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1 November 2021

Ms. Stacey Zee  
SpaceX PEA, c/o ICF  
9300 Lee Highway  
Fairfax, VA 22031

Re: Draft Programmatic Environmental Assessment for the SpaceX Starship/Super Heavy Launch Vehicle Program at the SpaceX Boca Chica Launch Site

Dear Ms. Zee,

On behalf of the Executive Office of the Western Hemisphere Shorebird Reserve Network (WHSRN), I would like express our concern that the *Draft Programmatic Environmental Assessment for the SpaceX Starship/Super Heavy Launch Vehicle Program at the SpaceX Boca Chica Launch Site in Cameron County, Texas* (PEA) does not adequately consider all of the potential environmental impacts. To address this concern, we request the completion of a full, detailed Environmental Impact Statement to evaluate the immediate and cumulative effects of SpaceX activities at Boca Chica.

WHSRN is a site-based shorebird conservation initiative launched in 1985 whose mission is to conserve shorebirds and their habitats through a network of key sites across the Americas. The network is comprised of hundreds of partners working at 112 sites in 18 countries to conserve and manage over 38.2 million acres of critical habitats for shorebirds.

With five WHSRN sites, the coast of Texas is well recognized as providing important habitat for hundreds of thousands of shorebirds. One of the most ecologically rich sites is the Laguna Madre WHSRN site, on the Texas-Mexico border, stretching nearly 400 miles from Ports Mansfield, Texas to San Fernando, Mexico. Immediately adjacent to the WHSRN site is Lower Rio Grande Valley National Wildlife Refuge, which includes the remote and pristine coastal areas of Boca Chica. Flocks of up to 100 of the federally endangered Piping Plover (*Charadrius melodus*) occur in this area. Several species of beach-nesting bird of conservation concern breed in overwash areas. In addition, Red Knots (*Calidris canutus*), listed as threatened under the Endangered Species Act, and other Arctic-nesting migratory shorebirds use the area as both a stopover site during migration and as wintering habitat.

Boca Chica is also the location of SpaceX's South Texas launch site for commercial space transportation. The original Environmental Impact Statement (EIS) for the launch site was prepared in 2014. As SpaceX's technology has rapidly advanced, there have been at least eight changes to their operations and site design, including increased testing and hours of area closures. These changes were not included considered in the original EIS and have not gone under a full public review. SpaceX's latest proposal for expanded activities at its Boca Chica facility include suborbital and orbital launches; tank tests; static fire engine tests; expansion of the vertical launch area and solar farm; and construction of additional infrastructure including parking lots, a liquid natural gas pretreatment system, a natural gas liquefier, a payload processing facility, a power plant, a desalination plant, and trenching



*The WHSRN Executive Office is housed within Manomet's Flyways Program.*

and pull-offs along State Highway 4. The expansion of the vertical launch area is already under construction, even though it has not been approved.

Each test conducted at the launch site impacts shorebird habitat. The tests include an explosion which generates extreme noise that could potentially deafen birds or cause brain damage; a 'vapor' cloud that contains combusted chemicals of unknown potential impact on the birds and their food resources; and the risk of direct impacts from falling debris. Birds may also be excluded from prime habitat as a result of frequent disturbance. According to an analysis by Coastal Bend Bays & Estuaries Program, the Piping Plover population in the Boca Chica region has decreased by 54% over the past 3 years (2018-2021) since SpaceX began testing and launching rockets. The proposed expansion will mean more launches and thus greater impacts, as well as greater potential disturbance as a result of increased traffic and construction.

With a lack of detail and vague phrases such as "to the extent possible", the PEA is insufficient for the substantial expansion activities that are proposed. A comprehensive EIS is needed to understand the full extent of impacts that this project may cause. This EIS needs to assess the cumulative impacts of all planned components, and not piecemeal as has been the case since 2014. Additionally, the original EIS included monitoring, but there appears to have been poor compliance with the conditions established therein, an issue that needs to be addressed through a new EIS.

Shorebirds are showing the most dramatic declines of any group of birds. Many countries, including the United States, have made significant investments in habitat restoration, management, and protection to ensure that they are providing the best habitat for these shared international species. The extent of the impacts of SpaceX's activities on shorebirds is not fully understood and could cause irreversible damage to important habitat at Boca Chica. The cultural and economic impacts will be felt both in southern Texas and across the Americas where many sites receive cultural and economic benefits from the diverse ecosystems that include the same shorebirds that use the Laguna Madre area.

As habitat loss continues to be a significant threat for shorebirds throughout the Americas, protecting the remaining areas of habitat is critical. If the SpaceX facility is to remain in this location, the WHSRN Executive Office recommends that a complete EIS process be initiated to allow for a public process to review changes, monitor impacts, and identify appropriate mitigation measures. This EIS should also consider the development of an accountability plan.

Please feel free to contact Laura Chamberlin, if you have further questions, at [lchamberlin@manomet.org](mailto:lchamberlin@manomet.org) or 302-922-0682.

Sincerely,

A handwritten signature in blue ink, appearing to read "R. Clay", is written over a horizontal line.

Rob P. Clay, Ph.D  
Director, WHSRN Executive Office