, or other appropriate action taken prior to receiving a USFWS permit. Practices to ensure the welfare of eggs or young birds, if present, must be followed. Any action taken on an occupied nest prior to EFS notification is highly unusual, and extreme caution is recommended to protect eggs or young and avoid violation of federal law. EFS should be contacted as soon as possible in these cases so that appropriate contact can be made with the USFWS to advise them of the situation and obtain additional instructions or permits.

When managing a **nest of an eagle or T&E species** these actions should be taken:

1. Contact EFS before taking action.
2. EFS will contact the USFWS and provide further instructions.

3. EFS will provide guidelines and/or recommendations for management actions.

#### Dealing with Dead Birds

If a bird carcass is discovered on a GPC right-of-way (ROW), substation, distribution line or equipment, or other facility where its death can be attributed to electrocution by, or collision with, electrical equipment or other GPC property or structures (e.g. communication towers), an Avian Interaction Report shall be completed as described in the Avian Interaction Reporting section. The carcass should not be moved or removed until EFS has been contacted and instructions are received. Dead birds should be observed for the presence of any special leg bands, markers, or neck collars. Marked birds shall be left on site and EFS notified as soon as possible. EFS will contact the USFWS or Georgia DNR to report the bird.

Generally, if the bird carcass is not a T&E species and is not in a public area, entangled in lines, or causing operating problems, it may be left as is at the site. In a great many instances, leaving the carcass where it was found will be the most appropriate action. Location of the carcass and regard for public concern, safety, or sanitation often will dictate what action is appropriate. Again, the RER or EFS can provide guidance to field personnel. If the bird carcass is entangled in lines or is in a public location or for some other reason must be moved, transported, or buried, contact EFS according to instructions in the preceding section on Avian Interaction Reporting. Instructions for proper handling procedures will be given upon contact with EFS.

If an eagle or other threatened or endangered species (e.g. wood stork, red-cockaded woodpecker) is found, the carcass must be left on site. It may be moved to a safer place at the base of the nearest structure but must not be buried. By law, any eagle mortality must be investigated by the USFWS and this investigation often involves an autopsy of the carcass to determine the cause of death. Any eagle or T&E species mortality must be immediately reported to Environmental Affairs. EFS will contact the USFWS and provide further instructions as to the disposition of the carcass. Under no circumstances should a federally listed threatened or endangered species be handled or moved. Also, if at all possible, take several photos of the bird from different positions to aid in its identification if that is in doubt. The carcass should be handled using gloves if possible.

#### Dealing with Injured Birds

Company personnel discovering an injured bird within Company facilities or on Company ROWs should contact Environmental Affairs as soon as possible for further instructions. Personnel should **MAKE NO ATTEMPT TO CAPTURE OR RESTRAIN THE BIRD**. EFS will attempt to locate a qualified and permitted

wildlife rehabilitator or the USFWS or Georgia DNR to retrieve the bird. Not only is handling the bird a violation of the law, but large birds can inflict serious injury such as pecking eyes and biting or clawing hands and arms.

#### Disposal, Transport, Relocation

Company personnel should not have in their possession the carcass of a dead bird, or a live injured or healthy bird, unless specific instructions to do so have been given by EFS. Personnel should also never have in their possession any nests, parts of nests or birds (including feathers), or eggs unless specific instructions to do so have been given by EFS. It is a violation of federal law to "take" (kill, transport, sell, or possess), regardless of intent, without proper permits or authorization.

#### Avian Interaction Summary:

1. Do not remove the carcass of a dead bird from the site.
2. Contact the RER or EFS to ensure USFWS Salvage Permit conditions are met prior to burial or disposal of the carcass on site. Specific transportation or alternate disposal instructions may be provided by Environmental Field Services if appropriate.
3. If a dead eagle, endangered species, or a bird with a leg band or other marking is discovered, notify the RER or EFS immediately.
4. If an injured bird is found, leave it alone and contact the RER or EFS immediately.
5. Any avian interaction must be documented by utilizing the Avian Interaction Report, even when no outage is documented.

## **PROACTIVE MANAGEMENT TO REDUCE OR ELIMINATE ADVERSE AVIAN INTERACTIONS**

### Training

A copy of the current GPC APP is available to all Company personnel on the Southern Company Intranet.

Routine training on issues concerning the MBTA, BGEPA and the APP is the responsibility of the Environmental Services Manager, Environmental Affairs – T & D Services. Affected field organizations may request additional training on the APP or other avian issues from Environmental Affairs.

The training information is entered into the employee's training records in SHIPS as course number 012868.

### Risk Assessment

Risk assessment will be an ongoing part of the APP. By use of a GIS based system, spatial analysis of incoming Avian Interaction Reports will be tracked and areas of concentrated problems can be identified early. Raptor use areas, nesting concentrations, electrocution and contamination outage areas and problem poles will be identified and appropriate actions initiated. As more knowledge is gained on avian habitat, usage, and interactions along the Company system, the assessment of risk to resident and migratory bird populations due to potential adverse interactions with electrical equipment will be evaluated and remedial actions will be planned and implemented. Information gathered in other aspects of environmental field work will also be incorporated into the GIS database.

When siting new transmission lines, substations, or other Company facilities, available information on resident and migratory bird populations will be taken into account to ensure that the lines or facilities will have as little adverse impact as practicable on these bird species.

### MODIFICATIONS OF EXISTING FACILITIES

Modifications of existing facilities may be necessary if problems persist in certain areas or there are concerns about compliance with federal and/or state regulations. The need for such remedial action may be necessary when "problem structures" are identified through data analysis, notification by resource agency personnel, citizen concerns, or other means. The need to maintain system reliability may also result in the need for modifications to existing structures or other equipment.

The main objective of any remedial actions or modifications to existing structures or equipment is to eliminate or minimize avian interaction problems or avian mortalities and to ensure system reliability. This objective should be accomplished by applying known raptor-safe standard practices or devising innovative solutions to unique problems. The following practices are generally accepted to provide for raptor-safe equipment:

1. to provide for a 60-inch (1.5 –m) minimum separation between conductors and/or grounded hardware;
2. to insulate hardware, structures, or conductors against simultaneous contact if adequate spacing is not possible;
3. to increase the visibility of conductors or shield wires (overhead ground wires) to prevent avian collisions; or
4. to provide safe locations for perching or nest construction;
5. the installation of perch or nest discouragers of various types.

#### Development of Site Specific Plans

A site specific plan to undertake remedial actions and/or modifications to existing facilities will be developed as problem structures or equipment are identified as noted above. The factors that create a hazardous condition to birds due to Company facilities are most likely to be complex and site specific. Therefore, the solution for correcting a problem line, structure, or other equipment must be developed by considering all relevant information available for that site. This information will consist of biological, ecological, topographic, engineering, or any other applicable data available. A team consisting of the appropriate environmental, operating, transmission, distribution, substation, region, maintenance, and engineering personnel will be assembled in a timely manner to address the issues and develop a workable solution to remedy the adverse avian impacts. A timetable for action will be based on the severity and nature of the problem as well as legal compliance, agency requests, public relations, budget and manpower constraints. Biological considerations that affect the species that are at risk will also be considered. The application of remedial actions to a few "problem structures" or spans often reduces problems over a wide area.

#### Bird Collisions with Existing Lines

Collisions by birds with overhead wires is typically a problem involving large-bodied, less maneuverable birds, or species that fly at high speeds and at low altitudes, in areas of high concentration (for example, waterfowl near wetland areas). Many factors influence the likelihood of collisions with overhead wires. These include characteristics of the species involved (e.g., use of habitat, body size and flight behavior, age, time of day) as well as environmental characteristics (e.g., weather, land use practices, line configuration and placement). The proximity of a line to high-use areas, vegetation that may attract

birds, and topographical features that affect local and migratory movements should be considered when determining the extent of necessary remedial action.

Many solutions exist for reducing or eliminating the risk of bird collisions with lines. These include such options as marking the line to increase visibility, burying the line, reconfiguring the line, or removing the overhead ground wire. Of these options, increasing the visibility of the line by the use of marker balls, spiral vibration dampers, or bird flight diverters is usually the preferred option. However, because each situation will be site specific due to environmental, biological, and engineering variables, each solution will be unique and will be determined by the team that develops the site specific plan as detailed above.

#### Placement of New Lines to Avoid Bird Collisions

In areas where agencies are concerned about the safety of protected birds (e.g., near wildlife refuges, rookeries, etc.), consideration of appropriate siting and placement will reduce the likelihood of collisions. When possible, areas with high known bird concentrations will be avoided, and such vegetation or topographic characteristics that would naturally lead to shielding the birds from collision (placement of structures next to tall trees or landforms) will be utilized. If this is not possible, installing visibility devices may also reduce the risk of collision. Examples of these devices are marker balls or other line visibility devices placed in varying configurations, depending on the line or location. The effectiveness of these devices has been validated by federal and state agencies in conjunction with Edison Electric Institute.

#### Electrocution of Birds on Existing Lines

Most birds that are electrocuted on GPC lines are larger birds such as hawks and owls (raptors) and vultures. Several principal factors contribute to the electrocution of these species. Raptors use the lines and structures for hunting perches or nesting substrate (usually Osprey). Vultures use structures for perching and roosting. Other larger birds that occasionally use structures for nesting and roosting include the Great Blue Heron, Red-tailed Hawk, and American Kestrel. Power line assembly configurations often place energized conductors close enough to other energized phases or to grounded hardware so that birds are able to make simultaneous contact with their wings or other body parts, thus causing phase to phase or phase to ground contact. This risk is increased when the bird's feathers are wet.

Often, retrofitting only a few structures can significantly reduce most electrocution hazards on existing lines. Again, the solution will be site specific depending on local conditions and line configurations. Increasing the spacing between the conductors, installation of perch discouragers of various types and insulation of conductors, equipment, or support structures are normally considered for a solution to these electrocution problems.

### Nests on Power Lines

Raptors (especially Osprey), and occasionally other species, frequently benefit from the presence of power lines by utilizing distribution poles and transmission structures for nesting. American Kestrels are known to utilize the hollow cross arms on certain portions of GPC transmission lines for nesting. Woodpeckers also nest in cavities excavated in wood transmission and distribution poles. Although electrocution of birds that nest on power lines is infrequent, bird nests can cause operational problems and structural damage (e.g., woodpecker nest cavities). Contamination from droppings of adults and young also often can cause operational problems due to contamination of insulating equipment.

Removal of nests often does not completely solve the problem because most species are site-tenacious and rebuild after the nest material is removed. There are also regulatory and public relations problems with nest removal. In addition, GPC has realized that our relations with the public often benefits by providing nesting locations for some species.

Nesting platforms for the larger species such as Osprey have been shown to be a valuable tool in dealing with this issue, both in terms of reducing outages and increasing positive resource agency and public relations. Platforms provide for the spatial needs of the birds, while preventing electrocutions and electrical outages. Platforms are normally placed on the structure where the nesting attempt was made, above the conductors, or sometimes on a newly set pole adjacent to the structure. Nesting platforms are normally most cost effective and reliable when constructed using available materials and customized for the site.

There may be times however, when nesting must be discouraged. This will be determined through the site team analysis process. Placement of nest discouragers on structures may be appropriate in these instances. Woodpecker cavity nesting in wood poles is another example of such an instance. Existing nests must be checked in a manner that will not injure or disturb eggs or nestlings if they are present. When the nests are empty they may be removed and the cavities covered or filled. Contact EFS for additional guidance and assistance.

*EFS must always be contacted prior to any nest relocation or removal actions to ensure that USFWS permit conditions are met (except in the case of **imminent danger**, as provided for previously).*

### Raptor-Safe Construction Standards

When designing or rebuilding power lines in high bird use areas or on federal lands, the same concepts used to modify existing power lines to prevent

electrocutions also apply to new construction: conductor spacing and grounding procedures. The objective is to provide 60 inches (1.5 m) between energized conductors and grounded hardware, or to insulate energized hardware if such spacing is not possible. Engineering practices to provide safety for large perching birds is referred to as "raptor-safe" construction standards. These design standards are consistent with raptor-safe specifications recommended by federal wildlife agencies. This will prevent problems from occurring in the future, both from a legal/public relations aspect as well as in providing reliable customer service.

Georgia Power Company construction standards for transmission, distribution, and substation equipment and facilities will reflect the most appropriate and practicable "raptor safe" standards for new and retrofit construction consistent with available information. Products which may be beneficial to the enhancement of "raptor safe" equipment will be identified and stocked in Company inventories as available and appropriate. Whenever new or rebuild projects are undertaken or remediation is necessary, the most recent or appropriate standards will be utilized for the site specific circumstances.

#### Consultations and Documentation of Follow-Up and Remedial Action Plans

EFS is available for consultation on the effectiveness of remedial approaches and for negotiation of cost-effective prescriptions with state and federal agencies. **All remedial actions and new construction or rebuild to raptor safe standards shall be documented and submitted to EFS for inclusion in any required reports to federal and state resource agencies.**

#### Procedure

After receipt of an Avian Interaction Report, EFS will log the information in the Avian Interaction Report database and GIS. The location of the interaction will be examined to determine if it is near any prior interaction locations and, therefore, may indicate a problem with a particular line, structure, or configuration. EFS will also notify the appropriate operating personnel (i.e. District Support Specialist Senior, District Design Management or Transmission Specialist Senior, Maintenance and Reliability), typically by electronic means such as e-mail, of the details of the interaction. These personnel will be requested to conduct an investigation of the equipment involved in the interaction and make a report of their findings to EFS within 30 days. Their report shall include recommendations as to whether or not any remedial action is necessary and the reason(s) for their recommendations. These recommendations will be based upon the existing design and configuration of the equipment involved, engineering, and/or other applicable data available. Biological and ecological considerations that affect the species at risk will also be considered by EFS personnel. If remedial action is required, it will be undertaken within a reasonable time as budget, manpower, and the criticality of the situation warrant.

Remedial actions may include, but are not limited to: increasing spacing between energized conductors and grounded hardware; insulation of energized components; installation of perch guards; and the use of line marking devices. Costs associated with remedial action(s) will also be tracked and recorded.

The request for investigation will be maintained by EFS and will be tracked through completion. A copy of the report and all supporting information will also be maintained in the EFS files.

**APPENDIX A**

**AVIAN INTERACTION REPORT FORM**

# AVIAN INTERACTION REPORT

Location/Address of Interaction \_\_\_\_\_ County \_\_\_\_\_

Circuit Info., Voltage, ID No., Etc. \_\_\_\_\_

GPS Position (If Available) Latitude \_\_\_\_\_ Longitude \_\_\_\_\_

Operating/TMC office \_\_\_\_\_

Reported By: \_\_\_\_\_ (Phone/Radio) \_\_\_\_\_ Date: \_\_\_\_\_

Found By: \_\_\_\_\_ (Phone/Radio) \_\_\_\_\_ Date/Time: \_\_\_\_\_

Common Name of Bird: \_\_\_\_\_ Number of Birds: \_\_\_\_\_  
(From GPC Field Guide Book)

Signs of Death: Electrocutation  Collision  Shot  Unknown  Other   
Explain: \_\_\_\_\_

If electrocution: Phase to Phase  Phase to Ground  Unknown   
Visible burn marks: Yes  No

Structure/Equipment description: \_\_\_\_\_

Nest on structure: Yes  (If Yes, Active  Inactive  ) No  Injured Bird: Yes  No

Disposition of Injured Bird: Transported to Rehabilitator  Picked-up by Rehabilitator  Left on Site   
Other (Explain) \_\_\_\_\_

Disposition of Carcass: Buried on Site  Transported for ID/Necropsy  Left on or Near Site   
Other (Explain) \_\_\_\_\_

Permission to Salvage Carcass from EFS under USFWS MB074770-0 (Includes burial and/or Transport) obtained from \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Permission for nest (egg, chicks) relocation from EFS under USFWS Depredation Permit MB745135-0 obtained from \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ | Person Relocating \_\_\_\_\_

Relocated to \_\_\_\_\_ #Birds \_\_\_ Nests \_\_\_ Eggs \_\_\_ Young \_\_\_

Existing Bird Protection: Yes  No  or Nest Platform: Yes  No  on Structure  
Explain: \_\_\_\_\_

Contamination Problem: Yes  No  Explain: \_\_\_\_\_  
(Bird Droppings)

Comments/Recommendations \_\_\_\_\_

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**APPENDIX B**

**FEDERALLY LISTED  
THREATENED AND ENDANGERED  
BIRDS IN GEORGIA**



## U.S. Fish & Wildlife Service

### Georgia Ecological Services REGION 4 Athens, Brunswick & Columbus

[Home](#) > [Endangered Species](#) > [Endangered Birds](#)

#### Federally Listed Threatened & Endangered Birds in Georgia



- T & E Species**
- Georgia Birds
- Georgia Fish
- Reptiles & Amphibians
- Invertebrates
- Georgia Mammals
- Georgia Plants
- Species By County
- Endangered Species
- Glossary of Terms
- ...Endangered Species

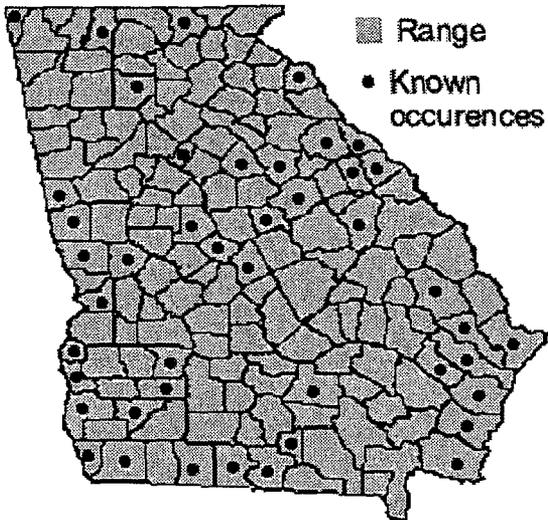
| Listed Birds  | Status | GA Range   | Habitat   | Threats  |
|---|--------|--|---|--|
| <b>Piping plover</b><br><i>Charadrius elodus</i>  | I      | Coastal beaches<br><a href="#">MAP</a>                     | Winters on Georgia's coast; prefers areas with expansive sand or mudflats (for foraging) in close proximity to a sand beach (for roosting)  | Habitat alteration and destruction and human disturbance in nesting colonies. Recreational and commercial development have contributed greatly to loss of breeding habitat.  |
| <b>Kirtland's warbler</b><br><i>Dendroica kirtlandii</i>  | E      | Transient on coast during migration<br><a href="#">MAP</a> | Migrates through Georgia to wintering grounds in the Bahamas  | Small population numbers, limited distribution on the breeding and wintering grounds, exacting breeding habitat requirements, and cowbird parasitism   |
| <b>Bald eagle</b><br><i>Haliaeetus leucocephalus</i>  | T      | Statewide<br><a href="#">MAP</a>                           | Inland waterways and estuarine areas in Georgia   | Major factor in initial decline was lowered reproductive success following use of DDT. Current threats include habitat destruction, disturbance at the nest, illegal shooting, electrocution, impact injuries, and lead poisoning.   |
| <b>Wood stork</b><br><i>Mycteria americana</i><br> | E      | Southeast wetlands<br><a href="#">MAP</a>                  | Primarily feed in fresh and brackish wetlands and nest in cypress or other wooded swamps  | Decline due primarily to loss of suitable feeding habitat, particularly in south Florida. Other factors include loss of nesting habitat, prolonged drought/flooding, raccoon predation on nests, and human disturbance of rookeries. |
| <b>Red-cockaded woodpecker</b><br><i>Picoides borealis</i>  | E      | Mature pine forests statewide<br><a href="#">MAP</a>       | Nest in mature pine with low understory vegetation (<1.5m); forage in pine and pine hardwood stands > 30 years of age, preferably > 10" dbh | Reduction of older age pine stands and to encroachment of hardwood midstory in older age pine stands due to fire suppression   |

**APPENDIX C**

**RANGE AND KNOWN OCCURRENCE MAPS FOR  
FEDERALLY LISTED  
THREATENED AND ENDANGERED  
BIRDS IN GEORGIA**

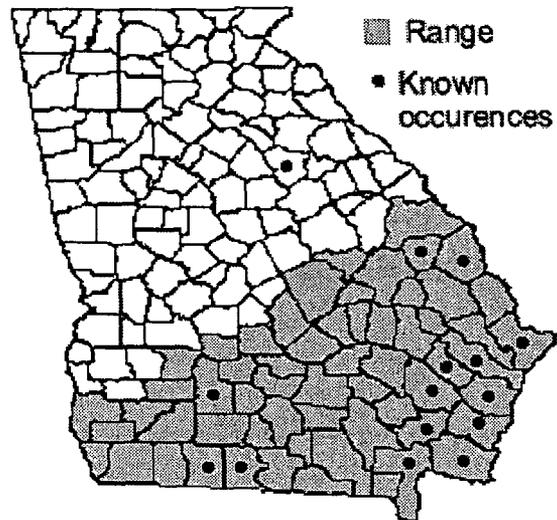
### Bald Eagle

*Haliaeetus leucocephalus*



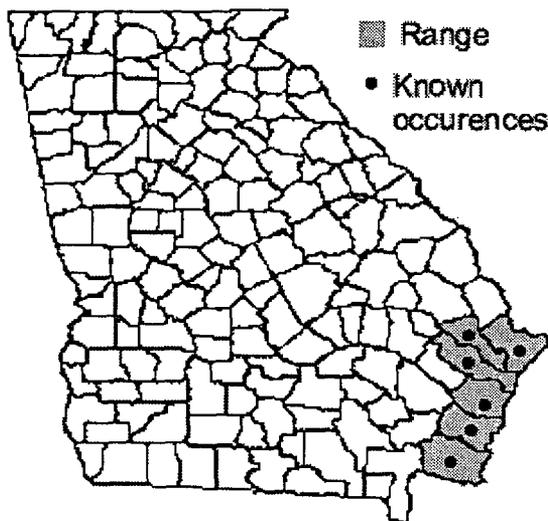
### Wood Stork

*Mycteria americana*



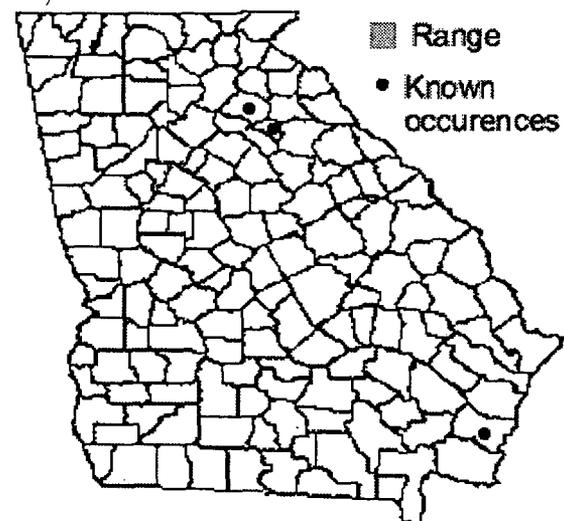
### Piping Plover

*Charadrius melodus*



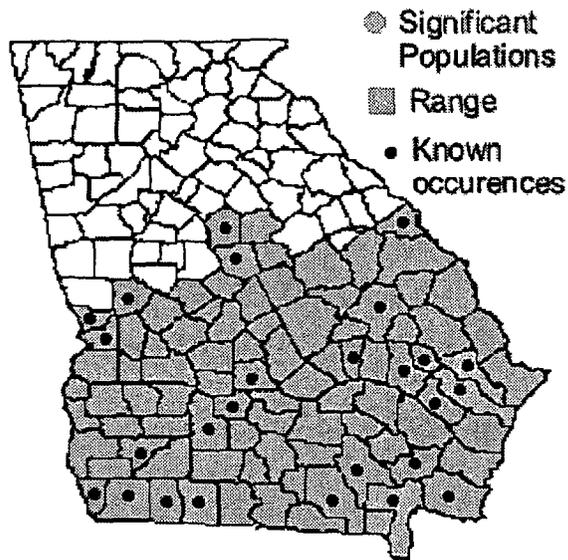
### Kirtland's Warbler

*Dendroica kirtlandii*



Source: U.S. Fish & Wildlife Service Georgia Ecological Services, Region IV

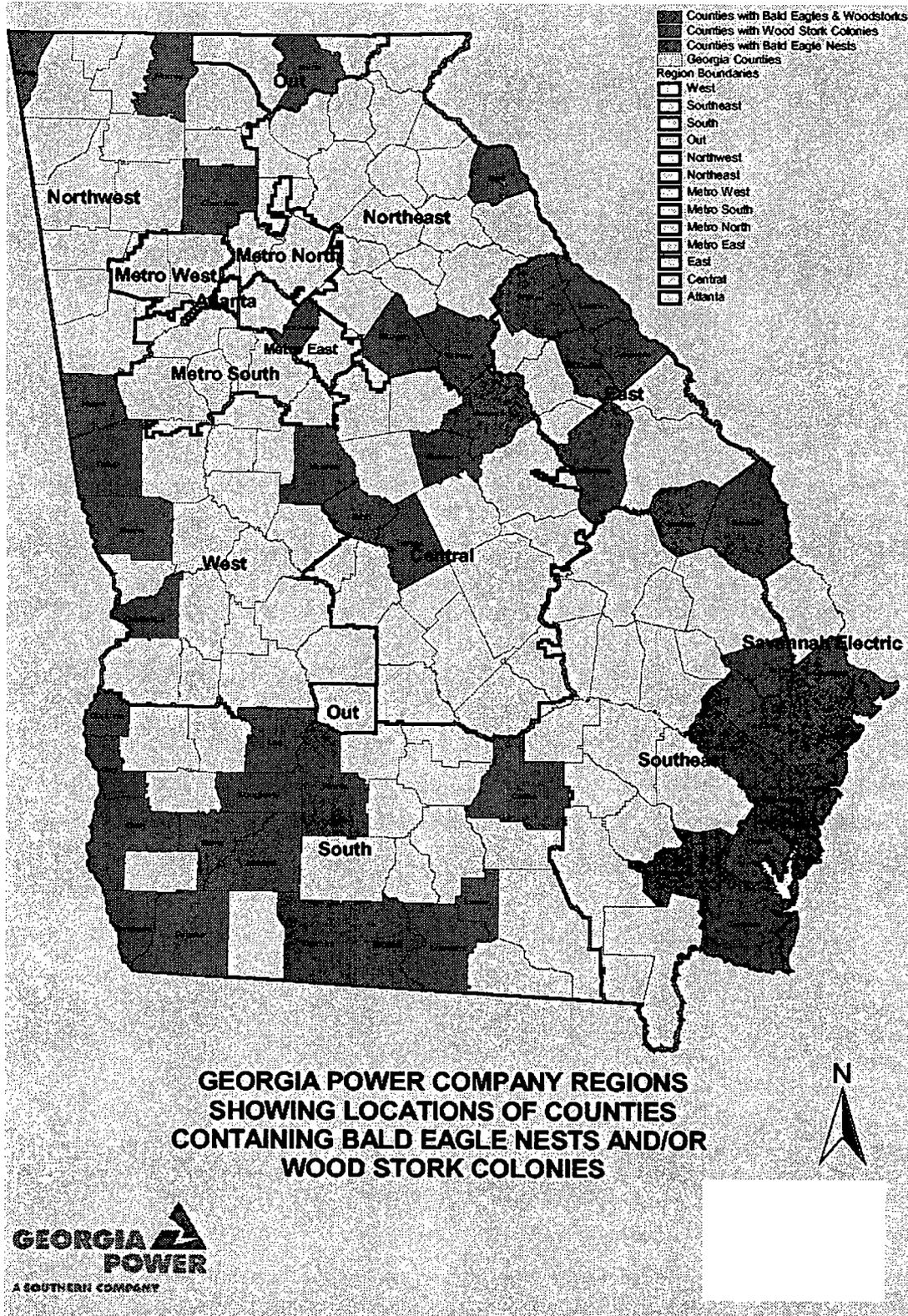
## Red-Cockaded Woodpecker *Picoides borealis*



Source: U.S. Fish & Wildlife Service Georgia Ecological Services, Region IV

**APPENDIX D**

**MAP OF GEORGIA POWER COMPANY REGIONS  
CONTAINING BALD EAGLE AND/OR WOOD STORK  
NEST SITES**



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