



U.S. FISH AND WILDLIFE SERVICE CARIBBEAN ECOLOGICAL SERVICES FIELD OFFICE

Conservation Measures for Listed Birds in Puerto Rico and U.S. Virgin Islands

Section 7 (a)(1) of the Endangered Species Act (ESA) charges Federal agencies to aid in the conservation of listed species, and section 7 (a)(2) requires the agencies, through consultation with the U.S. Fish and Wildlife Service (Service), to ensure their activities are not likely to jeopardize the continued existence of listed species or adversely modify designated critical habitats. Section 7 applies to the management of Federal lands as well as Federal actions that may affect federally listed species, such as Federal approval of private activities through the issuance of Federal funding, permits, licenses, or other actions. If Federal funds or permits are needed, the funding or permitting agency should initiate Section 7 consultation with the Service. To initiate a consultation under the Section 7 of the ESA, you must submit a project package with the established minimum requirements. These conservation measures should be incorporated into the project plans to minimize possible impacts to the species.

As a pre-consultation requirement, use the Service's IPaC site <https://ipac.ecosphere.fws.gov/> to determine if listed plants are within the action area. Before initiating any work within the range of listed bird species and in areas with suitable habitat, applicants should conduct bird surveys to determine if species are present, before submitting the project for evaluation or consultation.

The Service has developed the following conservation measures with the purpose of assisting others to avoid or minimize adverse effects to all endangered and threatened listed bird species. These recommendations may be incorporated into new project plans and under certain circumstances into existing projects. Depending on the project, additional conservation measures can be implemented besides the ones presented in this document.

The below conservation measures apply to the following species:

- I. Puerto Rican parrot (*Amazona vittata*), Puerto Rican plain pigeon (*Patagioenas inornata wetmorei*), Puerto Rican broad-winged hawk (*Buteo platypterus brunnescens*), Puerto Rican sharp-shinned hawk (*Accipiter striatus venator*), Puerto Rican nightjar (*Antrostomus noctitherus*), Yellow-shouldered blackbird (*Agelaius xanthomus xanthomus*), and Elfin-woods warbler (*Setophaga angelae*).**
 - a. All personnel will be advised that there are civil and criminal penalties for harming, harassing, or killing species protected under the ESA. During breeding seasons (see below), nest surveys shall be conducted if a project occurs within the range of any of the species listed above and if habitat for those species will be impacted by the proposed actions. Nest searches must be conducted by qualified personnel. If nesting activity is detected, all construction activities or human disturbance must be avoided within a 50-

meter buffer around any nest(s) found within the project area. This avoidance strategy must be kept until fledglings successfully leave the nest(s) permanently.

Outside breeding season no nest surveys are required. However, some bird species may nest year-round, therefore, if a nest is encountered while the project is being conducted, all construction activities or human disturbance must be avoided within a 50-meter buffer around that nest(s). This avoidance strategy must be kept until fledglings successfully leave the nest(s) permanently. Furthermore, if any of the species indicated above is observed (e.g., foraging, resting) within the project area, avoid any disturbance to the individual(s) and do not flush the bird until it leaves on its own.

Nesting seasons:

- **Puerto Rican parrot:** February-June.
- **Puerto Rican plain pigeon:** April-September.
- **Puerto Rican broad-winged hawk:** December-June.
- **Puerto Rican sharp-shinned hawk:** December-June.
- **Puerto Rican nightjar:** February-August.
- **Elfin-woods warbler:** March-June.
- **Yellow-shouldered blackbird:** February-November.

For all nest sightings, the Applicant must record the time and date of the sighting and the specific location where it was found. All sightings and incidental lethal take reports should be sent to the USFWS Caribbean Ecological Services Field Office at Caribbean_es@fws.gov. Office phone: 786-244-0081.

- b. Work conducted within the **Yellow-shouldered blackbird's Critical Habitat** that includes vegetation removal or habitat modification requires consultation with the Service. Road repairs or other actions within the existing footprint do not require consultation.

II. Roseate tern (*Sterna dougallii dougallii*)

The roseate tern migrates to Puerto Rico for nesting during the late spring and summer months (April-August) and nests mostly in offshore cays (e.g., coral islets). In addition, the roseate tern is occasionally observed along beaches and other coastal habitats in PR and USVI. Important coastal features for foraging include open water areas where their food source of small fish congregate. If the project is in a cay where the species nests, the following best management practices (BMPs) and conservation measures are designed to minimize impacts and ensure the protection of Roseate Terns.

a. Timing of Activities:

- a) Schedule beach activities outside of breeding season (April - August) for Roseate Terns

b. Habitat Protection:

- a) Create and maintain protective barriers around identified nesting sites.
- b) Designate no-entry zones for equipment, staging and personnel near sensitive nesting areas.

c. Monitoring and Reporting:

- a) Have a dedicated bird surveyor present to monitor for impacts if activities are being conducted while seabirds are present.
- b) Report any observed disturbances or adverse effects to relevant wildlife authorities.
- c) In case of nest sightings, the Applicant must record the time and date of the sighting and the specific location where it was found. All sightings and incidental lethal take reports should be sent to the USFWS Caribbean Ecological Services Field Office at Caribbean_es@fws.gov. Office phone: 786-244-0081.

III. Piping Plover (*Charadrius melodus*) and Red Knot (*Calidris canutus rufa*)

The piping plover and red knot migrate during winter to the Caribbean and are occasionally observed along beaches and other coastal habitats in PR and USVI. Beach activities such as beach renourishment, beach raking, dune planting, and other maintenance activities can significantly impact the habitats of vulnerable shorebird species, including piping plovers and red knots. Although these species do not breed in Puerto Rico, foraging and roosting habitats should be considered as important as nesting habitat. Key coastal features for these species include disturbed and early successional coastal habitat with spits, over wash sites, shallow ephemeral ponds, outlets, and sand flats. The following best management practices (BMPs) and conservation measures are designed to minimize these impacts and ensure the protection of piping plovers and red knots during such activities.

Impact Avoidance

- a. Demarcate sensitive habitats as no access zones. Symbolic fencing is often used to prevent access from pedestrians and equipment into areas used by shorebirds for foraging, roosting and nesting. A buffer zone (100ft – 300ft depending on site conditions and activity) should be used to prevent unintentional flushing or increased vigilance of shorebirds which increases energy use and decreases foraging.
- b. Avoid impacts to outlets, sand flats, sand spits, and ephemeral/tidal pools.
- c. Prevent pets from accessing areas currently used by shorebirds. Flushing can cause increased energy use and increase in vigilance.

BMPs during Beach Sand Placement

Beach renourishment involves adding sand to eroding beaches. This process can disrupt

shorebird behavior and decrease quality of foraging habitat. To mitigate these impacts, the following BMPs should be implemented:

a. Pre Construction Surveys:

- a) Conduct pre-construction surveys to identify and map areas used by shorebirds for foraging, roosting, or nesting.
- b) Surveys should be conducted throughout the entire Action Area.

b. Timing of Activities:

- a) Schedule beach activities outside of migration season for nonbreeding shorebirds.

c. Habitat Protection:

- a) Create and maintain protective barriers around identified foraging sites.
- b) Designate no-entry zones for equipment, staging and personnel near sensitive areas.
- c) Prevent removal of seaweed along shoreline. This wrack line provides food and shelter for shorebirds.
- d) Incorporate shorebird friendly landscape features into project design. This includes sand spits, low lying sand areas, shallow ephemeral ponds, and sand flats.

d. Monitoring and Reporting:

- a) Establish a monitoring protocol to assess the impact of renourishment activities on shorebird populations.
- b) Report any observed disturbances or adverse effects to relevant wildlife authorities.
- c) In case of nest sightings, the Applicant must record the time and date of the sighting and the specific location where it was found. All sightings and incidental lethal take reports should be sent to the USFWS Caribbean Ecological Services Field Office at Caribbean_es@fws.gov. Office phone: 786-244-0081.

BMPs during Beach Raking

Beach raking involves the removal of debris and seaweed to maintain beach aesthetics. This activity can disturb nesting sites and foraging areas. The following BMPs should be followed:

a. Restricted Areas:

- a) Identify and clearly mark areas that should not be raked.

- b) Avoid raking in areas with known shorebird activity. Shorebirds can hide in wrack and be picked up along with debris.

b. Raking Technique:

- a) Use manual raking methods in sensitive areas to minimize disturbance and prevent running over shorebirds.
- b) If mechanical raking is necessary, operate machinery at low speeds (<5mph) and avoid sensitive habitats and allow shorebirds time to move out of the path.

c. Monitoring and Reporting:

- a) Establish a monitoring protocol to assess the impact of beach raking activities on shorebird populations.
- b) Report any observed disturbances or adverse effects to relevant wildlife authorities.

d. Education and Training:

- a) Provide training for raking personnel on identifying shorebird nests and habitats.
- b) Educate beachgoers about the importance of avoiding marked areas.

BMPs for Dune Planting

Dune planting involves the intentional addition of dune vegetation to stabilize sand and protect against erosion. This activity can benefit the coastal ecosystem, but it must be done carefully to avoid negative impacts:

a. Site Selection:

- a) Select planting sites away from known shorebird foraging and roosting areas.
- b) Use native plant species.

b. Planting Techniques:

- a) Limit the use of heavy machinery and vehicles in sensitive areas.
- b) Employ hand-planting methods near sensitive shorebird sites.
- c) Use the lowest density of plants needed for project.

c. Post Planting Monitoring:

- a) Monitor the success of dune planting efforts and their effects on shorebird habitats and shorebird population.
- b) Adjust planting strategies based on monitoring results to better support

shorebird populations.

d. Public Awareness and Outreach:

- a) Develop and distribute educational materials about shorebirds and their habitat.
- b) Install informative signage at beach access points to encourage responsible behavior.