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Dear Mr. Rushforth, Ms Andrus & Ms Zee,

We the undersigned organizations urge the FAA to develop a new or supplemental Environmental Impact Statement for SpaceX's current and planned actions at their Boca Chica site in Texas. SpaceX's actions now are significantly different and greater in scope than the project the FAA authorized in its 2014 Record of Decision (ROD), and these actions are having significantly greater human and environmental impacts. We are also very concerned about the FAA's inadequate enforcement of many of the conditions and requirements listed in the ROD and the USFWS Section 7 Biological Opinion.

The SpaceX project that the FAA authorized in 2014 was to allow the permitting of up to 12 launches of the Falcon 9 and Falcon Heavy rockets per year, and "smaller reusable suborbital launch vehicles." The SpaceX footprint in the area was limited; a 21-acre launch site and two launch control sites approximately 2 miles away. This is particularly important as the SpaceX sites are essentially (except for a few small private inholdings) surrounded to the south and the west by the Boca Chica Unit of the Lower Rio Grande Valley National Wildlife Refuge, to the north by Brazos Island State Park and South Bay (a Texas Coastal Preserve), and to the east by Boca Chica Beach and the Gulf of Mexico. Biologically this is a very productive and sensitive area, with one of the highest levels of plant and animal diversity of any national wildlife refuge in North America, and with more federally and state listed endangered, threatened, rare, and species of concern than any other refuge.

The FAA's NEPA procedures implementing the National Environmental Policy Act define when a Supplemental EIS is needed, or not. This was cited in the FAA's 2014 SpaceX EIS. [FAA Order 1050.1F, Section 9-2] **"A Supplemental EIS is not needed if:**

- 1. "The proposed Action conforms to plans or projects for which a prior EIS has been filed and there are no substantial changes in the Proposed Action that are relevant to environmental concerns."**

SpaceX has in fact never launched a Falcon 9 or Falcon Heavy rocket from Boca Chica and now has no plans to do so. It has instead turned its site and activities into something unrecognizable in the original EIS and ROD; a large and expanding complex to manufacture, fabricate, assemble and test the Starship and Super Heavy booster rocket. The Starship and Super Heavy booster together will be larger than the approved Falcon 9 and Falcon Heavy by an order of magnitude, standing 39 stories tall, with nine million lbs. of propellants, nearly 50% more than NASA's Saturn V rocket used to launch moon-landing missions. Round-the-clock experimental testing has already increased significantly SpaceX's footprint (and they plan to expand further) by enlarging its acreage, its number of buildings, its number of employees and contractors, its hours of beach and refuge closure, and its number of test firings and pressure tests. All these things significantly increase environmental impacts and none them are in the original EIS.

In addition, in the short time since SpaceX has conducted operations at the Boca Chica site, there have been multiple accidental explosions that disrupted people's lives, scattered rocket debris and caused wildfires that have consumed more than 100 acres of native habitat on national wildlife refuge land. These serious impacts illustrate how critical it is for the FAA to initiate a new EIS process, and for federal regulators to exercise meaningful, legally required oversight.

- 2. "Data and analysis contained in the previous EIS are still substantially valid and there are no significant new circumstances or information relevant to environmental concerns and bearings on the Proposed Action or its impacts."**

Most of the 2014 data and analysis is now not only invalid but wrong and misleading. The construction, testing and firing of the massive Starship and Heavy Booster will have much greater impacts. Because of the very substantial changes to the actions taking place at this site, virtually all the impact analysis in the 2014 EIS is now out of date and inaccurate. Specifically, new analysis needs to be prepared for the significant effects that are occurring, such as noise, light, frequency of events, fires & explosions, larger areas of direct and indirect impacts (likely to include the towns of South Padre Island, Port Isabel, Long Island Village and the permitted but not yet built liquefied natural gas (LNG) liquefaction export terminals on the Brownsville Ship Channel), the storage of much more rocket propellant that is more volatile and explosive, impacts to wildlife, wetlands, vegetation and endangered and threatened species, and public access to recreation and Boca Chica beach. Under economic impacts another issue is missing entirely. The latest license for the Starship tests requires \$198 million in third party liability, and federal indemnification for losses beyond that. This is higher than is required for any Falcon 9 or Falcon Heavy launch from Vandenberg AFB or Kennedy/Cape Canaveral, suggesting a far larger risk zone than was included in the FEIS or ROD. And this probably doesn't include liability for the potential \$20 billion LNG terminals and LNG tankers that will likely be in the expanded risk zone. This list is by no means comprehensive.

- 3. "All pertinent conditions and requirements of the prior approval have, or will be, met in the current actions."**

The FAA has done an inadequate job in ensuring SpaceX compliance with many of the conditions in its 2014 Record of Decision. One example is the closure of Highway 4 and Boca Chica beach, which was to be limited to no more than 180 hours per year. In just the past 3 months of this year closures have exceeded 225 hours, often with confusing and inadequate prior notifications and last-minute changes and revocations. Nevertheless SpaceX now wants to nearly triple its beach closure “quota” with no opportunity for public discussion and comment. To increasingly deny access to eight miles of public beach, state parkland and national wildlife refuge is a significant human impact and needs to be addressed, particularly as much of the experimental engine and rocket testing could be done at a safer and less public testing location elsewhere. Given the wholly different purpose of the project, FAA needs, as part of the Supplemental EIS, to revisit the alternatives evaluation.

Despite ongoing construction and testing (and a major explosion on May 29), SpaceX is no longer doing the bird surveys and monitoring that is required under the ROD, nor is the required Vegetation Monitoring Plan being complied with. The FAA is not enforcing the requirements that SpaceX “coordinate efforts with the USFWS ocelot/jaguarundi lead biologist to protect and preserve ocelot and jaguarundi habitat”, or “coordinate efforts to increase northern aplomado falcon nest sites” nor “coordinate efforts with NWR staff to reduce impacts to refuge lands.” FAA enforcement of the Lighting Management Plan, the Fire Mitigation and Response Plan and the Security Plan especially with respect to closures, appear marginal at best. The FAA has not enforced compliance with many of its 2014 conditions and requirements.

Given its role in facilitating the U.S. space program, the FAA appears ill-suited or unwilling to the task of ensuring that environmental resources are respected and protected. SpaceX notified the FAA late in 2014 of proposed changes in its plans, and again in 2017, and twice again in 2019. Each time the FAA was notified of proposed changes it did a Written Re-evaluation and concluded that the changes were consistent with the original EIS and ROD, even though the whole project and its purpose had changed dramatically and the actual and anticipated impacts had significantly increased. Now SpaceX is again proposing significant changes and expansions. SpaceX is so sure of FAA rubber-stamp approval that they are already advertising employment positions for project expansions for which permitting has not even begun, let alone been approved. Because SpaceX’s impacts are certain to be significant, an Environmental Assessment would be insufficient and a wasted effort. A new EIS with a vigorous public input process is not just warranted by NEPA and the FAA’s own criteria; it is required and urgently needed. Until that is done the FAA should prohibit any expansion in either SpaceX’s footprint or testing activities at its Boca Chica site.

Respectfully,

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Save RGV

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Friends of Laguna Atascosa NWR

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