

**THE STATE OF SOUTH CAROLINA
In The Court of Appeals**

South Carolina Coastal Conservation League, Appellant,

v.

South Carolina Department of Health and Environmental
Control and DeBordieu Colony Community Association,
Respondents.

Appellate Case No. 2021-000158

Appeal From The Administrative Law Court
Ralph King Anderson, III, Administrative Law Judge

Opinion No. 6058
Heard March 7, 2024 – Filed May 1, 2024

AFFIRMED

Benjamin David Cunningham and Leslie S. Lenhardt,
both of S.C. Environmental Law Project, of Pawleys
Island, for Appellant.

Tracey Colton Green, of Columbia, and John Joseph
Owens and Randolph Russell Lowell, both of Charleston,
all of Burr & Forman, LLP, for Respondent DeBordieu
Colony Community Association.

Bradley David Churdar, of Charleston, and Sallie Page
Phelan, of North Charleston, for Respondent South
Carolina Department of Health and Environmental
Control.

KONDUROS, J.: The South Carolina Coastal Conservation League (the League) appeals the administrative law court's (ALC's) order affirming the South Carolina Department of Health and Environmental Control's (DHEC's) issuance of a permit to Debordieu Colony Community Association (the Association) for the construction of anti-erosion groins on the beach of Debordieu Colony (Debordieu Beach).¹ The League contends the ALC erred in finding the groins would be placed in a "high erosion" area, erosion threatened existing structures, and the groins would not detrimentally impact the downdrift of sand to other beaches. We affirm.

FACTS/PROCEDURAL BACKGROUND

The Association applied for a permit to execute a renourishment plan and construct three groins² in an area of Debordieu Beach designated as Reach 3.³ DHEC issued the permit. The Belle W. Baruch Foundation⁴ (Baruch), the neighboring downdrift

¹ The ALC reviewed the grant of the permit based on the original application and second amended application; the application was modified slightly based on mediation with another party, Belle W. Baruch Foundation. For our purposes, the difference between the two submissions is not important.

² A groin is "a structure designed to stabilize a beach by trapping littoral drift. Groins are usually perpendicular to the shore and extend from the shoreline into the water far enough to accomplish their purpose. Groins are narrow and vary in length from less than one hundred feet to several hundred feet. Groin fields are a series of two or more groins which, because of their proximity to each other, have overlapping areas of influence. Consequently, the entire groin field must be considered as one system in order to accurately analyze beach response." S.C. Code Ann. Reg. 30-1(26)(D) (Supp. 2023).

³ In the application, Debordieu beach is divided into four Reaches going north to south and numbered sequentially.

⁴ Belle W. Baruch Foundation is a non-profit organization and owner of the 17,500-acre wildlife refuge, Hobcaw Barony, preserved for "purposes of teaching and/or research in forestry, marine biology, and the care and propagation of wildlife, flora and fauna" in connection with colleges and universities in the state. https://sc.edu/study/colleges_schools/artsandsciences/baruch_institute/about/index.php

property owner, and the League opposed the issuance of the permit. Baruch negotiated a settlement with the Association, which provided for further assurances that its property would not be negatively impacted by the construction of the groins. The League remained in the suit and the ALC conducted a contested case hearing.

Section 48-39-290(A)(8) of the South Carolina Code (Supp. 2023) provides that for new groins to be erected seaward of the baseline, they must be on beaches:

that have high erosion rates with erosion threatening existing development or public parks. In addition to these requirements, new groins may be constructed, and existing groins may be reconstructed, only in furtherance of an ongoing beach renourishment effort which meets the criteria set forth in regulations promulgated by the department and in accordance with the following:

(a) The applicant shall institute a monitoring program for the life of the project to measure beach profiles along the groin area and adjacent and downdrift beach areas sufficient to determine erosion/accretion rates. For the first five years of the project, the monitoring program must include, but is not necessarily limited to:

- (i) establishment of new monuments;
- (ii) determination of the annual volume and transport of sand; and
- (iii) annual aerial photographs.

Subsequent monitoring requirements must be based on results from the first five-year report.

(b) Groins may be permitted only after thorough analysis demonstrates that the groin will not cause a detrimental effect on adjacent or downdrift areas. The applicant

shall provide a financially binding commitment, such as a performance bond or letter of credit that is reasonably estimated to cover the cost of reconstructing or removing the groin and/or restoring the affected beach through renourishment pursuant to subitem (c).

At the contested hearing before the ALC, the League presented Matt Slagel, the DHEC/Office of Ocean and Coastal Resource Management's (OCRM's) project manager for the permit at issue, as an adverse witness in its case-in-chief. Slagel stated the OCRM considers anything above about -3 feet per year to be a high erosion rate "based on an analysis of our [almost 500] statewide network of beach monuments." He indicated knowing the range of erosion rates rather than the average was more important in evaluating whether an erosion rate is high. He stated the rate of erosion in the proposed groin field was about -6 feet to -8 feet per year. In examining a report created by OCRM for setback purposes,⁵ Slagel agreed some of the relevant area showed a rate of erosion less than -4 feet per year. However, he explained the 2017 data for the report was skewed based on the inclusion of a 2016 renourishment of Debordieu beach. Over time, renourishment will artificially *inflate* the rate of erosion because more sand is there to erode. But in this case, the aerial photograph of the shoreline used to establish the setback was so close in time to the renourishment that it diminished the appearance of the shoreline change rate. Slagel also referenced Regulation 30-21, entitled Beachfront Management Plan, in which a subpart discussing beach access describes Debordieu Colony as "a private beach community. Access is controlled by a security gate. The entire beach is developed, and public access is nonexistent. The island is highly erosional in areas."⁶ As to threatened structures, Slagel testified the relevant statute does not define the term. He stated DHEC has considered the emergency order regulation in determining this question, noting that the emergency order qualifies a structure as in "imminent danger" if it is twenty

⁵ The OCRM is charged with designating setback lines on all oceanfront properties of the state at a distance forty times the average annual erosion rate. No setback line can be less than twenty feet. This process must happen every seven to ten years. See S.C. Code Ann. § 48-39-280(B)(C) (Supp. 2023); S.C. Code Ann. Reg. 30-1 (C)(6),(D)(47) (Supp. 2023).

⁶ S.C. Code Ann. Reg. 30-21(D)(5)(b) (2011).

feet from erosion.⁷ He indicated about eighteen homes in the permit area have a repeated history of being threatened depending on conditions.

Slagel stated the entire application for the permit was around 2,600 pages including comments and letters from the public and other parties and agencies. He indicated OCRM incorporated several recommendations, specifically from the South Carolina Department of Natural Resources. He testified the OCRM reviewed the alternative analysis presented in the permit application but agreed with the permit application that the groin and renourishment was the most feasible plan. He also testified the Association represented in the application it had a reserve fund and a newly established preservation fund that would create \$32 million for beach projects including groins and maintenance. Slagel stated DHEC does not have computer software to model the 3-D downdraft impacts included in the application, but it examines the impacts in conjunction with its own data about erosion rates. Additionally, he testified the permit application called for monitoring of the downdrift area and included a mitigation trigger of -8.1 cubic yards per foot per year at which point renourishment or reconfiguration of the groins would be addressed. The amended permit application reduced the trigger rate to -6.0 cubic yards per foot per year.

Dr. Rob Young testified for the League as an expert in coastal geology, coastal processes, and coastal zone management policies. He opined Debordieu Beach did not experience a high erosion rate as required by statute for the issuance of the permit. He stated Debordieu Beach would not be considered a "hot spot." He testified his opinion was based on his decades of work in this field and by examining a report DHEC commissioned from Dr. Chester Jackson entitled Mapping Coastal Erosion Hazards Along Shelter and Coastlines in South Carolina, 1849 to 2015 (the Jackson Report).⁸ Dr. Young testified the Jackson Report found the mean erosion rate of South Carolina beaches is -2.2 meters to -2.4 meters per year or roughly -7 feet to -8 feet per year. In his opinion, the -5.46 feet per year measured by Coastal Science and Engineering (CS&E) at Debordieu Beach would constitute a "moderate" rate of erosion. Dr. Young stated he arrived at his opinion by considering both a qualitative and quantitative approach. Qualitatively, beaches that experience "very rapid high erosion rates" are characterized by "trees falling over in the ocean, the forest dying" or "houses are sitting in the ocean." Quantitatively, Dr. Young testified he would look to reliable measures, like the

⁷ S.C. Code Ann. Reg. 30-15(H) (Supp. 2023).

⁸ The Jackson Report is not in the record but according to Dr. Young is available on DHEC's website.

Jackson Report, find an average erosional rate, and consider anything around that number—in this case "six to seven feet per year"—would be "moderate." Dr. Young opined the shoreline at issue was not "experiencing critical high erosion."

With regard to threatened structures, Dr. Young testified he believed existing structures in the area were not threatened by coastal erosion. He stated that "if your standard is the next big hurricane, well, then every structure on every barrier island in South Carolina is threatened." As to downdrift impacts, Dr. Young testified "the groins themselves will cause a downdrift impact." He stated "the statute doesn't say you can pre-mitigate the harm that a shore perpendicular structure is going to cause"; therefore, he opined that even if a permittee renourishes the upper beach or takes steps to mitigate the impact, the statute is not satisfied. The ALC inquired of Dr. Young whether the Jackson Report considered a median erosion rate.⁹ He indicated it did not contain a median and he had not conducted such an analysis. Dr. Young acknowledged South Carolina has a "pretty good span" of erosion rates¹⁰ and conceded to the ALC's question that "ten times the annual erosion rate" would threaten a home.

Dr. Tim Kana, president of CS&E, testified as an expert for DHEC in beach erosion, coastal geomorphology and processes, sediment buckets and transport, beach restoration, planning, design, and implementation, and tidal inlet sediment dynamics. Dr. Kana testified his company had worked with DeBordieu Colony on a long-term beach management plan and prepared the submission to DHEC. He noted the area of DeBordieu Beach at issue has a large gradient in erosion from north to south and the groins are designed to try and offset the resulting sand loss. Dr. Kana explained that the closure of an inlet around the 1930s precipitated the increased erosion in the area. He stated the volumetric loss of sand in an area can be converted to a shoreline change rate or linear measurement by multiplying the former by a ratio of 1.3. Dr. Kana opined the -4.2 cubic yards per foot per year or -5.8 to -6.0 feet-per-year linear rate constituted a moderate to high erosional rate. He clarified that the south end of DeBordieu Beach is eroding at a much greater rate. He indicated he does not have a "hard and fast rule as to what is defined in terms of statute as high, medium, [or] low," because it would depend on the

⁹ The median is the value in the middle of a data set, meaning that 50% of data points have a value smaller or equal to the median and 50% of data points have a value higher or equal to the median.

¹⁰ Dr. Young noted places like Harbor Island, Hunting Island, and Pritchard Island have "dramatically high erosion rates."

"context of the setting." He indicated the erosion rate at south DeBordieu Beach is "definitely" high.

Dr. Haiqing Kaczowski, a registered professional engineer at CS&E, was qualified as an expert in modeling studies and evaluations of coastal engineering projects and in design and engineering of erosion control structures. She indicated CS&E used two models to evaluate the downdrift impact of the groin installation: a three-dimensional model and a one-dimensional model. Dr. Kaczowski stated the modeling showed the downdrift impact on Debordieu Beach would be limited to a 1500-foot zone immediately on the other side of the southern-most groin. She explained this is how the volume of sand needed in renourishment was determined and proposed. She indicated that overall, the downdrift area should experience a positive impact. On cross-examination Dr. Kaczowski acknowledged she had previously stated during her deposition that -5 cubic yards per foot per year was a magic number impacting whether you may be able to consider a soft solution, like renourishment alone, or something else. However, she further indicated the solution depended on where the project was located. She opined the erosion rate at the project area was high and Debordieu Beach was currently in an "unhealthy" state. She testified the community needed to act quickly to try and contain the situation before it worsened.

William Eiser testified he is currently the president of Eiser Coastal Consulting but previously worked for the OCRM from 1989 through 2015. Part of his work with OCRM consisted of determining long-term erosion rates for purposes of evaluating setback lines. Eiser also evaluated permit applications. He was qualified as an expert in coastal processes and coastal zone management. Eiser testified that in his opinion, the permit area in question had a high erosion rate. He explained anything higher than -3 feet per year was high and the area in question historically had erosion rates of -8 to -12 feet per year. The -3-foot figure was based on his professional experience working with beach erosion in South Carolina and other reports evaluating the erosion rate. Eiser alluded to a 1977 paper by Hubbard, Haze, and Brown¹¹ indicating erosion rates are typically -1 to -3 feet per year and a report by Dr. Kana from 1988 indicating that out of 88 miles of shoreline, 26 miles were eroding at more than -1 foot per year. Eiser then testified regarding notes he made from a 2009 report he prepared containing erosion rates for all the islands and beaches in South Carolina. He indicated some areas represented miles of coastline, like Myrtle Beach, while others represented a very small coastline, like Harbor Island. He believed, based on that data, -3 feet per year represents a

¹¹ This paper was not included in the record.

relatively high erosion rate, meaning existing structures, unless they are set back many hundreds of feet, could potentially be impacted by the ongoing threat of erosion. Eiser stated he did not think the groins would create detrimental impact to the downdrift area because "the trapping capacity of the groins will be greatly exceeded by the volume of sand that will be placed on the beach at the time the groins are constructed. And because there is an ongoing commitment for future beach renourishment projects for the life of the groins."

DHEC recalled Slagel who testified the erosion rate at the southern end of Reach 3 was higher than Reaches 1 and 2 and even the upper side of Reach 3. With regard to Dr. Young's testimony, Slagel testified Dr. Young relied on an erosion rate that excluded many of the State's shorelines because they do not all erode. Some accrete and some remain relatively stable. According to Slagel, the Jackson Report indicated the average overall shoreline change was -.14 meters or -.46 feet per year.¹² Slagel also testified he had done additional computations based on data the OCRM had collected as part of establishing setback lines and this calculation produced an average erosion rate of approximately -1.46 feet per year. Slagel testified a median number of the data would be -.11 feet per year.

The ALC affirmed the issuance of the permit, explaining it found Dr. Kana's testimony to be the most credible and that the consideration of all rates of erosion for beaches in South Carolina was not arbitrary or unreasonable. It stated

examining erosion rates in the context of shorelines change rates as a whole provides a broader picture of how certain erosional rates fall within the spectrum of the [s]tate's rates as a whole. Overall, whether I follow [DHEC]'s interpretation or that of Dr. Kana, I conclude that the uncontested erosion rate of - 4. 2 cy/ft/yr or - 5. 5 ft/yr is a high erosion rate under section 48-39-290(A)(8).

As to threatened structures, the ALC concluded:

¹² In *Braden's Folly, LLC v. City of Folly Beach*, 439 S.C. 171, 181 n.5, 886 S.E.2d 674, 680 n.5 (2023), the supreme court cited to the Jackson Report in a footnote and stated "the average annual erosion rate for beaches in South Carolina is 1.8 feet per year." The issue in that case was whether the change in the setback line would warrant a taking of the plaintiff's property, so no discussion of the exact derivation of this figure was included in the opinion.

In this case, by any reasonable definition, several structures behind the southern portion of the bulkhead and adjacent to it are threatened by erosion. The photographic and video evidence from multiple site visits showed water encroaching within feet of several of the homes and overtopping the bulkhead, which is causing erosion and scour behind the bulkhead in addition to allowing water to flow toward the lower level of homes directly behind the bulkhead. Some of this evidence was procured while a storm passed by South Carolina, but some was not. Water does not necessarily overtop the bulkhead on a daily basis, but the bulkhead is exposed to wave action on a daily basis and lacks the protection and cover of a dry sand beach in front of it. Thus, erosion is not only threatening the structures behind the bulkhead but the structure of the bulkhead itself. It is imminently clear that erosion is threatening existing structures and this requirement of section 48-39-290(A)(8) has been fulfilled.

With regard to detrimental downdrift impacts, the ALC found "if the statute only allowed for groins that did not require mitigation or were placed so as not to create a detrimental effect as the League suggests, then the statute would have no reason to include monitoring, mitigation, and notice provisions for downdrift property owners." This appeal followed.

STANDARD OF REVIEW¹³

This [c]ourt will affirm a decision by the [ALC] unless the findings or conclusions are:

- (a) in violation of constitutional or statutory provisions;
- (b) in excess of the statutory authority of the agency;

¹³As with all cases involving our state's exceptional coastline, we recognize the General Assembly's desire to minimize alterations to tidelands except in limited circumstances. *See* S.C. Code Ann. § 48-39-20(F) (2008) (noting the need to "give high priority to natural systems in the coastal zone").

- (c) made upon unlawful procedure;
- (d) affected by other error of law;
- (e) clearly erroneous in view of the reliable, probative, and substantial evidence on the whole record; or
- (f) arbitrary or capricious or characterized by abuse of discretion or clearly unwarranted exercise of discretion.

S.C. Code Ann. § 1-23-610(B)(a)(f)(2023).

"The ALC is the finder of fact in contested case hearings related to DHEC certifications and permits." *S.C. Coastal Conservation League v. S.C. Dep't of Health & Env't Control*, 434 S.C. 1, 10, 862 S.E.2d 72, 77 (2021). "In determining whether substantial evidence supports the ALC's decision, the [c]ourt must find 'looking at the entire record on appeal, evidence from which reasonable minds could reach the same conclusion that the AL[C] reached.'" *Id.* (quoting *Hill v. S.C. Dep't of Health & Env't Control*, 389 S.C. 1, 9-10, 698 S.E.2d 612, 617 (2010)).¹⁴

LAW/ANALYSIS

I. High Erosion Rate

The League contends the ALC erred in finding the permit was for an area with a high erosion rate as required by statute because the area in question only experiences moderate erosion when compared to other eroding coastal areas. DHEC and the Association maintain the permit area experiences a high erosion rate based on an examination of all coastal areas including those that actually experience accretion or remain stable. We disagree with the League.

Dr. Kana and Dr. Kazckowski testified the erosion rate in the permit area was high. Dr. Kana acknowledged his deposition testimony indicating the overall rate for Debordieu Beach might be characterized as moderate to high. However, he

¹⁴ We need not decide whether DHEC's interpretation of -3 feet-per-year as high is appropriate or entitled to deference. Whether the erosion rate of -5.46 feet per year contained in the permit application satisfies the statutory requirement of a high erosion rate is the subject of this controversy.

clarified the specific area of the groins must be considered and the north-south gradient along this area created a high erosion rate. Likewise, Dr. Kazckowski acknowledged her deposition testimony that a rate of less than -5 feet per cubic yard per year might call for soft solutions, but she clarified that position was case dependent. She stated Reach 3 at Debordieu Beach required immediate attention. According to Dr. Eiser, only 22 out of 86 miles of shoreline in South Carolina are eroding at all. Of the list of beaches prepared by Eiser, 22 beaches have a lower erosion rate than Debordieu Beach and seven have a higher rate of erosion.

Dr. Young testified an area with -6.6 feet per year or -8.8 feet per year was not an area experiencing "critical high erosion." He further stated "in a state that has shorelines with 'extremely high erosion rates that are on the order of tens of feet, this—this would be moderate erosion.'" However, the statute does not require "critical high erosion" or "extremely" high erosion rates. Carrying Dr. Young and the League's argument that the mean of negative-only erosion rates dictates what is high erosion to its conclusion could produce an absurd result. For example, if erosion mitigation techniques are successful at various locales, the mean erosion rate could be reduced, resulting in a lower high rate of erosion. Likewise, if certain locales begin experiencing extreme rates of erosion, then a mean rate of erosion is increased and what was once considered high is now in the moderate range. An approach that focuses on the range of erosion rates, including accreting and stable beaches, as Slagel suggested, brings a more predictable approach to what would be considered high and does not exclude beaches with high erosion rates from the protections of the statute simply because some other beaches have higher rates. While differing sides might reasonably debate what, if any, methods should be employed to prevent erosion, the statute allows the construction of new groins under specified conditions. Based on the record presented, we find the ALC's decision, based on the probative, substantial, and reliable evidence in the record, is not clearly erroneous nor is it arbitrary or capricious.

II. Threats to Existing Structures

The League contends the ALC erred in finding existing structures were threatened as contemplated by the statute. DHEC and the Association argue existing homes are threatened because the erosion of Debordieu Beach places existing homes in danger of flooding and damage in the case of significant weather events. We disagree with the League.

Again, the statute does not define what constitutes a threat to an existing structure. The League suggests a structure must be constantly threatened directly by erosion

to warrant groins. It also argues the ALC erred in considering the bulkhead to be a structure. DHEC and the Association maintain a structure is threatened as contemplated by the statute if it is recurrently threatened by the impact of weather events made much more significant by erosion.

While neither interpretation is unreasonable, the League's interpretation is somewhat inconsistent with the principle of permitting *any* new groins in developed areas. This is evidenced by Dr. Young's testimony that all structures on barrier islands are threatened by hurricanes. The statutory requirement of threatened existing structures indicates the preservation of existing structures is important to the legislature. To draw a distinction between stopping a structure from floating away under typical weather conditions and allowing it to be destroyed by incoming storm surge seems to undercut the purpose of saving existing structures by permitting new groins at all. *See Hinton v. S.C. Dep't of Prob., Parole & Pardon Servs.*, 357 S.C. 327, 332, 592 S.E.2d 335, 338 (Ct. App. 2004) ("A law must be interpreted reasonably and practically, consistent with the purpose and policy of the General Assembly."); *see also Ga.-Carolina Bail Bonds, Inc. v. County of Aiken*, 354 S.C. 18, 22, 579 S.E.2d 334, 336 (Ct. App. 2003) ("A statute should be given a reasonable and practical construction consistent with the purpose and policy expressed in the statute.").

According to Slagel, at least eighteen existing structures in the permit area have a "repeated history" of being threatened depending on conditions. Additionally, Slagel testified the OCRM considered Regulation 30-15, which addresses emergency barriers like sandbags and sand scraping efforts when evaluating a permit request. That regulation provides a "structure is considered to be in *imminent danger* when the erosion comes within twenty feet of that structure." Therefore, Slagel reasoned if a structure is in "imminent danger" at twenty feet, a structure could be "threatened" at some point beyond that. Furthermore, the ALC relied on pictures and videos and did not exclusively base its findings on its consideration of the bulkhead as a threatened structure.

Based on the substantial, reliable, and probative evidence in the record, we conclude the ALC's decision was not clearly erroneous, arbitrary, or capricious, and we affirm.

III. Detrimental Effect on Adjacent or Downdrift Areas

Finally, the League argues the ALC erred in affirming DHEC's finding that the installation of the groins would not create a detrimental impact to downdrift beaches. We disagree.

Dr. Young testified the groins would have a detrimental effect on downdrift properties. However, his opinion was essentially based on the fact that groins are designed to trap sand. All of DHEC's experts agreed the groins would trap sand and therefore impact the downdrift beaches. However, Dr. Kaczkowski testified the modeling performed by CS&E predicted the renourishment necessary to maintain downdrift beaches and the permit proposal reflected that information. The statute itself contemplates any party installing a groin will need to maintain downdrift beaches through renourishment and provides that if monitoring indicates unacceptable impact, the groins can be modified or even removed. The statute requires permittees to understand this and requires them to demonstrate financial responsibility to fund any or all of these efforts. Had the legislature not recognized the inherent impact of groins, it would not have provided for measures to mitigate such. *See Duvall v. S.C. Budget & Control Bd.*, 377 S.C. 36, 42, 659 S.E.2d 125, 127-28 (2008) ("The [c]ourt must presume the [l]egislature intended its statutes to accomplish something and did not intend a futile act."). Consequently, the League's argument is without merit, and substantial evidence in the record supports the ALC's decision.¹⁵

CONCLUSION

Based on all of the foregoing, the decision of the ALC affirming DHEC's issuance of the permit to the Association is

AFFIRMED.

WILLIAMS, C.J., and MCDONALD, J., concur.

¹⁵ We also note the adjacent downdrift property owner, Baruch, was sufficiently satisfied with the Association's concessions regarding monitoring and renourishment in that it ultimately acquiesced in the issuance of the permit.