

SOUTHERN ENVIRONMENTAL LAW CENTER

Telephone 404-521-9900

TEN 10TH STREET NW, SUITE 1050
ATLANTA, GA 30309-3848

Facsimile 404-521-9909

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Via Electronic Mail

Mr. Doug Haymans

Director

Georgia Department of Natural Resources

Coastal Resources Division

One Conservation Way

Brunswick, GA 31520

CRD.Comments@dnr.ga.gov

RE: Proposed Coastal Consistency Determination For Spaceport Camden

Dear Director Haymans:

On behalf of the Coalition to Protect America's Parks, Georgia Audubon, the National Parks Conservation Association, One Hundred Miles, the Satilla Riverkeeper, and Wild Cumberland, the Southern Environmental Law Center submits the following comments regarding the proposed coastal consistency determination for the Spaceport Camden project.

The Georgia Department of Natural Resource's Coastal Resources Division ("CRD") should be commended for providing this opportunity for public comment and for extending the comment period to allow for review of the project's lengthy and technical documents. CRD deserves credit for taking public engagement seriously where other government entities have fallen short.

As set forth below, CRD should object to the proposed coastal consistency determination because the Federal Aviation Administration (the "FAA") has failed to provide the necessary information to evaluate and certify that Spaceport Camden is consistent with Georgia's Coastal Zone Management Program.

Specifically, CRD should object because: (i) it has not been provided with the materials previously identified as necessary to reach its consistency decision; (ii) the CZMA does not allow for a phased or supplemental review of the project beyond the current comment period; (iii) the Coastal Marshland Protection Act prohibits use of state marshlands for a debris containment area; (iv) the Georgia Historic Preservation Division's review is ongoing and unresolved; (v) the site's known hazardous waste issues are unaddressed; and (v) the proposed navigation restrictions are too vague and undefined to evaluate. To the extent information is available, it is inconsistent with Georgia's program in a variety of respects.

This letter references a number of documents and maps. As an accommodation to the ongoing COVID-19 pandemic, copies of these documents are provided through the following document transfer link:

<https://southernenvironment.sharefile.com/d-s0360f5139a9549f8859861b71821b426>

Please let me know if this document transfer link poses any inconvenience and I will provide the documents through other means.

INTRODUCTION

1. Coastal Consistency Certification

The federal Coastal Zone Management Act of 1972 (“CZMA”) was passed by Congress to “promote comprehensive and coordinated planning for coastal zone development and preservation between states and the federal government.”¹ Under the CZMA, each coastal state may adopt a coastal zone management plan that provides for “the protection of natural resources, including wetlands, floodplains, estuaries, beaches, dunes, barrier islands, coral reefs, and fish and wildlife and their habitat, within the coastal zone” and “management of coastal development to improve, safeguard, and restore the quality of coastal waters, and to protect natural resources and existing uses of those waters.”²

Georgia’s Coastal Management Program was adopted in 1997 and was created by the Georgia Coastal Management Act.³ Georgia’s Program is intended to balance “sustainable economic development and natural resource conservation in coastal Georgia,”⁴ and to protect Georgia’s coastal area “for this and succeeding generations.”⁵

Under the CZMA’s consistency process, any federal action that “affects any land or water use or natural resource of the coastal zone shall be carried out in a manner which is consistent to the maximum extent practicable with the enforceable policies of approved State management programs.”⁶ This CZMA consistency review affords CRD a voice in federal decisions when those actions jeopardized Georgia’s coastal resources. CRD should not abdicate this responsibility nor should it allow the FAA’s shortcomings to limit its exercise of this authority under the CZMA.

¹ *Conservation Law Found. v. Watt*, 560 F. Supp. 561, 574 (D. Mass. 1983) aff’d sub nom. *Com. of Mass. v. Watt*, 716 F.2d 946 (1st Cir. 1983).

² *Id.* at § 1452 (2)(a)-(b).

³ O.C.G.A. § 12-5-320.

⁴ *Id.* at 31.

⁵ *Id.* at 32.

⁶ 16 U.S.C. § 1456 (c)(1)(A).

2. The Project And The FAA’s Environmental Review

Spaceport Camden would be a rocket launch facility located 11.5 miles east of the City of Woodbine in Camden County, Georgia. The site is bounded to the west by the Ceylon Wildlife Management Area and to the south by the Cabin Bluff Wildlife Management Area. To the north and east, the sites are bounded by coastal marshlands, the Satilla River, and the Intracoastal Waterway.

Spaceport Camden seeks a license from the FAA to launch up to twelve small lift class rockets per year, including up to twelve static fire engine tests and dress rehearsals associated with those launches. Although its current license application is limited to a 100 degree launch trajectory, Spaceport Camden has stated its intent to launch rockets across a range of trajectories between 83 and 115 degrees. The flightpath for a 100 degree launch trajectory would travel eastward over Cumberland and Little Cumberland Islands.

To the extent Spaceport Camden’s environmental effects have been evaluated, that analysis is contained in the FAA’s March 2018 Draft Environmental Impact Statement (DEIS). The DEIS is required under the National Environmental Policy Act but is not intended to reflect the laws, policies, analysis, or data necessary to evaluate the project under Georgia’s Coastal Management Program.



At the time the DEIS was released, Spaceport Camden planned to launch medium-large lift class vehicles and so its environmental review focused on those vehicles.⁷ The DEIS repeatedly states that size of the launch vehicle is a key parameter in its environmental analysis and changing this parameter would require supplemental environmental review.⁸ Internally, FAA staff have stated this same conclusion more colloquially:

⁷ DEIS, Executive Summary at 9.

⁸ DEIS Executive Summary at 1. (“A supplemental environmental analysis could be required when one or more of the parameters of the proposed construction or launch activities fall outside what is analyzed in this EIS.”) *See also*, DEIS at 2-21 n18 (“Any proposed trajectories, launch

If they want to change their approach to only small launch vehicles to satisfy the location review, then I think they need to change the approach to the EIS. We can't put out an EIS that describes vehicles that look like Falcon 9s when [] they've only demonstrated that a Vector-R might be safe enough.⁹

But in January 2020, Spaceport Camden revised its Launch Site Operator License Application (the "Revised LSOL Application") to focus exclusively on small lift class vehicles, rather than the medium-large vehicles evaluated in the DEIS. The FAA initially announced that it would prepare a supplemental environmental review to reflect this change including a "revised Draft DEIS" and a Final EIS. The FAA stated it would release these documents for public notice and comment.¹⁰

However, in response to lobbying and political inference, the FAA changed course and announced that it would not prepare a revised DEIS and instead would finalize the DEIS.¹¹ The FAA stated that this decision was based on "revised analyses" that "have confirmed that all potential environmental impacts of the small-lift launch vehicles are subsumed within the potential impacts of the medium-large lift class vehicle as described in Draft EIS."¹² However, these "revised analyses" regarding the environmental effects of small rocket launches have never been released to the public and are not available on CRD's project website.

The FAA now seeks a Coastal Consistency Determination from CRD based on three documents: the DEIS, the Revised LSOL Application, and a proposed Coastal Consistency Determination document (the "Draft CCD") prepared by Camden County.

COMMENTS

1. CRD Must Object To The Coastal Consistency Determination Because There Is Insufficient Information To Conduct Its CZMA Review And The Law Does Not Allow CRD To Object In The Future.

CRD must object to the proposed coastal consistency determination because it has not been provided with sufficient information to perform its review and the CZMA does not authorize CRD to conduct further consistency review beyond this point.

vehicles, and/or fuel types or changes to the maximum number or timing of launches identified during the licensing process that are outside the scope of those addressed in this EIS would require additional environmental review.")

⁹ Email from D. Murray (FAA) to K. Branham (FAA) re Camden Agenda (August 10, 2017).

¹⁰ May 26, 2020 Email from S. Zee (FAA) re Update on Spaceport Camden EIS – Schedule.

¹¹ September 11, 2020 Letter from W. Monteith (FAA) to Spaceport Camden Mailing List.

¹² *Id.*

a. The FAA Has Provided CRD With Insufficient Information to Perform its Coastal Consistency Review.

Federal regulations make clear that the applicant has the burden of ensuring that the necessary information is provided.¹³ In June 2018, CRD submitted comments on the DEIS to the FAA (the “June 2018 Comment Letter”).¹⁴ In this letter, CRD listed fourteen “future documents [that] will contain details on how reasonably foreseeable impacts to coastal uses and resources will be reduced, but they are not available for our review.”¹⁵ Several of these fourteen documents have since been provided, but most have not. Therefore, CRD is remains unable to evaluate Spaceport Camden’s impacts to coastal uses and resources.

The Draft CCD also relies on a number of documents as part of its analysis, despite the fact that these documents do not exist. These documents include: the Mitigation Plan; the Protected Species and Habitat Management Plan; the Lighting Management Plan; the Wildland Fire Management and Burn Plan; the Site Revegetation and Landscaping Plan; the Storm Water Pollution Prevention Plan; the Spill Prevention, Control and Countermeasure Plan; and the Hazardous Waste Management Plan.¹⁶ CRD cannot conduct its consistency review based on the title of these documents and the promise that will be provided in the future.

Further, beyond the document listed in the June 2018 Comment Letter and the Draft CCD, other relevant information is also missing. For example, the FAA has described “revised analyses” comparing the effects of small rockets to those in the DEIS. Yet this document is not available. This omission is even more problematic in light of the fact that the FAA has advised CRD that the DEIS’ environmental review does not necessarily reflect the environmental effects of the current proposal.¹⁷

Please note that the license application has been revised and resubmitted since publication of the DEIS, so the information that is currently publicly available in the DEIS may not be consistent with the contents of the revised LSOL application.

In fact, since CRD raised these concerns three years ago, the only new documents provided by the FAA are the Revised LSOL Application and the Draft CCD. These documents

¹³ 15 C.F.R. § 930.58(a)(3).

¹⁴ June 12, 2018 Letter from D. Haymans (CRD) to S. Zee (FAA) re: Spaceport Camden DEIS Comments.

¹⁵ *Id.* at 2.

¹⁶ Draft CCD, *passim*.

¹⁷ Dec. 21, 2020 Email from E. Mize to K. Moore re: Request for Reconsideration of Redacted Material.

contain bits and pieces of relevant information, but fall well short of the information and analysis CRD has stated is necessary to perform its coastal consistency review.

b. The CZMA's Supplemental Coordination Regulation Does Not Apply Here.

CRD's June 2018 Comment Letter suggests that it can proceed with its consistency review despite the large amount of missing information by issuing a conditional concurrence, where the missing documents would be submitted at a later date. The letter cites the CZMA's supplemental coordination regulation as the legal basis for this approach,¹⁸ but supplemental coordination is inapplicable here.

As the regulation makes clear, supplemental coordination is intended for circumstances where a proposed action's effects on coastal uses or resources have changed, and are "substantially **different than originally described.**"¹⁹ The environmental analysis missing here has not changed; it was never provided in the first instance. Section 930.66(a) describes three circumstances where supplemental coordination is appropriate: (1) the applicant makes substantial changes in the proposed activity subsequent to consultation; (2) there are significant new circumstances or relevant information; or (3) the state agency was unaware of substantial changes made to the activity during its initial review.²⁰ None of these describe the Spaceport Camden situation. Here, the FAA and Spaceport Camden have failed to provide the necessary information and seek to reinvent the CZMA process to accommodate these omissions.

Supplemental coordination is also inappropriate because it is intended to occur between the time a state issues its concurrence but before completion of the federal action that triggered CZMA review.²¹ The process described in CRD's letter envisions that the documents and information will be provided **after** the FAA issues the Record of Decision for Spaceport Camden's launch site operator license. Not only would this approach conflict with the plain language of the regulation, but it will render it impossible for CRD to enforce its conditions. What ability will CRD have to enforce the schedule after the FAA grants the license? What recourse will CRD have if the documents submitted are clearly inadequate or reveal a direct conflict with Georgia law? CRD will be unable to enforce its conditions because Spaceport Camden will already possess its license. The supplemental coordination approach described CRD's letter is unlawful, illogical, and unenforceable.

¹⁸ 2018 DEIS Comment Letter at 2 citing 15 C.F.R. § 930.66.

¹⁹ *Id.* (emphasis added).

²⁰ 15 C.F.R. § 930.66(a)(1)-(3).

²¹ *Id.* (For activities "previously determined by the State agency to be consistent with the management program, but which have not yet begun, applicants shall further coordinate...")(emphasis added).

c. The Phased Review Described in CRD’s Letter Has Been Ruled Unenforceable.

Even more problematic, the conditional and phased CZMA review described in the June 2018 Comment Letter is legally unenforceable under a recent decision from the South Carolina Administrative Law Court. A copy of the decision is provided. *Billy Keyserling, et al v. South Carolina Dept. of Health and Environmental Control*, No. 15-ALJ-07-0380-CC, 2016 WL 1627206 (Apr. 19, 2016).

The *Keyserling* case involved a permit from the Bureau of Ocean Energy Management to conduct seismic surveys in federal waters. In its CZMA review, the South Carolina Department of Health and Environmental Control “issued a conditional consistency concurrence ... placing two conditions that would protect sea turtles and commercial fishing.”²² In a challenge to this decision, the South Carolina Administrative Law Court considered whether the state has any ongoing legal authority in the CZMA process based on a conditional concurrence.²³ The court ruled that the conditions imposed as part of the concurrence were unenforceable because the CZMA provides no further role for state action in the coastal consistency process after it has made a concurrence decision.

The *Keyserling* court repeatedly cites the National Oceanic and Atmospheric Administration’s discussion of its CZMA regulations in the Federal Register. The court reasoned that the CZMA rules were intended to provide “predictability and finality by requiring the State agency to concur or object within a prescribed time period.”²⁴ Once a State has concurred, “the CZMA does not provide states any further role in the federal review process and the authorizing federal agency may issue the requested permit.”²⁵

In fact, the *Keyserling* court ruled that the conditions imposed with a concurrence are unenforceable:

The CZMA does not provide the State agency with the authority to enforce its concurrence (or conditions) beyond the State's consistency decision deadline (e.g., six months for licenses or permits). **Once a State agency has concurred, even with conditions, the State agency retains no further consistency authority over the project**²⁶

CRD proposes using this exact same conditional concurrence approach to overlook the information missing here.²⁷ But under *Keyserling*, any conditions CRD imposes will be legally

²² *Id.* at *1.

²³ *Id.* at *3.

²⁴ 65 Fed. Reg. at 77127 (December 8, 2000).

²⁵ *Id.*

²⁶ *Id.* (emphasis added).

²⁷ June 2018 Comment Letter at 9 and n 38.

unenforceable and CRD will have no ongoing authority under the CZMA beyond the six month concurrence window to enforce these conditions.

CRD will have no recourse if Spaceport Camden fails to deliver the promised studies and documents. CRD will have no recourse if those documents reveal far greater environmental effects than anticipated. And CRD will have no recourse if those studies reveal that Spaceport Camden is flatly prohibited under Georgia law. In short, *Keyserling* holds that a conditional concurrence under the CZMA is nothing more than a hope and a prayer that the conditions will be met. CRD must not sacrifice its legal authority to accommodate the FAA's clear failure to provide the necessary information.

d. The FAA Could Have Provided the Requested Information Prior To Seeking A Consistency Determination.

In the DEIS and elsewhere, the FAA argues that it must separate its decision to license a launch site from its decision to license individual rocket launches. There is a kernel of truth to this argument – the FAA does not know the exact specification of every future rocket that may seek to launch from a site. But the vast majority of information missing here is related to the site, not the rocket. For example, Spaceport Camden does not need to know specific information about future launches to prepared the Lighting Management Plan, the Site Revegetation and Landscaping Plan, or the Spill Prevention, Control and Countermeasure Plan.

The timeline for supplemental consultation underscores this point. Nothing will change between the close of the concurrence period and the construction deadlines that will make it easier to produce these plans. Any information that would be developed in the future to comply with those deadlines could be developed now if Spaceport Camden was compelled to provide it. But instead they propose moving forward without this information, and will shortchange CRD's role in the CMZA process to do so.

e. New Information and Representations in the "Proposed Coastal Consistency Document" Are Unenforceable.

Rather than an impartial evaluation of the project, the Draft CCD submitted by Spaceport Camden reads like promotional document advocating on behalf of the project. Further, it contains information and statements that are not found in the Draft EIS, the Revised LSOL Application, or any other legally enforceable document. CRD cannot rely on these unenforceable representations made in the Draft CCD in its consistency review.

The Draft CCD's discussion of potential access restrictions illustrates this problem.²⁸

²⁸ Draft CCD at 10.

The duration of the USCG Security Zone and OE) during a typical launch is anticipated to be up to 3.5 hours; however, access controls could be in place for up to 12 hours on an atypical launch day. The atypical 12-hour duration allows for potential aborts and contingencies. The OEZ for a wet dress rehearsal or static fire engine test would only include those areas within a 4,021-foot radius of the launch pad and would typically be in place for 3 hours or less.

The Estimated Total Access Limitation Time (USCG Security Zone) and Closure Time (OEZ) per Year (12 launches / 12 static fire engine tests and 12 wet dress rehearsals) is up to **42 hours** (USCG Security Zone) / **114 hours** (OEZ), respectively.

The comment box on the right asserts that the access restrictions could be “up to” 42 hours for the twelve launches. But if one reads the text immediately to the left, the statement becomes more vague - the 42 hour estimate is based on the assumption that the closure period for a “typical” launch would extend 3.5 hours. But the closure period for an “atypical” launch could extend up to 12 hours. Thus, 12 “atypical” launches would require 144 hours of closures. In other words, whereas the comment box suggests 42 hours is a maximum, the text suggests it is a minimum. Further, none of these calculations reflect other reasons closures might be implemented (like static fire engine test and dress rehearsals), nor do they account for launch events rescheduled due to weather, technical difficulties, or other reasons.

These statements must be viewed with even more skepticism because Spaceport Camden has made different representation in other contexts. In September and October 2020, Spaceport Camden submitted a series of memos to the Department of Defense regarding Spaceport Camden. These documents contain statements, maps, and information relevant to CRD’s consistency review, yet it is unclear whether these materials were provided to CRD to evaluate in its coastal consistency review. Copies of these documents are provided through the document transfer link.²⁹ These memos illustrate how Spaceport Camden is offering different information in different contexts in order to navigate regulatory review. At times these statements may be inconsistent, and there is no single document (or documents) containing all relevant information to reconcile these discrepancies.

For example, in the Department of Defense memos, Spaceport Camden describes the closure windows in even more open-ended and unquantified terms. “Launch windows that are available to potential operators will be identified through an analysis of restrictions, if any, imposed by the FAA, DoD, [sic] needs for use of the airspace, other airspace considerations, and the needs of the commercial space operator.”³⁰ This statement does not use the estimates contained in the Draft CCD, nor does it limit the closures based on state law or the need to balance public interests against the “needs of the commercial space operator.”

²⁹ <https://southernenvironment.sharefile.com/d-s0360f5139a9549f8859861b71821b426>

³⁰ Sept. 25, 2020 Memo from B Gulliver (Kimley-Horn) to K. Perez (FAA) at 2.

CRD must evaluate Spaceport Camden based on the enforceable limits contained in the Revised LSOL Application, the DEIS, or other legally enforceable documents. Without an enforceable document to back them up, the laudatory and self-serving statements sprinkled throughout the Draft CCD document must be disregarded.

f. The FAA’s Failure to Provide the Necessary Information Compels CRD to Object to The Proposed Coastal Consistency Determination.

The vast majority of missing information identified in CRD’s June 2018 Comment Letter still has not been provided. Instead, the intervening three years have led to more questions, changes in the project, and missing information. CZMA regulations clearly speak to this situation. Under 5 C.F.R. § 930.63(c), a state may object when “the applicant has failed, following a written State agency request, to supply the information required pursuant to § 930.58 or other information necessary for the State agency to determine consistency.” That language precisely describes the current situation. Rather than changing the CZMA regulations to fit the situation, CRD should apply the regulations as written and object to the CZMA certification.

2. The DEIS And Other Materials Fail To Address Key Issues Related to Coastal Consistency Review.

Although the DEIS is held out as the environmental analysis of this project, CRD has already concluded that the document “falls short on assessing CZMA-mandated impacts to coastal uses such as public access, recreation, fishing and scenic and aesthetic enjoyment.”³¹ These shortcomings are made even worse by changing circumstances over the intervening three years.

a. Increased Likelihood of Rocket Failure

Spaceport Camden’s decision to focus on small rockets represents a tradeoff: they have a smaller footprint when they fail but they fail at a higher rate. The Revised LSOL Application bears out this concern. The Revised LSOL Application assumes a failure rate of 20%,³² which is significantly higher than the failure rate of 2.5 - 7% in the DEIS.³³

Parameter	Value	Notes
Total Probability of Failure (Pf)	20%	
First Stage Probability of Failure	10%	
Second Stage Probability of Failure	10%	

³¹ June 2018 Comment Letter at 5.

³² *Revised LSOL Application: Launch Site Location Review*, at 16.

³³ DEIS at 2-34

The DEIS repeatedly dismisses any analysis of launch failures by concluding that these events are unlikely to occur.³⁴ But a 20% failure rate for twelve launches means that 2.5 rockets should be expected to fail every year. Launch failures would not be a hypothetical situation; CRD would need to address the environmental effects of rocket failures every year. In light of this real and imminent threat, there is no basis for ignoring the environmental effects of launch failures including human injuries, damage to private property, damage to historic sites, damage to Cumberland Island National Seashore or the adjacent WMAs, damage to wildlife habitat or fisheries, release of hazardous materials, and emergency response activities.

b. Risk of Wildfire

In correspondence with Camden County, the FAA has repeatedly expressed concerns that a rocket failure would trigger a wildfire on the barrier islands.

Fire – A launch accident may cause an uncontrollable fire on LCI or Big Cumberland Island. Access to LCI for firefighting and egress from LCI for evacuation are limited.³⁵

The FAA advised Camden County: “If a fire were to start due to a mishap or incident, it could quickly spread and would be difficult to contain.”³⁶ Yet the DEIS only mentions the issue of wildfires in passing and contains no substantive analysis of the risk posed by wildfire including an analysis of existing conditions, an assessment of firefighting capabilities on Cumberland Island, and the environmental harm an uncontrolled wildfire could cause. This minimal analysis does not comport with the severity of the FAA’s concerns about an “uncontrollable” wildfire.

c. Impacts to the New State Wildlife Management Areas and Other State Properties.

A third issue that undermines the DEIS’ analysis is the creation of two new Wildlife Management Areas immediate adjacent to the project site. The Ceylon and Cabin Bluff properties were transferred to DNR after the DEIS is was released. Although this explains why they were not considered in that document, it does not justify the FAA’s subsequent failure to consider Spaceport Camden’s impacts on these properties. These effects could include access restrictions, the impact of sound and vibration on wildlife, and the risk of wildfires. CRD cannot discount these concerns simply because the properties are not located directly downrange from Spaceport Camden’s planned trajectories. In an eerily similar situation, a recent failed launch

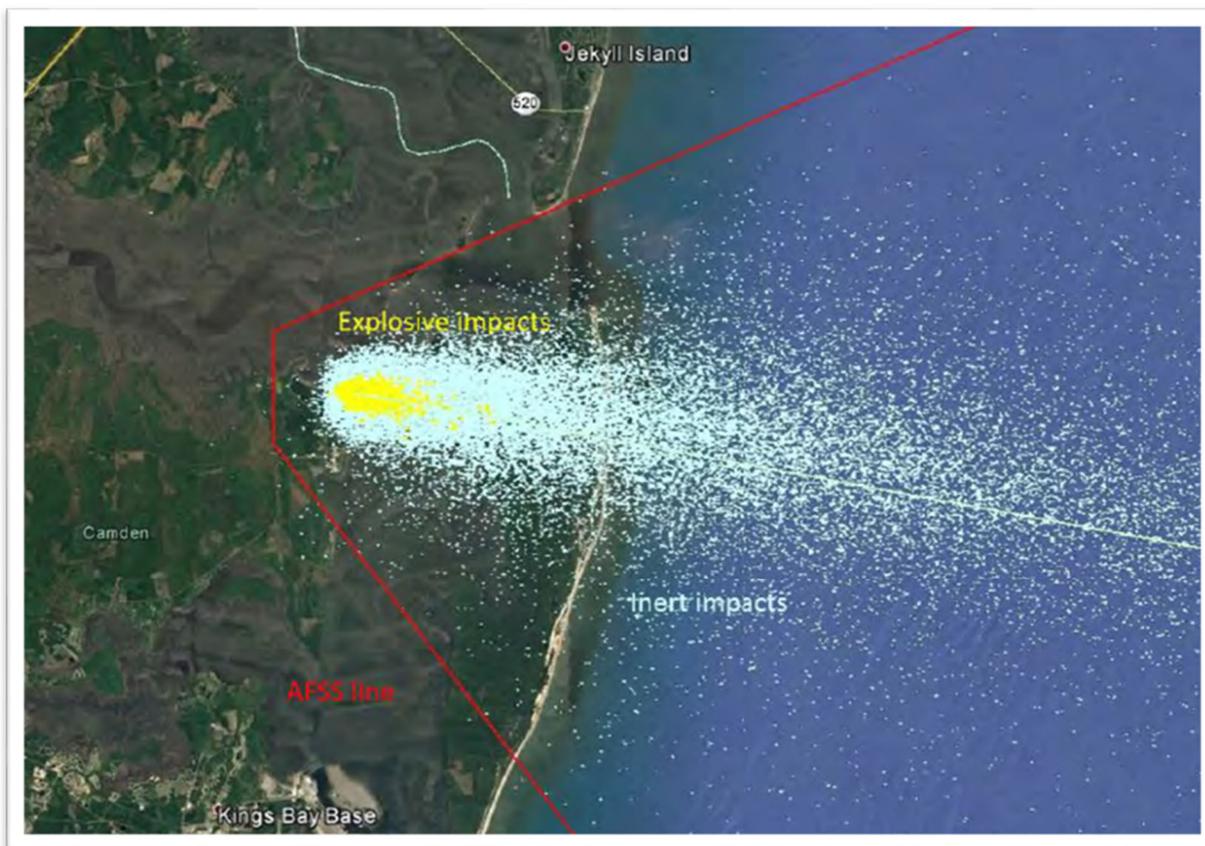
³⁴ DEIS, *passim*.

³⁵ Dec. 16, 2019 Letter from K. Wong (FAA) to J. Starline (Camden County).

³⁶ Feb. 12, 2019 Letter from K. Wong (FAA) to J. Starline (Camden County) *See also*, Feb. 15, 2019 Memorandum from W. Monteith (FAA) to D. Elwell (FAA) (“[T]here are limited firefighting capabilities available to the residents of LCI in the event of a launch mishap, which could further impact public safety.”).

from the Pacific Spaceport in Alaska landed **behind** the launch site on state-owned hunting land.³⁷

Debris dispersion modeling included in the Department of Defense memos reveals that rocket debris could impact other State properties. The map below depicts data from a “flight analysis” that simulates “100,000 failures of the representative small launch vehicles on a 100-deg reference trajectory.”³⁸



The map is noteworthy in several respects. First, it shows “explosive impacts” extending off the site upland into state marshlands and potentially into the Cabin Bluff WMA.

Second, the map shows a concentration of inert debris in the vicinity of the Satilla River Marsh Island. This property contains important bird habitat and receives special protection under Georgia law, but the DEIS’ discussion of the environmental effects of a rocket failure on the island is cursory and generic.

³⁷ <https://www.ktoo.org/2020/09/12/kodiak-rocket-launch-ends-in-fiery-explosion/>

³⁸ Oct. 26, 2020 Memo from B. Gulliver (Kimly-Horn) to K. Perez (FAA) at Response to Q3 and Attachment A.

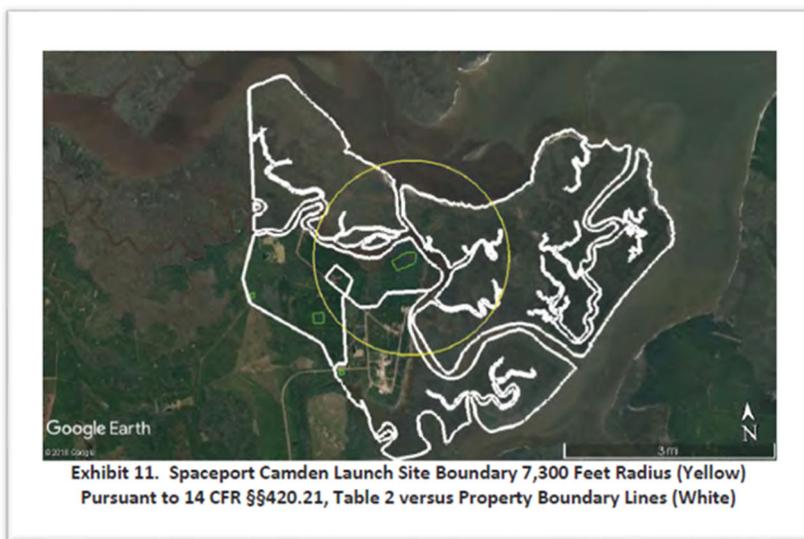
Third, this debris pattern reflects a 100 degree trajectory and shows inert debris near the southern end of Jekyll Island. But launches along the planned 83 degree trajectory would shift the debris pattern further to the north and closer to Jekyll Island. The debris dispersion analysis for the 83 degree trajectory as not been modeled and “[f]uture launch operators will conduct debris analysis for their proposed launch operations prior to FAA approval within that range of azimuths.”³⁹

3. Spaceport Camden Would Directly Affect State Marshlands But Cannot Satisfy The Requirements For A Coastal Marshlands Protection Permit.

As described in the Revised LSOL Application, Spaceport Camden plans to use approximately 2,660 acres of State-owned marshlands and water bottoms as its debris dispersion area. Even if FAA regulations allow the marshlands to be used in this fashion, Spaceport Camden must obtain a permit under the Coastal Marshlands Protection Act to use State marshlands and the project cannot meet the CMPA’s requirements.

a. Spaceport Camden Plans to Utilize State Marshland as a Debris and Blast Containment Area.

FAA regulations direct that the “distance from any proposed launch point to the closest launch site boundary must be at least as great as the debris dispersion radius of the largest launch vehicle type and weight class proposed for the launch point.”⁴⁰ As the name suggests, the “debris dispersion radius” is intended to capture the debris and other damage if a rocket fails.⁴¹ For small launch vehicles, this debris dispersion radius must be at least 7,300 feet. But for Spaceport Camden, the 7,300 foot radius extends



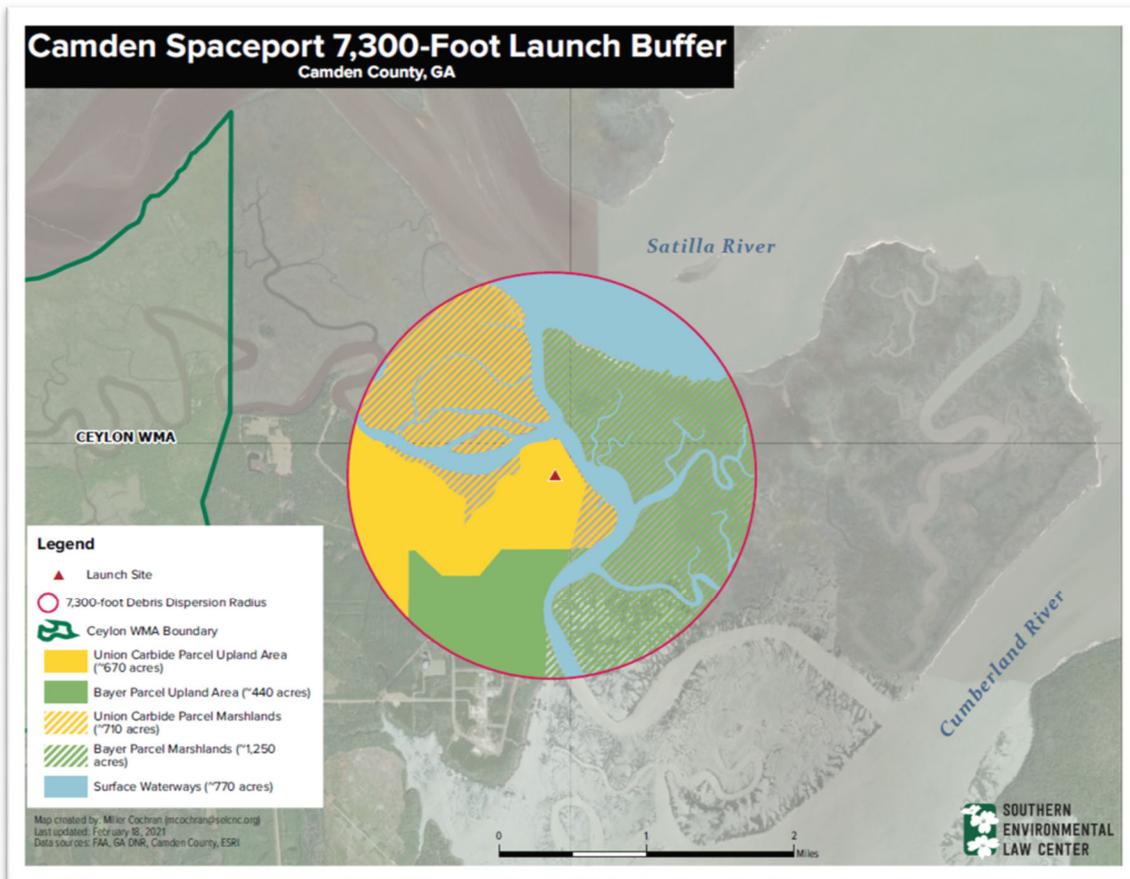
³⁹ *Id.*

⁴⁰ 14 C.F.R. § 420.21(a).

⁴¹ Debris dispersion radius is “the estimated maximum distance from a launch point that debris travels given a worst-case launch vehicle failure and flight termination early in flight.” 14 C.F.R. § 420.5. *See also*, DEIS at 2-34 (“Because FAA regulations (14 CFR §420.21) require launch pads to be at least 10,600 feet (for medium-lift-class to large-lift-class launch vehicles) from the launch site boundary, vehicle debris from the explosion would be expected to be confined to the launch site.”)

far beyond the upland property into the marshlands and the Satilla River.⁴² Spaceport Camden’s Revised LSOL Application contends that it can satisfy the FAA’s 7,300 foot requirement because it can “control” these areas.⁴³

Under Georgia law, marshlands are owned by the State of Georgia unless a crown grant exists for the property. Spaceport Camden has never suggested that it hold such a grant.⁴⁴ Further, the debris dispersion area also includes water bottoms also owned by the State of Georgia, including the beds of the Satilla River, Todd Creek, and the East River. In total, it appears that 71% of Spaceport Camden’s debris dispersion area is State property.



⁴² Revised LSOL Application: Launch Site Location Review at Ex. 11.

⁴³ Revised LSOL Application: Launch Site Location Review at 11.

⁴⁴ *Dorroh v. McCarthy*, 265 Ga. 750, 751 (1995). (“As a result, the State of Georgia owns the tidewaters bottoms up to the high water mark, unless, pursuant to OCGA § 52–1–2, a private party can trace his or her title back to an explicit conveyance thereof by a valid Crown or state grant.”)

Property Type	Approximate Acres	Percentage of Debris Dispersion Radius
Union Carbide Upland	670	17%
Union Carbide Marsh	710	18%
Bayer Upland	440	11%
Bayer Marsh	1,250	33%
Surface Waterways	770	20%
Total Debris Dispersion Radius	3,840	
State-Owned Acres (Marsh and Surface Waters)	2,660	71%

As the debris dispersion area’s purpose is to control the damage and debris from a failed launch, the risk posed to these 2,660 acres of State property is clear. This risk is further documented in the debris dispersion map included above, and in the Spaceport Camden’s statements to the Department of Defense that explosive effects areas include the “upland property of Spaceport Camden and adjacent marshlands and creeks,”⁴⁵ and that Floyd’s Creek could be impacted during static fire test events.⁴⁶

b. Spaceport Camden’s Agreement With the Coast Guard Does Not Allow It To Exclude the Public From State Property.

Spaceport Camden’s statement in the Revised LSOL Application that it can “control” roughly 2,660 acres of State-owned property in the debris dispersion area rests on its Memorandum of Agreement with the U.S. Coast Guard.⁴⁷ But under closer review, Spaceport Camden’s representations do not hold up. The relevant portion of the MOA is the planned use of “Limited Access Areas,” which are “used to control movement of marine traffic and limit access to all or a portion of the waterway.”⁴⁸ But the MOA does not actually create or authorize any Limited Access Areas. Instead, the MOA only commits the Coast Guard to “coordinate the completion of a formal [Navigational Safety Risk Assessment] in accordance with Coast Guard policy **separate from this agreement.**”⁴⁹ In other words, the MOA is nothing more than an

⁴⁵ Oct 26, 2020 Memo from B. Gulliver (Kimly-Horn) to K. Perez (FAA) at Response to Q2.

⁴⁶ Oct 20, 2020 Memo from B. Gulliver (Kimly-Horn) to K. Perez (FAA) at Response to Q15. (Static fire test events “have the potential to impact a small portion of Floyd’s Creek adjacent to Spaceport Camden. Impacts would be minimal as these tests last only a matter of seconds.”)

⁴⁷ *Letter of Agreement* between Camden County, GA and United States Coast Guard 7th District (June 12, 2019); *Revised LSOL Application* at Attachment 3.

⁴⁸ *Id.* at VI(B).

⁴⁹ *Id.* at VII(B)(2)(a) (emphasis added).

agreement to make future decisions related to Limited Access Areas. Nothing in the MOA authorizes Camden County to exclude the public from State property (or anywhere else).

Further, Georgia law requires that state marshlands be managed for the use and benefit of Georgia citizens⁵⁰ and that its waterways be managed to allow navigation.⁵¹ To the extent those legal uses would conflict with the terms of the MOA, the agreement expressly disclaims any interpretation of its terms that would conflict with those state law rights.⁵² By expressly disclaiming any conflict with Georgia law, the MOA declines to provide Spaceport Camden with the authority it purports to possess.

CRD has raised concerns about the debris dispersion area with the FAA but it does not appear that the FAA has provided an appropriate response. **It is difficult to imagine an issue more directly relevant to Georgia’s coastal consistency review than its ability to use and manage its own coastal property.** And the schedule for supplemental coordination does not provide a deadline for this question to be answered. This issue is simply too important to be resolved by assumption, miscommunication, or misunderstanding. CRD must seek written clarification from FAA on the application of this regulation, the meaning of “site boundary” as used in the regulation, the meaning of “control” as used by Camden County, and the exact effect of the Coast Guard MOA.⁵³ Only then can CRD conduct its CZMA consistency review.

c. Depositing Rocket Debris in the Marsh Would Require a CMPA Permit.

Even if Spaceport Camden’s use of marshlands is permissible under the FAA’s regulations, it still must comply with Georgia law. Using state-owned marshlands to contain debris and blast damage from rocket launches clearly falls within the scope of the Coastal Marshlands Protection Act (“CMPA”). The CMPA regulates “certain activities that affect or **have the potential to affect** the coastal marshlands of the state, to ensure the values and functions of the coastal marshlands are not impaired and to protect the public interest.”⁵⁴

Under the CMPA, one cannot “remove, fill, dredge, drain, or otherwise alter any marshlands” without a permit.⁵⁵ The Georgia Supreme Court has interpreted the phrase “otherwise alter” as used in this provision to cover actions that alter marshlands “in a direct physical manner akin to removing, filling, dredging, or draining the marshlands.”⁵⁶ Depositing

⁵⁰ O.C.G.A. § 52-1-2.

⁵¹ O.C.G.A. § 52-1-31.

⁵² *Id.* at Section IX(A).

⁵³ Unlike other FAA regulations, Section § 420.21(a) does not provide alternate ways for its requirements to be met. Although other FAA distance regulations can be met by owning the property *or* by excluding the public, the debris dispersion area does not include such language.

⁵⁴ Ga. Comp. R. & Regs. 391-2-3-.02(1)(a)(2) (emphasis added).

⁵⁵ O.C.G.A. § 12-5-286(a).

⁵⁶ *Ctr. For A Sustainable Coast v. Coastal Marshlands Prot. Comm.*, 284 Ga. 736, 739 (2008).

rocket debris and containing blast damage is a physical alteration analogous to those listed in the statute. In fact, depositing rocket debris and cleaning up the resulting damage will almost certainly involve removing, filling, and dredging the marsh.

Thus, the question becomes whether the operation of Spaceport Camden has the “potential to affect” the marsh in this way. The purpose of the debris dispersion radius is to contain debris and other blast damage, and the FAA has tailored the size of this area based on the distance that rocket debris is anticipated to travel. Approximately 71% of Spaceport Camden’s debris dispersion area lies on state-owned property. And Spaceport Camden’s application suggests that 2.5 rockets will fail per year. Combining these factors, depositing blast debris on State property is not only reasonably likely, but it is a virtual certainty and **part of Spaceport Camden’s site design.**

d. Spaceport Camden Does Not Meet the Requirements for a CMPA Permit.

Although Spaceport Camden would need a CMPA permit to deposit rocket debris in the marsh, it cannot meet the statutory requirements necessary to obtain one. CMPA bars permits for activities that are “not water related or dependent on waterfront access or can be satisfied by the use of an alternative nonmarshland site or by use of existing public facilities.”⁵⁷ Spaceport Camden fails every single one of these elements. There is nothing water dependent about containing rocket debris and the small rockets proposed for Spaceport Camden could be launched from any other FAA-licensed launch site including Wallops in Virginia or Cape Canaveral Spaceport and Kennedy Space Center in Florida.

e. Spaceport Camden Has No Authority to Exclude Georgians From State Property.

Spaceport Camden’s representation to the FAA that it has the legal authority to “control” 1,900 acres of state marshland is also problematic under the CMPA. Under Georgia law, State marshlands are held in trust for the people of Georgia.

The General Assembly further finds that the State of Georgia, as sovereign, is trustee of the rights of the people of the state to use and enjoy all tidewaters which are capable of use for fishing, passage, navigation, commerce, and transportation, pursuant to the common law public trust doctrine.⁵⁸

Thus, Spaceport Camden’s assertion that it can exclude the public from State marshlands effectively assumes that it has legal authority to exclude Georgians from their own property. It is

⁵⁷ O.C.G.A. § 12-5-288(a).

⁵⁸ O.C.G.A. § 52-1-2.

unclear what legal basis Camden County has for this assertion.⁵⁹ Camden County has no more legal authority to exclude the public from this property than the City of Atlanta has to shut down the State Capitol Building. Yet Camden County has represented to the FAA that it will exclude Georgians from their own property for dozens of days every year.

4. CRD Must Address Planned Beach Driving Now, Not On An Emergency Basis After A Rocket Failure.

As noted in the 2018 DEIS Comment Letter and elsewhere, Spaceport Camden plans to conduct beach driving in conjunction with the operation of Spaceport Camden.⁶⁰ These include both planned activities and emergency response activities in the event of a launch failure. CRD notes that beach driving is regulated under the Shore Protection Act and recommended a variety of best management practices related to that statute.

Again, this attempt to implement a conditional concurrence falls short. The FAA has not provided the necessary information regarding how beach driving activities will be conducted and, under *Keyserling*, CRD has no ability to enforce its recommended BMPs once it issues a concurrence decision. CRD cannot make a consistency determination based on best management practices it hopes will be implemented. This is particularly important for beach driving required for emergency response activities, because it is unlikely that CRD will have the opportunity to develop and properly evaluate a beach driving plan during an emergency.

5. The Historic Preservation Division's Review Is Ongoing and Unresolved, So CRD Cannot Certify Compliance With Georgia's Historic Preservation Laws.

According to the Draft CCD, the FAA "is currently conducting consultation with the Georgia State Historic Preservation Office (SHPO), Advisory Council on Historic Preservation, and other interested parties."⁶¹ Thus, by its own terms, the necessary work has not been completed for CRD to certify that the proposal is consistent with Georgia's historic preservation laws.

As recently as December 2020, Georgia's Historic Preservation Division and the Advisory Council on Historic Preservation declined to concur with the FAA's historic preservation review and requested more information regarding this project.⁶² The specific

⁵⁹ The CMPA allows for exclusive use of state marshlands for docks and marinas pursuant to a revocable license. O.C.G.A § 12-5-287. However, Camden County does not have such a license and cannot obtain one under the CMPA.

⁶⁰ June 2018 Comment Letter at 3.

⁶¹ Draft CCD at 24.

⁶² Dec. 9, 2020 Letter from J. Loichinger (Advisory Council) to D. Murray (FAA) re: Spaceport Camden Woodbine, Camden County, Georgia ACHP Project Number: 014190

information requested relates to the change to focus on small rockets, the increased likelihood of launch failures, and the FAA's stated concerns about potential wildfires. According to the Georgia Historic Preservation Division:

Therefore, it appears to HPD that only a portion of the potential impacts have been considered and, considering the additional impact potential, that the area of potential effect (APE) should be increased in order to include historic properties that could be impacted. HPD recommends increasing the APE to include areas under the trajectory of a vehicle's failure that could be impacted by indirect and reasonably foreseeable effects, such as debris impacts, fire, and other rocket failure safety concerns.⁶³

As the Georgia Historic Preservation Division's review of this project is ongoing, there is no basis for CRD to contradict a sister agency and certify that the project satisfies Georgia historic preservation laws.

6. CRD Has Insufficient Information Regarding Hazardous Waste Management And Relevant Information Has Been Omitted.

As noted in the June 2018 Comment Letter, Spaceport Camden failed to provide the Hazardous Waste Management Plan necessary for CRD to complete its coastal consistency review. In fact, the DEIS contains little analysis of this issue and the Draft CCD's discussion of hazardous waste issues is digressive⁶⁴ and largely devoid of detail. Given the legitimate concerns about hazardous waste on the site, CRD cannot certify that the proposal is consistent with Georgia's Program when no actual analysis on the hazardous waste issues has been conducted.

Both the Union Carbide and Bayer sites have long histories of industrial use and the presence of hazardous waste on both sites is well documented. Spaceport Camden plans to continue using hazardous materials on the site, including rocket fuel. Yet the DEIS, the Revised LSOL Application, and the Draft CCD contain little discussion of how previous hazardous waste issues will be remediated, whether Spaceport Camden can be safely operated consistent with existing cleanup plans, and how Spaceport Camden will handle hazardous materials on the site.

The Draft CCD mentions three separate plans related to the Hazardous Waste Management Act: a Spill Prevention, Control, and Countermeasure Plan; a Corrective Action

Dec. 23, 2020 Letter from J. Dixon (GA HPD) to D. Murray (FAA) re: Construct/Operate Commercial Space Launch Site, Spaceport Camden, Woodbine Camden County, Georgia HP-151117-001

⁶³ *Id.* at 2 (emphasis added).

⁶⁴ The Draft CCD's discussion of hazardous waste issues repeats large portions of text verbatim. Draft CCD at 22-23.

Plan; and a Hazardous Materials Emergency Response Plan.⁶⁵ None of these plans exist, therefore they cannot be reviewed to determine their sufficiency.

Other relevant information is also missing. For example, none of these documents discuss the ongoing efforts to clean up the Union Carbide property, including the presence a Uniform Environmental Covenant entered with Georgia’s Environmental Protection Division.⁶⁶ Somehow the Draft CCD’s purport to discuss the Hazardous Waste Management Act without mentioning the environmental covenant executed under that precise statute.⁶⁷

This property is subject to a Resource Conservation Recovery Act (RCRA) hazardous waste facility permit [HW-063(D)] and has been designated as needing corrective action due to the presence of hazardous waste, hazardous waste constituents, or hazardous constituents regulated under the Georgia Hazardous Waste Management Act, § 12-8-60 et seq. (Act) and the Georgia Hazardous Waste Management Rules, 391-3-11 (Rules). Contact the property owner or the Georgia Environmental Protection Division for further information concerning this property.

The Draft CCD obliquely references the remediation of hazardous waste, stating that the site “could continue to be managed under the existing hazardous waste facility permit, or it is possible that another State program such as the Georgia Brownfields Program could be utilized.”⁶⁸ This statement simply lists potential options and provides no information regarding what will be done, when, by whom, or whether it is consistent with the plans for Spaceport Camden.

The Draft CCD’s maps raise other concerns, as they indicate that the launch site would be immediately adjacent to “Areas with UXO/Contamination Concerns.” The acronym “UXO” presumably indicates unexploded ordinance from the site’s prior use for munitions manufacturing. None of the documents address how Spaceport Camden plans to launch failure-prone rockets near areas that may contain unexploded ordinance or contaminants

⁶⁵ Draft CCD at 23.

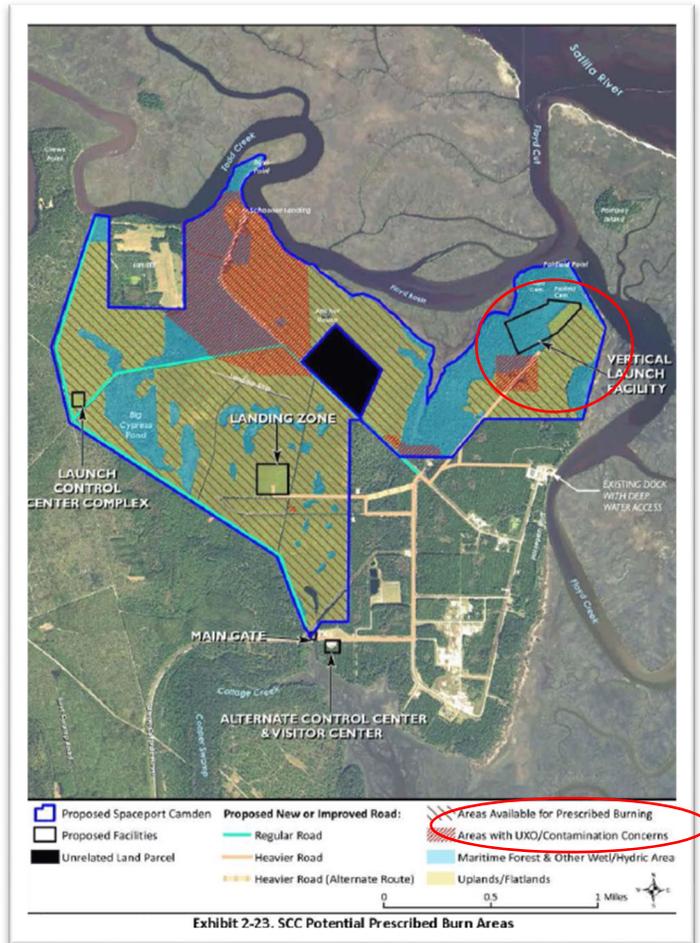
⁶⁶ *Union Carbide Uniform Environmental Covenant*, Georgia EPD (April 14, 2011) <https://epd.georgia.gov/document/document/1272011/download>

⁶⁷ *Id.* at 2.

⁶⁸ Draft CCD at 22.

Further, neither the Draft CCD nor the DEIS address the use of an oxygen curtain to manage a plume of polluted groundwater that is currently flowing from the former landfill site toward Todd Creek. There is certainly the potential that construction activities or the operation of Spaceport Camden, including the heat or vibration from launch activities, could interfere with this pollution control measure.

Despite the variety of known hazardous waste issues on the site, none of the documents provided contain information regarding how Spaceport Camden will address historic and future hazardous waste issues on the site. Nonetheless, the Draft CCD brazenly concludes it “has not identified any significant adverse impacts associated with hazardous materials, solid waste, or pollution prevention.”⁶⁹ To the contrary, based on the limit information available and the large amount of information missing, CRD cannot certify that the project is consistent with Georgia’s hazardous waste laws.



7. CRD Has Insufficient Information Regarding Navigation Restrictions.

CRD’s comments identify public access, recreation, fishing, scenic and aesthetic enjoyment as some of the areas where the DEIS falls short on assessing CZMA-mandated impacts to coastal uses. With respect to navigation restrictions, CRD concluded that “most of the references to closure areas in the DEIS are general statements that **do not contain enough specificity for us to determine likely impacts on coastal uses from closure areas.**”⁷⁰ The Revised LSOL Application and the Draft CCD continue to discuss navigation restrictions in the same generic fashion, so CRD cannot reach a different conclusion now.

⁶⁹ *Id.*

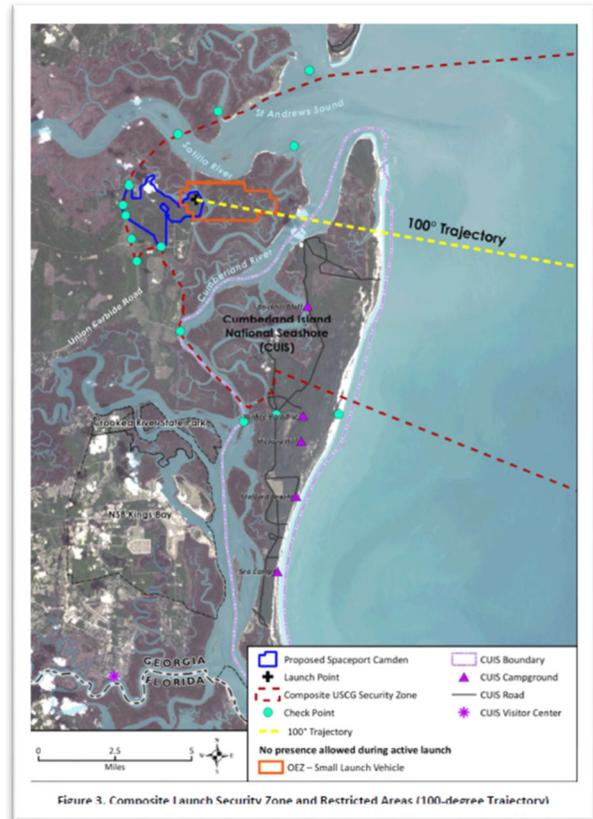
⁷⁰ June 2018 Comment Letter at 8.

Georgia law affords citizens the “inherent right to use as highways all navigable streams and rivers.”⁷¹ Spaceport Camden seeks to impose blanket navigation restrictions multiple times per year and close the following waterbodies: Todd Creek, Floyd Creek, the Satilla River, the Intracoastal Waterway, the East River, Christmas Creek, Shell Creek, St. Andrew Sound, the southern entrance to Jekyll Sound, and a large expanse of the Atlanta Ocean.

Spaceport Camden’s discussion of navigation restrictions is consistent in two respects. First, although they discuss the mechanics of how these measures would be implemented in great detail and jargon, there is virtually no discussion of how the navigation restrictions will impact the public. Second, although various goals and aspirational statements are provided regarding the use of navigation restrictions, the documents do not contain any enforceable restrictions limiting where, when, how, or how often the navigation restrictions would be used. CRD cannot rely on what Spaceport Camden **hopes to do**, it must evaluate what it is **required to do**. But this information is not available, so CRD must object to the proposed certification.

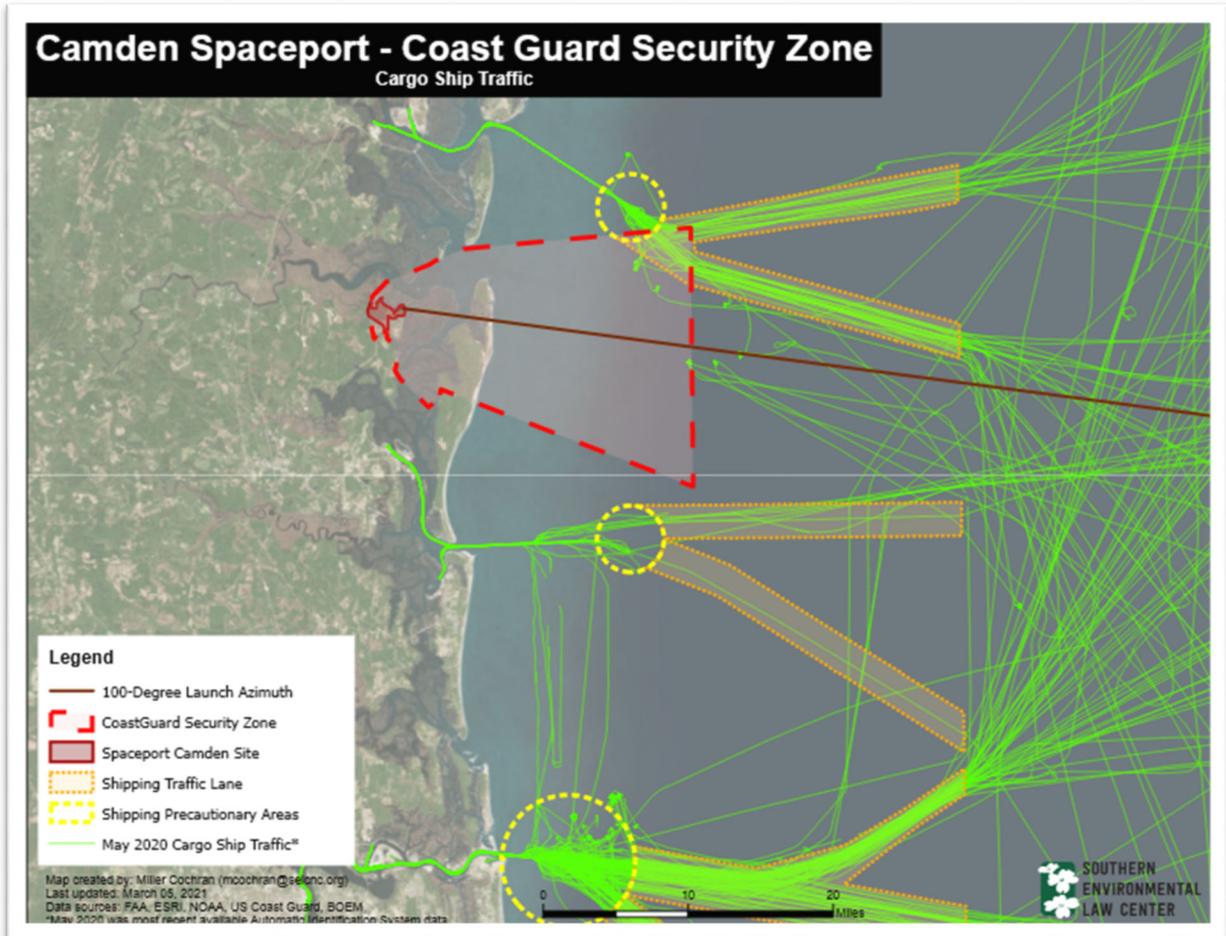
Spaceport Camden’s proposed “security zone” is shown in the map to the right. CRD must consider the practical effects this comprehensive navigation restriction will have on recreational, freight traffic, commercial fishing and shrimping, and on the ability to access Cumberland Island. Each closure event implemented by Spaceport Camden would interrupt or prevent:

- All boat traffic on approximately 10.5 miles of the Intercoastal Waterway;
- All boat traffic on the Satilla River;
- Access to Cumberland and Little Cumberland Islands
- All boat traffic off the Georgia coast for an undefined distance; and
- Freight traffic approaching or departing the Port of Brunswick.



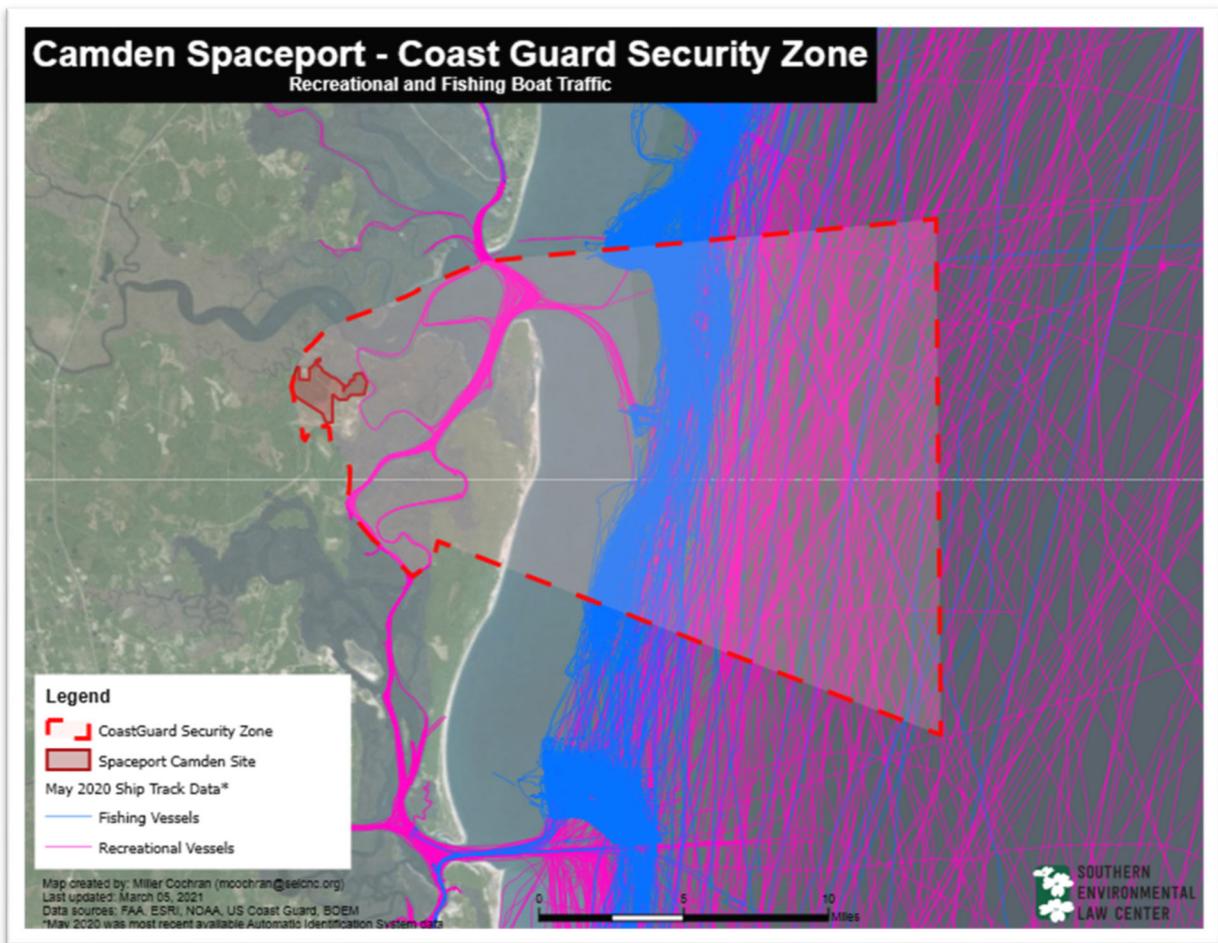
⁷¹ O.C.G.A § 52-1-31.

Further, the navigation restrictions will have significant impacts on freight, recreational, and fishing vessel traffic in the area.⁷² The map below illustrates shipping traffic in relation to the proposed closure area, and shows substantial overlap between the closure area and freight traffic entering and existing the Port of Brunswick, including shipping traffic lanes and shipping precautionary areas.



The same dataset also illustrates the location of fishing and recreational traffic around to Cumberland Island. The closure area would significantly impact the travel patterns for these areas, including all recreational traffic along the Intracoastal Waterway and recreational traffic using St Mathews Sound to access the ocean. Likewise, it appears that the most fishing activities on the eastern side of Cumberland Islands would fall within the closure areas.

⁷² Data in the maps below was sourced from the Automatic Identification System (AIS) provided by US Coast Guard, NOAA, and BOEM through Marine Cadastre and aggregated for visualization and sharing by ESRI.



Another key aspect of the closure area that has not been defined is its eastern boundary. Based on the maps provided, the closure area’s eastern edge appears to be located approximately twenty miles from the launch point and fourteen miles off the eastern shore of Cumberland Island.⁷³ But in a memo to the Department of Defense, Spaceport Camden states that the first launch stage could land “560 nautical miles southeast of the launch site” and that the “first stage impact area is expected to be less than 120 nm x 30 nm in size.”⁷⁴ It seems highly unlikely that the closure area would extend 560 nautical miles offshore, but a 120 nm x 30 nm closure area would be substantially larger than the closure areas depicted in the DEIS and other maps.

⁷³ CRD states the Coast Guard has indicated that the “Closure Areas may extend 12 miles out to the Territorial Seas or further into the ocean.” June 2018 Comment Letter at 18.

⁷⁴ Sept 25, 2020 Memo from B. Gulliver (Kimly-Horn) to K. Perez (FAA) at 2.



Finally, with respect to advance notice, the Draft CCD states that “providing a 30-day notice may not always be possible due to launch delays or more immediate launch needs.”⁷⁵ The Draft CCD further explains that launches will involve an “estimated launch window” with “specific target date(s).” In its memo to the Department of Defense, Spaceport Camden does not mention any limits on this launch window based on state law or concerns about impacting recreation and navigation. Instead, it states that launch windows “will be identified through an analysis of restrictions, if any, imposed by the FAA, DoD, [*sic*] needs for use of the airspace, other airspace considerations, and the needs of the commercial space operator.”⁷⁶

Spaceport Camden seeks to impact navigation in an undefined fashion, without restrictions on the duration, scope, or advance notice. Georgia law does not allow CRD to give Spaceport Camden such a blank check. In light of the clear and demonstrable impacts on navigation in the area, CRD cannot certify that these closures are consistent with Georgia’s CZMA Program without clear and enforceable limitations on when, where, how, and how often Georgia’s waters will be closed to its citizens.

⁷⁵ Draft CCD at 8.

⁷⁶ Sept. 25, 2020 Memo from B. Gulliver (Kimley-Horn) to K. Perez (FAA) at 2.

8. CRD Has Insufficient Information To Evaluate Spaceport Camden’s Impacts On Fisheries and Recreational Fishing.

CRD does not have sufficient information to certify that the Spaceport Camden proposal is consistent with the fisheries provision of Georgia’s Program. First, Spaceport Camden has not demonstrated the legal authority to implement these closures over the protections for fishing afforded in Georgia law. Second, none of the documents evaluate the consequences Spaceport Camden’s access restrictions would have on fishing activities.

The Georgia Constitution directs that the “tradition of fishing and hunting and the taking of fish and wildlife shall be preserved for the people and shall be managed by law and regulation for the public good.”⁷⁷ Only the General Assembly and the Board of Natural Resources have the power to make laws and rules governing fishing in Georgia.⁷⁸ The law expressly forbids political subdivisions of the state, such as Camden County, from regulating fishing.⁷⁹ Further, Georgia law makes it unlawful “for any person to obstruct or interfere with the right of any other person to fish in these salt-water creeks, streams, or estuaries leading from the Atlantic Ocean or from the sounds, rivers, or bays surrounding the several islands of this state.”⁸⁰ Spaceport Camden has cited no authority under federal or state law to implement these closures, and no document limits the frequency, length, or duration of these impediments to fishing activities.

With respect to the practical effects of these restrictions, CRD has already noted that much of the DEIS’ discussion of fishing and recreational fisheries is erroneous.⁸¹ The recreational fishing industry is an important economic driver in the region and neither the DEIS nor any of the other documents addresses the impact of Spaceport Camden’s access restrictions on these activities.

As illustrated in the map below, each Spaceport Camden closure will prevent public access to: 2.5 square miles of designated recreational shellfish areas; 4.7 square miles of designated commercial shellfish lease areas; 14 square miles of designated shellfish growing areas; and 2.4 square miles of bait shrimp areas.

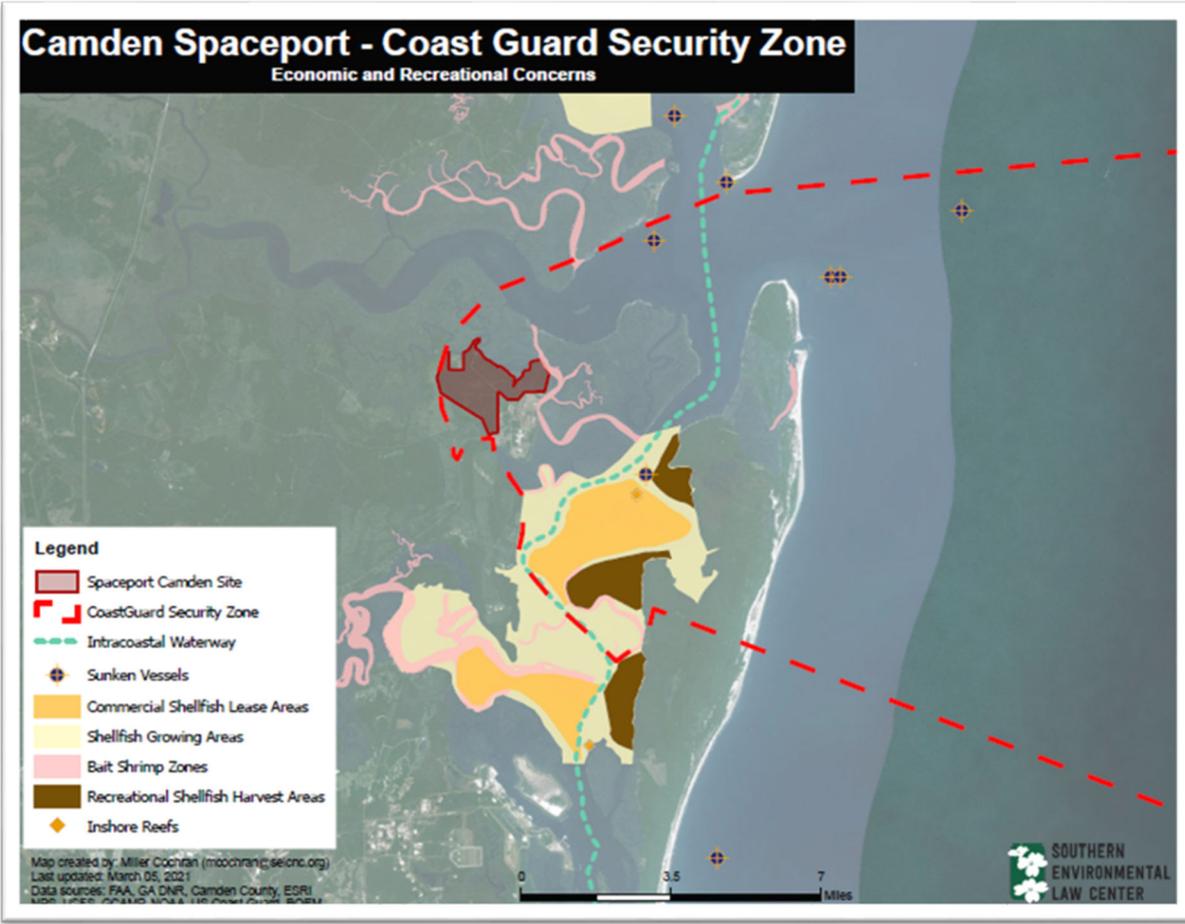
⁷⁷ Ga. Const. Art. 1, § 1, ¶ XXVIII.

⁷⁸ O.C.G.A. § 27-1-3(h).

⁷⁹ *Id.*

⁸⁰ *Id.* at § 27-4-2.

⁸¹ June 2018 Comment Letter at 5.



The timing of these closures of also important, based on seasonal patterns and catch restrictions. For example, research has found that a large percentage of the annual commercial shrimp catch can occur on a limited number of days.⁸² The same research also echoes the analysis above, finding that key shrimping locations may fall within the proposed closures zone.⁸³ CRD simply cannot accept the absence of any substantive analysis on these issues when there is legitimate reason to believe that Spaceport Camden will negatively impact recreational and commercial fishing in the area.

⁸² A shrimper “may make 20% of their season’s catch in a singular prime condition day.” *Shrimps in Space: Charting Contentious Spatialities Between Commercial Shrimping and Spaceport Industries*, Ian Rossiter (University of Georgia Master of Science Thesis (2017) (attached).

⁸³ *Id.* at Figures 4.4 – 4.11

9. CRD Has Insufficient Information To Evaluate Spaceport Camden's Impacts on Biological Resources Under Georgia Law.

The FAA's consideration of Spaceport Camden's effects on biological resources follows the same pattern and suffers from the same shortcoming. The Draft CCD relies on the review and evaluation provided by federal agencies under federal statutes.⁸⁴ But this approach is inadequate for coastal consistency purposes because it does not evaluate the protections set forth under Georgia law, programs, and policies. Further, even the federal review fails to account for the potential loss of habitat resulting from rocket failure and wildfires.

Rather than document these shortcomings with respect to each individual species, the impacts on bird species illustrate the larger shortcomings of the process. Cumberland Island, Little Cumberland Island, and the Satilla River estuary are important bird habitat and are heavily utilized by a wide variety of bird species. These birds are subject to a patchwork of protections and designations under federal or state law. Likewise, habitat in the project area is also subject to different federal and state designations. By focusing exclusively on the federal review and federal laws, the DEIS and the Draft Environmental Assessment ("Draft EA") do not reflect the state protections that are specifically at issue in CRD's coastal consistency review.

The Draft EA for Spaceport Camden is the key document evaluating the project's impacts on birds (and other species). This document is required under the federal Endangered Species Act and focuses on the species designated for protection under that statute. For Spaceport Camden, the federally-listed bird species include the piping plover, wood stork, red cockaded woodpecker, and red knot.⁸⁵ The Draft EA's analysis focuses on the threats posed by noise, pressure-induced vibration, and the visual effects.⁸⁶ Although the Draft EA identifies wildfire as a potential threat to habitat,⁸⁷ the document only discusses this issue in passing and only in the context of vegetation adjacent to the launch site.⁸⁸ Despite the FAA's stated concerns that a failed launch could cause "uncontrollable wildfire," the Draft EA does not consider the potential loss of habitat on Cumberland and Little Cumberland Islands due to wildfire.⁸⁹ Likewise, although the Draft EA discusses mitigation measures for wildfire, this analysis again focuses on the launch site and does not discuss mitigation measures for wildfires on Cumberland and Little Cumberland Islands.⁹⁰

⁸⁴ Draft CCD at 21.

⁸⁵ Draft EA at 60, attached as Appendix A to DEIS at A-345.

⁸⁶ *Id.* at A-352 and A-355.

⁸⁷ *Id.* at A-352 Table 4-1.

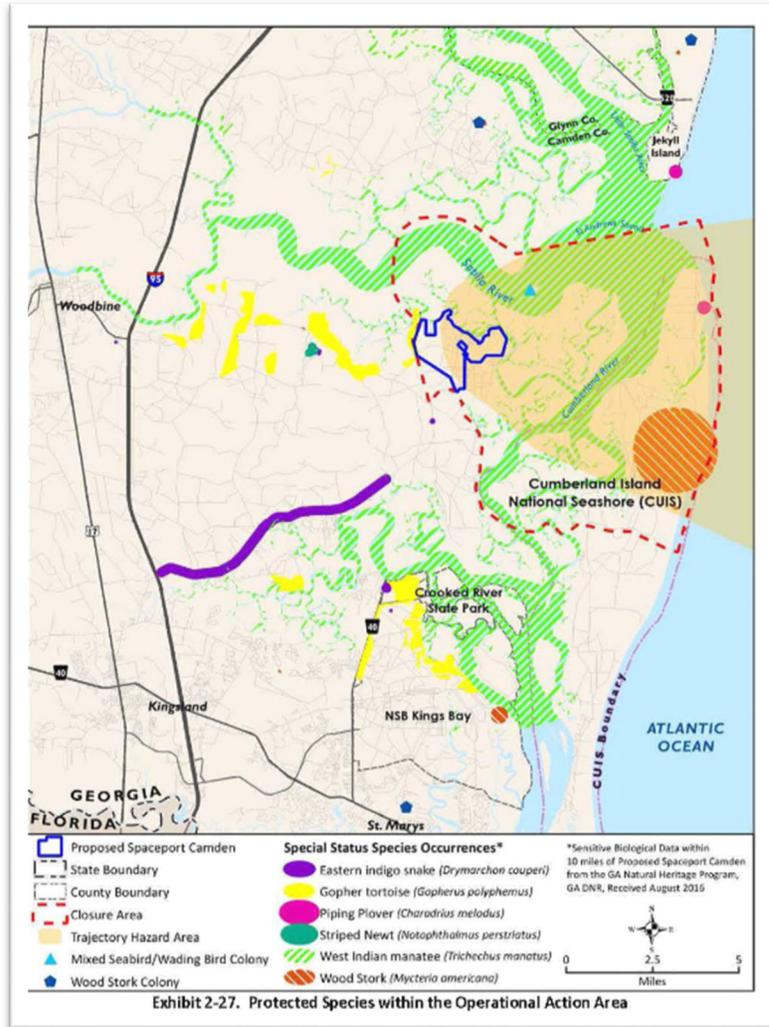
⁸⁸ *Id.* at A-358. ("Small fires could result from pre-launch, launch, and landing activities. These small fires may scorch surrounding vegetation, but vegetation would likely return as the surrounding habitats are fire tolerant.")

⁸⁹ *Supra* at n 34-35.

⁹⁰ Appendix A to DEIS at A-331.

The Draft EA’s failure to discuss habitat loss on the islands as a result of launch failure and wildfire is even more unsupportable because the Draft EA recognizes that the project’s “Trajectory Hazard Area” includes known occurrences of wood storks and piping plover. In fact, the hazard area overlaps with designated critical habitat for piping plover.⁹¹ Yet the Draft EA does not discuss how rocket failures, wildfires, or emergency response activities could damage piping plover critical habitat.

Even rocket failures that do not cause wildfires could require beach driving and the use of heavy equipment to remove debris. The photo below was taken at the Boca Chica launch site in Texas after a failed launch at that facility. The photo not only shows rocket debris on the beach, but also the vehicle tracks traveling up to the debris. Rocket debris may be large, may contain hazardous materials, and could be scattered across large distances. It is difficult to image how emergency response activities could be conducted in these areas without the use of motorized vehicles and extensive beach driving. Yet the risk of beach driving to shorebird critical habitat is not discussed in the Draft EA or anywhere else.



⁹¹ Draft EA Exhibit 3-1; Appx A to DEIS at A-348.



Aside from the Endangered Species Act, the operation of Spaceport Camden also raises concerns under the Migratory Bird Treaty Act. Cumberland Island is part of a flyway for migratory birds and Cumberland Island is used by a variety of species in their migrations. Under recent proposed changes to the Migratory Bird Treaty Act, the incidental take of migratory birds is not prohibited. In the context of Spaceport Camden, this means that species could be disrupted, injured or killed in a wildfire caused by a rocket failure from Spaceport Camden without protection under that statute. Yet the Draft EA does not consider this issue.

CRD also cannot rely on the Draft EA's review of biological resources because that document does not reflect Georgia's laws, policies, and programs related to birds and other species. This discrepancy goes to the very purpose of the coastal consistency review – to ensure that federal agencies consider state laws and policies that would not be considered otherwise. Here, a number of bird species are protected under the Georgia Endangered Wildlife Act but are not protected under the federal Endangered Species Act. These include: American Oystercatcher; Bald Eagle; Black Skimmer; Least Tern; Peregrine Falcon; and Wilsons Plover. The Draft EA contains little discussion of these species precisely because they are not federally-listed.

Georgia's State Wildlife Action Plan ("SWAP") provides another discrepancy between Georgia's laws and policies and the federal requirements. The SWAP's list of "High Priority

Bird Species” includes thirty species known to use the project area.⁹² Several of these species are not included on either the federal or state endangered species lists, including: Gull-billed Tern; Little Blue Heron; MacGillivray's Seaside Sparrow; Nelson's Sparrow; Painted Bunting; Saltmarsh Sparrow; and Tricolored Heron. Again, Spaceport Camden’s effects on these SWAP-listed species is not evaluated in the Draft EA. The SWAP also identifies sand bar and beach habitats as areas that require special protection, and lists Little Cumberland Island as an example of such habitat.⁹³ The SWAP further identifies beach driving as a key threat to these areas.⁹⁴ Again, Spaceport Camden’s potential to negatively impact this SWAP habitat is not addressed in the Draft EA or anywhere else.

In short, CRD cannot use the Draft EA as a proxy for review under Georgia’s species protection laws and policies because the federal statute covers fewer species and serves different purposes. Although bird species have been used to illustrate these differences, these issues are equally true for reptiles, amphibians, and other animal species in the project area. As with the other areas, CRD simply lacks sufficient information to reach a consistency determination.

CONCLUSION

In its comments on the DEIS, CRD concludes that the document “falls short on assessing CZMA-mandated impacts to coastal uses such as public access, recreation, fishing and scenic and aesthetic enjoyment.”⁹⁵ These failures remain equally true today. CRD clearly identified the information necessary for its CZMA review but the FAA and Spaceport Camden failed to provide it. The FAA created this problem, and is now asking CRD to change the CZMA process to accommodate its shortcomings. But the supplemental coordination approach will subvert the CZMA process and force CRD to bear the risk if the promises go unmet.

CZMA regulations clearly describe the correct course of action for this situation. Rather than attempt to reinvent the CZMA regulations to create a new process, CRD must follow the regulations and object to the proposed coastal consistency determination based on the FAA’s failure to provide the necessary information.

⁹² *Georgia State Wildlife Action Plan* at Appendix A: *High Priority Species and Habitat Summary Data*, Georgia Department of Natural Resources, Wildlife Resources Division (September 2015) <https://georgiawildlife.com/sites/default/files/wrd/pdf/swap/appendix-a-high-priority-species-and-habitats-summary-data.pdf>

⁹³ *Id.* at Appendix B: *Birds Technical Team Report* <https://georgiawildlife.com/sites/default/files/wrd/pdf/swap/appendix-b-birds-technical-team-report.pdf>

⁹⁴ *Supra* at Section 4.

⁹⁵ June 2018 Comment Letter at 5.

Thank you for your work and your careful attention to this matter. If you have any questions or would like to discuss any of these comments further please contact me at bgist@selcga.org. or (404) 521-9900.

Sincerely,

A handwritten signature in black ink that reads "Brian Gist". The signature is written in a cursive style with a large initial "B" and a long horizontal stroke at the end.

Brian Gist

CC (email only):

K. Moore	(CRD)
D. Murray	(FAA)
S. Zee	(FAA)