

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA**

CENTER FOR BIOLOGICAL DIVERSITY, *et al.*,

Plaintiffs,

v.

FEDERAL AVIATION ADMINISTRATION,
et al.,

Defendants,

and

SPACE EXPLORATION TECHNOLOGIES
CORPORATION,

Intervenor-Defendant.

Civil Action No. 1:23-cv-1204-CJN

DECLARATION OF TYLER WELTI

I, Tyler G. Welti, declare as follows:

1. I am counsel of record for Defendant-Intervenor Space Exploration Technologies Corporation (SpaceX) in this action. The facts set forth herein are known to me of my own personal and firsthand knowledge and if called upon as a witness, I could and would testify competently thereto under oath.

2. On July 13, 2023, Plaintiffs sent to the U.S. Department of the Interior, U.S. Fish and Wildlife Service (Service), U.S. Department of Transportation, and Federal Aviation Administration (FAA) a letter providing formal notice of their intent to sue the FAA and/or the Service for failure to reinitiate and complete consultation under Section 7 of the Endangered Species Act on the Starship/Super Heavy Launch Vehicle Program at the SpaceX Boca Chica Launch Site. A true and correct copy of this letter is attached as Exhibit A.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Executed this 10th day of January 2024, at San Francisco, California.

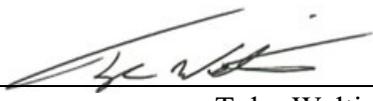
By:  _____
Tyler Welti

EXHIBIT A



July 13, 2023

Via Electronic and Certified Mail

Deb Haaland, Secretary of the Interior
U.S. Department of the Interior
1849 C Street, N.W.
Washington, D.C. 20240
exsec@ios.doi.gov

Martha Williams, Director
U.S. Fish and Wildlife Service
1849 C Street, N.W.
Washington, D.C. 20240
Martha_Williams@fws.gov

Charles Ardizzone, Field Supervisor
USFWS Texas Coastal Field Office
4444 Corona Dr. Suite 215
Corpus Christi, TX 78411
Charles_Ardizzone@fws.gov

Pete Buttigieg, Secretary of Transportation
U.S. Department of Transportation
Office of the Secretary of Transportation
1200 New Jersey Ave, SE
Washington, DC 20590
secretarybuttigieg@dot.gov

Polly Trottenberg, Acting Administrator
Federal Aviation Administration
800 Independence Ave, SW
Washington, DC 20591
Polly.Trottenberg@faa.gov

Stacey Zee, Env. Protection Specialist
Office of Commercial Space Transportation
Federal Aviation Administration
800 Independence Ave, SW
Washington, DC 20591
Stacey.Zee@faa.gov

RE: Reinitiation of Section 7 Consultation for the SpaceX Starship/Super Heavy Launch Vehicle Program at the SpaceX Boca Chica Launch Site, Cameron County, Texas

Dear Sirs/Madams,

This letter serves as formal notice pursuant to 16 U.S.C. § 1540(g) by the Center for Biological Diversity, American Bird Conservancy, Surfrider Foundation, Save RGV, and the Carrizo/Comecrudo Tribe of Texas (“Conservation Groups”) of their intent to sue the Federal Aviation Administration (“FAA”) and/or the U.S. Fish and Wildlife Service (“FWS” or “Service”) for violations of the Endangered Species Act, 16 U.S.C. §§ 1531–1544 (“ESA”), in connection with the failure to reinitiate and complete ESA Section 7 consultation on the SpaceX Starship/Super Heavy Launch Vehicle Program at the SpaceX Boca Chica Launch Site in Cameron County, Texas, and for allowing any activities that may harm listed species to continue pending completion of such consultation in violation of ESA Sections 7(a)(2) and 7(d).

The undersigned groups are very concerned about the impacts on protected species from the SpaceX activities at the Boca Chica facility. The Service’s May 12, 2022, Biological Opinion

acknowledges that SpaceX activities may harm listed species and their critical habitat through habitat loss and fragmentation, noise, traffic, heat plumes and rocket explosions; yet it requires very little mitigation for these impacts, ignoring the importance of the area as habitat for imperiled wildlife, and allowing SpaceX to use such wildlife habitat, including refuge lands, as a sacrifice blast zone for rocket launches.

The launch event on April 20, 2023, demonstrated the harm that can be expected from launching the largest (and experimental) rockets known to humankind in the middle of an ecologically fragile area that provides essential habitat to listed species and migratory birds. The extraordinary amount of debris from the explosion of the launch pad, which ejected chunks of concrete thousands of feet into the sensitive tidal flats and outside the debris study area relied on in the Service's Biological Opinion, as well as the associated noise and an extensive dust plume covering many miles, demonstrates that the potential harm from these launches far exceeds what FWS considered when reviewing the proposal for 20 such launches over the next 5 years. Accordingly, FAA and FWS must reinitiate Section 7 consultation, and no further launches or static fire tests may be allowed until that process has been completed and the potential harms have been fully addressed and properly mitigated.

Legal Background

Congress enacted the ESA in 1973 to provide for the conservation of endangered and threatened fish, wildlife, plants, and their natural habitats.¹ The ESA imposes substantive and procedural obligations on all federal agencies with regard to listed and proposed species and their critical habitats.²

Under Section 7 of the ESA, federal agencies must “insure that any action authorized, funded, or carried out by such agency ... is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species which is determined ... to be critical.”³

The duty to insure against jeopardy is one of the ESA's clearest cornerstones for the conservation of listed species. To comply with this duty, Section 7(a)(2) and its implementing regulations set forth a detailed process that must be followed before agencies may take or approve actions that may affect a threatened or endangered (*i.e.*, “listed”) species or its critical

¹ 16 U.S.C. §§ 1531, 1532.

² *See id.* §§ 1536(a)(1), (a)(2) and (a)(4) and § 1538(a); 50 C.F.R. § 402.

³ 16 U.S.C. § 1536(a)(2). To “jeopardize” means to “engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species.” 50 C.F.R. § 402.02.

habitat. Fulfillment of this process is the only means by which an agency insures that its affirmative duties under Section 7(a)(2) are satisfied. In fulfilling the requirements of Section 7(a)(2) and the procedural requirements set forth in 50 C.F.R. Part 402, agencies must “use the best scientific and commercial data available.”⁴

Where the action agency is “likely to adversely affect” listed species or critical habitat, it must enter into “formal consultation” with FWS.⁵ Formal consultation commences with the action agency’s written request for consultation and concludes with FWS’s issuance of a “biological opinion,”⁶ which should include “a statement concerning incidental take, if such take is reasonably certain to occur.”⁷ After the issuance of a biological opinion and “where discretionary Federal involvement or control over the action has been retained or is authorized by law,” the agency must reinitiate formal consultation if, *inter alia*:

- the amount or extent of take specified in the incidental take statement is exceeded;
- new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered;
- the identified action is subsequently modified in a manner that causes an effect to the listed species ... that was not considered in the biological opinion; or
- a new species is listed or critical habitat designated that may be affected by the identified action.⁸

Furthermore, reinitiation of consultation is required where the terms and conditions of a biological opinion and incidental take statement (“ITS”) have been violated. Indeed, courts have ruled that a violation of a biological opinion is not merely a violation of a permit; it is also a violation of a statutory mandate to avoid jeopardizing listed species. *See South Yuba River Citizens League v. Nat’l Marine Fisheries Serv.*, 629 F. Supp. 2d 1123, 1133 (E.D. Cal. 2009) (“[w]hen an agency violates the terms of an ITS, a private party may bring a citizen suit alleging that by virtue of this violation, the agency’s failure to reinitiate consultation violates the agency’s statutory duty under ESA section 7(a)(2).”). Courts have therefore held that a violation of the terms and conditions obligates the action agency to reinitiate consultation. *Id.* at 1132-33.

⁴ 16 U.S.C. § 1536(a)(2).

⁵ 50 C.F.R. §§ 402.12(k), 402.14(a).

⁶ *Id.* § 402.02.

⁷ *Id.* § 402.14(g)(7).

⁸ 50 C.F.R. § 402.16. Both the action agency and the consulting agency have a duty to reinitiate consultation. *See Salmon Spawning & Recovery All. v. Gutierrez*, 545 F.3d 1220, 1229 (9th Cir. 2008) (“The duty to reinitiate consultation lies with both the action agency and the consulting agency.”); *Env’tl. Prot. Info. Ctr. v. Simpson Timber Co.*, 255 F.3d 1073 (9th Cir. 2001) (“The duty to reinitiate consultation lies with both the action agency and the consultation agency.”).

Section 7(d) of the ESA provides that, once a federal agency initiates consultation on an action under the ESA, the agency, as well as any applicant for a federal permit, “shall not make any irreversible or irretrievable commitment of resources with respect to the agency action which has the effect of foreclosing the formulation or implementation of any reasonable and prudent alternative measures which would not violate subsection (a)(2) of this section.”⁹ The purpose of Section 7(d) is to maintain the environmental status quo pending the completion of consultation. Section 7(d) prohibitions remain in effect throughout the consultation period and until the federal agency has satisfied its duty under Section 7(a)(2) to insure that the action will not result in jeopardy to listed species or adverse modification of critical habitat.

Factual Background

On May 12, 2022, the Service issued a Biological Opinion (“BiOp”) on SpaceX’s proposed Starship/Super Heavy Launch Vehicle Program at Boca Chica. The BiOp concluded that the proposal to launch 20 Starship/Super Heavy rockets over 5 years may harm listed species and their critical habitat through habitat loss and fragmentation, noise, traffic, heat plumes and rocket explosions (including debris and debris removal activities), but concluded that it would not jeopardize the continued existence of the affected species, which include piping plovers, northern aplomado falcons, ocelots, red knots, and several endangered sea turtles. That conclusion was based on various assumptions regarding the potential for rocket explosions (referred to as “anomalies”), the area where debris would fall, noise levels, and other parameters.

On April 20, 2023, SpaceX conducted the first launch of a Starship/Super Heavy Rocket. The launch was a failure: the rocket exploded over the Gulf of Mexico soon after liftoff. Moreover, the rocket also destroyed the launch pad, ejecting concrete and metal thousands of feet into the surrounding lands, including tidal flats and other areas that are habitat for listed species, as well as a plume of dust that blanketed an area more than 6 miles from the launch pad.

According to emails and other documents obtained through the Freedom of Information Act (FOIA), the Service is well aware that the destruction of the launch pad resulted in debris falling outside of the debris field boundary depicted in Figure 27 of the BiOp, which requires FAA to reinstate Section 7 consultation, as Service personnel affirmed. Furthermore, the destruction of the pad was not contemplated in the BiOp, and the amount of debris that was caused by the explosion of the launch pad appears to greatly exceed what was contemplated by the Service. Indeed, the BiOp acknowledged that prior Falcon rocket explosions at Boca Chica had resulted in harm to habitat for protected species when just a small amount of debris landed in the nearby tidal flats, showing that the much larger amount from the April 20 event poses a significant concern for plovers and other species that rely on those sensitive areas. While the Service has asserted that no dead birds were reported from the event, it has acknowledged that personnel

⁹ 16 U.S.C. § 1536(d).

were unable to access the area for over 48 hours, during which any carcasses may have been removed by predators or otherwise.

On May 5, 2023, the Service sent a letter to the FAA stating that reinitiation of consultation appeared warranted due to the debris from the launch, and that it wanted to meet with FAA to discuss noise, temperature, and vibration levels, as well as anticipated alterations to the Boca Chica facility and launch operations (i.e., additional lighting and launch pad redesign) and cleanup methods in response to the April 20 event. The letter also said that the Service believes that reducing the number of launches may be necessary to reduce number of mishaps/anomalies, and thus the impacts to listed species.

While the Service's May 5 letter states that sound levels during the launch appear to have been within predicted levels, in emails obtained through FOIA the agency admits that the equipment used to measure sound may not have been calibrated correctly, and that Service personnel were not adequately trained to use such equipment.¹⁰ Measurements taken by other parties indicate that noise levels were well in excess of what was contemplated in the BiOp.¹¹

Notwithstanding the Service's determination that reinitiation of consultation is required under these circumstances, documents provided in response to our FOIA request do not confirm that such consultation is presently taking place or, if it is, that the FAA and SpaceX will defer any further launches and related activities until it has reached completion.

¹⁰ See e.g., Email from Stephanie Bilodeau to Chris Perez (April 26, 2023) ("It is clear we don't have the proper equipment for this (multiple devices, environmental condition sensors, software, etc.).").

¹¹ See Email from Karl Berg to Stephanie Bilodeau (April 26, 2023). While FWS claims that the noise levels were a max of 114.9db A-weighted, Mr. Berg states that:

I am getting good feedback from the sound engineer. Fortunately, everything seemed to be working properly, including the calibration. My mic only records up to 143.8 dB, so my Lamaxpeak values of 143.8 means the sound was louder. However, it is significant that it overloaded or exceeded 140 dB for 33 seconds. Because SPL increases by about 6 dB at half the distance to the sound source, a mile radius around the launch pad would have experienced at least 146 dB and a half a mile 152 dB, a quarter mile 158 dB, a 1/8 of a mile 164 dB, at 330 feet 170 db, 176 db at 165 feet, 182 db at 82 feet, 188 db at 41 feet, at which point you are pretty close to the origin (and fire ball). So in my humble opinion modeling should have been done beginning with AT LEAST 188 dB.

Violations

Reinitiation of Section 7 consultation on the impacts to listed species from SpaceX's activities at Boca Chica is required for several reasons. As discussed above, the April 20 launch event resulted in much more debris falling within habitat for listed species than was contemplated in the BiOp, including in areas outside of the debris study area, which FWS has acknowledged requires reinitiation of consultation. Other new information bearing on the impacts to listed species includes potentially higher than expected noise levels and/or the inability of the Service to adequately measure the sound from launch events; a plume of pulverized concrete covering a large area (as far as 6.5 miles from the launch site), which may have resulted in adverse impacts to listed species; the inexplicable closure of the Boca Chica area for more than 48 hours, which prevented the Service from conducting a timely appraisal of the impacts of the anomaly on listed species; and new infrastructure or other changes to the launch facility in response to the event.¹² These issues, and any other impacts of the April 20 Starship launch failure, must be fully analyzed by FWS through a reinitiated Section 7 consultation.

Allowing activities that may affect listed species to occur pending completion of consultation is a direct violation of Section 7(d), which prevents any irreversible or irretrievable commitment of resources that would foreclose the formulation or implementation of any reasonable and prudent measures to minimize take of listed species, and also violates the agencies' Section 7(a)(2) duties to avoid jeopardizing species. Allowing any such activities to occur before consultation is completed harms the habitats that protected species depend upon for survival, and potentially limits available measures to minimize take of the species.

The FAA and Service must therefore complete consultation and also take steps to ensure that SpaceX does not engage in any activities resulting in loss or impairment of habitat for listed species—in particular tank testing, static fire testing, and rocket launches, which may result in further anomalies—in order to preserve the current habitat status quo. On information and belief, FAA has already violated sections 7(d) by allowing SpaceX to perform a static fire test of the Starship engines at Boca Chica on June 26, prior to the completion of a reinitiated consultation. The BiOp confirms that static fire tests may result in elevated noise levels and anomalies that could spread debris from the launch pad, potentially causing harm to listed species. The FAA and Service must therefore ensure that no further violations of the ESA occur.

Conclusion

For the foregoing reasons, FAA and the Service must reinitiate and complete a new Section 7 consultation addressing the impacts of the April 20 launch and the implications for further harm

¹² SpaceX has stated it is making well over 1,000 changes to Starship for the next launch, including changes to the launch pad. *See* <https://www.space.com/spacex-starship-design-changes-second-test-flight>

to listed species from the SpaceX activities at Boca Chica. Until that process is completed, the FAA and Service may not allow SpaceX to conduct any further tank testing, static fire testing, or rocket launches pursuant to ESA Sections 7(a)(2) and 7(d).

Please do not hesitate to contact us if we can provide additional information or otherwise assist in this matter.

Sincerely,

s/ Jared Margolis

Jared M. Margolis

Center for Biological Diversity

2852 Willamette St. #171

Eugene, OR 97405

Telephone: (802) 310-4054

jmargolis@biologicaldiversity.org