

THE STATE OF SOUTH CAROLINA  
In the Court of Appeals

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APPEAL FROM THE ADMINISTRATIVE LAW COURT

The Honorable Shirley G. Robinson, Administrative Law Judge

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Appellate Case No.: 2022-001179

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KDP II, LLC .....Appellant,

vs.

South Carolina Department of Health and Environmental Control.....Respondent.

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FINAL BRIEF OF RESPONDENT

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SC Court of Appeals

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Charleston, South Carolina

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**STATEMENT OF THE ISSUE ON APPEAL**

- I. THE ALC'S ADOPTION OF THE BASELINE POSITION SHOULD BE AFFIRMED AS IT IS BASED ON RELIABLE, PROBATIVE AND SUBSTANTIAL EVIDENCE IN THE RECORD AND IT IS NOT AFFECTED BY ERROR OF LAW OR ANY OTHER GROUNDS FOR ITS REVERSAL.**

## STATEMENT OF THE CASE

The Respondent, the South Carolina Department of Health and Environmental Control (Department) adopts the Appellant's Statement of the Case except for the characterization that the Department's final determination of the baseline after the remand "essentially left unchanged the Department's 2017 preliminary delineation." (Appellant Br. at 4.) The Department performed a substantive review and minor detailed changes were made to the baseline. (R. pp. 37-38, Final Decision on Remand dated 12/06/2019 at 11-12 & Figure 10; R. pp. 1309-1319, Joint Ex. 14.)

## STANDARD OF REVIEW

When reviewing the Administrative Law Court's decisions, "the Court may not substitute its judgement for the judgement of the administrative law judge as to the weight of the evidence on questions of fact." S.C. Code Ann. § 1-23-610(B). The Court may only reverse or modify the decision of the Administrative Law Court (ALC) when the rights of the appellant have been prejudiced because the prior decision is:

- (a) in violation of constitutional or statutory provisions;
- (b) in excess of the statutory authority of the agency;
- (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)(Supp. 2019). A decision from the ALC "should not be overturned unless it is unsupported by substantial evidence or controlled by some error of law." *Original Blue Ribbon Taxi Corp. v. S.C. Dept. of Motor Vehicles*, 380 S.C. 600, 670 S.E.2d 674 (Ct. App. 2008). The ALC's decision is supported by substantial evidence when there is evidence from which reasonable minds could reach the same conclusions as the ALC when analyzing the entire record on appeal. *Kiawah Dev. Partners, II v. S.C. Dept. of Health & Env't*

*Control*, 411 S.C. 16, 766 S.E.2d 707 (2014). “The possibility of drawing two inconsistent conclusions from the evidence will not mean the agency's conclusion was unsupported by substantial evidence.” *Bursey v. S.C. Dept. of Health & Env't Control*, 360 S.C. 135, 600 S.E.2d 80 (Ct. App. 2004), *aff'd*, 369 S.C. 176, 631 S.E.2d 899 (2006). The court then decides issues of law de novo based on the prior factual findings. *Id.* “The ALC's de novo review hearing is best explained as ‘one in which the decisionmaker does not review the decision of someone else but makes the determination himself.’” *Kiawah Dev. Partners*, 411 S.C. at 54, 766 S.E.2d at 729, quoting Randolph R. Lowell, *South Carolina Administrative Practice and Procedure*, 2008 Edition.

### **STATEMENT OF FACTS**

#### **THE SOUTH CAROLINA BEACHFRONT MANAGEMENT ACT**

In July 1988, the South Carolina legislature enacted section 48-39-250, *et seq.* which is referred to as the South Carolina Beachfront Management Act (Beachfront Management Act or Act) to expand the Coastal Tidelands and Wetlands Act at section 48-39-10, *et seq.* The Beachfront Management Act mandates that the Department establish a baseline and a setback line (jurisdictional lines). S.C. Code § 48-39-280. The baseline is the more seaward of the two jurisdictional lines. The Act and implementing regulations set forth restrictions on construction seaward of the baseline or between the baseline and the setback line. S.C. Code Ann. § 48-39-290. The Appellant is appealing the ALC's determination of the position of the baseline. The parties agree that the setback line should be set at the minimum of twenty feet landward of the baseline. S.C. Code Ann. § 48-39-280(B).

The Act establishes a policy of beach preservation directing the Department to use the best available scientific and historical data in implementing this policy. S.C. Code Ann. § 48-39-280(A). The Department establishes new jurisdictional lines every seven to ten years, S.C. Code

Ann. § 48-39-280(C), and there have been four cycles thus far. (R. p. 816, Tr. 531:11-16.) South Carolina's beachfront jurisdictional lines enable the Department to implement the Act's policies, support the state's beachfront management goals and protect vulnerable shorelines and natural ecosystems.

The legislature found that "a long-range comprehensive beach management plan is needed for the entire coast of South Carolina to protect and manage effectively the beach/dune system, thus preventing unwise development and minimizing man's adverse impact on the system." § 48-39-250(11). The legislature also found that the Department had not been given adequate authority to protect the beach/dune system and that without adequate controls development had occurred too close to this system which has "jeopardized the stability of the beach/dune system, accelerated erosion, and endangered adjacent property." S.C. Code Ann. § 48-39-250(4). The Act establishes a comprehensive statewide beachfront management plan including management of four critical areas: (1) coastal waters; (2) tidelands; (3) beaches; and (4) the beach/dune system. S.C. Code Ann. § 48-39-10(J); § 48-39-270(5). Captain Sams Spit involves all these critical areas with beaches on the oceanside, tidelands on the riverside and a beach/dune system in between.

The General Assembly declared that specific state policies were to be followed in the implementation of the Department's authority under the Act to include among other things:

- (B)(1) To promote economic and social improvement of the citizens of this State and to encourage development of coastal resources in order to achieve such improvement with due consideration for the environment and within the framework of a coastal planning program that is designed to protect the sensitive and fragile areas from inappropriate development and provide adequate environmental safeguards with respect to the construction of facilities in the critical areas of the coastal zone;
- (2) To protect and, where possible, to restore or enhance the resources of the State's coastal zone for this and succeeding generations;
- (3) To formulate a comprehensive tidelands protection program;
- (4) To formulate a comprehensive beach erosion and protection policy including the protection of necessary sand dunes. . . .

S.C. Code Ann. § 48-39-30. As the ALC found, “the Act recognizes the substantial value of South Carolina’s coastal environment including its beaches and dunes. The General Assembly has enacted expansive legislation designed to manage and protect it and has delegated powers and duties to the Department to implement this legislation. S.C. Code Ann. §§ 48-39-10 through – 360 (2008 and Supp. 2021); S.C. Code Ann. Regs. 30-1 through 30-21 (2011 and Supp. 2021).” (R. pp. 49-50, Administrative Law Court Final Order dated 6/24/2022 (hereinafter “Order”) at 5-6.) Additional legislative findings and policies set forth in the Act recognize the profound importance of the beach dune system, pointing out that it protects life and property by serving as a storm barrier, provides tourism, serves as valuable habitat for plants and animals, and provides a natural healthy environment. S.C. Code Ann. § 48-39-250 & § 48-39-260.<sup>1</sup>

#### **CAPTAIN SAMS SPIT**

The Supreme Court of South Carolina has found Captain Sams Spit (“Spit”) to be a rare treasure, preserved in its pristine state: “[u]nlike much of our state’s coastline which is now armored and unnatural, the spit remains untouched by human alteration. The area, particularly pristine sandy beach, is undoubtedly one of this State’s natural treasures.” *Kiawah Dev. Partners*, 411 S.C. at 44, 766 S.E.2d at 723; *S.C. Coastal Conservation League v. S.C. Dept. of Health & Envtl. Control*, 434 S.C. 1, 4, 862 S.E.2d 72, 73 (S.C. 2021) (finding the Spit to be “one of only three remaining sandy beaches accessible to the general public.”).

Captain Sams Spit is an undeveloped, drumstick-shaped piece of land that extends out from Kiawah Island at the southwest end by a narrow strip of land referred to as “the neck.” (R. p. 1247,

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<sup>1</sup>“A statutory provision should be given a reasonable and practical construction consistent with the purpose and policy expressed in the statute.” *A.O. Smith Corp. v. S.C. Dept. of Health & Env’t. Control*, 428 S.C. 189, 202, 833 S.E.2d 451, 458 (Ct. App. 2019) (quoting *Lockwood Greene Eng’rs, Inc. v. S.C. Tax Comm’n*, 293 S.C. 447, 449, 361 S.E.2d 346, 347 (Ct. App. 1987)).

Joint Ex. 09-002.) The Spit is surrounded by the Atlantic Ocean to the east, Captain Sams Inlet on the southwest tip and the Kiawah River on the backside of the Spit. Appellant owns beachfront property in the Spit and land north of the Spit where the Charleston County Beachwalker Park is located. (R. pp. 339-340; Tr. 54:24 – 55:2.) Appellant wants the baseline moved to construct a roadway on the fragile neck portion of the island. (R. p. 366, Tr. 81:6-10; R. pp. 377-378, Tr. 92:21-93:1.)

### **SETTING THE BASELINE IN AN UNSTABLIZED INLET EROSION ZONE**

Captain Sams Spit is designated as an “Unstabilized Inlet Erosion Zone” by the Act’s implementing regulations. S.C. Code Ann. Regs. 30-21, Figure 17. The type of zone determines how the baseline is to be set at that location. The Beachfront Management Act directs the Department to establish the baseline in an Unstabilized Inlet Erosion Zone at “the most landward point of erosion at any time during the past forty years, unless the best available scientific and historical data of the inlet and adjacent beaches indicate that the shoreline is unlikely to return to its former position.” S.C. Code Ann. § 48-39-280(A)(2). This same section also directs the Department in implementing the beach preservation policy to consider, among other things, historical inlet migration and inlet stability. *Id.* The Department takes the full language of the statute under consideration. (R. p. 883, Tr. 598:9-24.) Regulation 30-21 provides the following additional direction on how to set the baseline in unstabilized inlet erosion zones: “in Unstabilized Inlet Erosion Zones the baseline is simply the most landward position of the shoreline in the most recent 40 years. This is determined by the Coastal Council staff using representative aerial photography.” S.C. Code Ann. Regs. 30-21(H)(2).

In 1988, South Carolina Coastal Council (Coastal Council), which was the Department’s predecessor, contracted with Coastal Science & Engineering, Inc. (CSE), a coastal engineering

firm located in Columbia, South Carolina, to recommend the scientific methodology that should be used to determine the placement of jurisdictional lines and to propose interim jurisdictional lines in accordance with section 48-39-280. (R. pp. 844-845, Tr. 559:17-560:12; R. pp. 1396-1480, Resp. Ex. 10.) Mr. Christopher Jones, B.S., M.S., P.E., the Department's expert<sup>2</sup>, worked for CSE at the time and led the team that recommended and identified the first jurisdictional lines following the Beachfront Management Act's enactment. Mr. Jones testified that they presented their study which included Kiawah's jurisdictional lines to the Coastal Council. The Coastal Council adopted these lines. (R. pp. 1001-1002, Tr. 716:7-717:6.) CSE's recommended methodology is the methodology that the Department is generally using today in setting the jurisdictional lines. (R. p. 847, Tr. 562:7-15.)

After the adoption of the interim lines, the Department allowed property owners and communities to provide more information to refine the interim lines before their final adoption. (R. p. 1003, Tr. 718:15-22.) CSE and Respondent's expert Mr. Jones worked for Kiawah Resort Associates at that time to analyze the interim baseline and setback lines along the entire island of Kiawah. This work included determining potential revisions to the Kiawah jurisdictional lines, establishing additional survey monuments, surveying beach profiles, and assessing beach profile data and aerial photographs. (R. p. 1553, Resp. Ex. 78, p. 3; R. p. 996, Tr. 711:13-21; R. p. 1003,

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<sup>2</sup> Mr. Jones has over forty years of experience in coastal engineering and was qualified as an expert in coastal engineering, coastal management, and more specifically consideration of storm impacts and coastal processes, which includes tides, waves, current, sediment transport, shoreline change and tidal inlets. (R. p. 1005, Tr. 720: 10-18; R. p. 1006, Tr. 721: 2-3; R. pp. 1551-1564, Resp. Ex. 78.) Mr. Jones is experienced in conducting shoreline assessments including looking at inlet dynamics and erosional processes and proposed local comprehensive Beachfront Management Plans required by the State of South Carolina. Mr. Jones has extensive experience in setting jurisdictional lines and advising third parties as to the location of jurisdictional lines, including evaluating the jurisdictional lines specifically at Kiawah and Captain Sams Spit. (R. pp. 986-987, Tr. 701:23-702:21; R. pp. 996-997, Tr. 711:9-712:10.)

Tr. 718:11-25.) This work culminated in CSE's May 1990 report on behalf of Kiawah Resorts Associates entitled "Calculation of South Carolina Coastal Council Jurisdictional Baselines and Setback Lines Kiawah Island" (hereinafter "CSE 1990 Report"). This report documents CSE's methodology in determining where the lines should be located on Kiawah as follows: "[a]erial photographs from 1949, 1954, 1957, 1963, 1983 and 1988 were used by CSE to determine erosion rates *and the most landward shoreline.*" (Emphasis added.) (R. p. 1241, Joint Ex. 08-008.) Appellant, who is an entity related to Kiawah Resorts Associates, now challenges for the first time, the same methodology that was presented to the Department.

Ms. Jessica Boynton and Mr. Matthew Slagel worked on the data collection and analysis for the 2009 & 2017 proposed lines and helped determine where the most landward point of erosion was and where the baseline should be placed at the Spit. (R. p. 815, Tr. 530:18-24; R. p. 1111, Tr. 826:12-15; R. p. 1113, Tr. 828:4-12.) Ms. Boynton is the Shoreline Specialist and Team Lead for the Coastal Services Section within the Department's Ocean and Coastal Resource Management Office (OCRM).<sup>3</sup> Mr. Slagel is the Beachfront Permitting Project Manager and a Team Lead at OCRM.<sup>4</sup> (R. p. 1109, Tr. 824:3-4) Both Mr. Slagel and Ms. Boynton have extensive experience with collecting survey-grade GPS (Global Positioning System) data and digitizing and interpreting

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<sup>3</sup> Ms. Boynton's responsibilities include GIS data analysis and management, data collection, project management and emergency operations dealing with tropical events impacting the coast. (R. pp. 811-812, Tr. 526:9-527:11.) She has a master's degree in biology with an emphasis in remote sensing which includes aerial imagery. (R. p. 801, Tr. 516:6-9.) Ms. Boynton has worked on the South Carolina coast for almost fifteen years. (R. pp. 808-812, Tr. 523:22-527:11.)

<sup>4</sup> Mr. Slagel has been involved with coastal management since 2007 with a focus on shoreline management issues. Mr. Slagel reviews both modern and historical imagery, nearly every day of his job to make determinations about how the coastline has changed over time and to evaluate permit requests. (R. p. 1110, Tr. 825:1-9.) He frequently reviews monitoring reports which are submitted to OCRM for major permits. (R. pp. 1110-1111, Tr. 825:10-826:11.) He assisted with the Shoreline Change Advisory Committee, and the Blue Ribbon Committee on shoreline management. Both committees were tasked with reviewing the Beachfront Management Act and the implementation of it. (R. pp. 1106-1107, Tr. 821:24-822:9)

aerial photography (R. pp. 1106-1112, Tr. 821:16-827:7; R. pp. 805-814, Tr. 520:15-529:22). They are intimately familiar with South Carolina's coastline given their work experience and hundreds of hours walking the coast to fulfil their duties. (R. pp. 815-816, Tr. 530:18-531:4.)

At the hearing, Ms. Boynton explained the Department's process in proposing and setting the jurisdictional lines. (R. pp. 817-818, Tr. 532:3-533:11.) With the advent of GPS technology, now vegetation and escarpment lines are not only identified by aerial photography, but also can be collected in the field. (R. p. 856, Tr. 571:3-7.) For Captain Sams Spit specifically, the Department's internal jurisdictional line review panel reviewed historic images, the inlet relocation projects, inlet stability, inlet migration and looked at the Department's inventory of shorelines in the past forty years to determine the location of proposed baseline. (R. pp. 883-884, Tr. 598:5-599:10.) The panel was comprised of Department staff members who have a variety of backgrounds and hold different degrees including geology, marine sciences, ocean sciences, biology, forest resource management and environmental science. (R. pp. 866-867, Tr. 581:16-582:14.) For the 2017 jurisdictional line cycle, this panel proposed the baseline based on a combination of the 1988 vegetation line, 1998 vegetation line and a 1983 wet/dry shoreline as indicating the most landward points of erosion in the past forty years. (R. pp. 1501-1503, Resp. Ex. 18; R. pp. 865-866, Tr. 580:22-581:15.) The case was remanded to the Department for a final determination of the baseline by the parties' consent. The Department's final determination of the baseline location was different than the originally proposed location in that the proposed line included portions of a 1983 wet/dry shoreline which was not included in the final line and in that the Department made minor revisions to the 1988 vegetation line during the remand. After the remand, the Department located a 1982 aerial image that indicates an escarpment that is nearly in the same location as the 1988 reviewed vegetation line. (R. p. 48, Order at 4.)

**LOCATION OF THE MOST LANDWARD POINT OF EROSION USING A  
VEGETATION OR ESCARPMENT SHORELINE AS A PROXY**

The Department uses escarpment shorelines or vegetation shorelines based on the first line of stable vegetation as a proxy to identify the most landward point of erosion pursuant to section 48-39-280(A)(2) and regulation 30-21(H). (R. p. 855, Tr. 570:1-13; R. p. 1040, Tr. 755:19-24.) Both the Department's expert, Mr. Jones, and the Appellant's expert, Mr. John Hodge<sup>5</sup>, testified that the use of a seaward line of stable natural vegetation as a shoreline proxy is a valid method to determine whether a shoreline is eroding, is accepted in the coastal scientific community, and is recognized as such in scientific, peer-reviewed literature. (R. pp. 504-505, Tr. 219:6-220:1; R. p. 507, Tr. 222:8-12; R. p. 1036, Tr. 751:10-17; *also see* R. p. 1550, Resp. Ex. 72(a).) Mr. Jones also testified that the Department's methodology is consistent with CSE's recommendations to the Coastal Council to identify the most landward point of erosion using vegetation lines from aerial photos. (R. pp. 1040-1041, Tr. 755:19-756:7.) Mr. Jones further emphasizes that the historical data and information is not perfect and that the Department must use the best available information that it has pursuant to the statute. (R. pp. 1043-1045, Tr. 758:16-760:2.) Mr. Jones testified that the Department's methodology of using the vegetation line as a proxy for the most landward point of erosion "is sound and acceptable, is consistent with the procedure that has been used going back to Coastal Council days, and ... it's consistent with the requirements of the Act." (R. p. 1079, Tr. 794:12-25.)

Mr. Hodge testified that the Department must have additional evidence of erosion. (R. p. 552, Tr. 267:6-10.) Section 48-39-280(A)(2), however, requires the Department to use the best *available historical and scientific* data. The Appellant did not present any other scientific and/or

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<sup>5</sup> Mr. Hodge was qualified as an expert witness in geology, coastal geology, and coastal processes. (R. p. 458, Tr. 173:5-10.)

historical data or other evidence prior to Hurricane Matthew in 2016 in the forty-year review period. The ALC correctly found based on substantial evidence in the record that “when an escarpment line or other geographical sign of erosion is not visible on a photograph or otherwise available, a line of stable natural vegetation is a sound and appropriate proxy for the most landward point of erosion.” (R. pp. 73-74, Order at 29-30.) The ALC Order further states, “[t]he Court finds a line of stable natural vegetation is a scientifically sound and accepted proxy or marker for the most landward point of erosion” (R. p. 74, Order at 30.)

### **Department’s Location of a Continuous Stable Vegetation Line**

Ms. Boynton explained that when the Department collects a vegetation line in the field the staff looks for a continuous line of stable natural vegetation given the active beach definition contained in the Act. (R. pp. 857-858, Tr. 572:12-573:3.) Active beach is defined as “that area seaward of the escarpment or the first line of stable natural vegetation, whichever first occurs, measured from the ocean.” S.C. Stat. Ann. § 48-39-270 (13). Mr. Hodge’s interpretation of the vegetation line from the 1988 aerial photograph was submitted during the remand and was located much more seaward than the vegetation line digitized by the Department. (R. pp. 1309-1319, Joint Ex. 14.) Mr. Hodge testified that the Department incorrectly located the vegetation line because the vegetation which should act as a proxy is the “leading edge of vegetation.” (R. p. 508, Tr. 223:4-8). After hearing the testimony and assessing the evidence, the ALC found:

the vegetation line used to set the baseline must be one that is stable and natural, rather than one that contains only sporadic clumps of vegetation. The vegetation portrayed in [Appellant’s] photographs and drone video footage at or near the post-Hurricane Matthew shoreline or one reasonably approximate to it, specifically a 2017 post-Irma escarpment line, consists only of isolated clumps.” (R. p. 80, Order at 36.)

The ALC further found that “[a] review of the evidence including historic lines of stable natural vegetation indicates the most landward vegetation shoreline in the past forty years is the 1988 line as reviewed and revised by the Department upon remand.” (R. p. 80, Order at 36.)

### **Tire Tracks Landward of the Appellant's Proposed Vegetation Line**

Mr. Slagel testified that the 1988 aerial photograph showed tire tracks from either a truck or a four-wheeler on the active beach well *landward* of the Appellant's alleged 1988 vegetation line and explained that this was another reason that the Appellant's digitization of the vegetation line was not supported by the 1988 historical aerial photograph. (R. pp. 1496-1500, Resp. Ex. 17; R. pp. 1138-1139, Tr. 853:18-854:23; R. p. 1176, Tr. 891:9-13.) Although Mr. Hodge claimed that tire tracks would not remain on active beach (R. p. 582, Tr. 297:3-8), Mr. Slagel showed photographs taken on the ground and by drone, including those contained in Petitioner's Exhibit 22, that had tire tracks on active beach and that appeared substantially similar to the ones in the 1988 photo. (R. pp. 1160-1161, Tr. 875:17-876:15.)

### **Thomas & Hutton Vegetation Line**

As further verification that the Department's vegetation line is reasonably digitized in the correct location, the Department entered evidence showing that the engineering firm of Thomas & Hutton also digitized the 1988 vegetation line in nearly the same location. (R. pp. 1158-1160, Tr. 873:12-875:1; R. pp. 1589-1594, Resp. Ex. 118; R. pp. 1492-1495, Ex. 16(c), pp. 3-6.) Mr. Pantlik, the Appellant's Director of Development, requested Thomas & Hutton to digitize the vegetation line from the 1988 aerial imagery. In October 2015, Brian Durham, who is a certified geographic information system professional (GISP) sent Mr. Pantlik the digitization of the 1988 vegetation line as requested. This aerial also showed the Department's baseline (red line) and setback line (green line) in relation to the Thomas & Hutton vegetation line (yellow line). (R. pp. 1589-1594, Resp. Ex. 118; R. p. 368, Tr. 83:11-19.) On cross examination Mr. Pantlik acknowledged that the Thomas & Hutton line was very close to what the Department had digitized for the 1988 line. (R. pp. 372-373, Tr. 87:19-88:3.) Mr. Pantlik requested that Mr. Durham digitize the line again based

on a magenta line Mr. Pantlik drew on the aerial that was much more seaward than either the Department's line or Thomas & Hutton's line and was on active beach. (R. pp. 1595-1604, Resp. Ex. 119 & 120; R. p. 1159, Tr. 874:4-20; R. pp. 1494-1495, Resp. Ex. 16(c), pp. 5-6.) The ALC found that the evidence showing that Thomas & Hutton digitized the vegetation line in nearly the same location as the Department's was additional verification that the Department's vegetation line was digitized in the correct location. (R. p. 64, Order at 20.)

### **The Post-Irma Scarp Line**

Approximately one month after Tropical Storm Irma (Irma), Mr. Hodge and Mr. John Byrnes (Appellant's expert in land surveying at the hearing) conducted a site visit to the Spit to document that Irma was an erosional event. Mr. Hodge identified geomorphic expressions of erosion including the presence of a dune scarp, an area where some of the dunes had blown out or were pushed back, heavy mineral deposits at the toe of the scarp, and the presence of dead vegetation on the beach. (R. pp. 537-539, Tr. 252:17-254:7). Mr. Byrnes surveyed the scarp line Hodge marked. (R. p. 540, Tr. 255:2-9.) The ALC found that "much of the Appellant's testimony and other evidence focused on assessing and verifying the post-Irma line." (R. p. 60, Order at 16.) Appellant claims that the 2017 post-Irma line is the most landward point of erosion in the past forty years. (R. pp. 536-537, Tr. 251:18-252:24.)

The ALC found that Appellant considered only recent imagery rather than historic shorelines within the entire forty-year window in its assessment of the most landward point of erosion. The ALC further found that the post-Irma line was the only post-storm Global Position System (GPS) survey its expert reviewed in the entire forty-year window. (R. p. 60, Order at 16.)

Respondent's expert Mr. Jones testified that the Appellant's proposed most landward point of erosion is merely an escarpment line after Irma. (R. p. 1081, Tr. 796:15-25.) As the ALC found

“[w]hen the Department plotted the location of the [Appellant’s] 2017 post-Irma line on the 1988 orthoimagery, [Appellant’s] line appeared below the high-tide mark and in the water, which is below (seaward of) the active beach.” (R. p. 83, Order at 39; R. pp. 1605-1610, Resp. Ex. 139.) The ALC found that the Department presented credible evidence that there were four shorelines during the forty-year period that were more landward of the Appellant’s post-Irma escarpment line: 1982, 1988, 1993 and 1998. (R. p. 75, Order at 31; R. p. 1503, Resp. Ex. 18, p.3.)

**The Department verified the position of the 1988 Vegetation Line as an Indication of the Most Landward Point of Erosion and Shoreline.**

To verify that the 1988 vegetation shoreline was a valid position for the baseline as the most landward point of erosion in the past forty years, the Department assessed among other things: (1) 1982 aerial photography which demonstrated an escarpment shoreline in the same vicinity; (2) information related to storms and erosional events; and (3) the Department’s beach dune profile data that showed the 1988 vegetation line was consistent with the dune location.

First, Mr. Slagel and Ms. Boynton testified to a 1982 color infrared aerial photograph that supported the Department’s baseline location. Mr. Slagel uncovered this 1982 aerial photograph taken by the National Park Service and provided by the U.S. Geologic Survey and added it to the Department’s inventory. (R. pp. 1148-1149, Tr. 863:24-864:10; R. pp. 1481-1486, Resp. Ex.15; R. pp. 887-888, Tr. 602:18-603:13.) Both Mr. Slagel and Ms. Boynton demonstrated through their testimony that this photograph shows a clear escarpment line, which is one of the geomorphic expressions of erosion that Mr. Hodge testified was necessary to show a point of erosion. (R. p. 534, Tr. 249:6-22; R. p. 646, Tr. 361:1-6.). Mr. Slagel testified that there was a clear escarpment that had been cut into the beach as evidenced by the 1982 photo. (R. pp. 1149-1150, Tr. 864:23-865:7; R. pp. 890-891, Tr. 605:22-606:16.) Ms. Boynton testified similarly that the 1982 imagery showed a very clear line of stable natural vegetation and some evidence of escarpment going from

the active beach on the oceanside moving landward. (R. p. 890-891, Tr. 605:22-606:16.) Mr. Slagel digitized a vegetation line on this image that coincided with the escarpment line. (R. p. 1151, Tr. 866:2-4; R. pp. 1483-1486, Resp. Ex. 15.) Mr. Slagel explained that in the 1982 aerial photograph, the escarpment and the vegetation line area are one in the same: "the escarpment line, that vertical cut of erosion, the waves were cutting into that vegetated dune field that was growing. So, in this case, the escarpment, that vertical cliff of erosion, and the vegetation line are one in [sic] the same." (R. p. 1151, Tr. 866:5-14.) The Department then compared the 1982 photograph with the Department's 1988 vegetation line and determined that the lines were nearly identical along the neck of the spit and very similar along the full length of it. (R. p. 1151, Tr. 866:15-24.) From that comparison, the Department verified that the 1988 digitized line was an accurate place to establish the most landward point of erosion in the past forty years. (R. p. 1152, Tr. 867:4-16.)

The Department also reviewed whether there were erosional events during this time period to further evidence that the 1988 vegetation line was a point of erosion. Mr. Slagel testified that there was a series of nor'easters in the late 1980s and early 1990s which had been documented as having eroded the dunes on Kiawah Island. (R. pp. 1151-1152, Tr. 866:24-867:3.) Mr. Hodge admitted that there were some storms during this time period and did not explain as to why these events would not support that the 1988 vegetation line was a point of erosion. (R. p. 650, Tr. 365:13-25.)

The Department also compared its digitized 1988 vegetation line with 1988 beach profile data to determine if its beach profile data supported the position of the vegetation line in 1988. (R. pp. 1152-1153, Tr. 867:24-868:11.) Beach profile data is comprised of a shoreline perpendicular line of elevation data points, which start in the ocean and extend landward into the dunes. The Department examined the data starting in the ocean, moving towards the beach. The first

substantial peak in the profile represents the most seaward dune feature. This dune feature is here typically vegetated. (R. p. 470, Tr. 185:21-22; R. p. 472, Tr. 187:2-5.) The seaward side of the dune feature is typically the most landward point of erosion, and according to the beach profile data the Department's 1988 vegetation line was in approximately the same position as the dune feature in 1988 further confirming that the Department digitized the vegetation line from the 1988 aerial photograph accurately. (R. p. 1504, Resp. Ex. 19, p. 1; R. pp. 1153-1154, Tr. 868:12-869:5.) The Department performed this same comparison for the 2006 and 2015 vegetation lines which further confirmed that the Department's methodology of identifying the most landward point of erosion from aerial photographs was reasonable and accurate. (R. pp. 1154-1156, Tr. 869:16-871:13; R. pp. 1505-1506, Resp. Ex. 19, pp. 2 & 3.)

#### **SHORELINE CHANGE AT CAPTAIN SAMS SPIT**

Section 48-39-280 does not expressly mandate the Department to determine the long-term shoreline change rate for establishing the baseline, only for establishing the setback line. The shoreline rates on both the oceanside and riverside, however, are important in assessing the Spit's vulnerability to breaching at the Spit's narrow neck area and whether the shoreline is unlikely to return to its former position which are required considerations pursuant to section 48-39-280(A)(2).

#### **Long-Term Rates of Accretion on Oceanside (Front) of the Spit**

The Department, Mr. Hodge<sup>6</sup> and Mr. Jones assessed the shoreline change rate for the oceanside of the Spit and found that there was a positive shoreline change rate (a long-term trend of accretion). (R. p. 533, Tr. 248:14-22; R. pp. 872-873, Tr. 587:17-588:6; R. pp. 1053-1054, Tr.

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<sup>6</sup> Mr. Hodge assessed the shoreline change rate for different periods of time to show that the rates of accretion were greater before the storms impacted the coast in the 2015 to 2017 period. There is no language in the statute which provides that the storm data should not be considered.

768:19-769:1.) Mr. Jones collected all the shoreline change rates that had been calculated by others in the Spit's neck area as well as around monuments 2620 (located immediately southwest of the neck) and 2625 (located just east of Beachwalker Park). (R. p. 1247, Joint Ex. 09-002; R. pp. 1569-1572, Resp. Ex. 88.) Mr. Jones also made some independent calculations on the shoreline change rate. He then compared all the shoreline change rates and computed an overall average shoreline change rate on the oceanside and on the riverside of the Spit. (R. pp. 1050-1051, Tr. 765:4-766:10; R. pp. 1569-1572, Resp. Ex. 88.) Mr. Jones found that the long-term accretion rate at 2620 was 6.2 feet per year on average. (R. p. 1569, Resp. Ex. 88, p. 1.) At station 2625 (the monument at Beachwalker Park), Mr. Jones found an average long-term accretion rate of 4.4 feet per year. (R. p. 1571, Resp. Ex. 88, p. 3.)

#### **Erosion Along the Riverside (Back) of the Spit**

It is undisputed that the backside of the Spit along the Kiawah River is experiencing chronic erosion. The Department looked at shoreline change on the narrow neck area of the spit where the critical area of the "beach/dune system" is coming together with the "beach" critical area. (R. pp. 869-870, Tr. 584:25-585:6; S.C. Code Ann. § 48-39-10(J).) The Department conducted this review to evaluate whether the shoreline is unlikely to return to its former position and the overall stability in the area. (R. p. 870, Tr. 585:7-16.) Mr. Jones explained "if we're trying to characterize shoreline change in the neck area, we want to see what's going on across the entire neck, not just the ocean shoreline. If we were to focus purely on the ocean shoreline, we would think that life was wonderful and things were growing and we wouldn't have any problems, but we do in fact have . . . erosion problems on the landward side of that area." (R. p. 1049, Tr. 764:4-15.)

Mr. Pantlik testified to this chronic erosion on the riverside of the Spit in the case brought by the South Carolina Coastal Conservation League to challenge the issuance of a permit to build

a sheet pile wall on the riverside. He confirmed this testimony during his cross examination in the hearing of this case. Mr. Pantlik testified that there had been eight years of “unabated erosion” that would continue. He further testified that just as the beach builds on the oceanside that the riverside would continue to erode. He explained: “every day there's erosion on the riverside at Captain Sams Spit. And there's beach building on the ocean side. So, every day there's a different answer to the question of how big Captain Sams Spit is.” Mr. Pantlik also admitted that the critical area is moving closer to the present jurisdictional setback area (the area between the baseline and the setback line). (R. pp. 375-377, Tr. 90:23-92:20.) Mr. Pantlik’s testimony highlights the extremely dynamic nature and instability of the Spit.

Mr. Jones calculated an average erosion rate for the riverside in the same manner as he did for the oceanside. Mr. Jones used change rates calculated by Mr. Byrnes from critical area line surveys, by CSE using both survey data and aerial photography, and by using measurements the Department made at his request showing the riverside position between 1982 and 2021. Mr. Jones averaged the data he collected and calculated an average erosion rate at the neck on the riverside of -7.2 feet per year.<sup>7</sup> (R. pp. 1055-1056, Tr. 770:23-771:20; R. p. 1572, Resp. Ex. 88, p.4.)

Mr. Jones further investigated the erosion at the Spit by conducting a site visit in July 2021. During this visit, Mr. Jones documented the effects of this rapid erosion of the riverside shoreline through photographs he took along the back of the dune field. These photographs depict erosion on the river shoreline causing trees to die and fall into the river as well as the vegetation collapsing onto the eroding shore. (R. p. 1014, Tr. 729: 8-21; R. pp. 1578-1588, Resp. Ex. 101.)

### **INLET STABILITY AND MIGRATION**

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<sup>7</sup> Shoreline change rate analysis is set forth with more specificity in R. pp. 1667-1670, Respondent’s Proposed Order to the ALC at 33-36.

Pursuant to section 48-39-280(A)(2) the Department considered the following factors to determine whether the shoreline was unlikely to return to its former position and inlet stability: (1) the overall decrease in the dune field at the neck; (2) the Spit's vulnerability to a breach at the neck; (3) the constant movement and migration of the Spit; and (4) the relocation projects which relocate the Spit to its former northern position which begins the migration process all over again. After review of these factors, the ALC concluded that the shoreline was unlikely to return to its former position. (R. pp. 52-53, Order at 8-9.)

**(1) Overall Decrease in the Dune Field Width at the Neck**

Mr. Jones conducted a comprehensive assessment of the overall decrease in the dune field at the neck of the Spit as set forth in the ALC's Order. (R. pp. 55-57, Order at 11-13; *also see* R. pp. 1671-1672, Resp. Proposed Order at 37-38.) Based on this assessment Mr. Jones explained that:

.... over time, the width of the dune field in this neck location is gradually getting smaller. So, the erosion on the river side is slightly greater than the accretion on the ocean side. ... This is consistent with the aerial photos we saw where the entire spit is migrating, because of erosion on the back side and accretion on the front side. As part of that migration process, the dune-field width is getting smaller.

(R. p. 1061, Tr. 776:13-25.) As the ALC found, "using aerial imagery, measurements taken from the riverside escarpment to the edge of the dune field on the oceanside show that the width of the dune field decreased from three-hundred and twenty-two feet in 1982 to two-hundred and thirty-five feet in 2021. The Spit's neck has narrowed by approximately eighty-seven feet." (R. p. 56, Order at 12; R. p. 1529, Resp. Ex. 44b; R. pp. 980-981, Tr. 695:1-696:11; R. pp. 1062-1063, Tr. 777:18-778:13.)

Mr. Hodge testified that the width of the neck increased from 1982 to 2015 but did not consider the periods of erosion after 2015 including erosion from Hurricane Mitchell and Irma. (R. pp. 1089-1090, Tr. 804:20-805:2.) However, as the ALC found, the applicable statutory and regulatory language does not allow the Department to arbitrarily exclude periods of storms when

considering the location for the baseline in Unstabilized Inlet Erosion Zones<sup>8</sup> and expressly mandates a forty-year window to be examined. “The entire forty-year window should be used since storms are natural events that occur regularly and since they greatly influence inlet stability and the shoreline.” (R. p. 56, Order at 12.)

**(2) Vulnerability of Captain Sams Spit To Breaching At The Neck**

A historical review of the Spit shows that the Spit goes through cycles where the inlet and Spit migrate toward Seabrook Island to the south. As the Spit migrates, it elongates and narrows, leading to an eventual breach where the water cuts across the neck area. The Spit then reforms, starting the cycle over again. (R. p. 57, Order at 13; R. p. 629, Tr. 344:18-24; R. p. 1024, Tr. 739:5-17; R. pp. 1093-1094, Tr. 808:18-809:5; R. p. 1567, Resp. Ex. 82.) Mr. Jones explained:

That cut will be from a storm. Usually, the high tide and the waves attack the front side of the beach, they carry sand across into the river. With many storms, we have a lot of rainfall, and the high tides on the river side ... are trying to get back to the Atlantic Ocean and they usually take advantage of whatever channels that have been cut across that spit. So, it's a combination of waves and high tides on the ocean side and river discharge on the back side that cause the breach to form.

(R. pp. 1024-1025, Tr. 739:23-740:9.) The Spit has breached or become disconnected at the neck on three occasions: 1822, 1922 and 1949. (R. p. 57, Order at 13; R. p. 490, Tr. 205:11-17; R. p. 1018, Tr. 733:18-20). Miles O. Hayes, B.A., Ph.D., a coastal geomorphologist, estimated that the Spit would breach on a forty-to-eighty-year cycle. (R. p. 57, Order at 13; R. p. 1019, Tr. 734:3-5.) As the Spit's neck narrows, the area becomes more vulnerable to storms and to possible breaching. (R. p. 1063, Tr. 778:14-25.) Mr. Jones explained that the greater the storm tide and wave conditions, the greater the likelihood dunes will be eroded, and the spit will be inundated, and a

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<sup>8</sup> Section 48-39-280(E)(4) directs the Department to exclude storm information to locate the crest of the primary dune for purposes of establishing the baselines in *standard erosion zones* and *stabilized* inlet erosion zones pursuant to section 48-39-280(A)(1) and section 48-39-280(A)(3). This section omits, however, unstabilized inlet erosion zones pursuant to section 48-39-280(A)(2).

new inlet will form at the neck. (R. p. 57, Order at 13; R. pp. 1071-1072, Tr. 786: 15-787:22.)

Mr. Pantlik testified that he observed over-washes, evidence of erosion and pieces of boardwalk after both of Hurricane Matthew and Tropical Storm Irma. (R. p. 354, Tr. 69:14-21.) He further testified that Hurricane Matthew destroyed approximately one hundred feet of dunes and that a survey showed that the primary dune was lost. (R. p. 355, Tr. 70:8-13.) Hurricane Matthew was not a major storm as defined by the National Hurricane Center when it passed by Kiawah based on its intensity, central pressure, wind speed and storm tide level that it generated. Irma was not a major storm either for Kiawah as it passed west of the entire State of South Carolina. (R. p. 1074, Tr. 789:2-21.) Aerial photographs taken prior to and after Hurricane Gracie that hit the South Carolina coastline at low tide shows the inlet breaching. (R. p. 57, Order at 13; R. p. 1023, Tr. 738:8-21; R. pp. 1520-1521, Resp. Exh. 30, p. 9-10.)

### **(3) Historical Inlet Migration**

The Department evaluated historical aerial imagery and used Timelapse in Google Earth to evaluate the Spit to consider whether the shoreline would be unlikely to return to its former position, looking at “historical inlet migration” and “inlet stability” as mandated by section 48-39-280(A)(2). (R. pp. 886-887, Tr. 601:5-602:17.) Although there is a positive (accretional) long-term shoreline change rate, the Spit is not growing and getting larger, but rather the entire spit is migrating to the south seaward and narrowing as illustrated by Respondent’s Exhibit 47. (R. p. 1093,



Tr. 808:18-23.) This exhibit shows the 1982 position of the Kiawah River (traced in orange) and the 2021 position of the Kiawah River (traced in yellow) at the Spit's neck. A comparison of the 1982 and 2021 Kiawah River shorelines demonstrates the entire Kiawah River and Spit is shifting seaward. Mr. Jones explained "the marsh grew on one side, and the backside of Kiawah's spit eroded on the other. The entire river shifted its location and cut into the back of the dune field. (R. pp. 1046-1047, Tr. 761:13-762:13; R. pp. 1048-1049, Tr. 763:7- 764:3; R. p. 1530, Resp. Ex. 48; R. p. 1531, Resp. Ex. 49.) The Department's assessment revealed that the inlet has migrated to several different locations over time and that the entire Spit goes through periodic cycles where it elongates and moves toward Seabrook. This behavior of the Spit affects the stability of the inlet and whether the shoreline is unlikely to return to its previous location in the past 40 years. (R. pp. 900-901, Tr. 615:13 - 616:13.)

#### **(4) Inlet Relocation Projects**

Since 1983, Seabrook Island Property Owners Association hired CSE to relocate Captain Sams Inlet three times to its 1963 location to help alleviate beach erosion on Seabrook Island. A new inlet was cut to the north in the approximate position the inlet had been in 1963 allowing water to flow out of the newly-formed inlet. (R. p. 493, Tr. 208:18-24.) These inlet relocation projects were done in approximately 1983, 1996 and 2015 due to the constant migration of the Spit towards Seabrook which pulls the sand from Seabrook's beaches. (R. pp. 343-344, Tr. 58:12-59:20; R. pp. 491-492, Tr. 206:22-207:7; R. p. 1027, Tr. 742:1-15.)

#### **AERIAL IMAGERY USED BY THE DEPARTMENT**

The Department presented evidence that the 1982, 1988, 1993, 1998 and 2019 aerials are either georeferenced or orthorectified by GIS professionals and are reliable and accurate for both visual analysis and measurement. The ALC found that "[t]he Department presented compelling

evidence to counter [Appellant's] challenges" and found this imagery used by the Department to be reliable and accurate for both visual analysis and mapping. (R. pp. 67-70, Order at 23-26.)

### ARGUMENT

**I. THE ALC'S ADOPTION OF THE BASELINE POSITION SHOULD BE AFFIRMED AS IT IS BASED ON RELIABLE, PROBATIVE AND SUBSTANTIAL EVIDENCE IN THE RECORD AND IT IS NOT AFFECTED BY ERROR OF LAW OR ANY OTHER GROUNDS FOR ITS REVERSAL.**

The ALC determined that the baseline shall be set at the position set forth by the Department in its final decision after remand. (R. p. 86, Order at 42.)

**A. The ALC correctly found that the use of a vegetation line as a proxy is a valid method for locating the baseline in Unstabilized Inlet Erosion Zones.**

In Unstabilized Inlet Erosion Zones, the baseline is to be determined as follows:

(2) The baseline for inlet erosion zones that are not stabilized by jetties, terminal groins, or other structures must be determined by the department *as the most landward point of erosion at any time during the past forty years*, unless the best available scientific and historical data of the inlet and adjacent beaches indicate that the shoreline is unlikely to return to its former position ... In collecting and utilizing the best scientific and historical data available for the implementation of the beach preservation policy, the department, as part of the State Comprehensive Beach Management Plan provided for in this chapter, among other factors, must consider historical inlet migration, inlet stability, channel and ebb tidal delta changes, the effects of sediment bypassing on shorelines adjacent to the inlets, and the effects of nearby beach restoration projects on inlet sediment budgets.

S.C. Code Ann. § 48-39-280(A)(2)(emphasis added). The ALC's determination that the most seaward line of vegetation is a proxy for the most landward point of erosion is supported by substantial, credible evidence in the record as set forth in both the ALC's final decision and as cited to by Respondent in this brief. Appellant discounts Mr. Jones' expertise and a team of coastal scientists' recommendations contained in CSE report regarding the use of vegetation lines located on aerial photographs to identify the most landward point of erosion in the past forty years when survey-grade information is not available, and when an escarpment line cannot be seen on the

photograph. Mr. Jones explained that CSE recommended the use of a vegetation line and escarpment line for two reasons:

The first is we obviously need a line of erosion as opposed to a point, so we need something beyond a point. But the other is that we don't have continuous and ongoing survey information, like Mr. Hodge and Mr. Byrnes collected after 2017, after Hurricane Irma. We do not have many examples of erosion scarps that have been documented over time. So we need to use the information we have, which is historic aerial photos. If we see an escarpment on the photo, we would use it. If we can't see an escarpment, we would go to the next best thing which in our mind was a vegetation line. And the vegetation line... will always be at or seaward of the previous escarpment. So, by using a vegetation line, it's actually more favorable to property owners, and it allows the Department to use a proxy that comes close to an escarpment if we had that information.

(R. pp. 1043-1045, Tr. 758:16-760:2; R. p. 1041, Tr. 756:3-7; R. p. 73, Order at 29.)

Mr. Jones also testified that the Department's methodology is consistent with CSE's recommendations to the Coastal Council to identify the most landward point of erosion using vegetation lines from aerial photos. (R. pp. 1040-1041, Tr. 755:19-756:7.) Appellant criticizes the ALC for considering the 1988 CSE report in its determination of the standard to be applied in setting the baselines. (Appellant's Brief at 31.) This report states that it was prepared pursuant to a contract between CSE and the Coastal Council as part of the requirements prescribed by the Act. (R. p. 1398, Resp. Ex. 10, p.1.) The report goes on to provide:

. . . CSE was requested to prepare a specific methodology for calculation of baseline position and erosion rate in accordance with the requirements of Section 48-39-280 of the Act. ***The methodology presented herein conforms with the Act and the draft methodology prepared by CSE and adopted by the SCCC on 17 June 1988 . . .***

(Emphasis added.) (R. p. 1399, Resp. Ex. 10 at 2.) The Department has utilized this methodology in updating beachfront baselines and setback lines for the past three decades. Appellant's characterization of this report as merely "comments in a consultant's report" disregards its history and importance in the Department's implementation of the Beachfront Management Act in

response to the legislature's direct mandate. (Appellant's Br. at 30.) The ALC correctly considered this report written by coastal scientist specialists in its determination of whether the Department's method is reasonable, and not arbitrary or capricious. The Supreme Court held that the courts should defer to an agency interpretation unless it is "arbitrary, capricious, or manifestly contrary to the statute." *Kiawah Dev. Partners*, 411 S.C. at 34-35, 766 S.E.2d at 718 (quoting *Chevron, Inc. v. Nat. Res. Def. Council, Inc.*, 467 U.S. 837, 844 (1984)). Moreover, the weight and credibility to be assigned to the CSE report is within the province of the ALC as the trier of fact. *S.C. Cable Television Ass'n v. S. Bell Tel. & Tel. Co.*, 308 S.C. 216, 222, 417 S.E.2d 586, 589 (1992).

Ms. Boynton also testified to the use of the reports and scientific literature as to why the Department uses the vegetation line as a proxy further supporting the ALC's findings:

... the Department is saying is that the line of stable natural vegetation . . . we're saying that seaward of that there is sufficient inundation and sufficient, you know, erosional influences to prevent that line of stable natural vegetation from moving seaward. So the landward point of erosion isn't explicitly indicated in the statute as to – it doesn't say, the landward point of erosion, and that feature is X. We have the active beach definition, we have the scientific literature to guide us, we have various reports. And all of those lead us to using that vegetation line as an indicator or a proxy of where that landward point of erosion is located. (R. p. 955, Tr. 670:8-17.)

...  
What we are saying is that erosive inundation actions are sufficient on this side [seaward] of the line to prevent that vegetation from forming, and on this side [landward] the vegetation is able to form and become stable and dense and all of that. In addition, there is support in the scientific literature for a vegetation line being an indicator of erosion on the seaward side of that. (R. p. 956, Tr. 671:12-21.) ... there's scientific peer reviewed literature that supports the vegetation line as an erosive indicator. (R. p. 958, Tr. 673:1-3.)

Ms. Boynton further testified to what she did to determine the baseline which is largely based on her specialized skill, training and knowledge including how the Department has consistently determined the baselines during the past jurisdictional review cycles. Appellant is dismissive of Ms. Boynton's testimony despite her years of training and experience because the Department did not proffer her as an expert. However, Ms. Boynton is the Department's employee who was

personally involved in the determinations that are being challenged, and therefore, was not proffered to the ALC as an impartial expert witness. There is no requirement for the Department's witness to be qualified as an expert before her specialized knowledge and experience can be considered. In fact, the General Assembly has expressly provided that the "agency's experience, technical competence and specialized knowledge may be utilized in the evaluation of the evidence" in a contested case before the ALC. S.C. Code Ann. § 1-23-330(4).

Appellant's expert Mr. Hodge also conceded that the vegetation is a proxy and that "the vegetation is a really good indicator of whether the shoreline is eroding or accreting." (R. p. 504, Tr. 219:5-8.) He further conceded that if the vegetation disappears or moves landward, then the shoreline is *eroding*. (Emphasis added.) (R. pp. 504-507, Tr. 219:17-220:1). However, Mr. Hodge insists that the Department must have additional evidence of erosion when locating the most landward point of erosion. (R. p. 552, Tr. 267:6-10). Mr. Jones testified that while it is desirable to have geomorphic expressions of erosion, since historical records are not complete, we do not always have this expression going back in time. (R. pp. 1045-1046, Tr. 760:23-761:7.) Section 48-39-280(A)(2) requires the Department to use the best *available historical and scientific* data. The ALC found that the statute does not require either a geomorphic expression of erosion or an erosional event. (R. pp. 85-86, Order at 41-42.) As the ALC found "If there absolutely had to be a geomorphic expression of erosion (such as that caused by an erosional event) as [Appellant] contends in order to determine the most landward point of erosion, the forty-year look back period would be rendered meaningless given the lack of historical surveys now and also, when the Act was first enacted." (R. p. 85, Order at 41.)

The ALC's determination to reject some of the Appellant's expert testimony and base findings on the Respondent's staff witnesses' testimony is in accordance with South Carolina state

precedent.<sup>9</sup> This Court has addressed this very issue in *Maull v. S.C. Dept. of Health & Env't Control*, 411 S.C. 349, 768 S.E.2d 402 (Ct. App. 2015.) In *Maull*, the court relied on the Department's senior wetland project manager's testimony who disagreed with the petitioner's expert, in finding that the dock would not create a navigation and safety hazard. *Id.* at 356-357, 768 S.E.2d at 406-407. The *Maull* court specifically stated that although the petitioner argued the project manager's testimony was unreliable because he was not qualified as an expert, "the ALC acting as the factfinder was not restricted to accept only expert testimony." *Id.* at 359, 768 S.E.2d. at 408. Like the court in *Maull*, the ALC carefully considered the parties' testimony as evidenced by its detailed Order and has the authority to give greater weight to the testimony of the Department's employee with specialized knowledge and training as compared to a property owner's expert witness when making its findings of fact and conclusions of law.

Appellant also cites to a prior case involving the Appellant and Captain Sams Spit arguing that expert testimony is required:

"As the Supreme Court has held, a finding of an administrative judge on a subject that involves expertise that is not supported by expert testimony constitutes grounds for reversal. See *Kiawah Dev. Partners, II v. S.C. Dept. of Health & Env't Control*, 422 S.C. 632, 637, 813 S.E.2d 691, 694 (2018). This principle likewise requires reversal here where the ALC determined without any expert support that a vegetation line is an accepted proxy for a point of erosion."

(Appellant's Br. at 21.) Respondent disagrees with both the Appellant's characterization of this holding and also its representation that there was no expert support that the vegetation line is an

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<sup>9</sup> South Carolina courts have repeatedly held that a Court may rely on a lay witness' testimony over an expert's testimony. *Ballenger v. Southern Worsted Corp.*, 209 S.C. 463, 40 S.E.2d 681 (1946) (the testimony of the claimant and his wife that an accident caused his disability supported an award of disability compensation, notwithstanding expert witness medical testimony to the contrary); *Vereen v. Hardee*, 285 S.C. 206, 209, 328 S.E.2d 666, 668 (Ct. App. 1985) (In an action to prove a last will and testament, jury was not bound by medical expert's conclusion that testatrix lacked requisite mental capacity where numerous lay witnesses testified that testatrix possessed mental capacity to execute the will).

accepted proxy for a point of erosion. The Supreme Court did not discuss in its opinion the requirement of expert testimony at all. What the Supreme Court finds is that the ALC's holding related to the structure "is not supported by *substantial evidence*" and that "there is *no evidence* in the record" to support the ALC's determination to allow a bulkhead without a revetment. *Kiawah Dev. Partners, II v. S.C. Dept. of Health & Env't Control*, 422 S.C. 632, 636 & 637, 813 S.E.2d 691, 693 & 694 (2018) (emphasis added). This case simply does not provide the precedent that Appellant claims that it does as it relates to expert testimony, and even if it did, the Appellant disregards Mr. Jones' testimony. Mr. Jones, experienced in evaluating the jurisdictional lines specifically at Kiawah and Captain Sams Spit, testified that the Department's methodology of using the vegetation line as a proxy for the most landward point of erosion "is sound and acceptable, is consistent with the procedure that has been used going back to Coastal Council days, and ... it's consistent with the requirements of the Act." (R. p. 1079, Tr. 794:12-25.)

Mr. Jones' testimony along with the testimony of Ms. Boynton, is substantial evidence supporting the ALC's findings that using aerial imagery to determine the most landward shoreline and the most landward point of erosion is consistent with utilization of best scientific and historical data available as directed by §48-39-280(A)(2), is consistent with the CSE recommendations and the methodology and is consistent with the Department's methodology in setting the baseline since the first jurisdictional lines were established. (R. p. 85, Order at 41; R. pp. 816-817, Tr. 531:17-532:2.)

**B. Appellant's argument that the ALC erred by not changing the baseline based on the long-term trend of accretion is not supported by the statutory language and ignores the forty-year window of review.**

Appellant argues that the ALC's "use of the most seaward line of vegetation as a proxy for the most landward point of erosion led to a finding that is contrary to the undisputed evidence of

seaward accretion ...” (Appellant’s Br. at 22, Subheading C.) Appellant incorrectly asserts that since the baseline did not move from the 1999 to the 2017 delineation cycle, and since the beach had a long-term trend of accretion, that the ALC (and the Department) improperly located the baseline. (Appellant’s Brief at 22.) The ALC correctly determined that the most landward shoreline was the Department’s proposed baseline which was based on the 1988 and 1998 shorelines. These shorelines are, and have been, the most landward in the forty-year window and indicate the most landward point of erosion when the jurisdictional lines were set in 1999 and 2008 and again when the Department determined the position of the lines in 2017. Both the statute’s and its implementing regulations’ language do not expressly provide for accretion to be considered in determining the most landward point of erosion for purposes of setting the baseline. In *Unstabilized Inlet Erosion Zones*, due to their highly dynamic nature, the General Assembly has specified that the forty-year window should be used to set the baseline rather than having the baseline fluctuate from cycle to cycle depending on whether the beach’s shoreline is accreting or eroding in the past seven to ten years (the length of the line cycles). Notably, the forty-year review period is not expressly mandated by the General Assembly for the *Standard Zone*. S.C. Code Ann. § 48-39-280(A)(1). Therefore, in Standard Zones that are more stabilized areas of the beach, the baseline can move from line cycle to line cycle depending on whether the beach is accreting or eroding. Contrary to the plain meaning of S.C. Code Ann. § 48-39-280(A)(2), Appellant continues to argue that the baseline cannot remain in the same place on an accreting beach for over eighteen years completely ignoring the forty-year window of review. Furthermore, accretion is taken into account because when the 1988 vegetation line falls out of the forty-year window of review, then that line will no longer be used to establish the most landward point of erosion and the Department will use more recent historical data and photographs.

Also, while the Spit at the neck area was accreting on the front side, it was eroding at a higher rate on the riverside. (R. p. 1061, Tr. 776:13-25.) Ms. Boynton explained that the Spit was moving and narrowing, which speaks to the area's stability and whether it is unlikely to return to its former position. (R. p. 901, Tr. 616:4-13.) Appellant fails to address that despite the "accretion" on the oceanfront, the Spit has been getting smaller and therefore is more vulnerable to storms and breaching. (R. p. 1063, Tr. 778:14-25.) After reviewing the shoreline change rates on both the oceanside and the riverside, the ALC found that the change rates should be considered in determining whether the shoreline is unlikely to return to its former position and in considering inlet stability. The ALC also found that despite the trend of accretion, there were still periods of erosion and that the legislature has made no specific provision for consideration of accretion for the purposes of actual baseline placement. (R. p. 86, Order at 42.) This interpretation is supported by the statute's express language and the findings are supported by substantial evidence in the record and should not be disturbed on appeal.

**C. The Court did not commit legal error in determining that the shoreline was unlikely to return to its former position.**

Appellant stated that "the ALC committed an error of law in unilaterally introducing and deciding the question of whether the shoreline was unlikely to return to its former position." (Appellant's Br. at 28.) Appellant's request to place the baseline at the post-Irma escarpment line and to find that the Department's determination of the baseline was incorrect, placed the issue of whether the shoreline was unlikely to return to its former position squarely before the ALC and was essential to the ALC's *de novo* review. The ALC necessarily had to apply the language of Section 48-39-280(A)(2) in its entirety:

the baseline for inlet erosion zones .... must be determined by the department as the most landward point of erosion at any time during the past forty years, ***unless the best available scientific and historical data of the inlet and adjacent beaches indicate the shoreline is***

*unlikely to return to its former position* . . . the department . . . among other factors must consider historical inlet migration, inlet stability, channel and ebb tidal delta changes, the effects of sediment bypassing on shorelines adjacent to the inlets, and the effects of nearby beach restoration projects on inlet sediment budgets. S.C. Code Ann. § 48-39-280(A)(2).

Appellant's argument that the ALC should have made this determination by looking at one clause in this section only ("the most landward point of erosion") is unsupportable. A statute must be read as a whole, and sections of the same general statutory scheme must be construed together, and each given an effect. *A.O. Smith Corp. v. S.C. Dept. of Health & Env't. Control*, 428 S.C. 189, 202, 833 S.E.2d 451, 458 (S.C. Ct. App. 2019) (quoting *CFRE, LLC v. Greenville Cty. Assessor*, 395 S.C. 67, 74, 716 S.E.2d 877, 881 (2011)). This case law is also contrary to the Appellant's position that the ALC should not take into account the legislative findings and other sections of the Act.

Despite the Appellant's contention that "neither party presented the issue [whether the shoreline was unlikely to return to its former position] to the Court for determination" (Appellant's Br. at 26), this is simply not true. Approximately two weeks before the hearing, Appellant submitted its Second Updated Prehearing Statement to the Court and included this very issue. (R. p. 280, 2d Updated Prehearing Statement No. 3(4) at 5 & No. 5 at 6.) The Department also identified this issue of whether the shoreline was unlikely to return in its Amended Prehearing Statement. (R. p. 207, Resp. Prehearing Statement No. 3(b) at 3.) Appellant unilaterally attempted to eliminate this issue in its opening, and again prior to the Department calling its first witness. (R. p. 317, Tr. 32:7-15; R. p. 787, Tr. 502:2-9.) The Department consistently argued that despite Appellant's attempts to eliminate this issue in determining the placement of the baseline, all of the statutory language should be considered including whether the shoreline was unlikely to return to its former position as well as the other statutory factors (including inlet stability and inlet migration). (R. p. 318, Tr. 33:8-34:25; R. pp. 793-795, Tr. 508: 9-510:5.) The Department also

pointed out that Appellant's argument that the baseline was improperly placed because of the long-term accretion rate really went to the issue of whether the shoreline will return to its former position. (R. p. 319, Tr. 34:17-25; R. p. 794, Tr. 509:8-11.)

At the hearing of this case, ample evidence was presented to support the ALC's finding that the shoreline was unlikely to return to its former position. Ms. Boynton testified that the Department looked at factors including inlet stability, inlet migration, inlet relocation and historical shorelines to assess whether the shoreline was unlikely to return to its former position. (R. pp. 883-885, Tr. 598:5-600:11.) The Department also presented Exhibit 46 that was a time lapse between older historic imagery and more modern imagery that was created to "look at what was going on at Captain Sam's over time in terms of whether the shoreline would be unlikely to return... and to look at inlet stability and migration." (R. p. 887, Tr. 602:1-13.) Ms. Boynton further testified as follows:

...we have a situation where the spit that is moving. It's migrating seaward, which is why we're seeing those ocean shorelines are moving seaward because it's moving, but it's also narrowing. So it's moving and narrowing. And that's important because we're looking at the stability of the area, we're looking at the unlikely to return. And that narrowing speaks to both of those things.  
(R. p. 901, Tr. 616:4-13.)

Both the Department and the Appellant presented oceanside and riverside change rates which also showed that the Spit's neck was narrowing and moving seaward that directly related to the determination of whether the shoreline was unlikely to return to its former position. Both parties also presented evidence of the inlet breaching and to the inlet relocation projects.

Appellant argues that the ALC committed legal error in considering historical data from the last 250 years and not confining its review to the past 40 years when looking at whether the shoreline was unlikely to return to its former position. (Appellant's Brief at 29.) Appellant argues because there was a forty-year retreat policy in place that the statute's plain meaning limits the

evaluation of whether the shoreline was unlikely to return to its former position to a forty-year period. However, the statute only expressly provides for a forty-year review when determining the most landward point of erosion. There is no such restriction in the language of section 48-39-280(A)(2) when determining whether the shoreline is unlikely to return to its former position. Appellant's own expert Mr. Hodge testified about the historical photographs and charts going back to 1696. He also testified about how the Spit "truncated" or breached in the neck area in 1822, 1922 and in approximately 1948. (R. p. 490, Tr. 205:1-17.)

Further, the statute provides that the Department "must consider historical inlet migration, inlet stability, channel and ebb tidal delta changes, the effects of sediment bypassing on shorelines adjacent to the inlets, and the effects of nearby beach restoration projects on inlet sediment budgets. S.C Code Ann. §48-39-280(A)(2). If the evaluation of these factors were limited to a forty-year period, little to no meaningful information would be gained related to these coastal processes. The ALC's consideration of historical shoreline information also is consistent with the agency's application of this statutory language which should be given deference "unless it is 'arbitrary, capricious, or manifestly contrary to the statute.'" *Kiawah Development Partners*, 411 S.C. at 34-35, 766 S.E.2d at 718 (quoting *Chevron*, 467 U.S. at 844 (1984)).

The ALC's conclusion that the shoreline is unlikely to return to its former position is based on substantial evidence presented by both parties and consistent with section 48-39-280(A)(2) relating to the "the overall decrease in the dune field at the neck; the Spit's vulnerability to a breach at the neck; the migration and movement of the Spit; and the fact that there is no certainty that inlet relocation projects will continue into the future." (R. p. 53, Order at 9.) Moreover, the ALC's consideration of whether the shoreline was unlikely to return to its former position was not ultimately determinative. This is because the ALC found that in the facts of this case it was

appropriate to use the vegetation line as a proxy whether or not the shoreline was likely to return to its former position. (R. pp. 71 & 86, Order at 27 & 42.).

**D. The ALC applied the language of S.C. Code Ann. § 48-39-280(A)(2) and Regulation 30-21(H)(2) to determine the location of the baseline.**

In Unstabilized Inlet Erosion Zones, the baseline is to be determined as “*the most landward point of erosion*” at any time during the past forty years, unless the best available scientific and historical data of the inlet and adjacent beaches indicate that the shoreline is unlikely to return to its former position.” S.C. Code Ann. §48-39-280(A)(2)(emphasis add). Regulation 30-21(H)(2) provides the following additional directive: “in Unstabilized Inlet Erosion Zones the baseline is simply the *most landward position of the shoreline* in the most recent 40 years. This is determined by the Coastal Council staff using representative aerial photography.” S.C. Code Ann. Regs. 30-21(H)(2) (emphasis added).

**1. The ALC’s application of Regulation 30-21(H)(2) in circumstances where the shoreline is unlikely to return to its former position is supported by the regulation’s plain meaning.**

The ALC, finding that the shoreline was “unlikely to return to its former position,” held that “Section 48-39-280 does not set forth a test to establish the baseline in an unstabilized inlet erosion zone when the shoreline is unlikely to return to its former position. . . . Regulation 30-21(H)(2) does, however set forth such a test.” (R. p. 79, Order at 35.) The ALC found that Regulation 30-21(H)(2) expressly mandates the Department to locate the baseline using the most landward position of the shoreline in the past forty years using representative aerial photography. (R. p. 79, Order at 35.) Appellant claims that because the legislature did not specify in the statute where the baseline should be set if the shoreline is unlikely to return to its former position, that “[c]onsequently, the ALC was left to improvise a standard” and that the ALC “strayed into the legislative.” (Appellant’s Brief at 30.) The Supreme Court has provided:

While the Legislature may not delegate its power to make laws, in enacting a law complete in itself, it may authorize an administrative agency or board "to fill up the details" by prescribing rules and regulations for the complete operation and enforcement of the law within its expressed general purpose. *Heyward v. South Carolina Tax Comm'n*, 240 S.C. 347, 126 S.E.2d 15 (1962). An administrative regulation is valid as long as it is reasonably related to the purpose of the enabling legislation. *Hunter & Walden Co. v. South Carolina State Licensing Bd. for Contractors*, 272 S.C. 211, 251 S.E.2d 186 (1978).

*McNickel's Inc. v. S.C. Dept. of Revenue*, 331 S.C. 629, 634, 503 S.E.2d 723, 725 (1998). As the ALC found, "the Department has been given expansive authority to implement, administer and enforce the General Assembly's policy of protection of the quality of the coastal environment including beach preservation." (R. p. 80, Order at 36.) This includes powers and duties to develop and enforce regulations necessary to carry out the provisions of the Act, § 48-39-50(E)-(F), as well as "provide a regulatory system which the department shall use in providing for the orderly and beneficial use of the critical areas," S.C. Code Ann. § 48-39-80. The legislature further gave the Department a clear mandate to use best available scientific and historical data in implementing a policy of beach preservation and to establish a baseline that parallels the shoreline for each inlet erosion zone. S.C. Code Ann. § 48-39-280(A). (R. p. 50, Order at 6.) Out of this authority the Beachfront Management Plan was developed and codified in S.C. Code of Regulations 30-21. Regulation 30-21(H) was promulgated by the procedures set forth by the legislature, is reasonably related to the purpose of Act and does not conflict with the statute or add requirements but rather "fill[s] up the details" of setting of the baseline in an unstabilized inlet zone. (*Heyward*, 240 S.C. at 355, 126 S.E.2d at 19-20.) Although the Appellant asks this Court to disregard the plain meaning of Regulation 30-21(H)(2), the agency's regulation is authorized by the legislature and has the force of law. *Goodman v. Columbia*, 318 S.C. 488, 458 S.E.2d 531 (1995).

The ALC's ruling that Regulation 30-21(H)(2) is the test to be used in establishing the baseline when the shoreline is unlikely to return to its former position (R. pp. 59-60, Order at 15-

16) is also in keeping with the rules of construction set forth by the South Carolina Supreme Court. “Regulations are interpreted using the same rules of construction as statutes.” *Murphy v. S.C. Dept. of Health & Env’tl. Control*, 396 S.C. 633, 639, 723 S.E.2d 191, 195 (2012). The first step in interpreting statutes and regulations is to determine whether the language of the statute or regulation “directly speaks to the issue. If so, the court must utilize the clear meaning of the statute or regulation.” *Kiawah Dev. Partners, II*, 766 S.E.2d at 717 (citing *Brown v. S.C. Dept. of Health & Env’tl. Control*, 348 S.C. 507, 515, 560 S.E.2d 410, 414 (2002) (“Where the terms of the statute are clear, the court must apply those terms according to their literal meaning.”)) Regulation 30-21(H)(2) directly speaks to the issue of where the baseline should be set in Unstabilized Inlet Erosion Zones (“simply, the position of the most landward shoreline”), and the ALC correctly applied it.

2. **The ALC’s finding that the Regulation 30-21(H)(2) conflicts with the statute in circumstances where the shoreline is not unlikely to return to its former position does not render 30-21(H)(2) invalid in other circumstances.**

The ALC found that there was a conflict between the language of the statute and that of the regulation when the shoreline was not unlikely to return to its former position in that the statute mandated the baseline to be set at “the most landward point of erosion” and the regulation mandated the baseline to be set at “the most landward shoreline.” The ALC stated that “the most landward point of erosion is not equivalent to “the most landward position of the shoreline,” so the ALC found that Regulation 30-21(H)(2) did not apply in all instances.<sup>10</sup> (R. p. 81, Order at 37.)

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<sup>10</sup> The Department respectfully disagrees with the Court's holding that there is a conflict between the statute and the regulation in the circumstance where the shoreline is not unlikely to return to its former position. The Department has historically construed this regulation to be a natural amplification that fills in the details of how the Department is to locate a baseline on the most

The ALC's holding that Regulation 30-21(H)(2) should be applied where the shoreline is unlikely to return to its former position is consistent the plain meaning of the "savings clause" contained in Regulation 30-9(A). That regulation provides:

[i]f any provisions of the Act or of these Rules and Regulations are adjudged invalid or unconstitutional, the remainder of the Act and these Rules and Regulations **and/or the application of their provisions to other persons or circumstances shall not be affected thereby.**"

S.C. Code Ann. Regs. 30-9(A). The ALC found that there is a conflict between the statute and regulation in one circumstance (when the shoreline is not unlikely to return to its former position), but there is not a conflict in another circumstance (when the shoreline is unlikely to return to its former position) and correctly applied the regulation in that circumstance. Appellant's argument that Regulation 30-21(H)(2) is invalid in all circumstances completely ignores the plain language of the savings clause contained in Regulation 30-9(A). It is also consistent with South Carolina case law precedent that provides that a statute and regulation should be construed together, if possible, to give both effect. *Branch v. Myrtle Beach*, 340 S.C. 405, 412, 532 S.E.2d 289, 293 (2000) ("If the provisions of the two statutes can be construed so that both can stand, this Court will so construe them."). In this case, the ALC correctly construed the statute and regulation

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landward **point** of erosion using best historic and scientific evidence in the forty-year period. There are many types of shorelines including an escarpment that can indicate the most landward point of erosion. Since a "shoreline" includes an escarpment, the regulation and statute can be construed so they both can apply without conflict. The Department's position and construction of the statute and regulation is consistent with the Supreme Court's holding in *Branch v. Myrtle Beach* where the Court stated "[i]f the provisions of the two statutes can be construed so that both can stand, this Court will so construe them." *Branch v. Myrtle Beach*, 340 S.C. 405, 412, 532 S.E.2d 289, 293 (2000). Pursuant to the Supreme Court's instruction in *Branch*, the better solution is to "retain an interpretation that creates no conflict with any other statutory provisions." The Department's construction is consistent with the *Branch* opinion explaining that Regulation 30-21(H) is intended to clarify the methodology in locating the most landward point of erosion as specified in section 48-39-280(A)(2), an interpretation that would not result in any conflict between the provisions.

together.

3. **The ALC's construction of the statutory and regulatory language does not render the language meaningless.**

Appellant also incorrectly asserts that the ALC's standard renders meaningless the distinction between whether the shoreline is or is not unlikely to return to its former position. (Appellant's Br. at 31.) The analysis contained in the ALC's Order is that when the shoreline is not unlikely to return to its former position, then Section 48-39-280 directs the Department to locate the most landward point of erosion. The Department locates the most landward point of erosion by locating an escarpment line or other geomorphic expression of erosion, and if those are not present, the Department then uses the vegetation line as a proxy for the most landward point of erosion. This interpretation is supported by substantial evidence and is consistent with the testimony of both Mr. Jones (R. pp. 1043-1045, Tr. 758:16-760:2) and Ms. Boynton (R. p. 855, Tr. 570:1-13) as explained in Section A of this brief. It is also consistent with the statutory mandate to use the best scientific and historical data available within the forty-year window in implementing the policy of preservation. S.C. Code Ann. § 48-39-280. According to the ALC's assessment, since section 48-39-280 does not address what should be used to set the baseline when the shoreline is unlikely to return to its former position, Regulation 30-21(H) applies and specifies that the baseline is located at the most landward shoreline. Contrary to Appellant's argument, the distinction for the test when the shoreline is not unlikely to return and when it is unlikely to return is not meaningless. In this case, it just so happens that a vegetation line is used to place the baseline in both instances. In another location of the South Carolina coast where there would be other indications of the most landward point of erosion, the results would be different. Therefore, the Court's construction of the statutory and regulatory language does not render any of the language meaningless contrary to Appellant's contention.

**E. The Court did not commit error in holding that the Department's baseline is in the proper location and that the Appellant failed to meet its burden in showing that the baseline should be located in a more seaward position.**

**1. The ALC Order demonstrates that the Court carefully considered the evidence related to whether there was a stable line of vegetation seaward of the baseline and found the Appellant's testimony to be unconvincing.**

The record in this case supports that the ALC's findings are based on substantial, probative evidence, including testimony of the three Department witnesses. The Appellant submitted that there was a line of stable vegetation on the 1988 aerial much more seaward than the one identified by the Department. The ALC correctly found that the Appellant's "line does not represent a stable continuous line of natural vegetation but rather, one that is sparse." (R. p. 82, Order at 38.) Mr. Slagel explained that the difference between how the Department assessed vegetation and how the Appellant assessed vegetation in digitizing the lines was that "the Department digitizes the first line of stable natural vegetation, not individual plants, not a clump here and a clump there, but a line of vegetation." (R. p. 1138, Tr. 853:8-18.) This was consistent with Ms. Boynton's testimony on how the Department construes the guidance found in the Act's active beach definition on how to locate the line:

. . . it does not tell us to look for a single plant here or a single plant there. There are areas in the active beach that are not inundated on a daily basis. And so in those areas, plants may be able to sprout up temporarily because they're not being inundated twice a day by . . . So again, I refer back to the statute simply because that's providing the guidance to the Department and we're looking for that line of stable natural vegetation. It doesn't say the first clump, it doesn't say the first piece of stable natural vegetation. It tells us to look for a continuous line. And so that's what we're looking for. (R. pp. 964-965, Tr. 679:16-680:8.)

Mr. Jones also reviewed the Appellant's proposed 1988 vegetation line and the Department's 1988 vegetation line. Mr. Jones found that there was not a line of stable vegetation seaward of the Department's proposed lines and agreed that the Appellant's line was on active beach. Mr. Jones opined that Appellant's line "gives too much credit for occasional clumps or plants with expanses

of bare sand and active beach in between. So, I think their line is too far out on the beach ... And is not a line that should be used for regulatory purposes.” (R. pp. 1080-1081, Tr. 795:11-796:8.)

The Department disagreed with Mr. Hodge’s assessment that the area seaward of the Department’s vegetation line on the 1988 aerial photograph is vegetation. Mr. Slagel testified that this area is devoid of a stable line of vegetation, with only a few individual plants. (R. p. 1136-1137, Tr. 851:11-852:9; R. pp. 1308-1319, Joint Ex. 13 & 14.) As for the southwestern end of the Spit, Mr. Slagel testified and the Court agreed that “it seemed odd that there would be a right angle in this alleged vegetation line, as opposed to a more shore parallel type feature following a line of continuous stable vegetation.” (R. pp. 65-66, Order at 21-22; R. p. 1137, Tr. 852:12-20.)

In its Brief, Appellant compares the 1988 aerial and a 2020 aerial in support of its position that there is a more seaward stable line of vegetation. (Appellant’s Br. at 36.) Appellant claims that the stable emergent vegetation above the active beach appeared on the 2020 aerial as shading identical in appearance to the shading on the 1988 photograph. (Appellant’s Br. at 36.) Appellant further claims that the comparison is visual proof that the “smudged” area is vegetation. Notably, the Appellant’s figure contained in Petitioner’s Ex. 9k p. 09-0047 on the 2020 imagery is misleading. The “OCRM 2017 Proposed Line” is drawn on the 2020 image instead of the 1988 image on which it was based. Furthermore, this line digitized from the 1988 image is shown along with “MLPE” line digitized by Appellant from a 2017 post-Irma image. There are a number of other factors that render this comparison suspect and unreliable: the 1988 image is a much crisper, higher quality image than the 2020 image; the 2020 image has been zoomed in and is obviously not scaled in the same manner as the 1988 image; a color comparison cannot be done given that the 1988 orthoimage is black and white and the 2020 image is infrared which uses a different color spectrum; and the images appear that they may have been taken at different angles. Moreover, the

2020 vegetation line appears to be drawn by Appellant through the white sand and not from any line of stable vegetation as required by the statute, especially at the upper end of the photograph indicating the inaccuracy of the position of the vegetation line.

Mr. Jones also addressed Mr. Tolleson's testimony related to efforts he made to manipulate the 1988 imagery. Mr. Tolleson testified that he took this image and applied "algorithms, mathematical filters, to try to delineate and extract if there was content . . . in the vicinity seaward and landward of the 1988 OCRM veg line." (R. p. 727, Tr. 442:2-7.) Mr. Tolleson concluded that seaward of OCRM's vegetation line is vegetated. (R. p. 727, Tr. 442: 8-10.) Mr. Jones opined that he would call the "fuzzy filter" methodology, which Mr. Tolleson described, "experimental." Mr. Jones further testified that he would not rely on that assessment unless he had additional validation. (R. pp. 1075-1076, Tr. 790:13-791:19.) Mr. Tolleson's testimony is also undermined by his testimony that the 1988 aerial photograph is not suitable for positional classifications (R. pp. 721-722, Tr. 436:12-437:21) yet that is what he is relying on to say that the Department's vegetation line is incorrect. The Thomas & Hutton 1988 vegetation line digitized in nearly the same location as the Department's also supports that the Department is using a reasonable method in keeping with the scientific community standards.

The ALC found that "the [Appellant's] evidence that a stable natural line of vegetation exists seaward of the Department's reviewed 1988 vegetation line is *"unconvincing"* and that "while vegetation may exist seaward of the Department's 1988 vegetation line, [Appellant] failed to establish by a preponderance of the evidence that it is a line of stable natural vegetation." (R. p. 67, Order at 23.) The ALC's findings are based on substantial evidence and are not "clearly erroneous in view of the reliable, probative and substantial evidence on the whole record" as required by S.C. Code section 1-23-610(B). Appellant merely presents a different interpretation of

where the lines should be digitized. Even if the methodology presented had been determined to be persuasive and reliable (which it was not), the Department's method is reasonable and supported by the evidence and testimony presented at the hearing.

**2. Appellant's expert Tolleson's inaccurate testimony did not establish that the Department's digitization of the baseline from the 1988 image was wrong.**

Appellant referenced the following excerpt from Tolleson's testimony:

"Tolleson explained that heavy vegetation can certainly be detected on the 1988 photo as DHEC did by casual visual examination without technical assistance. (Tr. 437.) However, such unassisted analysis only has a certain amount of "confidence" and for that reason Mr. Tolleson investigated whether there were tools he "could leverage to mine information out of areas of interest."

(Appellant's Br. at 35.) Mr. Tolleson mischaracterizes the Department's assessment as a "casual visual assessment without technological assistance." Rather, the Department conducted a careful assessment of the vegetation shown on the 1988 orthoimage using software tools to zoom in on areas of question and using the GIS platform to juxtapose the lines to aid in their evaluation. Mr. Tolleson also testified that there was an unacceptable level of spatial precision or accuracy of the 1988 orthoimage, that the 1988 imagery only gave a "qualitative heads up," and that it was probably suitable for some feature classifications but not positional. (R. pp. 721-722, Tr. 436:12-437:21.) Tolleson further testified that the 1988 image would have been flown at 20,000 feet altitude and would produce a scale of 1 inch to 40,000 inches. (R. pp. 723-724, Tr. 438:10-439:7.) Tolleson's testimony on the amount of "confidence" related to the Department's analysis and the quality of the 1988 image was shown to be erroneous and unreliable when it was revealed through evidence presented at the hearing and during his cross that the 1988 orthoimage was a high quality orthophoto georectified to remove distortions and make it usable for mapping purposes and had a scale of 1 inch to 100 feet or 1,200 inches and not 40,000 inches. (R. pp. 906-910, Tr. 621:25-

625:12; R. p. 1616, Resp. Ex. 141; R. p. 1532, Resp. Ex. 56; R. pp. 1232-1233, Joint Ex. 7.) The Beachfront Management Plan refers to the 1988 photographs and states that the orthophoto maps rectified to a scale of 100 feet per inch are “[t]he most accurate and useful maps” for determining monument locations. It further recognized that the orthophoto maps are essential to the Council's Permitting, Planning and Enforcement divisions. S.C. Code Ann. Regs. 30-21(D)(2)(a). This information directly contradicts Mr. Tolleson’s testimony and undermines his testimony related to the accuracy and usability of the 1988 imagery.

As the Court noted in its Order and consistent with the testimony of Department’s witnesses including its expert, Mr. Jones:

[Appellant] failed to establish by a preponderance of the evidence that it [Appellant’s proposed vegetation line] is a line of stable natural vegetation. Instead, it is occasional and sparse. These sporadic clumps of vegetation should not be utilized for regulatory purposes in establishing a baseline.

(R. p. 67, Order at 23.) The ALC carefully assessed the evidence related to the location of the first line of stable vegetation on the 1988 orthoimage and determined that the Department’s location was the correct one. Although Appellant presented a more seaward location, the ALC is not compelled to accept an expert’s testimony but may give it the weight and credibility that the court determines it deserves. *Florence Cnty. Dept. of Social Servs. v. Ward*, 310 S.C. 69, 425 S.E.2d 61 (Ct. App. 1992). The trier of fact may accept one expert’s testimony over that of another. *S.C. Cable Television Ass’n v. S. Bell Tel. & Tel. Co.*, 308 S. C. 216, 417 S.E.2d 586 (1992). Furthermore, The Administrative Procedure Act specifically provides that “[t]he agency's experience, technical competence and specialized knowledge may be utilized in the evaluation of evidence” pursuant to S.C. Code Ann. § 1-23-330 and S.C. Code Ann. § 44-1-60(F)(2).

**3. In holding that the Department’s baseline was correctly located, the ALC carefully considered the Department’s corroborating evidence.**

The Department's comprehensive and substantial evidence corroborated that the baseline had been properly located which included (1) the Department's beach dune profile data that showed the Department's 1988 vegetation line was in approximately the same position as a seaward dune feature; (2) the evidence of the 1988 vegetation line digitized by another engineering firm in substantially the same location; (3) information related to storms and erosional events; (4) 1982 aerial photography which demonstrated an escarpment shoreline in the same vicinity as the 1988 vegetation line; and (5) Mr. Slagel's testimony and evidence showing tire tracks on active beach which was above the Appellant's alleged vegetation line. Notably, Appellant failed to address much of the Department's substantial corroborating evidence in its Brief, including the Department's beach dune profile data, erosional events prior to the 2015 and 2017 storms and the digitization of the vegetation line by another engineering firm in substantially the same location as the Department's line. As the ALC found, "[t]he Department's evidence was both comprehensive and persuasive and the correct placement of the line was alternatively verified by the Department." (R. p. 64, Order at 20.)

**4. The testimony concerning the 1982 escarpment line and the tire tracks landward of Appellant's post-Irma line was not speculative and Appellant failed to preserve these objections for appellate review.**

Mr. Slagel's testimony related to the 1982 aerial photograph that showed an escarpment line in substantially the same location as the 1988 aerial photograph is not speculative but based on his experience and expertise. Testimony is speculative where a witness has no experience, training, or knowledge related to the area of his testimony. *See e.g., Hutson v. S.C. State Ports Authority*, 399 S.C. 381, 389, 732 S.E.2d 500, 504 (2012) (claimant's testimony about potential future earnings in operating a restaurant was speculative because he was a crane operator with no experience in the restaurant industry). Appellant ignores that Mr. Slagel's assessment of the aeri-

is based on his extensive experience in coastal management including both his years of site visits to observe actual conditions and his review and identification of coastal features from aerial photography as the ALC recognized in its Final Order. Mr. Slagel, when asked if he had any experience related to imagery interpretation, testified that he reviews aerial imagery every day of his job; that he is “constantly looking at aerial photography, both modern aerial photography and satellite imagery, as well as historical aerial photos, to make determinations about how our coastline has changed over time, and the evaluation of different permit requests...” (R. pp. 1109-1110, Tr. 824:22-825:9.) This background is that contemplated by S.C. Code Annotated section 1-23-330(4) which expressly provides that the “agency’s experience, technical competence and specialized knowledge may be utilized in the evaluation of the evidence” in a contested case before the ALC.

Additionally, all three of the Department’s witnesses testified that it is possible to identify an escarpment from an aerial photograph including the Department’s expert, Mr. Jones. (R. pp. 896-898, Tr. 611:14-613:4; R. p. 1044, Tr. 759:6-11; R. pp. 1149-1150, Tr. 864:4-865:7.) As the ALC pointed out, while Appellant challenged Mr. Slagel’s “naked eye” analysis, Tolleson testified earlier, “the human eye is very, very good.” As the ALC further noted there was no testimony that Mr. Tolleson was accustomed to discerning coastal features such as escarpments. (R. p. 63, Order at 19.) Mr. Tolleson’s testimony that it is impossible to detect an escarpment with the naked eye and that “vertical resolution on an image like this is actually absent” is also undermined as he did not have the correct information about the imagery source, scale, and data attributes of the 1982 photograph and the resolution was much better than what he believed it to be.<sup>11</sup> (R. p. 63, Order at

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<sup>11</sup> Mr. Tolleson testified that this image was flown at 20,000 feet when it was flown at a substantially lower height of 6,004 feet. (R. pp. 1189-1190, Tr. 904:20-905:11.) Mr. Tolleson also

19; R. pp. 1186-1190, Tr. 901:11-905:24.) Furthermore, the Department did not conduct a “naked eye” analysis but used advanced, sophisticated software tools to examine the image including magnification and overlaying it with aerial imagery and other data sets. While Appellant claims that Tolleson’s methodologies are superior to visually locating an escarpment on the 1982 photograph, Mr. Tolleson presented no evidence of any analysis he did to attempt to discern the escarpment or the vegetation on the 1982 aerial.

Appellant also attempts to discredit the 1982 evidence of an escarpment in substantially the same location as the vegetation line on the 1988 orthoimage by claiming that the Department must prove when the escarpment was made. To add such a requirement would eliminate the Department’s ability to conduct a meaningful review of the best scientific and historical data in determining the most landward point of erosion or shoreline in the past forty years.

Appellant also claims that the “the ALC’s recitation that there were tire tracks in the shaded area in the 1988 aerial that disproved that this area was vegetation was also based on improper, speculative testimony of Slagel.” (Appellant’s Br. at 40.) The Appellant, however, cites to only a very small part of Mr. Slagel’s testimony which was not even the evidence cited to by the ALC in its Order. (R. p. 66, Order at 22.) Mr. Slagel described the tire tracks and noted that they were landward of the Appellant’s line and were in the dark wet sand of the active beach and not the vegetated sand dunes. Mr. Slagel explained that it is not feasible to drive trucks, ATVs through the dune system without severely damaging the surrounding vegetation which you would be able to see on the aerials. (R. pp. 1496-1500, Resp. Ex. 17; R. pp. 1138-1139, Tr. 853:18-854:23.) Mr.

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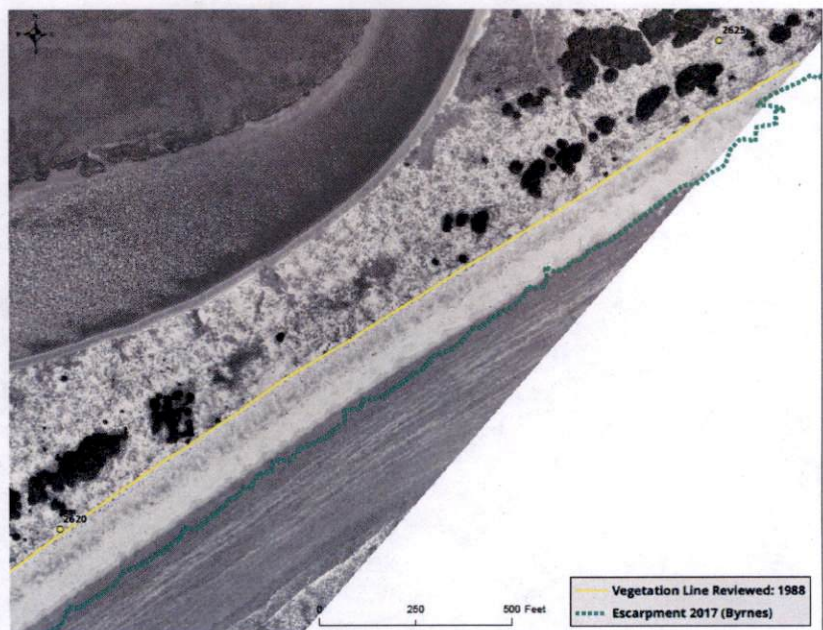
misidentified this imagery as a National Aerial Photography Program (NAPP) aerial, but in fact, it was a higher resolution image taken by the National Park Service and was hosted by the United States Geological Survey (USGS). (R. pp. 1186-1187, Tr. 901:11-902:19; R. p. 1190, Tr. 905:17-24; R. p. 887, Tr. 602:18-24.)

Slagel supported his testimony by showing the ALC other images of tire tracks on the active beach and not in the sand dunes at the Spit that were very similar in appearance to the 1988 aerial tire tracks. (R. pp. 1498-1500, Resp. Ex. 17, pp. 3-5; R. pp. 1140-1142, Tr. 855:3-857:25; R. pp. 1381-1390, Pet. Ex. 22; R. pp. 1160-1161, Tr. 875:13-876:18.) Mr. Slagel's testimony identifying the tire tracks on active beach well landward of Appellant's alleged vegetation line was not speculative but based on his extensive experience in coastal management and in using aerial photographs almost every day as a beachfront permitting manager.

Neither the Appellant's objection related to the testimony of the escarpment line on the 1982 aerial photograph, nor the objection related to the testimony of the tire tracks was properly preserved for appeal. Appellant failed to make a contemporaneous objection or motion to strike this testimony that was necessary to preserve this issue for appeal. *Parr v. Gaines*, 309 S.C. 477, 481, 424 S.E.2d 515, 518 (Ct. App. 1992) (objections to the admission of evidence must be made at the time the evidence is presented at trial to preserve the error for an appeal).

**F. Appellant's 2017 post-Irma survey is only a single piece of data in the forty-year window and as the ALC found is not the most landward point of erosion or shoreline in the past forty years.**

The Department presented evidence at the hearing that demonstrated the Appellant's 2017 post-Irma survey could not possibly be the most landward point of erosion in the past forty years. As the ALC found "[w]hen the



Department plotted the location of [Appellant’s] 2017 post-Irma line on the 1988 orthoimagery, [Appellant’s] line appeared below the high-tide mark and in the water, which is below (seaward of) the active beach.” (R. p. 74, Order at 30; R. pp. 1605-1610, Resp. Ex. 139.) Mr. Jones using the 1988 aerial photograph with the post-Irma line explained that it was obvious that there was more landward erosion in the forty-year window. He testified “it is physically impossible for a most landward point of erosion to be on the active beach.” (R. pp. 1083-1084, Tr. 798:9-799:5.) Mr. Hodge corroborated Mr. Jones’ testimony by testifying that the most landward point of erosion is landward of the active beach. (R. p. 637, Tr.352:12-21.) The most landward point of erosion within the entire forty-year window using the best available scientific and historical data is the Department’s digitized 1988 vegetation line, shown as a yellow line in the Department’s Exhibit 139. Appellant’s 2017 post-Irma line, shown as a dashed green line on Respondent’s Exhibit 139 is clearly not the most landward point of erosion when reviewing the entire forty-year window because that location was seaward of the active beach in 1988.

In evaluating the most landward point of erosion within the last forty years, the Department used several years of aerial photography to evaluate where to set the baseline. Respondent’s

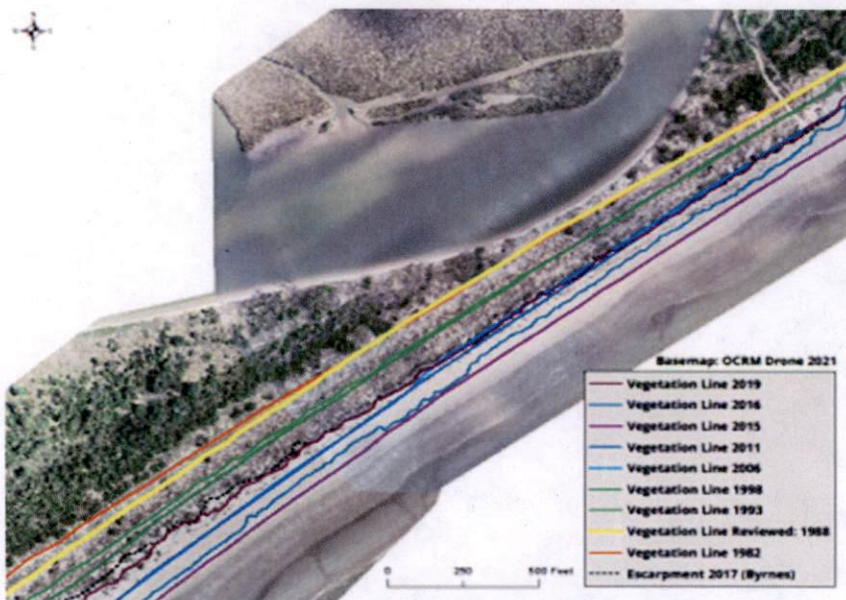


Exhibit 18, page 3 shows the digitization of nine vegetation lines and the Appellant’s post Irma line labeled “Escarpment 2017 (Byrnes)” shown as a black dotted line. Four of the lines including the 1982, 1988,

1993 and 1998 lines were landward of the Appellant's escarpment line. What the Department determined, and the ALC found, is that there were several more landward points of erosion and shorelines than the Appellant's proposed post-Irma line. Appellant would have this Court disregard this evidence in favor of considering only the post-Irma line collected by their experts. Appellant argues Mr. Hodge's "line, plotted with coordinates, was the only beach-long escarpment created during the last 40 years that was validly identified and accurately located." (Appellant's Br. at 42.) As the ALC found, "to require the geomorphic expression of erosion as [Appellant] suggests would in effect eliminate the forty-year look-back period mandated by the legislature." (R. p. 73, Order at 29.) Mr. Hodge admitted that the only post-storm GPS survey that he reviewed was the 2017 post-Irma survey that he and Mr. Byrnes collected. (R. p. 1216, Tr. 931:18-24.) Notably, the Appellant did not present any other scientific and/or historical data or other evidence prior to Hurricane Matthew in 2016. Furthermore, although Mr. Hodge conceded that there were erosional events prior to these storms, Appellant did not present any evidence to explain why these erosional events should not be considered. Since the Department cannot go back in time to survey the dunes and look for geomorphic expressions of erosion like Mr. Hodge did after Irma, the Department properly used the aerial photographs in its inventory.

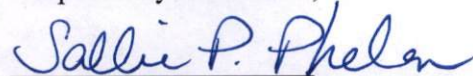
The General Assembly mandated that the Department use the best available scientific and historical data in setting the baseline in an Unstabilized Inlet Erosion Zone using representative aerial photography. Part of that mandate is to evaluate the most landward point of erosion in the past forty years. S.C. Code Ann. § 48-39-280. The Department's methodology is based on scientific input, has been used in all the past line reviews, is reasonable and necessary in examining much of the forty-year window, uses a proxy that is accepted by the scientific community and is consistent with section 48-39-280(A)(2)'s mandate to use the best scientific and historical data

available. The construction given to a statute by those charged with the duty of exercising it is always entitled to the most respectful consideration and ought not to be overruled without cogent reasons.'" *Kiawah Dev. Partners*, 411 S.C. at 33, 766 S.E.2d at 718 (quoting *U.S. v. Moore*, 95 U.S. 760, 763 (1877)). The rationale for the rule is that "[t]he officers concerned are usually able men, and masters of the subject. Not unfrequently they are the draftsmen of the laws they are . . . called upon to interpret.'" *Id.* (quoting *Moore*, 95 U.S. at 763). An agency's interpretation should be given deference unless it is "arbitrary, capricious, or manifestly contrary to the statute." *Id.* (quoting *Chevron*, 467 U.S. at 844). Upon reviewing the entire record on appeal, sufficient evidence was presented for a reasonable mind to determine that the Department properly determined the 1988 vegetation line as reviewed and revised on remand, to be the most landward point of erosion and the most landward shoreline in the past forty years. The Appellant has not shown errors of law or other grounds to support its request to reverse the ALC's decision and therefore, the ALC's decision should be affirmed.

### CONCLUSION

For the reasons stated herein as well as those set forth in Respondent's Return to Petitioner's Motion for Reconsideration, the Respondent respectfully requests that the Court affirm the judgment of the ALC.

Respectfully Submitted,



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May 24, 2023  
Charleston, South Carolina

THE STATE OF SOUTH CAROLINA  
In the Court of Appeals

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SC Court of Appeals

APPEAL FROM THE ADMINISTRATIVE LAW COURT

The Honorable Shirley G. Robinson, Administrative Law Judge

Appellate Case No.: 2022-001179

KDP II, LLC .....Appellant,

vs.

South Carolina Department of Health and Environmental Control.....Respondent.

CERTIFICATE OF COUNSEL

The undersigned certifies that the Final Brief of the Respondent complies with Rule 211(b), SCACR.

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May 24, 2023

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