This student paper focused on whether or not development should be permitted on a piece of land on Kiawah Island, near Charleston, called Captain Sam's Spit.

The Development of Captain Sam's Spit

Section 1: History



Figure 1: Photo of Captain Sam's Spit from the South Carolina Environmental Law Project website

Captain Sam's Spit is a peninsula between Kiawah and Seabrook Islands in South Carolina. The land and surrounding ocean is home to endangered and threatened species. Animals such as bottlenose dolphins and terrapin use the spit as both a feeding and breeding spot. The spit is also infamous for being unstable and fairly dangerous due to the crashing waves and erosion that cause the land to both grow and retract at certain times. Conservationist groups, like Coastal Care, as well as individuals that live in the Kiawah Island area, view the spit as a precious strip that should remain a part of nature, due to these two factors. However, over the last several years, tensions have heightened between conservationists and developers on the status of building new houses on Captain Sam's Spit.

Kiawah Development Partners is a construction group located in Charlotte that, according to Cecelia Dailey of the conservation group, Coastal Care, gets the majority of its support from a hedge fund in New York. KDP (Kiawah Development Partners) arrived with the goal of transforming Captain Sam's Spit into a neighborhood and community with fifty new homes.

Thus, their first goals were to apply for several new permits from the South Carolina Department of Health and Environmental Control (DHEC). In 2008, KDP applied for a permit to construct a seawall along the spit that measured over two-thousand feet long. The developers proposed to the DHEC that the wall would be a bulkhead to serve as a system to reduce the impact of the waves from further eroding the land, which they planned to build on in the near future. The DHEC granted the company permission to build a much smaller -- only about three hundred feet long -- wall.

Conservationists immediately began to take action to insure that KDP did not gain any more power or permission to control building on Captain Sam's Spit. For example, the Coastal Conservation League "immediately filed an appeal to the Court of Appeals and requested an injunction to prevent any construction activity," transferring the case to the South Carolina Supreme Court ("Captain"). The Supreme Court later made the decision to halt any further development from KDP in 2011. Nonetheless, KDP wasted no time and asked for another hearing, and after it was granted, the Coastal Conservation League asked for another appeal as well. By the end of 2014, the Supreme Court's third ruling had concluded that "there is no public benefit to constructing an erosional structure on the Spit and that the only benefit is economic, for the developer" ("Captain").

After many more disputes and back-and-forth court decisions between the Coastal Conservation League and Kiawah Partners, in April of 2018, the Supreme Court gave

confirmation that only the three-hundred foot revetment wall -- not two-thousand -- may be built. The judge made this choice because the land is "considered a public resource under the law" ("Captain"). However, just a few months later, in September, a lower court, under Judge Ralph Anderson, ruled that the building of the road to the construction site may begin. He came to this decision because he believes the "economic benefits" will ultimately "outweigh its (the spit's) natural preservation" (Petersen).

Currently, the tensions surrounding the debate over Captain Sam's Spit are still high.

Conservationists refuse to give up on their efforts to preserve the land, while Kiawah

Development Partners continue to development the spit into a community.

Section 2: Disputing Groups and their Arguments

Whether or not Sam's Spit is developed is a point of contention for three main groups: environmental organizations such as Coastal Care and the Coastal Conservation League, Kiawah Development Partners, and the citizens who call the island home. The Coastal Conservation League is an environmental advocacy organization, dedicated to the promotion of environmental safety and stability. As most environmental organizations, the group is left-leaning. Kiawah Development Partners, or KDP, is the opposing group. This group is more focused on developing the land for profit. The residents of Kiawah Island typically side with the conservationists, since they dislike the idea of their home and its surrounding natural-life being disturbed.

According to the Coastal Conservation League, the organization has been involved in legal action over proposals to build on the spit several times, always working to prevent development ("Captain"). In regards to Captain Sam's Spit in particular, the Coastal

Conservation League is against development—this is because the Coastal Conservation League believes that the environment of Kiawah Island is too valuable to local species to jeopardize—"this property," states the Coastal Conservation League, "is vital to important endangered and threatened wildlife species—including the piping plover, diamondback terrapin, and bottlenose dolphins" ("Captain"). In protection of the wildlife of Captain Sam's Spit, dogs are banned from the spit year-round (Poston). This refusal to allow even house pets on the spit serves to further underscore its delicate ecology, furthering the arguments of the Coastal Conservation League that it is a delicate ecosystem, and requires care.

In addition, the environmental group Coastal Care argues that the land on Captain Sam's Spit is not continually accreting— if it were, there would be settled, ingrained "communities" of plants and grasses. The fact that these items have not taken root shows that the beach is not accreting, but is eroding. Any houses built on the land, the website argues, would not stand the test of time and would be subject to erosion and possible destruction, costs that taxpayers might have to absorb because of increased insurance rates. (Dailey).

The managers of Kiawah Development Partners, on the other hand, feel it is their right to build on the spit since they own the land. They argue as well, that it is safe to develop the spitciting it as having apparently been classified as 'one of the most stable barrier islands in the state' in DHEC's Office of Coastal Resource Management's annual 'State of the Beaches Report,' and as frequently accreting as opposed to eroding (Cushman). Patrick Melton, a management partner for South Street, another development company, stated that "in the last twenty years [the highland present on the spit] has grown from 119 acres of highland to 160 acres" (Poston). In fact, a previous issue of the same magazine had stated that there was 180

acres of highland on the island-- however, the island is estimated at 180 acres total, leading environmentalists to question the viability of Melton's claims (Dailey).

Island residents themselves are largely opposed to developing Captain Sam's Spit. They argue that this land is one of the last sites in the U.S. where dolphin strand feeding occurs and should be protected. According to a website maintained by island residents, "the Development of Captain Sam's Spit does not make sense either ecologically or economically. The Sam's Spit development will affect wildlife on Johns Island's southern border throughout the Kiawah River. Our unique family of two dozen dolphins will be especially affected as the location of the seawall is right in the middle of their prime feeding ground" ("Sam's"). Residents also worry about construction noise while the building is taking place, and about increased traffic at the entrance to the island with the new 50 homes, arguing that "the construction activity and dense human occupation at the mouth of the River will also affect" quality of life on the island ("Sam's"). Most Kiawah Island homeowners enjoy having the undeveloped land as an amenity which they have enjoyed for years.

Environmentalists and island residents are disenchanted with the idea of a wall being built around the spit, even as the KDP is vocal about the necessity of its being built. Numerous public forums have been held about the sand wall and about the roadway, which would be necessary for development to take place(Cushman). The various groups debate possible environmental and wildlife damage if the spit were developed. There also seems to be some disagreement as to where highland is present on the spit, and, in turn, where land is developable, and why.

Section 3: Broader Context

Coastlands of the United States are a valuable resource, and thus are well-protected and thoroughly disputed regions. Constant accretion and erosion are a standard characteristic of beaches and barrier islands, from small spits such as Captain Sam's to much larger islands and peninsulas such as Long Island and even south Florida. The delicacy and unpredictable behaviors of these beachy areas spawn controversy over the morality of building upon them, particularly as construction can advance and speed erosion. Many geologists feel that these risks validate conservationists' opinions against developing coastal formations such as Captain Sam's Spit, given the chance that development could lead to the destruction of such treasured land.

Coastal land formations grow as a process known as longshore drift, in which waves push sand grains diagonally up and along the shoreline in one direction. This causes sand to accrete on one end of a peninsula or island such as Captain Sam's Spit, while sand from the opposite side slowly washes away. This leads developers to think they can build upon or near the newly formed beach, so long as they build seawalls in order to block erosion on the growing side. However, others argue that the areas of sand build up are far from stable. The waves that bring grains to the new area also constantly bombard the shore, making such zones primed to collapse back into the ocean, and the seawalls developers wish to put in place aggravate the issue. Though seawalls seem to be an erosion-prevention measure, they actually accelerate erosion on their seawards sides. In fact, "According to the Army Corps of Engineers, coastal geologists, and coastal process experts, the most important cause of human-induced erosion is interruption of sediment sources and longshore sediment transport. Examples include the armoring of sediment sources with seawalls..." (Oktay). For this reason, conservation groups across the nation have opposed and fought against development on these accretion zones.

This is shown on Captain Sam's Spit as well as Long Island, south Florida, etc. On Long Island, old construction along accretion zones has been recently threatened by collapse and erosion of the sand upon which beachfront buildings and homes lie. As a remedy, the city has used taxpayer money to fill in the shore with sand- an expensive solution known as avulsion. South Florida's issues with coastal development are not directly related to this issue of building on or close to areas of sand and sediment accretion, but Floridians nonetheless have been tasked with managing and coming up with resolutions for having built and continuing to build on unstable ground. Florida's coastlands are often threatened by the closeness and highness of the shoreline, and developers and protectors of the region are tasked with the moral question of whether they can build on delicate, threatened land. Similar to the situation in Kiawah at Captain Sam's spit, debate between the two parties is yet to be resolved (Armentando 13).

The issue of how to handle, protect, and utilize ever-changing landscapes is not contained to South Carolina's barrier islands and courts, but is a worldwide conundrum. Conservation or construction, human interference or allowance of natural processes: these are the decisions society must make. As of now, the precedent seems to be for industry to overpower environmental interests, and for taxpayers and governments to repair the damage. This nation-wide pattern sheds light on the likely eventual consequences that could be incurred if Captain Sam's Spit's shoreline is developed.

Section 4: Recommendation

It is the recommendation of this research committee that the courts of South Carolina prioritize the protection and conservation of Captain Sam's Spit. The government of this state is required to allocate this valuable resource, as well as all coastal lands, to the use that is

conducive to the greatest possible good of all citizens. Given that the spit is a source of enjoyment to much of the coastal community, as well as a home to a plethora of wildlife, allowing for construction that would jeopardize the area would betray this obligation. Furthermore, housing and infrastructure in the region would be at constant risk.

The damage that could be caused to the land by building on the spit is monumental. Spits are delicate ecosystems, with sand dunes that have accreted over the course of many years, plants that grew up in these dunes over a course of still more years, and a number of plants and animals that live and thrive therein which are seldom found elsewhere. Houses and roads can impact plants and animals, removing habitat and ultimately resulting in species decline. Seawalls in particular are an excellent example of the huge impacts human development may have on delicate coastal ecosystems—frequently, seawalls, while built to slow erosion in certain areas, cause erosion on either side of themselves to be quickened, rather than slowed—the natural shape and shift of a beach, then, is interrupted ("South"). This research committee values nature, and feels that it is worthy of being preserved. This view is reflective of the beliefs of the great American thinker Ralph Waldo Emerson, whose transcendentalist philosophy emphasized reverence for the natural world. In fact, he is often quoted as saying, "Adopt the pace of nature" and "Nature always wears the color of the spirit" ("Ralph").

There are several factors that go into why conservationists want to thwart construction on Captain Sam's Spit, but one main one is the danger involved in the process. The land on the peninsula is unstable and unfit to have homes be built on it, as it is constantly eroding as well as growing in size. Several conservationist groups have pointed out how the tides and winds cause changes in dimensions. For example, Cecelia Dailey from Coastal Care explains, "There is erosion on the beach, which developers deny, and their calculation of 'highland' does not appear

to include the myriad of low-lying wetlands interspersed between dune ridges." Other common fears of conservationists, as well as concerned citizens from the area, include the possibility of hurricanes and flooding. The proposal of the fifty-home project by KDP included no Federal Flood Insurance, meaning that the properties on Captain Sam's Spit would not be covered or protected in the event of a natural disaster. This factor combined with the instability of the land, make the spit an unsafe place to build and develop homes. Despite these facts, Kiawah Development Partners continue to push forward in their legal efforts.

These aforementioned issues must take precedence in the mind of South Carolina's government, as the officials employed by it are bound by law to see that these coastlands are used to benefit as much of society as possible. Allowing for development of Captain Sam's Spit would not only tarnish a local natural treasure but set a precedent for the destruction of beaches in the interest of corporate benefit. In fact, this construction could very likely have a negative economic impact on coastal counties and the state as a whole. South Carolina's beaches are a massive tourism attraction and allowing them to be built upon and ruined could stifle this source of income. Ergo, allowing one development company to utilize these lands would violate the "greater good" policy applied to areas such as the spit, and should thusly not be permitted.

Ultimately, while Kiawah Development Partners are trying to grow the economy and create a new community of homes on Captain Sam's Spit, there are several reasons as to why these decisions do not seem most beneficial. The peninsula is home to an abundance of natural life, such as flora and fauna and countless endangered species that utilize the area as a breeding spot. If construction were to begin on the spit, habitat destruction would occur and the natural beauty of the area would be threatened. Another concern of development includes the fact that nature is taking its course, meaning that factors like erosion, hurricanes, and flooding make the

area unsafe for building. Lastly, Captain Sam's Spit should be utilized for the greater good of the community, instead of the economic benefit of a group of developers. For example, the land should remain as it is, a natural beauty and tourist attraction. The debate over the standing of Captain Sam's Spit is sure to continue, as conservationists strive to maintain as much of its natural state as possible.

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