

July 23, 2008

Michael Barnett, P.E.  
Chief, Bureau of Beaches and Coastal Systems  
Department of Environmental Protection  
3900 Commonwealth Blvd., MS 300  
Tallahassee, Florida 32399-3000

Re: Beach raking permitting

Dear Mr. Barnett:

Audubon is very concerned about the impacts of beach “cleaning” permitted by your bureau on imperiled shore- and seabird species protected under state and federal law. Many of these species depend on Florida’s beaches for nesting, wintering or migratory stopover habitat and are rapidly declining as a result of human disturbance and habitat alteration, including beach “cleaning” (raking).

As you know, Audubon is fortunate to have more than 30,000 members in Florida, comprising 44 chapters, who function as our eyes and ears around the state. Several of these chapters coordinate shore-dependent bird conservation programs—monitoring, posting and stewarding these imperiled bird species. We base our concern that raking is a significant source of disturbance and take directly upon their field observations around the state.

While the raking permit states it does not exempt the permit holder from other rules, its terms provide conditions benefiting nesting marine turtles. Even though there are no protections included in the permitting process for other imperiled shore-dependent species (birds, mice or others), the consideration given to marine turtles may mislead the permit holder to believe the permit’s conditions ensure there will be no take of protected wildlife. In reality, the FWC prohibits the take of state-listed species and their nests and eggs; the USFWS prohibits the take of all migratory birds under the Migratory Bird Treaty Act (MBTA), and specifically, federally listed species, their nests, eggs and habitat under the Endangered Species Act (ESA). Conditions in these permits do not provide adequate consideration for *all* protected shore-dependent species and take is likely during the course of beach raking.

### **Effects of raking on nesting imperiled birds**

Some birds protect their nests by building them high in trees; others put them deep in cavities. Because beach-nesting birds do not build nests but lay their eggs in shallow scrapes right on the open beach, their only protection is camouflage. Adult birds and chicks are light-colored to blend with the sand, and eggs tend to be speckled and beach-colored. Adults take turns on the scrape to shelter their eggs and newly hatched chicks from extremes of temperature and predation. When chicks grow older, they start to roam the beach on their own, flattening down at the first alarm call of their parent in the face of danger, relying on camouflage to become undetectable to predators. Because these birds, their nests, eggs and chicks are so well camouflaged, it is very easy for pedestrians to overlook them and to even tread on eggs and nests. As you might imagine, these eggs and chicks are impossible to detect from the driver’s seat of heavy machinery used on our beaches for raking.

Beach nesting birds may be solitary or colonial nesters. Some colonies are posted with signs and rope, but this protection is not universally applied to colonial nesters and is even less common for solitary nesters. Some of these birds include state-listed Least Terns (T), Black Skimmer (SSC), American Oystercatcher (SSC), and Snowy Plover (T), as well as other declining shore-dependent species protected under the MBTA such as Wilson's Plover and Gull-billed Tern.

Bird stewards in our chapters report that raking could be resulting in the take of beach-nesting birds in the following ways:

- (1) Beach nesting birds often create their nest scrape at least a day before laying eggs. Raking demolishes the scrape, the bird rebuilds it, and the next day, raking demolishes the scrape again. This sequence continues until, the bird abandons the site, unable to build a nest or lay eggs.
- (2) Raking in areas where birds have managed to lay eggs will result in the destruction of eggs and chicks by the raking equipment.
- (3) Driving the raking equipment to the lower beach to conduct raking can result in the crushing of eggs and chicks enroute.
- (4) The use of large equipment adjacent to nests can flush adults from the nests, leaving chicks and eggs exposed to extreme heat and predators. Eggs left unattended can cook in the summer sun in a matter of minutes.
- (5) Young chicks will venture outside of the known nesting area (posted or not). They are too small to be seen from a distance without the help of binoculars and they will instinctively freeze and flatten at the sight of any vehicle, making them likely to be inadvertently driven over.
- (6) Furthermore, the ruts of the vehicle pulling the rake can be so deep that small chicks fall into them and cannot get out.
- (7) Wrack—the line of seaweed and natural debris deposited on the lower beach by tidal action—is an important part of these birds' habitat. Wrack harbors prey items upon which many of these species depend and the removal of wrack in an attempt to “clean” the beach deprives the birds of this crucial food source. In many places, private landowners are removing this material from public lands below mean high water.
- (8) In some locations, permit holders are allowed to dispose of raked material in adjacent uplands, which are frequently sandy areas behind or between the dunes. Birds nesting in these areas, such as Wilson's Plovers, are at risk for entombment of their nests with the raked materials, or crushing by the equipment in transit.

### **Effects of raking on imperiled wintering and migrant birds**

Florida's beaches are essential habitat for a hemisphere's worth of migratory shorebirds. Some, like federally threatened Piping Plovers spend their winters here, while others such as federal candidate species like Red Knots, use our beaches as vital rest stops to feed and rest before long flights to wintering or breeding grounds. Without sufficient protection from disturbance while feeding and resting on our beaches, these wintering and migrating birds may not make their metabolic budgets, at best failing to breed, and at worst, drowning far from land without sufficient fat reserves to complete their long overwater flights.

Raking could be resulting in the take of migrating and overwintering shore-dependent bird species in the following ways:

- (1) Like beach-nesting birds, many of these species depend on wrack as an important food source. Removing this resource diminishes the habitat value to these species and in some cases may render the habitat unusable to them. It is for this reason that the USFWS frequently conditions its approval of beach renourishment projects on the prohibition of wrack removal and restricts turtle tilling to the zone above the wrack line.

- (2) In addition to removing the birds' food source, the presence of heavy machinery on the beach for raking is a source of disturbance that may cause the birds to fly, forcing them to expend energy when they should be building fat reserves by feeding or resting.
- (3) While many of these birds forage at the wrack line, they often rest, well-camouflaged, higher on the beach, and will shelter in tire tracks. The operation of heavy raking equipment poses the threat of take of these resting birds.

### **Concerns about enforcement of existing permit conditions**

Current permit conditions are insufficient to ensure that raking activities permitted by your bureau will not result in the take of protected species thus violating state and federal law. Additionally, existing permit conditions are not receiving the compliance they warrant and enforcement is inadequate. Our chapters report raking equipment operators ignoring posted bird nesting areas, raking dune vegetation and around dunes, and raking without a permit. These infractions are rarely met with enforcement when our chapters attempt to report them.


### **Conclusions**

Beach "cleaning" is an elective, cosmetic activity that is resulting in irreparable damage to public trust resources. DEP is complicit in the take of protected species by sanctioning raking in the most sensitive of these areas, and by omitting protections for these imperiled species from conditions on raking permits. We urge you to consult immediately with FWC and USFWS to bring this permitting process into compliance with state and federal wildlife protections. Some improvements to the permitting process might include seasonal, regional prohibitions on raking on behalf of imperiled bird species (similar to those currently provided for marine turtles); the requirement of surveying for and posting bird nesting territories for raking exclusion; improvements in raked material disposal and compliance enforcement; and a prohibition against the removal of wrack from public land (below MHW) along shorelines utilized by these protected species.

If Audubon can be of assistance in addressing these matters, please do not hesitate to call me at (850) 224-7546. We understand the staffing limitations under which your agency operates, and would be pleased if our volunteers could support your efforts to improve this program's protections for wildlife.

Thank you for your consideration.

Sincerely,



Julie Wraithmell  
Wildlife Policy Coordinator

Cc: Fritz Wettstein