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Submitted electronically via TCEQ's eComments

Office of the Chief Clerk
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, TX 78711-3087

Re: South Texas Environmental Justice Network's Contested Case Hearing Request for Permit No. WQ0005462000

Dear Chief Clerk Gharis:

South Texas Environmental Justice Network ("STEJN") submits this request for contested case hearing regarding Space Exploration Technologies Corporation's ("SpaceX" or "Applicant") Application for Texas Pollutant Discharge Elimination System ("TPDES") Permit No. WQ0005462000 ("Application") for the SpaceX Starbase Launch Pad Site (the "Facility"). The permit would authorize the discharge of industrial discharge water from SpaceX's deluge system (used for launch and return to launch site activities), facility washdown water, and stormwater to tidal wetlands south of the facility, thence to Rio Grande Tidal in Segment No. 2301 of the Rio Grande basin. The designated uses for Segment No. 2301 are primary contact recreation and exceptional aquatic life use.

Pursuant to 30 TAC 55.201, South Texas EJ Network may be contacted via its counsel, Texas RioGrande Legal Aid, Paola Camacho or Ilan Levin:

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Please direct all official communications regarding this matter to Paola Camacho or Ilan Levin.

Below, we identify STEJN's members' personal justiciable interests affected by the application, including a brief, but specific, written statement explaining in plain language the location and distance of the affected interests relative to SpaceX's launch site and the affected wetlands and waterbodies that are the subject of the application. STEJN's members' use and access to Boca Chica Beach and surrounding areas has been and will be impacted by SpaceX's launches. Unlike members of the general public, STEJN members frequent the Boca Chica area for work, educational, religious/spiritual services, and for recreation and enjoyment.

I. Background

Since July 28, 2023—nearly a year before even attempting to obtain a permit—SpaceX has been unlawfully discharging wastewater from its deluge system into surrounding waters,¹ with the water discharged through the activation of the deluge system reaching up to 0.6 miles across the local landscape.² To date, SpaceX has used the deluge system on at least 20 occasions, and SpaceX plans to double the frequency of its launches in Brownsville. With each launch, the Facility can impact several pristine natural habitats, including tidal wetlands, the Rio Grande, Boca Chica Beach, and the Boca Chica Wildlife Refuge and the South Bay.

SpaceX submitted the Application on July 1, 2024, and on July 8, 2024, it was declared administratively complete. Then, less than two months later, on September 5, 2024, the Application was declared technically complete. This unreasonably expeditious permit application review undermines the Clean Water Act's requirements, which demand a thorough and complete review by TCEQ staff, especially in light of the large environmental risks associated with each launch and SpaceX's repeated and flagrant disregard of the Clean Water Act.

STEJN members that reside in Brownsville have seen smoke from and heard previous explosions during launches; they have even heard debris falling on their apartment roofs. These experiences cause STEJN to question how well, and whether, TCEQ will force strict compliance and ensure the health and safety of STEJN members as they exercise their legal rights, duties, privileges, and other interests in and around Boca Chica Beach. Boca Chica Beach is sacred to several STEJN members, who practice religious/spiritual prayer and healing services by the ocean and along the Rio Grande River. These members also conduct education at the beach, and (for some members) access the road and beach and surrounding wetlands as part of their work. These members have witnessed degradation of the land and waters directly adjacent to SpaceX.

¹ In this separate but related case, STEJN, Carrizo/Comecrudo Nation of Texas, Inc., and Save RGV filed comments to TCEQ opposing the Agreed Order that dealt a mere slap on the hand to SpaceX for these violations, and filed a Petition for Review of the Final Order on December 16, 2024.

² "Addendum to the October 2021 Biological Assessment for the SpaceX Starship-Super Heavy Launch Vehicle Program at the SpaceX Boca Chica Launch Site in Cameron County, Texas Addressing Operation of a Deluge System" at 8-9. Federal Aviation Administration. October 2023. Available at: <https://www.faa.gov/media/72826>.

For these and the additional reasons detailed below, South Texas Environmental Justice Network requests a contested case hearing.

I. Contested Case Hearing Request

A. South Texas Environmental Justice Network requests a contested case hearing.

STEJN satisfies TCEQ's rules for requesting a contested case hearing on behalf of a group.³ That is, one or more members of STEJN would have standing to request a hearing in their own right, because they are affected persons; the interests that STEJN seeks to protect are germane to the organization's purpose; and neither the claim asserted nor the relief requested requires the participation of the individual members in the case.

An affected person is one who has a personal justiciable interest related to a legal right, duty, privilege, power, or economic interest affected by the application. Members of STEJN have *interests*, detailed below, that are both *personal* to each of them, and *justiciable*. That is, a favorable outcome on the proposed Permit could alleviate the negative impacts on their interests. Moreover, these interests are related to legal rights, duties, privileges, powers and economic interests of these individuals.

The SpaceX facility is mere blocks from various natural areas that STEJN's members frequent, including Boca Chica Beach, Brazos Island Park, and Boca Chica Wildlife Refuge. The facility also impacts the Rio Grande, a river STEJN members frequently visit for its natural beauty and importance as the origin of life for the Estok'na, which means "the people" (and who Spanish and later Anglo-Texan colonizers dubbed Carrizo Comecrudo).

i. STEJN's mission and work is germane to the SpaceX water permit.

The interests STEJN seeks to protect are germane to its purpose, as illustrated by STEJN's purpose statement:

The South Texas Environmental Justice Network was formed at the start of 2020 and includes numerous organizations, campaigns, individuals, and the Carrizo Comecrudo Tribal leadership from the South Texas region that challenge the status quo and corporate power to build a future aligned in values, principles, and praxis that centers on the social and environmental health of local Native and BIPOC communities living in reciprocal relationships with our shared natural home.

Our network seeks to end the environmental, social, and economic injustices borne on the Latinx and Indigenous communities of South Texas. We aim to do this by building a community amongst regional advocates and empowering historically marginalized voices to speak up and be heard. By doing so, we want to radically change the oppressive systems that have harmed our communities and extracted wealth from the people and land of South Texas.

³ 30 Tex. Admin. Code §§ 55.203, 55.205.

Indeed, STEJN works to protect the same health, aesthetic, recreational, and religious interests of its members that it seeks to protect here. For example, STEJN has previously challenged federal agency action on LNG development projects in the region. STEJN has worked internationally, advocating for French banks to divest from LNG terminals due to climate and human rights concerns. At home, STEJN has pursued legal and administrative actions to defend the environment of South Texas. One example involves a case against Texas Parks & Wildlife Department and the Texas Parks and Wildlife Commission to block a land swap that would have granted SpaceX 43 acres of public land.

Finally, the relief requested is prospective, and neither the claim asserted nor the relief requested—modification or denial of Permit No. WQ0005462000—requires participation of the individual members of STEJN.

ii. STEJN's members are affected persons.

Members of STEJN are affected persons based on the adverse impacts to their health, aesthetic, recreational, economic and religious interests. Members of STEJN recreate and practice their religion in close proximity to the SpaceX facility and will continue to be impacted by the facility and its discharges into the adjacent wetlands, which flow into the Rio Grande River. STEJN members' interest are not common to the general public due to their close proximity to the Facility and areas close to the discharge; and because STEJN's members frequent the impacted areas. In particular, STEJN members' interest in visiting the beach, wildlife viewing, swimming, and engaging in their work, education, lifeways, and prayers and purification rituals are distinguishable by the regularity and particularity of their recreational and religious use of natural areas that will continue to be impacted by this Facility.

B. Harms to STEJN members from SpaceX's discharges.

South Texas EJ Network members' interests are injured by the SpaceX launches and the associated discharges. The proposed Permit will authorize the discharges that will continue to harm the members' legally protected rights, privileges, and duties, including their health, recreational, aesthetic, economic, and spiritual/religious interests in areas directly adjacent to and downstream of the discharge route. STEJN's members' rights to access and use the beach have been and will be negatively affected by the launches, and a contested case hearing to ensure strict compliance with clean water laws would mitigate these injuries.

The following STEJN members would be impacted in ways that are not common to the general public:

Rebekah Hinojosa is a co-founder and member of STEJN. Ms. Hinojosa has been visiting Boca Chica beach since she was a child. She has been visiting Boca Chica often since 2014. She moved to Brownsville in 2017 specifically to be closer to Boca Chica Beach. She enjoys hiking around Boca Chica Beach because she enjoys observing the coastal habitat and the unique ecosystem of the Boca Chica area. Ms. Hinojosa regularly leads tours to Boca Chica Beach and the surrounding area for guests (e.g., STEJN members, community members, reporters, students, public officials, etc.) to experience wildlife and the pristine environment, and

to document the area. As part of the tours, Ms. Hinojosa educates the guests about the value of and long history of sacred sites, threatened and endangered species, pristine lands, and coastlines. To conduct the tours, Ms. Hinojosa drives east on Boca Chica Highway to its terminus and conducts the tours in the area from the terminus all the way south to the Rio Grande River.

Ms. Hinojosa has given tours of this area since 2015. She does so approximately three to six times per year, and she visits this area specifically because it has historically looked pristine and wild, with an abundance of wildlife and foliage. Ms. Hinojosa reports seeing Aplomado falcons, roseate spoonbills, blue herons, and other birds. Before rocket launches began, wildlife was more abundant, but now she sees less wildlife on her tours. She is concerned that this reduction in wildlife will only be exacerbated by the discharge of industrial wastewater from the Facility. She has seen singed flora on the side of the road. In recent years, with SpaceX launches, she has experienced road closures, and has experienced traffic and parking difficulty due to SpaceX super-fans and campers along the road.

Christopher Basaldu is a co-founder and member of STEJN. Christopher is also a member of the Esto'k Gna, commonly known as the Carrizo/Comecrudo Nation. Christopher grew up in Brownsville and would go to the beach with his family since childhood, and now visits Boca Chica beach about eight times a year on average. Christopher enjoyed visiting the beach since childhood to enjoy what he saw as a vast paradise and green. Christopher visits the area to swim, view wildlife, and enjoy stargazing. Christopher also goes to Boca Chica Beach to practice the lifeways of the Esto'k Gna, such as by performing spiritual cleansing and prayers in the waters of the ocean and mouth of the Rio Grande. This is because Christopher's deeply held religious beliefs include practicing the prayer and healing practices, and lifeways of his indigenous ancestors. For the Carrizo Comecrudo, the term *lifeways* roughly encompasses the English values of education, prayer, and spiritual renewal.

Christopher also regularly visits Boca Chica Beach to teach the public about the history of Boca Chica and the Esto'k Gna's longstanding history protecting the natural environment. Christopher carries on the lessons of his elders to teach stewardship and connection to natural environments that have been sacred and protected for generations. For example, it is customary to always leave an offering because Boca Chica is considered a sacred site.

Christopher's legally justiciable interests – his legal rights and privileges to access the beach, to practice his religious services, to do his work, and to continue to enjoy his recreation free from what he calls the “ugliness” of SpaceX and the launches that threaten the area which Christopher uses – have been and will be injured by SpaceX's launches.

Juan Mancias is a member of STEJN. Juan Macias is also a member and an elder of the Esto'k Gna, or Carrizo/Comecrudo Nation. For decades, Mr. Mancias has regularly visited the mouth of the Rio Grande River. To get there, Mr. Mancias drives east to the terminus of the Boca Chica Highway, and then drives approximately two miles south to the River. Mr. Mancias estimates he visits the mouth of the River at least eight times per year on average. Before SpaceX built its Facility, Mr. Mancias would observe plants, birds, and other wildlife that are culturally

important to him, and which brought him spiritual fulfillment in making the visit. Some of the bird species Mr. Mancias has seen in that area and that are culturally significant include pelicans, sandhill cranes, great blue herons, kingfishers, anhingas, black hawks, kiskadees, orioles, and scissor tails. Mr. Mancias finds spiritual fulfillment in knowing that the coastline where his ancestors are buried is protected.

After SpaceX began launching rockets from the Facility, Mr. Mancias has noticed a decline in birds he once observed, and he is worried that the discharge of industrial deluge water pursuant to SpaceX's TPDES permit will cause further decline. Mr. Mancias is also concerned that the discharge of industrial deluge water will degrade the water in the Rio Grande River, which injures his spiritual practices: bathing in the water of the Rio Grande where it enters the Gulf, and at Boca Chica. These are important religious ceremonies for the Carrizo Comecrudo, because that is the site of their Creation Story. Additionally, Mr. Mancias's visits to the area are impaired by the pollution and destruction of the natural habitat he used to enjoy and witness. His personal interests are harmed by SpaceX launches and the activities that have destroyed ancestral sites he and his tribe use in their practice of lifeways. He is concerned that the discharge of industrial deluge water will further harm the area and will extend the harm to areas downstream of the discharge.

Josette Hinojosa is co-founder and a member of STEJN. Ms. Josette Hinojosa is also a member of the Esto'k Gna, or Carrizo/Comecrudo Nation. Josette grew up in Brownsville and has been visiting Boca Chica Beach with her family since she was a child. Ms. Hinojosa estimates she visits the beach about once a month. She also enjoys visiting the beach with family and community members to enjoy the natural areas, bond over barbeques together, and to walk in the water and swim in the ocean. Ever since the SpaceX Facility was built, however, Ms. Hinojosa is concerned about the quality of the water and about stepping over debris from the rocket launches.

Ms. Josette Hinojosa has led educational tours at Boca Chica Beach and near SpaceX, teaching students and members of the public about the natural area and the history of the Esto'k Gna. Ms. Hinojosa also visits Boca Chica Beach and Mouth of the Rio Grande for Esto'k Gna ceremonies, but has been turned away due to SpaceX-related beach closures on several occasions. Ms. Hinojosa has noticed a decline in the quality of the environment around Boca Chica Beach and is concerned that continued SpaceX discharges will further degrade the quality of the environment at Boca Chica and the Rio Grande River.

Emma Guevara is a member of STEJN. Ms. Guevara visits her family near Boca Chica beach at least six times a year, and attempts to visit Boca Chica Beach and nearby natural areas during each visit. Ms. Guevara grew up in Brownsville, and enjoys visiting Boca Chica Beach and the mouth of the Rio Grande River. To get there, Ms. Guevara goes with her dad's truck and drives east to the terminus of the Boca Chica Highway, and then drives approximately two miles south to the River. Ms. Guevara enjoys spending time with her family at the beach and the river, and picks seashells along the beach.

Ms. Guevara worked for Sierra Club as a Field Organizer between July 2021 and July 2024 to help preserve and protect natural areas in Brownsville like Boca Chica Beach. Ms. Guevara spent the time fighting the ongoing development of SpaceX that has degraded the pristine habitat at Boca Chica. Ms. Guevara continues to make trips to Boca Chica Beach at least six times a year but has had limited access due to SpaceX beach closures. On visits where she is not able to access Boca Chica Beach, Ms. Guevara visits Boca Chica Wildlife Refuge and Boca Chica Bay near SpaceX, as well as Brazos Island Park.

i. Health harms.

STEJN members visiting the natural areas around the SpaceX facility would be exposed to threat to their overall health and well-being if the permit is granted as written. These threats will compound existing harms that STEJN already faces from the ongoing development impacts around Boca Chica Beach. In addition to the impacts on STEJN members from increased light pollution, noise, and traffic, STEJN members have been hindered by beach closures for the SpaceX facility and been unable to visit the area for recreation and educational purposes. Now, STEJN members face threats to their health from activities they have enjoyed at Boca Chica and surrounding natural areas, including swimming.

The SpaceX facility has the capacity to discharge 358,000 gallons of untreated industrial wastewater after a single rocket launch. This is on top of an unknown quantity of discharges from facility washdowns and storm events.⁴ TCEQ improperly conflates the Facility's ability to retain and reuse some of the deluge water before discharge as a treatment mechanism that reduces the impact of the Facility to the receiving waters. However, the potential delay of industrial discharges does not equate to pollution reduction. The quantity of pollutants present in the deluge water will only amalgamate over time as the water is reused, and once discharged, receiving waters face heightened concentrations of dangerous pollutants.

Discharges from the deluge system are expected to contain numerous dangerous pollutants, including total dissolved solids, nitrate-nitrogen, phosphorus, sulfate, chloride, fluoride, aluminum, cadmium, chromium, copper, cyanide, zinc, arsenic, barium, lead, mercury, nickel, and selenium. Arsenic, cadmium, chromium, lead, and nickel are known carcinogens in humans,⁵ and are also, in addition to copper, mercury, selenium, and zinc, highly toxic and can result in carcinogenicity and mutagenicity in fish.⁶

⁴ The possibility of more severe storm events from climate change only threatens further discharges from stormwater buildup in the retention basins. Single rain events in Brownsville can amount to over 3 inches of precipitation, and these severe rain events are expected to increase in rainfall amounts due to climate change over the years.

⁵ American Cancer Society, Known and Probable Human Carcinogens (last revised August 1, 2024), <https://www.cancer.org/cancer/risk-prevention/understanding-cancer-risk/known-and-probable-human-carcinogens.html>.

⁶ Farhan Jamil Emon et. Al., *Bioaccumulation and Bioremediation of Heavy Metals in Fishes—A Review*, 11(6) TOXICS 510 (June 2023), <https://pmc.ncbi.nlm.nih.gov/articles/PMC10302055/#:~:text=Moreover%2C%20some%20of%20the%20metals,32%2C33%2C34%5D>.

ii. Recreational and aesthetic harms.

Harms to water quality and aquatic life from the Facility would also negatively impact recreational activities such as swimming and bird or wildlife watching in Boca Chica Beach, along the Rio Grande, and in areas around the SpaceX Facility. Already, STEJN members have noticed a significant decline in the wildlife populations they enjoyed viewing at and around Boca Chica Beach, as well as the degradation and loss of plant life. Moreover, STEJN members that have enjoyed swimming in the ocean and Rio Grande River may understandably find the impacts to water quality from the industrial discharges too great to allow for continued recreational use of the areas.

iii. Harms to Religious Practice

Among STEJN's purposes is to educate its members and the public about the historic erasure of the Carrizo/Comecrudo Nation of Texas (the "Tribe"). STEJN advocates for environmental stewardship to protect the economic, social and justice interests of its members, including its Carrizo/Comecrudo members. The preservation of the environment is quintessential not only to STEJN's broad purpose to promote environmental justice, but also to its more specific purpose to preserve the Tribe's cultural and religious practices.

STEJN members have a constitutional right to religious freedom under both the U.S. and Texas State Constitution. In addition, the Texas constitution specifically provides that the state and its political subdivisions (such as TCEQ), "may not enact, adopt, or issue a statute, order, proclamation, decision, or rule that prohibits or limits religious services, including religious services conducted in churches, congregations, and places of worship, in this state by a religious organization established to support and serve the propagation of a sincerely held religious belief."⁷

C. STEJN satisfies TCEQ and federal standing requirements.

STEJN satisfies TCEQ's affected person standards, which are consistent with federal Article III standing according to the Texas Attorney General:

The criteria regarding determination of affected persons in the TCEQ's rules comport with the standing requirements in Article III of the United States Constitution for judicial review under the state statutes applicable to federal permit programs being implemented by the TCEQ, including the TPDES program. There is no material difference between the TCEQ's standards and the standards the federal courts apply when deciding judicial standing, which are based on the United States Supreme court decision in *Lujan v. Defenders of Wildlife*, et al., 504 U.S. 555 (1992).⁸

In *Lujan*, the United States Supreme Court established that standing involves three elements: (1) an injury in fact, which is a concrete and particularized invasion of a legally

⁷ Tex. Const. art. I, § 6-a.

⁸ Statement of Legal Authority to Regulate Oil and Gas Discharges under the Texas Pollutant Discharge Elimination System Program, Texas Attorney General Ken Paxton, at 12, September 18, 2020.

protected interest that is actual or imminent, not conjectural or hypothetical; (2) a fairly traceable causal connection between the injury and the conduct complained of; and (3) it must be likely as opposed to speculative that the asserted injury will be redressed by a favorable decision.⁹

Further, the United States Supreme Court clarified the standing inquiry and explained that “plaintiffs adequately allege injury in fact when they aver that they use the affected area and are persons ‘for whom the aesthetic and recreational values of the area will be lessened’ by the challenged activity.”¹⁰

Consistent with the standards set forth in *Lujan* and *Laidlaw*, individual STEJN members satisfy the standing requirements for purposes of this Application. For example, Ms. Rebekah Hinojosa’s, Mr. Basaldu’s, Mr. Mancias, Ms. Josette Hinojosa’s, and Ms. Guevara’s recreational interests are injured; in some instances, these interests are more than recreational and include spiritual and religious practice if the application is granted. These STEJN members regularly use the waters impacted by the industrial discharge, and would be particularly impacted by the discharge in a way distinct from the general public by virtue of their regular and particular use of the waters, dating back decades. Their reasonably held concerns formed from their own experiences will be redressed by participation in a contested case hearing to ensure a strict and protective Final Permit if a permit is issued. A contested case hearing will ensure a determination of whether the permit is sufficiently protective of the recreational and aquatic life uses of the downstream waters, including the Rio Grande River where Ms. Hinojosa, Mr. Basaldu, Mr. Mancias, and Ms. Josette Hinojosa regularly visit to recreate or observe religious ceremony. Further, a contested case hearing would allow STEJN to vet SpaceX’s Application and Permit to determine whether they include adequate measures to protect the health, quality of life, and well-being of STEJN’s members.

This permit would be issued pursuant to federally delegated authority from EPA, and therefore, the applicable considerations relevant to STEJN’s hearing request are different from those at issue in non-federal programs. In obtaining delegated authority to issue TPDES Permits for discharges associated with oil and gas activities, the Texas Attorney General stated that, “the TCEQ does not consider discretionary factors in 30 Tex. Admin. Code § 55.203(d) that may not be consistent with the determination of Article III standing, such as the merits of the underlying TPDES permit application, in evaluating whether a hearing requester is an affected person.”¹¹ Thus, TCEQ may not deny STEJN’s request based upon a finding on the merits that the conditions of the permit will be adequately protected of downstream waters so as to prevent the potential impacts of concern that STEJN raised because TCEQ’s conclusions in the Final Permit about impacts to water quality and aquatic life and compliance with applicable laws are the exact merits issues STEJN disputes and seeks to resolve in a contested case hearing. To the degree that

⁹ *Lujan v. Defenders of Wildlife*, 504 U.S. 555, 561 (1992).

¹⁰ *Friends of the Earth v. Laidlaw Env’t Serv.s (TOC), Inc.*, 528 U.S. 167, 181–182 (2000) (quoting *Sierra Club v. Morton*, 405 U.S. 727, 735 (1972)).

¹¹ Statement of Legal Authority to Regulate Oil and Gas Discharges under the Texas Pollutant Discharge Elimination System Program, Texas Attorney General Ken Paxton, at 22, September 18, 2020.

Senate Bill 709, or state caselaw¹² indicate otherwise, they have no applicability to this hearing request by virtue of the distinct federal context.

D. Beach Access and practicing one's religion are protected interests under the Texas Constitution.

Members of STEJN that visit Boca Chica Beach, as well as those who regularly fish in impacted waters or practice religious ceremonies in and around those waters, have legally justiciable interests related to legal rights and privileges granted special protection by the Texas Constitution. The Texas Constitution guarantees the right to freedom of religion and mode of worship.¹³ The Bill of Rights of the Texas Constitution, by amendment in 2009, guarantees the right of public beach access to state-owned beaches.¹⁴ In the case of *Texas Department of State Health Services v. Crown Distribution LLC*, Justice Young, joined by Chief Justice Hecht, Justice Devine, and Justice Blacklock wrote that these are some of the interests that Texas courts must enforce under the Due Course of Law provision of the Texas Constitution.¹⁵

II. Deficiencies in Permit Application and Final Permit

A. Significant information was missing in the Application materials available to TCEQ and the public, violating public notice and comment requirements.

Despite SpaceX's intentional disregard for this Agency's regulatory authority, the Draft Permit was prepared hastily and without requisite information or protections for Texas waters. An application was submitted on July 1, 2024 and on July 8, 2024—one week later—it was declared administratively complete, and public notice was published on July 12-13, 2024, even though the TCEQ website for Pending TPDES Applications shows the first public notice was not provided until August 14, 2024.

Then, less than two months later, on September 5, 2024, the Application was declared technically complete. A public meeting was scheduled for October 17, 2024, marking the end of the public comment period. This means that despite more than one year of ongoing and willful violations, SpaceX's permit application was processed at a rapid speed that gave the public only a few weeks from first notice to final public comment. Further, the public has not had any opportunity to review any additional testing that should have occurred since the release of the Draft permit. Not only does this unreasonably expeditious timeline undermine a thorough and complete review by Agency staff, it sends the message to other polluters that flagrant violations and disregard for regulatory authority will be rewarded with favoritism.

The public has been filing complaints with TCEQ for more than one year, yet the TCEQ repeatedly failed to act. According to publicly available information, between August 2023 and June 2024, TCEQ received at least fourteen complaints from members of the public regarding

¹² See, e.g., *Texas Comm'n on Env't Quality v. Sierra Club*, 455 S.W.3d 228 (Tex. App.—Austin, 2014).

¹³ Tex. Const. art. I, § 6.

¹⁴ Tex. Const. art. I, § 33.

¹⁵ 647 S.W.3d 648, 677 (Tex. 2022).

the deluge system operating without a permit. In fact, in an email on August 3, 2023, Cari-Michel La Caille, Director of TCEQ's Office of Water, acknowledged that TCEQ was aware of SpaceX activities regarding deluge water from the rocket launch facility. On August 30, 2024, TCEQ filed a Proposed Enforcement Order against SpaceX, conveniently resolving the Facility's repeated violations by granting SpaceX a carte blanche to discharge industrial wastewater without a TPDES Permit. After TCEQ finalized this legally dubious Enforcement Order on November 14, 2024, the Carrizo/Comecrudo Tribe and other groups petitioned for review of the TCEQ's Order. This pattern of favoritism has also prejudiced the rights of the public to participate in the decision-making process.

Because there was significant information missing from the permit application, the public was denied a chance to meaningfully comment on the draft permit. The failure to inform the public, as well as TCEQ's improperly rushed technical review and actions condoning SpaceX to operate without a TPDES permit demanded a re-opening or extension of the public comment period.

B. The Application and Permit fail to demonstrate the facility's high heavy metal discharges will comply with Texas' water quality standards. Additional testing is needed to evaluate the facility's impacts to water quality.

The Statement of Basis indicates that the effluent limitations for chemical oxygen demand, oil & grease, and pH are based on the standard limitations normally applied to instantaneous industrial stormwater discharges. But discharges from a rocket launching deluge system are decisively NOT stormwater discharges. Furthermore, a "general" stormwater permit is not a proxy for the necessary individual permit, which must be written to reflect site-specific conditions of SpaceX based on information about the proposed discharge.

The minimal (and deficient) sampling results included with the Application indicate that metals, including copper, zinc, nickel, thallium, and hexavalent chromium, a known carcinogen, will be in the SpaceX industrial wastewater. And yet, there is no information about how those samples were collected, how much water passed through the deluge system or through the outfall at the time the samples were collected, or whether it had been diluted by any other water source. There was certainly no attempt to analyze water quality from the discharge that was not collected by the retention pond, as indicated in SpaceX's own figure included in the Application which makes it clear that even under the most conservative approach, the deluge system is designed—at both launch sites—to overspray the retention basins. This means that polluted wastewater will be discharged directly into the tidal flats without going through the retention basin first. There has been no effort to analyze or limit the adverse impacts from hot water being discharged directly into the tidal flats, which can cause significant impacts to the benthic community locally.

C. The permit does not authorize discharges outside of the outfalls despite the deluge system's ability to discharge to other waters.

By design, with each activation of the deluge system, up to 358,000 gallons of water would be pushed up from ground tanks to rapidly cool the launch pad and rocket. After being

discharged from the deluge system, deluge water enters “waters of the United States” in a variety of ways, including, flowing into retention basins and through their outfalls, flowing around retention basins off the edge of the launch area, being pushed out over the launch area and retention basins by force of the system, and as water vapor and condensation. According to documents filed with the Federal Aviation Administration, the deluge system has the ability to disperse deluge water up to 0.6 miles across the local landscape, due to the vapor cloud and subsequent condensation.¹⁶

The Application and materials submitted to the Federal Aviation Administration (“FAA”) and TCEQ acknowledges that the deluge system causes overspray and a vapor cloud that will be dispersed outside the area of the retention basins, into the tidal flats, to Boca Chica Beach, and even as far as the South Bay. Yet, only discharges at the point of the outfalls from the retention basin are proposed to be regulated. The result of this serious deficiency is that not all pollutants have been properly identified or quantified, and the permit is not designed to regulate the discharges of all pollutants, as is required by the Clean Water Act.

As previously explained, SpaceX has been on notice of its violations for more than one year as it repeatedly activated the deluge system for launches and tests. Yet, with its application, it only provided two sets of sampling. This is unacceptable. Additionally, in documents on file with FAA, SpaceX indicated it provided TCEQ with samples from at least four dates, none of which are the same dates included in the Application. And as previously mentioned, SpaceX conducted additional static fire tests and a launch in October. It is counter to the Clean Water Act to exclude this effluent data from consideration. This data should have been reported as a part of the publicly available application package. SpaceX should not have been permitted to fulfill the requirement of four effluent tests as later condition on its permit, because this information will was not available for the public to review and comment on.

Furthermore, the Application does not demonstrate that the sampling that was provided was representative of the discharge effluent. For one, the sampling was not necessarily conducted immediately following the discharge event. For example, the second set of samples was apparently collected at 1:30 PM, though the launch was reported to have taken place at 7:30 AM on that day. Second, due to anticipated overspray, much of the discharge likely missed the retention basin, meaning there should be sampling locations designated in placed designed to capture these discharges, not only those through the designated outfall of the retention basins. If the retention basins are full of stormwater or other water, then the results would not be representative of all discharges or the need for stricter effluent limits—particularly because nothing indicates that SpaceX is required to continuously monitor or actually measure flow.

¹⁶ “Addendum to the October 2021 Biological Assessment for the SpaceX Starship-Super Heavy Launch Vehicle Program at the SpaceX Boca Chica Launch Site in Cameron County, Texas Addressing Operation of a Deluge System” at 8-9. Federal Aviation Administration. October 2023. Available at: <https://www.faa.gov/media/72826>.

D. The Draft Permit does not contain specific terms and conditions and as a result it is unenforceable and risks SpaceX evading compliance with the Clean Water Act and Texas Surface Water Quality Standards.

The Permit proposes several unclear terms and conditions that make it unenforceable. For example, the Permit authorizes the volume of wastewater at a volume of “intermittent and flow-variable.” SpaceX has information about the size of its existing water storage tanks and the maximum amount of wastewater those tanks can hold. SpaceX is currently authorized to launch 5-10 times per year, although it is planning to double the number of launches it conducts at its Boca Chica site. Deluge events are planned. The amount of discharge from deluge water can easily be predicted and limited. Instead, the Permit has granted SpaceX a blank check. The Permit authorizes an infinite amount of deluge water to be discharged into tidal wetlands and the local environment. This amounts to a violation of Texas Surface Water Quality Standards.

It also amounts to an intentional deprivation of public participation rights. Normally, when a permitted total volume is limited to a particular flow based on the uses and needs described in the permit application, as well as the amount of pollutants to be released and their potential impacts on the receiving waters, any increase from that amount, would require a major amendment to the permit and the opportunity for public notice, comment, and a contested case hearing. By permitting a limitless volume of discharge with the initial permit, TCEQ proposes to bypass public participation requirements, which is a violation of the Clean Water Act.

Another example of an unclear and unenforceable condition, is the one that requires “sampling shall be conducted within one (1) hour following the conclusion of the launch event and after it is deemed safe for sampling personnel to enter the sampling location.” TCEQ has not clarified whether this means that sampling must be conducted within the hour. Indeed, this provision suggests that SpaceX has the discretion to determine when it is “safe” for sampling personnel to enter the space, and this could lead to prolonged delays and non-representative samples with absolutely no mechanisms for TCEQ to say otherwise. This is especially alarming since there are alternative sampling methods that could be employed to capture wastewater immediately, and those could be employed to also capture samples in locations of anticipated overspray.

E. The Permit fails to include permit effluent limits.

The Permit needs to be revised to prohibit discharge of pollutants not specifically identified in the Application, and to set strict numerical limits on all constituents that are used at the facility or that may be found in the wastewaters and that could affect the marine environment, including but not limited to any heavy metals and chemicals in the discharge. TCEQ claims that “[n]o sources of hazardous chemicals or materials have been identified in the application associated with the activities resulting in discharge of wastewater,” relying on a deficient amount of water testing samples conducted in conditions that is not representative of potential future discharges from launches and heavy stormwater events.

Even more, despite repeated concerns echoed by numerous members of the public and STEJN, TCEQ incorrectly claims that it is only required to set effluent limits for pollutants with

specific criteria. This contravenes the entire purpose of the Clean Water Act¹⁷ and the Memorandum of Agreement between the EPA and TCEQ.¹⁸ In delegating NPDES authority to TCEQ, EPA specifically noted that “[p]ermit requirements will be considered on a case-by-case basis and on best professional judgment in accordance with 40 CFR §125.3 as adopted by 308.1,¹⁹ when specific regulations do not apply to a particular discharge.”²⁰ 40 CFR §125.3 imposes technology-based treatment requirements (“TBELs”), which represent the “minimum level of control that must be imposed” in a TPDES permit.²¹

There are two critical things to note about TBELs. First, when EPA has not issued national effluent limitations guidelines for particular pollutant(s)—as it has yet to do for several pollutants known to be harmful to human health and the environment—TCEQ is not absolved from setting TBELs for the pollutant(s). To the contrary, TCEQ “shall” set such TBELs on a “case-by-case” using its “best professional judgment.”²² TCEQ’s plan to hold off on TBELs until there are federal or state criteria is illegal and jeopardizes public health for the lengthy federal rulemaking to enact such criteria.

Second, TBELs are not restricted to pollutants designated as “toxic” or “conventional” under the Clean Water Act or listed in TCEQ’s application forms. TBELs expressly apply to “all pollutants...which are neither toxic nor conventional,” and “shall” be set on a case-by-case basis for such pollutants.²³

Thus, TCEQ cannot refuse to set strict and enforceable effluent limits for disclosed pollutants on the basis of its fundamental misunderstanding of the Clean Water Act’s clear demand. TCEQ must set limits that are protective of water quality for all disclosed pollutants that threaten to harm wildlife and human health.

¹⁷ The Clean Water Act prohibits the discharge of “any pollutant” into waters of the United States. 33 U.S.C. §1311(a). The term “pollutant” is defined broadly to encompass unlisted pollutants, and the NPDES/TPDES permitting program is a limited exception to the prohibition on pollutant discharges. *Id.* §1342(a).

¹⁸ The MOU was originally agreed upon between EPA and the Texas Natural Resource conservation Commission (“TNRCC”), but TCEQ superseded the TNRCC and is now responsible for administering the TPDES program pursuant to the Agreement.

¹⁹ In 2022, §308.1 was repealed, and §305.544 was enacted, adopting 40 CFR § 125 by reference. 2022 TX REG TEXT 595891 (NS), 2022 TX REG TEXT 595891 (NS).

²⁰ Memorandum of Agreement between EPA and TCEQ at 20.

²¹ 40 C.F.R. § 125.3(a).

²² 40 C.F.R. § 125.3(a)(2)(i)–(v); *accord NRDC v. EPA*, 859 F.2d 156, 183 (D.C. Cir. 1988) (“Section 1342(a)(1) requires EPA, in approving permits in the absence of formally promulgated effluent limitations guidelines, to exercise its best professional judgment (BPJ) as to proper effluent limits. . . . States are [also] required to compel adherence to the Act’s technology-based standards regardless of whether EPA has specified their content . . .”); *Texas Oil & Gas Ass’n v. EPA*, 161 F.3d 923, 928 (5th Cir. 1998) (“In situations where the EPA has not yet promulgated any [effluent limitations guidelines] . . . EPA must determine on a case-by-case basis what effluent limitations represent the BAT level . . .”).

²³ C.F.R. § 125.3(a)(2)(v).

F. The monitoring provisions in the Permit are inadequate to demonstrate compliance with water quality standards.

The Application does not include an accurate depiction of the wastewater generating procedure, the location of where contaminants will end up from the discharges or the discharge route, or identification of the possible contaminants, meaning the monitoring and reporting requirements included are grossly deficient. But even those that propose additional analytical testing as an additional requirement (no. 12) are not enough to bring the permit into compliance or informative enough to help achieve compliance with future revisions to the permit.

G. The proposed discharge will threaten endangered species.

The Application and the ED's Statement of Basis are deficient in considering the impacts on federal and state-listed endangered and threatened species. As explained at length, due to a grossly deficient Application and review, all the possible contaminants have not been identified, quantified, or limited in any way. Federal species with critical habitat in the receiving waters include the piping plover. The discharge area could also impact water quality and listed species downstream in the Gulf of Mexico, which is designated as critical habitat for loggerhead sea turtle and proposed critical habitat for green sea turtle.

H. The Permit is not consistent with the Texas Coastal Management Program.

Finally, the Application and the review fails to demonstrate that the SpaceX facility and, more specifically, the proposed discharge from this deluge system, as proposed, will be protective of our Texas coastal communities and resources. Therefore, it is not consistent with the goals and policies of the Texas Coastal Management Program.

III. Conclusion

For the reasons stated above, STEJN respectfully requests that TCEQ grant STEJN's request for a full contested case hearing on the deficiencies raised.

Respectfully submitted,

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