

RECEIVED

NOV 28 2016

SC Court of Appeals

STATE OF SOUTH CAROLINA
IN THE COURT OF APPEALS

APPEAL FROM THE ADMINISTRATIVE LAW COURT

Ralph King Anderson, III, Administrative Law Judge

Appellate Case No. 2016-001758

South Carolina Coastal Conservation League
and South Carolina Wildlife Federation Appellants,

vs.

South Carolina Department of Health and Environmental Control
and Horry County Public Works Respondents.

INITIAL BRIEF OF APPELLANTS

Amy E. Armstrong
Amelia A. Thompson
Jessie A. White
SOUTH CAROLINA ENVIRONMENTAL LAW
PROJECT

Mailing address: Post Office Box 1380
Pawleys Island, SC 29585

Office address: 430 Highmarket Street
Georgetown, SC 29440

Telephone (843) 527-0078

FAX (843) 527-0540

Attorneys for the Appellants

Georgetown, South Carolina

November 23, 2016

TABLE OF CONTENTS

TABLE OF CASES, STATUTES AND OTHER AUTHORITIES	<u>iv</u>
STATEMENT OF THE ISSUES ON APPEAL	<u>vi</u>
I. STATEMENT OF THE CASE	<u>7</u>
II. STATEMENT OF FACTS	<u>7</u>
Lewis Ocean Bay Heritage Preserve	<u>7</u>
History of the Preserve Property	<u>7</u>
Resources in Lewis Ocean Bay	<u>5</u>
Black Bears	<u>6</u>
Carolina Bays, Other Wetlands and Plants	<u>10</u>
The International Drive Road Project	<u>11</u>
Historical Background	<u>11</u>
The DHEC Authorizations at Issue	<u>19</u>
Current Condition of International Drive	<u>20</u>
III. STANDARD OF REVIEW	<u>21</u>
IV. ARGUMENT	<u>22</u>
Neither DHEC nor the ALC Adequately Considered the Impacts of the Proposed	
Project on Wildlife or Water Quality	<u>22</u>
Replacing Pristine or Near Pristine Wetlands with Pavement and Culverts	
does not Improve Water Quality	<u>23</u>
Lewis Ocean Bay Heritage Preserve Property is Protected Because of its	
Unique Status, which was not Adequately Considered	<u>24</u>
Geographic Area of Particular Concern	<u>24</u>
Special or Unique Habitat	<u>27</u>
The Water Quality and Wildlife Impacts of the Proposed Construction Warrant	
Denial of DHEC's Certifications	<u>29</u>
Direct Impacts	<u>30</u>
Wetlands & Water Quality	<u>30</u>
LOBHP	<u>33</u>
Habitat Fragmentation	<u>35</u>
Impacts to the Black Bear	<u>39</u>
Indirect & Cumulative Impacts	<u>44</u>
There are Feasible Alternatives to the Proposed Construction which Also Warrant	
Denial of DHEC's Certifications	<u>49</u>
DHEC and the ALC Allowed the Applicant to Promote its Preferred	
Alternative Without Giving Serious Consideration to Other	

	Alternatives	<u>50</u>
	There are Feasible Alternatives to the Proposed Project that Reduce Impacts to Water Quality	<u>53</u>
	There are Feasible Alternatives that Would Minimize and Mitigate Adverse Impacts to Habitat and Wildlife	<u>56</u>
V.	CONCLUSION	<u>60</u>

TABLE OF CASES, STATUTES AND OTHER AUTHORITIES

CASES

S.C. Code Ann. § 51-17-40	<u>4</u>
S.C. Code Ann. § 51-17-80	<u>8</u>
South Carolina Heritage Trust Act, S.C. Code Ann. § 51-17-10, et seq.	<u>7, 20</u>

STATUTES

S.C. Code Ann. § 51-17-40	<u>4</u>
S.C. Code Ann. § 51-17-80	<u>8</u>
South Carolina Heritage Trust Act, S.C. Code Ann. § 51-17-10, et seq.	<u>7, 20</u>

REGULATIONS

CMP III-14	<u>33, 34, 42-45, 56</u>
CMP III-14.I.(8)	<u>29, 42, 49</u>
CMP III-22	<u>49, 50</u>
CMP III-4	<u>44</u>
CMP III-51	<u>30, 43, 44</u>
CMP III-73	<u>50</u>
CMP IV.A	<u>29</u>
CMP IV-2	<u>24, 25</u>
CMP IV-4	<u>33, 42</u>
CMP IV-5	<u>26, 33, 43</u>

CMP Section IV. A.	<u>24</u>
CMP v(8)	<u>49</u>
CMP VII.A.1.c	<u>29</u>
S.C. Reg. 61-101 F.5(d)	<u>28, 29</u>
S.C. Reg. 61-101.F.3.c	<u>23</u>
S.C. Reg. 61-101.F.5	<u>29, 30, 50, 53, 59, 60</u>
S.C. Reg. 61-101F.3.	<u>44, 50</u>
S.C. Reg. 61-101F.5.(c)	<u>42</u>
S.C. Regs. 61-101	<u>29</u>
South Carolina Coastal Management Program	<u>29</u>

STATEMENT OF THE ISSUES ON APPEAL

- I. Neither DHEC nor the ALC Adequately Considered the Impacts of the Proposed Project on Wildlife or Water Quality
- II. The Water Quality and Wildlife Impacts of the Proposed Construction Warrant Denial of DHEC's Certifications
- III. There are Feasible Alternatives to the Proposed Construction which Also Warrant Denial of DHEC's Certifications

I. STATEMENT OF THE CASE

This case arises in connection with a 401 water quality certification and coastal zone consistency certification issued by the South Carolina Department of Health and Environmental Control (“DHEC” or “Department”) to Horry County Public Works (“Horry County”) authorizing the paving and widening of a 5.6-mile portion of an existing unimproved dirt road known as International Drive and impacting 24.17 acres of wetlands in and adjacent to the Lewis Ocean Bay Heritage Preserve. On July 10, 2015, the South Carolina Coastal Conservation League and South Carolina Wildlife Federation (collectively “Appellants”), filed a request for final review of the certifications before the DHEC Board, which was declined. On August 28, 2015, the Appellants filed a request for contested case hearing in the South Carolina Administrative Law Court (“ALC”).

This case was heard before the ALC on February 16-18 & 22, 2016 and March 15, 2016. The Final Order and Decision was issued on July 7, 2016, affirming the project certifications. Appellants filed a motion for reconsideration, asking the ALC to rule on certain legal arguments raised during the case but not addressed in the Final Order and Decision. In response, the ALC issued a Reconsideration Order on July 26, 2016, addressing those arguments and again affirming the project certifications. Appellants filed their Notice of Appeal of those two orders on August 23, 2016, in this Court.

II. STATEMENT OF FACTS

A. Lewis Ocean Bay Heritage Preserve

1. History of the Preserve Property

The South Carolina Heritage Trust Act, S.C. Code Ann. § 51-17-10, et seq. authorizes the South Carolina Department of Natural Resources (“DNR”) to acquire properties with significant

resource value and to hold them in trust for the citizens of the state. The Heritage Trust Act defines the primary objective of all Heritage Preserves as being “to protect the natural or cultural characteristics of [the] area or feature” for which the property was dedicated. S.C. Code Ann. § 51-17-80. In other words, these Heritage Preserves are managed for the environmental and cultural attributes that warranted inclusion into the Heritage Trust Program. (Tr. Day 3, p. 44). The Heritage Trust Act requires that Heritage Preserves be managed to provide the maximum public usage which is compatible and consistent with the character of the area.” S.C. Code Ann. § 51-17-40. In order to execute this purpose, DNR is required to develop Management Plans for all Heritage Trust Properties.

Lewis Ocean Bay came into the Heritage Trust Program as the result of research initiated by one of DNR’s zoologists, Steve Bennett. As part of this research, Bennett and colleague John Nelson undertook an assessment of Carolina bays to determine the status and abundance of such formations in the state. (Tr. Day 5, pp. 19, 32). The Carolina bays project began in 1983 and lasted until 1991, the year that the study, entitled “Distribution and Status of Carolina Bays in South Carolina,” was published. (Tr. Day 5, pp. 29, 34). Carolina bays are a subset of freshwater wetlands that are identified by their distinctive elliptical or oval geomorphology. (Tr. Day 5, p. 30). Bennett and Nelson identified over 2,500 Carolina bays that were two (2) acres and larger in this state. (Tr. Day 5, pp. 31-32). Of those, they mapped approximately 600 bays that appeared to be in the best condition based on aerial photography. (Id.)

Then Bennett and Nelson began visiting the 600 Carolina bays and discovered that close to half of the bays were compromised and not functional. (Tr. Day 5, p. 33). They estimated that there were only approximately 200 Carolina bays that were relatively functional, and from that they

identified 36 potential protection projects for the Heritage Trust Program. (Tr. Day 5, p. 34). The projects were then ranked based on the size, integrity, presence of rare plants and animals and associated elements of concern. (Tr. Day 5, p. 34). Based on the results of this comprehensive study of Carolina bays, Bennett and Nelson ranked Lewis Ocean Bay the number one priority and drafted the documentation for it to be dedicated into the Heritage Trust Program. (Tr. Day 5, p. 39-40). This biological documentation became part of the “dedication agreement” which dedicates that preserve into the corpus of the trust. (Tr. Day 5, p. 38-39).

2. Resources in Lewis Ocean Bay

Lewis Ocean Bay was ranked as the number one priority by DNR because it contains the world’s largest complex of Carolina bays; because of its size and ecological integrity; and because of its abundance of rare plants and animals, with associated elements of concern. (Tr. Day 5, pp. 34 & 39-40; Day 1, p. 102). According to DNR, Lewis Ocean Bay Heritage Preserve (“LOBHP”)¹ was dedicated as a Heritage Trust property in order to protect a Carolina bay/longleaf pine ecosystem complex that contains South Carolina’s “best assemblage of Carolina bays, and to protect several rare species, including Venus’ fly trap, Savannah milkweed, black bear, and the federally endangered Red-cockaded woodpecker.” (Pet. Ex. 18, LOBHP Management Plan; Day 3, pp. 44-45; Day 5 p. 73).

Bennett described LOBHP as a “gem” because there is “no other place quite like it in South Carolina . . . it is definitely a part of our vanishing natural heritage.” (Tr. Day 5, p. 108, lines 17-21). LOBHP is undisturbed and has a very high ecological integrity and quality. (Tr. Day 5, pp. 69-71,

¹ The SC Coastal Management Program recognizes the significance of Heritage Trust properties, identifying them as Geographic Areas of Particular Concern (“GAPC”), and requiring consistency with the Management Plans.

74). Most of the area around LOBHP consists of undeveloped property that is substantially similar in character. (Tr. Day 5, p. 72; Day 1, pp. 126-127; Day 3, pp. 46-47). LOBHP was placed into the state's Heritage Trust Program in order to give the state's highest protection to those resources. (Tr. Day 1, p. 117; Day 5, pp. 39-43).

a. Black Bears

DNR prepares State Wildlife Action Plans ("SWAP") for various species to guide management decisions, and has prepared one for the black bear. (Tr. Day 2, p. 172-173, Exhibit 24). DNR has consistently identified the black bear as a rare and vulnerable species up through its most recent 2015 State Wildlife Action Plan. (Pet. Ex. 18; 19; 24). Indeed, black bears were one of the species for which Lewis Ocean Bay was designated as a heritage preserve. (Pet. Ex. 18). LOBHP consists of 10,400 acres and forms a large portion of the black bears' home range. (Tr. Day 1, p. 123). However, black bears typically require between 10,000 to 30,000 acres and move around a significant amount depending on food availability and other factors like season. (Tr. Day 1, 123).

Lewis Ocean Bay's 23 Carolina bays provide very good feeding and denning (dormant stage) habitat for the black bears.² (Tr. Day 3, pp. 17-19, 68). Black bears eat plants (huckleberry, blueberry, gallberry and winterberry) that are very habitat-specific, with much of that vegetation located on the rims around Carolina bays. (Tr. Day 3, p. 13). This valuable habitat continues on the opposite (west) side of International Drive from LOBHP, which also contains a number of Carolina bays. (Tr. Day 3, pp. 46-47). Black bears spend approximately two months denning, nearly all of which occurs within Carolina bays. (Tr. Day 3, pp. 17-19). Appellants' witness Joe Hamilton

²On his site visit in January of 2016, Mr. Gilbert saw bear tracks and bear "scat," indicating that the bears are currently crossing the dirt road that is proposed for expansion. (Tr. Day 1, pp. 178-79).

explained that “there’s a continuum of that habitat type through that whole neighborhood,” as there are Carolina bays outside of LOBHP that provide important habitat for bears. (Tr. Day 3, p. 47, lines 6-7). DNR’s experts, Van Manen and Drewry, agreed that the habitat to the West of the road is “high-quality, undeveloped habitat.” (Pet. Ex. 15). Because the habitat adjacent to International Drive is high quality, greater bear activity in the area of International Drive compared to the location of the other three roads surrounding LOBHP is expected. (Tr. Day 3, p. 69).

It is difficult to determine the precise number of black bears utilizing LOBHP at any given time because the situation is very dynamic and dependent upon habitat conditions. (Tr. Day 3, p. 48). Black bears have very large home ranges of 10,000 – 30,000 acres and travel back and forth along the Waccamaw River and Pee Dee River drainages between South Carolina and North Carolina starting at Green Swamp in North Carolina and traveling down to the Francis Marion National Forest in Charleston County. (Tr. Day 3, pp. 40-42; Tr. Day 1, p. 163; Pet. Ex. 16).

The habitat quality changes from year to year, which causes the bears to move up and down the coast, going both North and South. (Tr. Day 3, p. 51-52). For example, in drought conditions bears move because their food source disappears. (Tr. Day 3, p. 49). Because of this dependency on good habitat, there is no static black bear population at LOBHP, and the numbers of bears on a given area at any given time is very dynamic. (Tr. Day 3, pp. 51 & 83).

Horry County retained Walter McCown to conduct a study and prepare a report entitled “A Review of Plans to Pave International Drive in Horry County, South Carolina and Potential Mitigation for Impacts to Black Bears.” (Pet. Ex. 13, hereinafter “McCown Report”).³ The McCown

³ This report was admitted as an opposing party admission, yet the ALC fails to give it any weight, consideration or discussion in its orders on appeal. (Final Order, *passim*). Instead of relying upon either the Appellants’ experts or Horry County’s own hired bear expert’s report, the

Report explains that “bears are wide-ranging in their efforts to acquire enough nutrition to sustain them. Large home ranges and extensive travel increases risks to bears primarily from collisions with vehicles. . . . the bear deaths in 2007 were likely caused by the increased travel of bears in response to extreme climate conditions.” (Pet. Ex. 13, p. 6). Appellants’ witness Steve Gilbert explained that

Black bears will move when there's not enough food and so the large numbers of bears that were killed in 2007 and in fact high numbers in subsequent years, in my opinion, were as a result of the bear -- of an extreme drought where the berries that they ate were not being produced and they were leaving Lewis Ocean Bay searching for food and that's why there was such a high road kill. I -- I don't think those numbers to relate to -- relate so much as to changes in population at Lewis Ocean Bay, but relate potentially to movement during adverse environmental conditions.

(Tr. Day 1, 152:1 to 152:14).

DNR recognized the dynamic nature of the black bear population in its 2015 State Wildlife Action Plan: “Estimating the size of wildlife populations is among the most challenging tasks that wildlife biologists undertake. Populations of animals with large home ranges, like bears, are extremely difficult to estimate . . .” (Pet. Ex. 24, p. 2). Hamilton explained that when you “have really good conditions [sic] the bears wouldn’t move much, and you would expect the highway kill to be lower. But the converse of that is true as well: If the habitat conditions are poor, they have to move a lot,” resulting in higher road kill. (Tr. Day 3, p. 52, line 24 – p. 53, line 3). DNR’s data on bear kills substantiates all witnesses’ testimony and evidence that the number of bears can vary significantly and that poor habitat conditions can cause the bears to move more. (Pet. Exs. 17 & 22; Tr. Day 3, p. 49). The DNR data for bear roadkills on the three highways surrounding LOBHP (90,

ALC relies upon the testimony of Bart Baca, who has never conducted any scientific bear study and admitted to personal bias in the outcome of the case because his family lives near the proposed road and he plans to use it if it is constructed. (Tr. Day 3 p. 282-4).

31 and 22) is as follows⁴:

2004	2005	2006	2007	2008	2009	2012	2014	2015
8	8	1	31	14	8	2	3	6

Despite the difficulty in pinpointing the exact number of bears in LOBHP at any given time, Hamilton called LOBHP the “restaurant for black bears,” because of its large concentration of Carolina bays which are managed for bear habitat, as well as for other plants and animals. (Tr. Day 3, p. 51). Occurrences like fires and hurricanes can affect bear habitat, and thereby the number of bears utilizing that habitat. (Pet. Ex. 18). One such conflagration tore through LOBHP and the surrounding area in 2009. Bear habitat was burned and destroyed during this fire; however, habitat rebounds from a fire in 5-7 years and by 10 years it would look as it did prior to the fire. (Tr. Day 3, p. 56). It has been 7 years since the 2009 fire, which indicates that the habitat has rebounded.

DNR recently listed the black bear as a game species, and allowed extremely limited hunting of the bears. To date, no black bears have been hunted and killed (“bagged”) in LOBHP. (Tr. Day 2, p. 144). Hamilton explained that giving black bears game status is a management tool and prevents the animals from being relegated to treatment as vermin, where they are poisoned, poached, trapped and shot. (Tr. Day 3, p. 23). Game animal status allows DNR to manage the population, collecting information on mortality rates. (Tr. Day 3, p. 23). Conservation means wise use of a species and, in this case, that includes managing black bears as a game species. (Tr. Day 3, p. 25).

DNR’s 2015 SWAP for the black bear concludes that the “Coastal bear population is

⁴There were no roadkills in 2013 and no documented data for 2010 or 2011. LOBHP is currently surrounded on three sides by roads (Highway 31, Route 90 and Highway 22). (Tr. Day 1, 117; Pet. Ex. 1). DNR tracks and maintains data relative to bear kills on the three roads surrounding LOB. (Tr. Day 2, p. 171-172). DNR staff used that data to create a map depicting the locations of bear strikes on these three roads. (Tr. Day 2, p. 170; Exhibit 22).

becoming more fragmented due to highway construction, urbanization and general development.” (Exhibit 24, p. 3). Hamilton agrees that black bears are vulnerable because of habitation fragmentation by highway construction. (Tr. Day 3, p. 70). DNR concluded that the appropriate strategy to mitigate this fragmentation is to protect “areas of special significance, such as travel corridors, wetlands and other areas frequented by black bears.” (Pet. Ex. 19, p. 17). In one of many attempts to determine where bears move, DNR prepared a document called the Lewis Ocean Bay Black Bear Corridor Study in which it emphasized the need to protect large areas in their natural condition in order for the bears to survive. (Pet. Ex. 20).

b. Carolina Bays, Other Wetlands and Plants

LOBHP is home to the largest intact complex of Carolina bays in the world. (Tr. Day 1, p. 122). Intact Carolina bays are very rare because so many have been destroyed by agriculture, development and forestry. (Id.). Appellants’ witness Dr. Dan Tufford has conducted research on Carolina bays within LOB. He described LOB as “a large expanse of relatively pristine . . . coastal plain landscape, which includes a complex matrix of uplands and wetlands, wetlands of various types, uplands of various eco types, habitat types.” (Tr. Day 1, p. 247, line 18 – line 23). There are several types of wetlands, including riparian, picosins, non-alluvial swamp forest, and Carolina bays. (Tr. Day 1, p. 247-48).

Carolina bays provide habitat for black bears, which have been forced to use these water features due to encroaching development. (Tr. Day 1, p. 125). Nearly all coastal black bears den or go dormant in Carolina bays. Carolina bays also provide habitat for rare, threatened and endangered plants like the Venus flytrap, Milkweed, and more. (Tr. Day 1, pp. 231-232; Lewis Ocean Bay Heritage Preserve Management Plan, 8).

Wetland functions are “things wetlands do by themselves,” and wetland values are “how those functions that wetlands perform provide benefits for people.” (Tr. Day 1 p. 96, lines 2-6). Wetlands serve a number of functions and values, including storm water retention, clearing and cleaning water, purifying water, and providing habitat for plants and animals, including some species that are uniquely adapted to wetlands.⁵ (Tr. Day 1, pp. 231–232; 237-238; Tr. Day 5, p. 95). Wetland functions and values play an important role in water quality. Wetlands improve water quality and assist surface hydrology, including stream flow. (Tr. Day 1, p. 237). Impacts to wetlands reduce their natural biogeochemical, hydrologic and ecological functions, thus decreasing their values. (Tr. Day 1, pp. 232-233; 271-272).

B. The International Drive Road Project

1. Historical Background

International Drive currently exists as a 5.6-mile unimproved, impassable dirt road in Horry County, South Carolina between S.C. Highway 90 on its northwestern end and S.C. Highway 31 on its southeastern end. International Drive is bounded on the west primarily by two private, undeveloped tracts consisting of nearly 1,800 acres and owned by Riverstone Properties, LLC and Landbank, LLC. (Tr. Day 4 p. 254, Horry Ex. 3 pp. 9-10). At the northwestern end where International Drive meets S.C. Highway 90 is a 1,187 acre tract owned by Horry County Solid Waste Authority. (Horry Ex. 3 p. 10). International Drive is bounded on the east by LOBHP. DNR’s LOBHP property extends to the centerline of International Drive. (Tr. Day 2, p. 180). Thus, there are thousands of acres of undeveloped, natural area directly proximate and contiguous to International

⁵ For example, on his site visit, Dr. Tufford identified Pitcher Plants, which are rare carnivorous plants that depend upon wetlands, within the path of the proposed road. (Tr. Day 1, p. 256).

Drive, and those properties represent some of the last remaining large contiguous tracts of land in Horry County. (Tr. Day 5 pp. 71-73, 108-09).

This area is also experiencing some of the most significant and rapid development growth in the County, including the Carolina Forest community. (Tr. Day 4 p. 44, Horry Ex. 3 p. 3). Carolina Forest spans along Highway 31 and River Oaks Drive and spreads north along Highway 501 toward Highway 90 and the city of Conway. (Tr. Day 4 p. 36). Highway 90 is a two-lane road that historically has supported a relatively small, rural community and is now absorbing substantial increases in development as the sprawling Carolina Forest community to its southwest continues to expand. (Tr. Day 4 pp. 44, 79). Highway 90 runs east to west north of LOBHP and connects to Highways 501 and 22, which move traffic to and from the coast. (Tr. Day 4 pp. 33-34).

The rapid proliferation of the Carolina Forest community and surrounding areas has occurred without sufficient infrastructure in place to support it. (Tr. Day 4 p. 27). As a result, traffic congestion on the roads in and around the Carolina Forest and Highway 90 communities has grown severe, particularly in light of the fact that Highway 501 is the primary route to the beach for both residents and tourists as well as the most congested road in the state. (Tr. Day 3 p. 313, Day 4 p. 79). Faced with the consequences of poor planning and the prospect of increasing its already sizeable tax base, Horry County was motivated to pave International Drive to absorb more of this area's growing pains.

In 2004, Horry County Council appointed an advisory committee to recommend road projects for consideration under the County's RIDE program, which is funded by a penny sales tax. (Tr. Day 4 pp. 72, 78, 110). Specific to this case, a RIDE II sales tax commission presented a list of fifteen

(15) road projects in order of priority for approval by public referendum. (Tr. Day 4 p. 78, 112-13).⁶ The paving of International Drive project was listed as priority thirteen (13) and it was approved by referendum as the paving of a two-lane road in 2006. (Tr. Day 4 p. 78, 110-11).

There was testimony about the gridlock and significant congestion on Highway 501; however, there is no dispute that paving International Drive will not alleviate the congestion on Highway 501. (Tr. Day 4, pp. 92-93, 233, 293).

The proposed paving of International Drive is not a typical road project and Horry County recognized this fact from the beginning. (Tr. Day 4 p. 84). Because DNR owned to the center line of International Drive the County knew it would need to acquire an easement or right-of-way from DNR. (Tr. Day 4 p. 115). The County also knew that DNR was going to be reluctant to grant an easement over Heritage Trust property. (Tr. Day 4 p. 115). In fact, DNR originally declined to grant Horry County a right-of-way. (Tr. Day 2 p. 181). In 2006, DNR stated that it could not agree to grant a right-of-way in connection with Horry County's proposal to pave and improve International Drive because it "would substantially diminish the natural character of Lewis Ocean Bay Heritage Preserve." (Tr. Day 2 pp. 181-82, Pet'r Ex. 25). Then County Administrator, John Weaver led discussions over a DNR right-of-way between the county and DNR's legal counsel, Buford Mabry and Paul League. (Tr. Day 2 pp. 187-89). Paul League served as the principal point of contact for DNR in discussing the International Drive project with Horry County. (Tr. Day 2 p. 188).

In 2009, Horry County requested a meeting with DNR to discuss what it was going to take

⁶ Mike Wooten, whose firm, DDC Engineering, was contracted to design International Drive, was the chairman of the Ride II committee. (Tr. Day 4, pp. 229-230). Wooten's firm ultimately billed Horry County between \$630,000-\$730,000 for their work on the International Drive project. (Tr. Day 4, pp. 245-246).

to reach an agreement. (Tr. Day 2 pp. 189-90, Day 4 pp. 84, 94, 113-15). Following that meeting, DNR expressed concerns that LOBHP contained endangered species such as the red-cockaded woodpecker and Venus flytrap and that the black bear used LOBHP for a significant part of its habitat. (Tr. Day 2 pp. 191-92, Pet'r Ex. 26). In a letter dated February 25, 2010, DNR reiterated the necessity of substantial mitigation measures to address its concerns and to protect the additional resources and general integrity of LOBHP. (Tr. Day 2 pp. 191-93, Pet'r Ex. 26). In pertinent part, DNR expressed that LOBHP "was created, in part, to protect the population of black bears that range along the Waccamaw River corridor and make extensive use of Preserve lands" and that it did not believe the International Drive project should move forward until an agreement "to protect bear passage in the vicinity of the road" was reached. (Tr. Day 2 p. 193, Pet'r Ex. 26).

From the beginning, DNR indicated that in order for it to grant an easement over Heritage Trust property, Horry County would need to agree to certain mitigation measures to preserve the resource values of LOBHP, including, *inter alia*, protections for the black bear. (Tr. Day 2 p. 191-93, Day 4 p. 115). Thus, in 2009 when negotiations between Horry County and DNR began, the County knew it was going to need to reach an agreement with DNR regarding protections for the black bear in order to move forward with the proposed project. (Tr. Day 4 p. 115).

Horry County hired the Brigman Company and DDC Engineers as consultants to assist in the design and environmental permitting process for the proposed International Drive project. (Tr. Day 4, pp. 84, 116). The Brigman Company further assisted the County in negotiations with DNR, including mitigating for impacts to the black bear whose habitat and movement corridors were going to be degraded and fragmented by the proposed road. (Tr. Day 4 p. 116). DNR did not have anyone on staff with expertise in black bears and instead relied upon the expertise of individuals named

Michael Drewry and Frank Van Manen from the University of Tennessee and, in particular, the work they did studying the coastal black bear population that utilized LOBHP and the habitat linkage modeling they conducted for DNR in that regard. (Tr. Day 2 p. 164, Chappellear Depo. pp. 12, 48-49, 51-52). Moreover, DNR relied on the black bear expertise of Drewry and Van Manen in relation to the proposed International Drive project and the requirement for wildlife underpasses. (Tr. Day 2 pp. 164-65, Chappellear Depo pp. 48, 51-55).

In 2009, the Brigman Company met with DNR staff and Drewry and Van Manen, who presented study results for identifying potential wildlife travel corridors to link black bear habitat on either side of the International Drive project. (Tr. Day 4 pp. 118-20, Pet'r Ex. 46). The Brigman Company incorporated the modeling data from Drewry and Van Manen onto the proposed alignment for International Drive and identified areas to place wildlife underpasses to maintain habitat connectivity for the black bear. (Tr. Day 4 pp. 126-27, Pet'r Ex. 46). Using the habitat modeling data along with field investigation and information from DNR employees, the Brigman Company created a figure approximating the placement of three wildlife crossings over International Drive.⁷ (Tr. Day 4 pp. 137-38, Pet'r Ex. 12, 40).

Initially, DNR requested that Horry County construct 120-foot span bridges to serve as wildlife underpasses. (Tr. Day 4 pp. 104, 127-28). In response, Horry County hired Walter McCown

⁷ In addition to the habitat modeling work that Drewry and Van Manen performed for DNR identifying black bear travel corridors and potential linkages around LOBHP, DNR staff conducted a tracking study to document where black bear were crossing International Drive. (Tr. Day 2 pp. 209-10, Chappellear Depo pp. 26-28, Pet'r Ex. 28). The results of DNR's tracking study were consistent with the habitat linkage data highlighting three travel corridors that crossed International Drive where the underpasses should be placed in order to maintain habitat connectivity for the black bear. (Tr. Day 4 pp. 137-38, Chappellear Depo pp. 24, 26-28, 40-41, 54-55, Pet'r Ex. 12, 28, 40).

from Florida to substantiate the use of 8' x 24' box culverts as wildlife underpasses. (Tr. Day 4 pp. 129, 131-32, Pet'r Ex. 57). McCown produced a report for Horry County confirming the efficacy of the 8' x 24' passageways and recommending three such underpasses for the International Drive project. (Tr. Day 4 p. 132, Pet'r Ex. 13). The County used McCown's report to negotiate with DNR and ultimately agree upon the construction of the smaller wildlife underpasses. (Tr. Day 4 pp. 131-32). Even with consensus on the smaller, less expensive wildlife underpasses, Horry County continued to push back on this requirement. (Tr. Day 4 pp. 263-67).⁸

On July 26, 2010, Horry County and DNR executed the Contract for Sale of Right-of-Way Easement (the "2010 Contract").⁹ Under the 2010 Contract, DNR agreed to grant to Horry County a right-of-way over LOBHP property in exchange for the County's agreement to mitigate the adverse impacts to LOBHP associated with the proposed International Drive project. (Tr. Day 2 pp. 213-15, Day 4 pp. 115, 138-39, Pet'r Ex. 10). The 2010 Contract set forth specific mitigation requirements, including: minimization of wetland impacts; protection for endangered species habitat; allowance for periodic prescribed burning; construction of three wildlife underpasses with heavy fencing; and limited access to the roadway. (Pet'r Ex. 10 pp. 3-6).

Horry County continued to move forward with its plan to pave International Drive, hiring DDC Engineering, Wooten's firm, to design plans for International Drive as a two-lane road

⁸ In 2010, prior to reaching a written agreement, Horry County offered DNR \$2 million so that it would not have to include wildlife underpasses in the project; however, this offer was not accepted. (Tr. Day 4 pp. 143-44, Pet'r Ex. 27).

⁹ In footnote 4 of the ALC's Final Order, it disregards completely this contract as having "insufficient probative value." (Final Order p.3 n.4). This erroneous dismissal of evidence prevented the ALC from fully and fairly considering alternatives as discussed below.

incorporating three wildlife underpasses. (Tr. Day 4 p. 259). Paul League, on behalf of DNR, continually checked in with the County on the status of the project and compliance with the mitigation measures required under the 2010 Contract. (Tr. Day 2 pp. 212-13).

Notwithstanding its agreement to the terms, Horry County was dissatisfied with the 2010 Contract and began considering other alternatives to constructing the wildlife underpasses and heavy fencing. (Tr. Day 2, pp. 215-16, Day 4 pp. 139-41, 146-47). As of 2012, Horry County had a different County Administrator, Chris Eldridge, and DNR had a new Director, Alvin Taylor. (Tr. Day 2 pp. 116, 213-14, Day 4 pp. 146, 158). As of 2012, Horry County began exploring options that would avoid installing wildlife underpasses and fencing, including reconsideration of a \$2 million payment offer to DNR. (Tr. Day 4 pp. 139-43, 146-48). The county spoke with former House Representative Nelson Hardwick about pitching the cash payment for land idea to DNR's Director, contemplated pitching the cash payment idea to the Heritage Trust Board and considered the possibility of influencing DNR if they could find one or more interested board members. (Tr. Day 4 pp. 167-68, Pet'r Ex. 43).

On July 30, 2012, Paul League, on behalf of DNR, met with Chris Eldridge, among others from the County, to discuss the status of the project. (Tr. Day 2 p. 213-14, Day 4 p. 157, Pet'r Ex. 41). At that meeting, Horry County proposed eliminating the environmentally protective and agreed-upon provisions of the 2010 Contract and again offered DNR \$2 million in lieu of the wildlife mitigation measures. (Tr. Day 2 pp. 214-16, Day 4 p. 167-170, 172-73, Pet'r Ex. 41, 43, 44). Afterward, the County informed former Representative Hardwick of the status of the project and indicated that a meeting to discuss how best to move forward would be beneficial. (Tr. Day 4 pp. 148, 157, Pet'r Ex. 41).

On October 18, 2012, Horry County initiated another meeting with DNR at which Alvin Taylor, Paul League, Chris Eldridge, Steve Gosnell and former Representative Hardwick, among others, were in attendance. (Tr. Day 2 pp. 162- 217-19, 221-23, Day 4 pp. 157-59, Pet'r Ex. 29). Prior to the meeting, DNR Director Taylor had not read and was not aware of the substantive requirements agreed to by the County in the 2010 Contract. (Tr. Day 2 p. 163-64). At that meeting, Horry County raised and expressed their displeasure with the wildlife underpasses and fencing required under the 2010 Contract. (Tr. Day 2 pp. 218-20, Day 4 pp. 157-59). The tone of the meeting degenerated and became fairly heated as former Representative Hardwick "browbeat" DNR about the road and the mitigation requirements. (Tr. Day 2 pp. 221-23, Day 4 pp. 158-60).

After the October 18, 2012, meeting, Director Taylor went back to DNR staff and asked about the necessity of the wildlife underpasses and fencing. (Tr. Day 2 pp. 221-23, Chappelle Depo p. 56). At that time, no one on DNR staff had any expertise in black bears. (Tr. Day 2 p. 164, Chappelle Depo p. 59). DNR staff did not consult with Drewry or Van Manen with whom DNR had a relationship and previously relied on to provide black bear expertise specifically in connection with the project and wildlife underpasses. (Tr. Day 2 pp. 164-66, Chappelle Depo p. 59). Notwithstanding the consensus of the black bear experts for both DNR and Horry County that wildlife underpasses should be incorporated in the International Drive project and the lack of an expert opinion endorsing mitigation of impacts through any other means, this requirement was eliminated from the agreement.

On or around April 12, 2013, the County received a revised version of the agreement with DNR from former Representative Hardwick. (Tr. Day 4 pp. 160-62, Pet'r Ex. 47). That same day the County sent back comments on the revised agreement to Hardwick. (Tr. Day 4 pp. 160-62, Pet'r

Ex. 47). Later that month, another round of revisions were exchanged from DNR to former Representative Hardwick to the County with the County again sending comments back to Hardwick. (Tr. Day 4 pp. 163-64, Pet'r Ex. 30, 52).

Ultimately, on June 11, 2013, Horry County and DNR executed a revised Contract for Sale of Right-of-Way Easement (the "2013 Contract"). Under the 2013 Contract, DNR agreed to grant Horry County the right-of-way over LOBHP property in consideration of \$122,210 and certain mitigation requirements, including imposition of a 35 mile-per-hour speed limit for a two-lane road or a 45 mile-per-hour speed limit for a four-lane road. (Pet'r Ex. 11 pp. 3-6). The 2013 Contract was signed by DNR Director Taylor, and Horry County's Administrator, Chris Eldridge. (Tr. Day 1 p. 137, Pet'r Ex. 11 p. 12). Aside from the monetary consideration, the main difference between the 2010 and 2013 Contracts was the removal of the requirement for wildlife underpasses and heavy fencing. (Tr. Day 4 p. 167).

Notwithstanding that the International Drive project was voted on and approved by the public as a two-lane road and that a surplus of funds raised under the RIDE II program could have been used to construct wildlife underpasses as originally recommended by the experts and agreed upon with DNR, the County decided to use its additional revenue to pursue the paving of a five-lane road with no wildlife underpasses. (Tr. Day 1, pp. 128-29, Day 4 pp. 85, 110-11, 177-78).

2. The DHEC Authorizations at Issue

On December 11, 2013, the U.S. Army Corps of Engineers and DHEC issued a joint public notice for Horry County's application to pave and widen the existing unimproved 5.6 miles of International Drive, involving the filling and impacting of 24.88 acres of wetlands in and around LOBHP. (Tr. Day 1 pp. 128-29, Pet'r Ex. 4).

On June 25, 2015, DHEC staff issued a 401 Water Quality Certification and Coastal Zone Consistency Certification P/N #2010-01157-3H(1) to Horry County authorizing the International Drive project, including the paving of five lanes and impacts to 24.19 acres of wetlands. (Pet'r Ex. 5, 6). The proposed road and right-of-way would be 5.6 miles long and 125 feet wide, and include ten (10) curb cuts and 26 culverts that go beneath the road to provide a hydrologic connection. (Pet. Exs. 5, 6; Horry Ex. 3; Tr. Day 4, p. 219).

Due to DNR's ownership extending to the center line of International Drive, (Tr. Day 2, p. 180), the proposed project would convert 22 acres of state heritage trust property designated under the South Carolina Heritage Trust Act, S.C. Code Ann. § 51-17-10, et seq., into road and shoulder.

The project as authorized does not include the wildlife underpasses that Horry County originally agreed to incorporate and designed into the project. (Pet. Exs. 4, 5, 6 & 11).

C. Current Condition of International Drive

International Drive is an existing small dirt road which bisects some of the wetlands. The condition of that road is described as:

a dirt road with ditches on either side of it. It does not appear to have been maintained for a very long time, although I won't say how long, but so it's pretty much hard packed sand, coastal plain soil, and there are several places where it's been washed out and, at least when we were there, there was -- there was water connecting the wetlands on both sides of the road that was probably not a designed feature of that road, but it's because of the fact that it hasn't been maintained and -- but yeah, hard packed -- hard pack coastal plains soil with ditches on either side and much of it has got some vegetation growing on it, grasses and -- and other things like that. I don't -- I don't recall seeing any woody vegetation, but certainly some grasses in some locations or herbaceous vegetation in some locations.

(Tufford Testimony, Tr. Day 1, p. 239, line 16 – p. 240, line 8; Pet. Ex. 9).

The road is not maintained, and thus is presently not passable by automobiles. (Tr. Day 1, p. 178). Without traffic, there are no pollutants running into adjacent wetlands from automobiles and

the packed soil of the dirt road is not being disturbed by automobiles. The dirt road is relatively stable and compacted or mostly compacted. (Gilbert Testimony Tr. Day 1, p. 182; Wooten Testimony Tr. Day 4, p. 215).

The road may cause some sediments to be released into adjacent areas during heavy rains. (Tr. Day 1, p. 205; Baca Testimony Tr. Day 3, p. 279; Wooten Testimony Tr. Day 4, p. 216) However, since the system is healthy and functioning, the wetlands would clear and clean the water of such sediments. (Tr. Day 5, p. 95-96). The road is also washed out in several places, which provides some hydrologic connectivity for bisected wetlands. (Tr. Day 1, p. 241). There is no evidence that sediment runoff or the current condition of International Drive is harming wetlands or LOBHP. (Tr. Day 3, pp. 278-279; Tr. Day 5, p. 94-96; Tr. Day 1, pp. 182 & 205).

Therefore, while some sediment may be leaving the road and entering the ditches during rain events, there is no evidence that sediment is causing harm to the adjacent wetlands, Carolina bays or Lewis Ocean Bay Heritage Preserve. Conversely, the road, if constructed, would contribute to sedimentation and pollution because the stormwater plan allows 20% of the sediment to run off the site and because the plan makes no provisions to reduce or eliminate oil, gas and other pollutants from vehicles flowing into adjacent wetlands.

III. STANDARD OF REVIEW

A court cannot substitute its judgment for that of an agency as to the weight of the evidence on questions of fact unless the agency's findings are clearly erroneous in view of the reliable probative and substantial evidence on the whole record. Peake v. SC Dept. of Motor Vehicles, 375 S.C. 589, 654 S.E.2d 284 (2007). "Substantial evidence is not a mere scintilla of evidence, nor the evidence reviewed blindly from one side of the case, but is evidence which, considering the record

as a whole, would allow reasonable minds to reach the conclusion the administrative agency reaches in order to justify its action.” Peake, 334 S.C. at 287, 513 S.E.2d at 594-595 (2007). Under the substantial evidence rule, a reviewing court overturns a finding of fact made by an administrative agency if “there is no reasonable probability that the facts could be as related by a witness upon whose testimony the finding was based.” Lark v. Bi-Lo, Inc., 276 S.C. 130, 136, 276 S.E.2d 304, 307 (1981) (citing Independent Stave Co. v. Fulton, 251 Ark. 1086, 476 S.W.2d 792, 793 (1972) (internal quotations omitted)).

IV. ARGUMENT

In applying the law to the facts, statutory language must be read in a sense which harmonizes with its subject matter and accords with its general purpose. Mun. Ass'n of S.C. v. AT&T Commc'ns of S. States, Inc., 361 S.C. 576, 580, 606 S.E.2d 468, 470 (2004); Hitachi Data Sys. Corp. v. Leatherman, 309 S.C. 174, 178, 420 S.E.2d 843, 846 (1992). The provisions of the Coastal Management Program and water quality regulations discussed below reflect that the legislature clearly intended to prevent alteration and destruction of special places exactly like LOBHP. In this case, the Administrative Law Court failed to execute such intent because it made errors of law by: 1) basing its decision on a scintilla of contested evidence from an unqualified witness testifying outside his scope of expertise; 2) making its conclusions on the basis of one witness’s testimony in a vacuum, disregarding the consistent, contradictory evidence provided by both sides; and 3) failing to consider the record as a whole.

A. Neither DHEC nor the ALC Adequately Considered the Impacts of the Proposed Project on Wildlife or Water Quality

1. Replacing Pristine or Near Pristine Wetlands with Pavement and

Culverts does not Improve Water Quality

Regulation 61-101.F.3.c requires DHEC to “address and consider . . . all potential water quality impacts of the project, both direct and indirect, over the life of the project including: (1) impact on existing and classified water uses; (2) physical, chemical, and biological impacts, including cumulative impacts; (3) the effect on circulation patterns and water movement; (4) the cumulative impacts of the proposed activity and reasonably foreseeable similar activities of the applicant and others.”

The ALC erred in finding and concluding that filling impacts to 24 acres of wetlands and paving a five-lane road would improve water quality and by ignoring the significant impacts to water quality of filling wetlands. In the Final Order, the court relied heavily on the fact that some sediment from the existing unimproved dirt road may runoff and travel into adjacent wetlands beside the existing dirt road in concluding that a paved five-lane road would improve water quality. (Final Order pp.4-5). The ALC ignores two critical facts. First, that a primary wetland function and value includes cleaning and filtering water of pollutants, such as sediments, which is what the wetlands on both sides of the dirt road are doing in their current state. The dirt road is impassible and thus not subject to heavy traffic which would disrupt sediments and push them into those wetlands. Second, and even more critical, all of the areas of wetlands that are currently filtering any sediment will be completely filled in and replaced with impervious surface. To conclude that such activity will improve water quality is completely without any basis in fact or logic.

The ALC also erred in finding and concluding that culverts would improve the wetland functions and values by restoring hydrologic connectivity. (Final Order, 4-5; Reconsideration Order, 2). As to connectivity, there was extensive testimony about the state of International Drive as an

unimproved dirt road, including that it had large amounts of standing water in several areas across the road that provided some connectivity for existing wetland systems on either side of the road. The ALC ignored the existing connections across the road, instead concluding that culverts would replace wetland functions and values. The ALC focused solely on hydrology to the exclusion of the other valuable functions and values discussed at length by Appellants' witness Dr. Tufford, including storwater filtering and wildlife habitat. (Tr. Day 1, pp. 231-38). None of this testimony was refuted. The ALC's failure to consider the real impacts of filling wetlands on water quality in the vicinity of the area tainted its conclusion that those impacts would not be significant.

2. Lewis Ocean Bay Heritage Preserve Property is Protected Because of its Unique Status, which was not Adequately Considered

Both DHEC and the ALC treated LOBHP property as though it was any other land to be taken and replaced with a large paved road and subjected to future development pressures. LOBHP is not simply unique because of all of the rare habitat and plant and animal species, but it is afforded unique protections under the law. Heritage Preserve property is afforded the highest protections for land in the state of South Carolina.

a. Geographic Area of Particular Concern

LOBHP is a Geographic Area of Particular Concern ("GAPC"). (Tr. Day 2, pp. 29-30). The Coastal Management Program ("CMP") Section IV. A., discusses the way in which these areas must be treated. Specifically under "Implementation" on page IV-2, the CMP states: "Special management consideration will be given to those areas designated as GAPCs through the process of issuance of permits in the critical areas, and reveiw and certification of permits in the coastal zone. When a project overlaps with, is adjacent to, or significantly affects a GAPC, [DHEC] will carefully evaluate

the project based on the criteria listed as the priority of uses which specifically address each type of GAPC.” CMP IV-2.

However, DHEC witnesses responsible for issuing the authorizations to take Heritage Preserve property and convert it into roadbed, admitted that they treated this project just like any other. (Giffin Testimony, Tr. Day 2 251:17-252:14; Williams Testimony Tr. Day 2 pp. 110-12). DHEC is required to determine whether a project impacting a Heritage Preserve is consistent with that Preserve’s Management Plan. CMP at IV.A.2.a.1. DNR’s 2013 Management Plan for LOBHP identifies the black bear as a rare species and proclaims a Desired Future Condition (“DFC”) for the Preserve as:

an ecosystem containing all of the ecotypes now on the preserve, and the rare plants and animals that occur within them. Some of these ecotypes may spatio-temporally shift because of succession, and events that alter succession, such as fires or hurricanes. Success in achieving the DFC must be judged, not only at certain points in time, but also over the long run.

(Lewis Ocean Bay Heritage Preserve Management Plan, p. 5).

DHEC did not review the Management Plan, did not make a determination about whether the project is consistent with the Plan, and did not ask DNR whether the project was consistent with the Plan. (Tr. Day 2, pp. 15-16). For its part, the ALC failed to take the long term approach to property management that would be consistent with the Management Plan, instead limiting its focus to snapshots of hair snare samples for black bears to determine that the species is not in LOBHP in great numbers.(Final Order, 12-13). Although the scientific viability of such comparison was called into question, even if it were true that black bear populations went down for a year in the preserve, that fact would not be a basis for destroying a portion of the LOBHP ecosystem. This is because, as explained in the plan and by numerous experts at the hearing, these ecotypes may be dynamic and

shifting at certain points in time. (Pet. Exs. 17, 22 & 24; Tr. Day 3, p. 49, 52-53).

The ALC failed to evaluate or even acknowledge the priority of uses for LOBHP. (Final Order, *passim*). As stated in its management plan, the first and highest priority is “to protect a Carolina bay/longleaf pine (*Pinus palustris*) ecosystem complex that contains South Carolina’s best assemblage of Carolina bays, and to protect several rare species, including Venus’ fly trap (*Dionea muscipula*), savannah milkweed (*Asclepias pedicellata*), black bear (*Ursus americana*), and the federally endangered red-cockaded woodpecker (RCW, *Picoides borealis*).” (Lewis Ocean Bay Heritage Preserve Management Plan, 3; see also CMP IV-5 (listing the highest priority of uses to be those consistent with the management plan developed for each property)).

Instead of reconciling how taking 22 acres of preserve property and converting it from protected habitat to a paved roadway anticipated to have heavy usage could possibly be consistent with the highest priority of uses, the ALC skipped this priority completely. (Final Order, *passim*). In an attempt to consider the second priority for LOBHP, the ALC erroneously found that public access could be improved by the proposed road project. (Final Order p. 24). This finding is wholly unfounded in the evidence as, under the proposed project, the preserve will be fenced off from the road, there will not be any new public access points to LOBHP, and access to LOBHP is not a purpose of the project. Instead, a closer reading of the second priority reveals that the road project as proposed will be harmful and inconsistent with public usage.

The Management Plan states that the appropriate and compatible recreational uses for LOBHP are: “(1) hunting; (2) fishing; (3) wildlife or other natural resource observation; (4) wildlife or other natural resource photography; (5) environmental education; and (6) environmental interpretation.” (Lewis Ocean Bay Heritage Preserve Management Plan, 3). Nowhere in the ALC

Order or DHEC analysis is consideration given to how this road will impact these “appropriate and compatible” recreational uses. See Final Order p. 11 (merely listing hunting without analysis of the project impact on the use). In fact, hunting is an important wildlife management tool for properties such as LOBHP, especially as populations are on the rise.¹⁰ The loss of 22 acres of Heritage Trust property that is currently protected and used for recreation, but will no longer be available for those uses,¹¹ is an impact that requires serious consideration, but received none. Instead, the ALC presumes that there will be a road and opines that it is better to use best management practices and culverts than not. (Final Order, 4-5, 16-19) The ALC fails to compare what the environment is now, including the long-term management expectations for public trust property, with what it would be after the proposed project.

b. Special or Unique Habitat

Water quality regulations provide that certification will be denied if “the proposed activity adversely impacts special or unique habitats, such as National Wild and Scenic Rivers, National Estuarine Research Reserves, or National Ecological Preserves, or designated State Scenic Rivers.”

¹⁰ Tr Day 2 122:20-124:10 (explaining that hunting for black bears was recently allowed and is being considered for expansion because of an increasing number of bears in the area of LOBHP). Note that although the ALC makes the erroneous factual conclusion that black bear populations are declining (Final Order p. CITE), it conversely relies upon increased populations for hunting to discount an alternative to the proposed project. (Final Order p. 28).

¹¹ The loss of land for use is part of the impacts to LOBHP. Additionally, the road itself, which is anticipated to be heavily used, opened for development on the private property side, and a major thoroughfare for garbage trucks will undoubtedly have noise and other pollution impacts that would interfere with the highest priority uses listed in the management plan. There was extensive evidence of those impacts presented at the hearing. (Tr. Day 1 p. 173, Day 3 p. 91, p. 114, line 15-116, line 11; Tr. Day 2 p. 247-48, Day 4 pp. 293-94). However, the Final Order erroneously states that “Petitioners presented no direct evidence that any of the priority general-public uses of LOB would be disrupted or impacted by this project.” (Final Order p. 11).

R. 61-101 F.5(d). As discussed above, there was extensive testimony about the special and unique habitat provided by Lewis Ocean Bay Heritage Preserve, including that it holds the largest grouping of Carolina bay wetland formations in the world, which earned it the highest land protections provided by the state. There was no testimony to contradict the extensive evidence that LOBHP is a special or unique habitat. Indeed, DHEC's own water quality witness testified that LOBHP is a special and unique habitat. (Giffin Testimony Tr. Day 2 236:19-25, 240:12-20, 254:1-4). Similarly, there was extensive testimony and evidence that there will be adverse impacts on LOBHP if the proposed project is completed, from taking trust property and converting it to roadways, to fragmenting wildlife migration corridors, to losing and impacting wetlands and Carolina bays on the property. (CITE) It is clear from the evidence that the proposed project will adversely impact LOBHP and the resources for which it was designated as a Heritage Trust property.

However, instead of addressing the fact that LOBHP is a special or unique habitat that is being adversely impacted, the ALC Order finds that LOBHP is not a special or unique habitat. (Final Order, 20). There is no basis in fact or law upon which to find and conclude that LOBHP is not a special or unique habitat within the meaning of 61-101 F.5(d), nor to find and conclude that LOBHP will not be adversely impacted. See Able Commc'ns, Inc. v. S.C. Pub. Serv. Comm'n, 290 S.C. 409, 411, 351 S.E.2d 151, 152 (1986) ("The findings of fact of an administrative body must be sufficiently detailed to enable the reviewing court to determine whether the findings are supported by the evidence and whether the law has been properly applied to those findings."). Thus, the ALC erred in concluding that the project would not have adverse impacts on LOBHP, a special and unique habitat.

LOBHP is a special and unique habitat as well as a Geographic Area of Particular Concern.

LOBHP itself will be adversely impacted by the proposed project as authorized, which will take 22 acres of Heritage Trust property and permanently eliminate over 24 acres of wetlands. Certification must be denied if a project adversely impacts special or unique habitats. Therefore, the project as authorized violates Regulation 61-101.F.5.(d).

B. The Water Quality and Wildlife Impacts of the Proposed Construction Warrant
Denial of DHEC's Certifications

The 401 water quality regulations, S.C. Code Ann. Regs. 61-101, and Coastal Management Program ("CMP") policies both contain provisions that require denial of the certifications for this project. Regulation 61-101.F.5 lists the reasons that certification will be denied, including if "the proposed activity permanently alters the aquatic ecosystem in the vicinity of the project such that its functions and values are eliminated or impaired" or if the proposed activity "adversely impacts" either "waters containing State or Federally recognized rare, threatened, or endangered species" or "special or unique habitats." If this Court finds that any of those three requirements are met in this case, the 401 Water Quality certification must be denied.

Similarly, the Coastal Management Program states that if a proposed project would "significantly impact a GAPC" it "will not be certified unless there are no feasible alternatives or an overriding public interest can be demonstrated, and any substantial environmental impact is minimized." CMP at III-14.I.(8). Thus, the Court must determine whether a GAPC will be significantly impacted, which includes consideration of whether there are wildlife populations and habitats that would be impacted by the project (CMP at VII.A.1.c & IV.A). In accordance with these provisions, the Court must first assess the resources and habitats within and adjacent to the project site and what wildlife populations they support, as well as whether those habitats and resources will

be impacted by the project. If the GAPC will be significantly impacted, the Court must assess whether there are feasible alternatives or an overriding public interest. If one of those criteria is met, then environmental impacts must be minimized.

Additionally, projects which would “have a significant negative impact on wildlife and fisheries resources, whether it be on the stocks themselves or their habitat, will not be approved unless overriding socio-economic considerations are involved.” CMP at III-51, Policy VII.A.(1)(a). “Wildlife and fisheries stocks and populations should be maintained in a healthy and viable condition and these resources should be enhanced to the maximum extent possible.” CMP at III-51, Policy VII.A.(1)(b). And “Critical wildlife and fisheries habitat should be protected and enhanced to the extent possible.” CMP at III-51, Policy VII.A.(1)(c). Without all of these requirements being met, Coastal Zone Consistency certification must be denied.

1. Direct Impacts

a. Wetlands & Water Quality

The 401 water quality certification regulation 61-101.F.(5) states:

Certification will be denied if:

- (a) the proposed activity permanently alters the aquatic ecosystem in the vicinity of the project such that its functions and values are eliminated or impaired;
- (b) there is a feasible alternative to the activity, which reduces adverse consequences on water quality and classified uses;
- (c) the proposed activity adversely impacts waters containing State or Federally recognized rare, threatened, or endangered species;
- (d) the proposed activity adversely impacts special or unique habitats, such as National Wild and Scenic Rivers, National Estuarine Research Reserves, or National Ecological Preserves, or designated State Scenic Rivers;

Whether the proposed activity will permanently alter the aquatic ecosystem in the vicinity

of the project, requires an analysis of the “vicinity of the project.” Merriam–Webster defines vicinity as meaning “the quality or state of being near: proximity” or “a surrounding area or district: neighborhood.” Merriam–Webster Dictionary, <http://www.merriam-webster.com/dictionary/vicinity>. Using this accepted meaning of the word vicinity, the regulation clearly includes more than just the project; it logically incorporates the surrounding area. Murphy v. S. Carolina Dep't of Health & Envtl. Control, 396 S.C. 633, 640, 723 S.E.2d 191, 195 (2012). The aquatic ecosystem in the vicinity of the area of this project includes the wetlands to be filled and the wetlands connected to them on either side of the road.

Because the aquatic ecosystem in the vicinity of the project will be impaired, the proposed activity in this case will permanently alter the aquatic ecosystem in the vicinity of the project such that its functions and values are impaired.

In this case, Horry County would fill and impact over 24 acres of fully functional freshwater wetlands in “excellent condition,” which include Carolina bay formations, pocosins, and swamp forests.¹² (Tr. Day 1, p. 236- 237;¹³ 247-249; 255-256; Tr. Day 2, p. 14; Pet. Ex. 8) Some of the wetlands to be filled are smaller, while others are extensive wetland tracts. (Tr. Day 1, pp. 235-236; Pet. Ex. 8).

¹² Dr. Tufford described the environment of Lewis Ocean Bay Heritage Preserve as follows: “There's -- there's riparian wetlands, there are pocosins, there are non-alluvial swamp forest, some of those are concentrated in the -- in the numerous Carolina bays that are there and all of these wetlands in -- in -- in many places, the wetlands dominant the landscape of the -- of Lewis Ocean Bay, but there is still extensive upland in there as well that -- that's part of that matrix. Most of it or all of it is being managed as a long-leaf pine forest, pine savannah, or at least that's the management objective as far as I know” Tr. Day 1 247:25-248:13.

¹³ Also described as “either pristine or near pristine” because these wetlands have “clearly not been touched for a very long time.” Tr. Day 1 237:12-14

The direct impact of this project includes the loss of 24 acres of wetlands and all of their functions and values, which include filtering water and sediments, providing habitat to plants and animals, and preventing runoff and erosion. (Tr. Day 1, pp. 244-245, 248-249; Tr. Day 2, pp. 14, 234-236) Those wetlands are part of a larger aquatic ecosystem, connected to Lewis Ocean Bay Heritage Preserve on one side and two large private tracts of land on the other side, with substantially similar habitat and quality of the wetlands to be filled. The aquatic ecosystem in the vicinity of the area includes the wetlands to be filled, as well as the adjacent wetland systems. Dr. Tufford testified that the aquatic ecosystem includes wetland systems that provide habitat for wildlife, and which would be lost and damaged by the proposed project. (Tr. Day 1, pp. 243-245). Those wetlands will be fragmented and lose connectivity on either side of the proposed road project. (Tr. Day 1, pp. 244-245). The fill of this large amount of wetlands will impair the hydrology of those connected wetlands, and will result in a permanent alteration of the aquatic ecosystem in the vicinity of the project, impairing its functions and values. (Tr. Day 1, pp. 249, 258-259). Specifically, the loss of connectivity will have a “cascading effect” on the animals that depend on connectivity because they will have a “harder time living their life.” (Tr. Day 1, p. 244, line 23- p. 245, line 1). This impairment of the aquatic ecosystem will occur irregardless of the culverts that are to be installed. (Tr. Day 1, p. 244).

The ALC ignored all of the above evidence, instead presuming that there would be a road that included wetland fill, and finding that culverts and best management practices would somehow undo the significant damage associated with wetland fill discussed above. (Final Order 18). The Final Order also ignored that the aquatic ecosystem necessarily includes plants and animals that utilize those ecosystems. The aquatic ecosystem consists not only the wetlands that will be filled by the

project, but also the adjacent wetland systems on either side of the road, particularly those on LOBHP. Therefore, the ALC erred in failing to conclude that the project as authorized will impair the aquatic ecosystem in the vicinity of the area such that its functions as wildlife habitat will be impaired.

b. LOBHP

The CMP policies applicable to Geographic Areas of Particular Concern, which are considered “[u]nique natural resource areas” and include “scarce or vulnerable habitats” and those of “vital importance in protecting and maintaining coastal resources.” CMP at IV-4, Policy A.2.a. Heritage Trust Preserves are identified as GAPCs and have specific policies triggered when a project would impact a Heritage Preserve. Those policies prohibit uses “which jeopardize the integrity” of the Heritage Trust. CMP at IV-5, Policy A.2.a.(1). The policies also require DHEC to give a priority of uses for Heritage Preserves for uses “which are consistent with the management plan” and “which are compatible with the area’s wildlife and wildlife management.” CMP at IV-5, Policy A.2.a.(1).

The Coastal Management Program also requires consideration of the “extent and significance of impact on public recreational lands, and whether there is “conversion of these lands to other uses without adequate replacement or compensation . . . or degradation of environmental quality in these areas.” CMP at III-14, ¶ 9, Guidelines for Evaluation of All Projects.

The proposed road project would convert 22 acres of LOBHP property into a road and shoulder, resulting in a direct and complete loss of habitat. (Tr. Day 5, p. 86). DNR initially determined that paving the “road would substantially diminish the natural character of the Lewis Ocean Bay Heritage Preserve.” (Exhibit 25). DNR only changed its position after being “browbeat” by heavy political influence, and without any scientific or factual basis, as discussed above.

Anytime that “you lose habitat in a place like that, it’s adverse.” (Tr. Day 5, p. 87, lines 3-4). Therefore, the loss of 22 acres of state heritage trust property is a significant adverse effect, and the ALC erred in failing to find and conclude as much.

Blair Williams confirmed that the project will adversely impact LOBHP because it will be filling in wetlands in the Preserve, because it will convert LOBHP property into road, and because it will destroy wildlife habitat. (Tr. Day 2, p. 14 & 17-19). Williams also confirmed that the U.S. Fish and Wildlife Service objected to the raised concerns about the loss and/or degradation of wildlife habitat, wetlands functions and water quality. (Tr. Day 2, p. 45). The Fish and Wildlife Service recommended abandoning the widening from two lanes to four lanes, as well as including wildlife underpasses and eliminating the curb cuts. (Id.). DHEC did not follow any of those recommendations. (Id.). The loss of 22 acres of heritage trust property will disrupt the character and degrade the environmental quality of the area, and jeopardizes the integrity of LOBHP. Therefore, the project as certified by DHEC would not be consistent with purposes for which LOBHP was dedicated. (Tr. Day 5, p. 86).

The filling in 22 acres of LOBHP resulting in a loss of state heritage trust land has an adverse effect on the LOBHP. The adverse impacts are significant because of the habitat fragmentation and elimination of 22 acres of habitat. There is no evidence that these 22 acres of property taken from the citizens of South Carolina through DNR are going to be replaced with habitat of similar quantity and quality. DHEC required Horry County to compensate *for wetland impacts* according to DHEC authorization documents by purchasing 287.8 mitigation credits; however that mitigation does not address the CMP Policy at III-14.9. to replace the 22 acres of public recreational land that will be destroyed by the road with habitat of similar quantity and quality. Therefore, the loss of 22 acres of

Heritage Trust Property is not being replaced with habitat of similar quantity and quality to offset this loss.

DHEC did not review the Management Plan, did not make a determination about whether the project is consistent with the Plan, and did not ask DNR whether the project was consistent with the Plan. (Tr. Day 2, pp. 15-16). While DNR's Alvin Taylor testified that the proposed project is consistent with the Management Plan (Tr. Day 2, p. 146), he also acknowledged that the black bears are listed as rare in the Plan and stated that if the bear population is declining in LOBHP, there should be greater protections for the black bear. (Tr. Day 2, p. 151). The ALC similarly did not carefully review the plan or find consistency with the first priority of uses.

The former DNR employee who actually managed LOBHP for two years opined that the project is not consistent with the Plan, which was designed to protect unique habitats and the species that those habitats support. (Tr. Day 5, pp. 85-86). Bennett's opinion that the project is not consistent with the Management Plan is based on the failure of the project to ensure that animals, and the rare black bear in particular, will continue to exist in LOBHP, as discussed below, as well as the direct loss of habitat and habitat fragmentation. For these reasons, the project as authorized is not consistent with the Management Plan for LOBHP. The ALC erred in failing to find and conclude that the project is inconsistent with the Management Plan, and thus should be denied pursuant to the CMP.

c. Habitat Fragmentation

Witnesses from DNR, Horry County and the Appellants don't dispute that habitat fragmentation occurs when roads are constructed through natural wildlife habitats. Horry County's McCown Report summarizes that:

-Horry County Comprehensive Plan, Envision 2025, recommends that county leadership:

Recognize the fragmentation of the natural landscape that is occurring and take steps to mitigate these effects; actively work to create linkages between existing, preserved large tracts of land within the county and participate in the planning process for new transportation corridors to ensure that wildlife habitat fragmentation is minimized.

-SCDNR identified the loss, fragmentation and/or alteration of habitat to be the major challenges to bears.

-Impacts of highways to bears can be reduced through the use of underpasses.

(Pet. Ex. 13, p. 3).

Appellants' witness Steve Gilbert was professionally involved with the review of two of the three road projects surrounding LOB: Highway 22 (the Conway Bypass) and Highway 31 (the Carolina Bays Parkway). (Tr. Day 1, 119-120). Gilbert explained that "wildlife wouldn't occur without the habitats, so if you degrade the habitat, you degrade the wildlife. That's all part and parcel." (Tr. Day 1, 101:6 to 101:9). Wildlife do not recognize human boundaries, instead they look for good habitat like that on either side of the present-day dirt road. (Tr. Day 1, 160). The dirt road has naturalized and there is even some ponding on the road, which indicates that the existing dirt road is not disturbing the continuous habitat. (Tr. Day 1, 160-61). As discussed above, the habitat on the West side of International Drive, opposite LOBHP, is very similar to the habitat at LOBHP. (Tr. Day 1, p. 126 & 175). It consists of about 4,000 acres of natural and undeveloped land, which is better bear habitat than anywhere else around LOBHP. (Tr. Day 5, p. 72; Tr. Day 3, p. 68).

However, if you open up a wide corridor with the proposed 125 foot roadway in the midst of wildlife habitat, it will fragment the habitat which is "not a good thing to happen." (Tr. Day 1, p. 161, lines 9-10). DNR prepared a report entitled "Lewis Ocean Bay Black Bear Corridor," in

which it explained that “[l]arge areas must remain in a natural condition in order for the bears to continue to survive here.” (Pet. Ex. 20, p. 1). Because highways “will permanently separate these habitats,” “[c]onnecting these preserves with a natural corridor will ensure this habitat is available for bears to use in the future.” (Pet. Ex. 20, p. 1).

Habitat fragmentation occurs by “putting up barriers to movements and opening up areas for invasive species and other species to come in.” (Tr. Day 1, p. 161, lines 11-13). Hamilton described fragmentation as anything to “disrupt the continuum of habitat type,” including by “putting in the highway.” (Tr. Day 3, p. 63, lines 11-15). Hamilton said that “[a]nything that breaks the pattern: the -- a housing development, a golf course, a highway. Anything that's different from that habitat that runs through the habitat would break the connectivity,” causing the habitat to be fragmented. (Tr. Day 3, p. 63, line 24 - p. 64, line 3). When “you can see it to the left, you can see it to the right, but it doesn't touch,” you have habitat fragmentation. (Tr. Day 3, p. 64, lines 4-6). Bennett testified that the proposed road project would impact the ecology of LOBHP because it would “fragment that habitat,” which means that LOB would be “completely separated by a large chunk of asphalt” from the adjacent “4 or 5,000 acres.” (Tr. Day 5, p. 74, lines 15-20). None of this testimony was refuted, and yet the ALC fails to make any findings regarding habitat fragmentation, and thus fails to consider any wildlife habitat fragmentation impacts in its conclusions. (Final Order, 2-5, 12-14, 25-29).

The McCown Report recommended the use of three underpasses in the construction of International Drive to reduce impacts of habitat fragmentation and minimize bear/vehicular collisions. (Pet. Ex. 13). Horry County originally agreed with its expert's recommendation for three underpasses, but later decided to renege on its agreement because it felt the underpasses were too costly.

In an attempt to understand what mitigation had been proposed to offset impacts from habitat fragmentation, Mr. Gilbert reviewed both the 2010 and the 2013 contracts between Horry County and DNR. (Tr. Day 1, 141). After reviewing both contracts, he conducted research to uncover the rationale for eliminating the three wildlife passages. (Tr. Day 1, 142). He reviewed DNR data on numbers of bears and bear-vehicle collisions, conducted a literature review and spoke with bear experts. (Tr. Day 1, 142). Specifically, Mr. Gilbert reviewed a thesis entitled "Population Abundance and Genetic Structure of Black Bears in Coastal South Carolina," prepared by Michael Drewry (hereinafter "Drewry Thesis"). (Tr. Day 1, 145-46; Pet. Ex. 16). The Drewry Thesis was submitted to DNR and identified habitat fragmentation caused by roads as a threat to bears and their habitat. (Pet. Ex. 16). The impacts of habitat fragmentation on bears and their habitat was further elucidated by Joe Hamilton, as discussed below.

Mr. Gilbert explained that the proposed road will have many significant impacts on LOBHP, the largest of which:

is the fragmentation impact that we talked about before and . . . a five-lane road going in [] will potentially reduce biodiversity in Lewis Ocean Bay because biodiversity is dependent upon free movement of the species in and out of an area of larger and larger blocks that have to move in, the more genes get into the populations that are there, so the population became -- become more stable, the more different species are able to survive in larger blocks of habitat indicative of biodiversity and this is important because biodiversity is -- if you look at ecology, you can -- you can take example of a big triangle and the more stable that ecosystem is, is by having more and more species there that can survive different environmental conditions that come in, so biodiversity will be affected.

(Tr. Day 1, p. 171, line 18 – p. 172, line 15).

Therefore, the road project would cause fragmentation of habitat by breaking the connectivity that currently exists on either side of the impassable dirt road. Habitat fragmentation does not

protect or enhance that habitat. Habitat fragmentation disrupts the aesthetic and environmental character of the area where the proposed road would be located. This habitat fragmentation is also inconsistent with the Lewis Ocean Bay Management Plan, and in contravention with its highest priority of uses, to protect that unique ecosystem complex. The habitat that will be fragmented is used by a variety of species, including the black bear.

d. Impacts to the Black Bear

LOBHP “is home to a population of black bears that will be impacted by this project.” McCown Report, 3. Based on DNR’s population and road kill data, Drewry concluded that we are approaching a point where the mortality is higher than what the local population can sustain. (Tr. Day 3, p. 74; Pet. Ex. 16). Hamilton concluded that the “birth rate is much lower than the mortality rate, so you could see a situation where, at some point, you would have zero bears living on Lewis Ocean Bay. (Tr. Day 3, p. 81, lines 11-14). Even Horry County’s expert concluded that mortality of black bears in the LOBHP area is not sustainable by the bear population in LOBHP. (McCown Report Pet. Ex. 13, p. 3). In other words, the paving of International Drive without wildlife passageways will cause the extinction of rare black bears in LOBHP.

Part of the problem for black bears’ survival is that they travel through natural habitat corridors. DNR has recognized that highways will permanently separate natural corridor habitats for the black bears, which would be an adverse impact. (Pet. Ex. 20; Tr. Day 1, p. 170).

As described by Hamilton:

If you have fragmented habitat, you increase the chances of bear/human encounters and, in this case, it's bear/automobile encounters. And that highway kill is a reflection of a bear's response to a broken home. The bedroom doesn't attach to the rest of the house. You've got to through some pitfall to get to the other end of the house. . . . it means the connectivity's been broken. . . . [I]f you had a house that was

separated like that, the best way, instead of opening yourself to being killed somehow in the open, is to go underneath from the bedroom underneath to the living room on the other side. And that's maintaining some movement of bears through that disjunct -- or the broken habitat.

(Tr. Day 3, p. 65, line 22 – p. 66, line 14).

Similarly, in their contract with Horry County, and as a result of the known impacts to bears from the surrounding roads, Horry County and DNR recognized and acknowledged that:

improving the road will create a dangerous threat of harm to animals traversing the area as well as a threat to the traveling public due to collisions with animals. Both Grantor and Grantee are especially concerned for the likelihood of collisions between motorists and black bears, therefore, the parties hereto agree that providing a safe and sure passage for animals to cross the road is in the best interests of the motoring public and the Lewis Ocean Bay Heritage Preserve.

(Pet. Ex. 10).¹⁴

Horry County and DNR revised the 2010 contract to eliminate the wildlife passages, but continued to recognize that “improving the road will create a dangerous threat of harm to animals traversing the area, as well as a threat of harm to the traveling public due to collisions with wildlife.”

(Pet. Ex. 11, p. 5). As explained by Joe Hamilton, “there’s a cancer that we have to address, and that cancer is the highway system around this 10,000-acre area that we are creating as a draw for bears.”

(Tr. Day 3, p. 173, lines 13-14).

According to Horry County’s bear expert, “it is possible or even likely that the LOB could eventually cease to support bears due solely to highway mortality.” (McCown Report Pet. Ex. 13, p. 6). Roads “not only affect bears directly through mortality, they may act as barriers or semi-

¹⁴The recognized threat of harm to black bears and motorists led the County to agree to install three 8' by 24' passageways to allow the bears to pass under the road. (Pet. Ex. 10; Tr. Day 1, p. 136). DNR has conducted studies to identify the locations of those passageways so that they would be located in the areas where the bears were known to cross the dirt road. (Tr. Day 1, p. 136).

barriers to movement. They affect bears through loss of habitat and by causing bears to avoid habitat adjacent to roads due to noise and disturbance.” (Id.). Habitat fragmentation caused by this road could alter their movements and prevent them from acquiring nutritional resources. (Id.) DNR’s expert agreed that the “road would likely form a barrier to movements” of the black bear, and that “development in the area may be increasingly isolating black bear populations so access to this adjacent tract is crucial for the persistence of black bears.” (Pet. Ex. 15, p. 1).

Bennett explained that “not only [do] roads isolate and fragment habitat, they also are associated with a great deal of road mortality.” (Tr. Day 5, lines 3-5). “[O]ne of the reasons Lewis Ocean Bay was protected was because of the black bear population, and, when you have road mortality, it obviously affects the population. . . . you’re losing individuals out of that population, and I believe the black bear is still listed as a rare species, especially in the coastal plain.” (Tr. Day 5, p. 77, line 24 – p. 78, line 6).

For all of these reasons, the proposed project will have a significant effect on the population of black bears utilizing LOBHP. The road as proposed (without FWS recommended underpasses) does not maintain nor enhance a healthy and viable population of bears. This project lies within critical bear habitat and that habitat is not protected or enhanced by the project. The road project would not alleviate impacts to LOBHP and the resources it supports, bears in particular. (Tr. Day 5, pp. 83-84). The project as proposed will likely extinguish the black bear population from LOBHP, which is in direct contradiction to the CMP and the Management Plan for LOBHP.

Certification must also be denied pursuant to the water quality regulations, which protect black bears as a species that dens in Carolina bay wetlands. The proposed activity will adversely impact Carolina bays that are wetlands. Black bears den in Carolina bays. Thus, Carolina bays

contain black bears, a rare species recognized by the state of South Carolina. Therefore, the proposed project must be denied pursuant to 61-101F.5.(c). See also In re Killington, Ltd., 159 Vt. 206, 217, 616 A.2d 241, 248 (1992) (recognizing that wetlands are necessary black bear habitat in denying authorization to fill wetlands).

In the guidelines for evaluation of all projects, the CMP requires consideration of: “the extent to which the project will protect, maintain or improve water quality, particularly in coastal aquatic areas of special resource value;” and “the possible long-range, cumulative effects of the project, when reviewed in the context of other possible development and the general character of the area.” CMP III-14.

The CMP requires that DHEC deny certification of projects “which would significantly impact a GAPC . . . unless there are no feasible alternatives or an overriding public interest can be demonstrated, and any substantial environmental impact is minimized.” CMP at III-14.I.(8). DHEC is required to assess whether there are negative impacts to a geographic area of particular concern and DHEC is required to apply the priority of uses for that particular GAPC. If a proposed project would “significantly impact a GAPC” it “will not be certified unless there are no feasible alternatives or an overriding public interest can be demonstrated, and any substantial environmental impact is minimized.” CMP at III-14.I.(8).

The CMP also contains policies applicable to Geographic Areas of Particular Concern, which are considered “[u]nique natural resource areas” and include “scarce or vulnerable habitats” and those of “vital importance in protecting and maintaining coastal resources.” CMP at IV-4, Policy A.2.a. Heritage Trust Preserves are identified as GAPCs and have specific policies triggered when a project would impact a Heritage Preserve. Those policies prohibit uses “which jeopardize the

integrity” of the Heritage Trust. CMP at IV-5, Policy A.2.a.(1). The policies also require DHEC to give a priority of uses for Heritage Preserves for uses “which are consistent with the management plan” and “which are compatible with the area’s wildlife and wildlife management.” CMP at IV-5, Policy A.2.a.(1).

Upon examination of the purposes and values LOBHP provides, it is evident that it contains numerous Carolina bays and provides habitat for black bears. Habitat like LOBHP is protected for the species that utilize that habitat. Under the Heritage Trust section of the GAPC policies, the priority of uses is uses which are consistent with the management plan developed for each property. The LOBHP management plan identifies black bears as being a rare species, which is also a species for which Lewis Ocean Bay Heritage Trust Preserve is managed.

In this case, LOBHP is a GAPC, it will be significantly impacted and there are feasible alternatives that would minimize these significant impacts. Moreover, the Petitioner presented evidence that there is no “overriding public interest” for the significant impacts on a GAPC, particularly when there are alternatives that would reduce the impacts on LOBHP and its wildlife resources. For these reasons, the project as certified is inconsistent with the GAPC policies applicable to Heritage Preserves because it will result in significant impacts, jeopardizing the integrity of a Heritage Preserve.

When public recreational lands are converted to other uses, the CMP requires “adequate replacement or compensation” and consideration of “degradation of environmental quality in these areas.” CMP at III-14.I.(9). Projects which would “have a significant negative impact on wildlife and fisheries resources, whether it be on the stocks themselves or their habitat, will not be approved unless overriding socio-economic considerations are involved.” CMP at III-51, Policy VII.A.1.(a).

“Wildlife and fisheries stocks and populations should be maintained in a healthy and viable condition and these resources should be enhanced to the maximum extent possible.” CMP at III-51, Policy VII.A.1.(b). And “Critical wildlife and fisheries habitat should be protected and enhanced to the extent possible.” CMP at III-51, Policy VII.A.1.(c).

In this case, the project as proposed violates the policies at CMP III-14.I.(9) and III-51.VII.A.1(a), (b) and (c) because it degrades the environmental quality of a LOBHP without compensating for its loss; it adversely effects wildlife populations, namely the black bear, rather than maintaining and enhancing the population in a healthy and viable condition; and it fails to protect or enhance critical wildlife habitat for the black bear.

In the guidelines for evaluation of all projects, the CMP requires consideration of: “the extent to which the project will protect, maintain or improve water quality, particularly in coastal aquatic areas of special resource value.” CMP III-4. This project will degrade water quality, including in LOBHP, which is a coastal aquatic area filled with wetlands, including Carolina bays, of special resource value. Therefore, this project is inconsistent with such considerations in the CMP, and must be denied.

2. Indirect & Cumulative Impacts

The 401 water quality regulations and CMP policies require that indirect and cumulative impacts of a project are addressed and considered. Regulation 61-101(F)(3) requires an assessment of “all potential water quality impacts of the project, both direct and indirect, over the life of the project including . . . the cumulative impacts of the proposed activity and reasonably foreseeable similar activities of the applicant and others.” Similarly, the CMP requires consideration of “the possible long-range, cumulative effects of the project, when reviewed in the context of other possible

development and the general character of the area.” CMP III-14(7). Thus, the Court must determine whether there are potential indirect and cumulative impacts to water quality and coastal resources from the proposed International Drive project and reasonably foreseeable similar activities of the applicant, Horry County, and others. The Court must also look at possible long-range cumulative effects of the International Drive project in light of the general character of the area where the proposed activity will occur.

Indirect impacts, or secondary impacts “are those that are reasonably foreseeable, but are . . . removed in time and space from the project, but related to it.” (Tr. Day 1 p. 173, lines 17-21). Cumulative impacts “result from the incremental impact of the action . . . when you add it to other past, present, and reasonable foreseeable future actions.” (Tr. Day 1 p. 176, lines 13-17). Therefore, there are indirect impacts to water quality and coastal resources from this project in terms of runoff, noise and light, loss of habitat and future development. Furthermore, there are cumulative impacts in terms of further degradation of water quality, coastal resources and habitat. The ALC erred by failing to find that future development would be inconsistent with the general character of the area or that any use of LOBHP would be disrupted or impacted by the project. (Final Order, 11).

The project at issue proposes to pave and widen what is currently an impassable dirt road into a 5-lane highway. The loss of wetlands and conversion to a significant impervious surface to construct the roadway will lead to “substantial runoff” of pollutants due to the the addition of cars which inevitably introduce pollutants to the system that will then runoff into the surrounding environs. (Tr. Day 1 pp. 205-206). Steve Gilbert testified that “there will be some additional water quality impacts, just basically having a five-lane, heavily traveled road with a number of . . . cars . . . leaking oil and gas and whatnot. The literature is replete with the fact that there is some pollution

that comes off of . . . that kind of condition.” (Tr. Day 1 pp. 172, line 21-173, line 8). Likewise, Steve Bennett testified that “pollution is an issue – hydrocarbons, lead from burning lead gasoline and from the tires will get into the environment.” (Tr. Day 5 p. 75, lines 13-16, pp. 99-100).

The stormwater system is designed to provide a hydrologic connection between the wetlands on either side of the road and to minimize sedimentation; however, it will not remove other pollutants that invariably are introduced to the environment when a road is installed and human activities are introduced. (Tr. Day 1 pp. 205-06, p. 261, lines 4-25). Indeed as Dr. Tufford testified “no storm water management plan is . . . even designed to be 100 percent effective in reducing impacts and . . . in the case of pollutants, the storm water management plan is . . . likely to be not very effective at all” (Tr. Day 1 p.250, lines 10-15). Rather storm water systems are “typically very inefficient in terms of removing other pollutants, nutrients, metals, organic contaminants that are associated with human activities.” (Tr. Day 1 p. 260, p. 261, lines 13-16). Wooten designed the road to be 80% efficient at removing sediment from stormwater, as required under state law. (Tr. Day 4, p. 248). He acknowledged that it was impossible to capture all of the sediment coming off the site and that there was no way to plan for the oil, gas and other pollutants leaking out of vehicles that will be driving on the road. (Id.).

Moreover, an engineered hydrologic connection provided by pipes between wetlands is not the same as the natural hydrologic connection of wetlands, streams, or other aquatic ecosystems that provide additional functions and values that a pipe cannot (*i.e.*, habitat, filtration, runoff control). (Tr. Day 1 pp. 271, line 7-272, line 12). Once those wetlands are gone, they are gone, and their loss cannot be replaced with a stormwater plan. (Tr. Day 1 250:1-19). The indirect impacts associated with runoff will be to the roadside wetlands for as long as the road exists, and will diminish the

water quality in the wetlands adjacent to the road and the larger aquatic systems, including in Carolina bays and LOBHP.

The proposed conversion of the existing dirt road into a 5-lane highway will result in a significant increase in both noise and light. (Tr. Day 1 p. 173, Day 3 p. 91, p. 114, line 15-116, line 11). The road is expected to get heavy usage, particularly by garbage trucks traveling to and from the Solid Waste Authority. (Tr. Day 2 p. 247-48, Day 4 pp. 293-94). The secondary impacts of noise and light will disturb the wildlife near the road, including in LOBHP in contravention with the purposes for which the property was dedicated and applicable law.

The ALC found and concluded that ten curb cuts would not have any long range or cumulative effects. The ALC's findings and conclusions with respect to cumulative impacts resulting from the curb cuts are not supported by substantial evidence. This project as proposed includes ten curb cuts along the western side of the road across from LOBHP. (Tr. Day 2 p. 236, Day 5 p. 97). The proposed ten curb cuts lead to what is now contiguous and substantially similar habitat to LOBHP. (Tr. Day 1 pp. 173-74). These ten curb cuts are proposed for two landowners. According to Steve Gilbert, who spent nearly three decades reviewing wetland permit applications as a biologist with the U.S. Fish and Wildlife Service, ten curb cuts to service two landowner parcels is "excessive" and "would lead to reasonable foreseeable secondary impacts of . . . development in that area" (Tr. Day 1 pp. 173, line 21-174, line 6) in light of and "based on what [he has] experienced over [his] career in how roads induce development." (Tr. Day 1 p. 187, lines 20-24). This was corroborated by testimony that when a new road is constructed with curb cuts, development follows. (Tr. Day 1 p. 173-74, 203-04, Day 4 p. 253, Day 5 pp. 96-97). There was also testimony that Horry County has undergone some planning for the potential development facilitated by those curb cuts.

(Tr. Day 1 pp. 203-04, Day 4 p. 94). According to Mike Wooten, curb cuts create a better opportunity for development to occur, and he anticipates some of the parcels will be developed if and when International Drive is paved. (Tr. Day 4, p. 252).

If there is development adjacent to LOBHP, it would “further isolate and fragment the habitat.” (Tr. Day 5, p. 100, lines 7-8). Future development in the pristine area where the project is proposed would have significant impacts to wildlife and water quality through loss and further degradation of habitat. (Tr. Day 1 p. 176-178). Gilbert opined that cumulative impacts “are very significant in this case and that:

species that you'd want to look at are black bears because they have been cumulatively already impacted by roads, by development reducing their habitat, by car deaths, and so if you add this to it, I think this -- such an analysis would really highlight the need to -- to minimize further fragmentation and habitat loss by this project . . . cumulative impact, again, based on the -- the black bear, which could be a surrogate for other large range-requiring species, would be to add to the already present -- already present, past, and reasonably foreseeable loss of their habitats and loss of their ability to travel between what habitat is left.

(Tr. Day 1, p. 176, line 25 – 177, line 20). The ALC ignored this undisputed substantial evidence in concluding that there would be no long-range cumulative impacts.

Furthermore, as to water quality, the land across the road from the preserve is nearly identical to the preserve itself. Aerial photos reveal that it contains Carolina bay formations and wetlands of the same “pristine or near pristine” quality that are on the other side of the road. (Tr. Day 1, p. 237). Thus, development to any extent would impact water quality by resulting in further runoff and degradation of the systems and loss of habitat, but it would almost invariably have to result in additional fill of wetlands, including Carolina bays. Yet the ALC brushed aside any consideration of these impacts because he felt development would be unlikely.

As the extensive impacts of the proposed project would be inconsistent with both the CMP and water quality regulations, the ALC made errors of law in allowing the certifications to stand. In addition, the ALC erred in concluding that there are no feasible alternatives which also warrants reversal, as discussed below.

C. There are Feasible Alternatives to the Proposed Construction which Also Warrant Denial of DHEC's Certifications

As discussed above, the impacts of this project alone are sufficient reason to deny certification of this project. However, certification should also be denied because there are feasible alternatives that reduce the environmental impact to this important ecological area. Both the CMP and 401 Water Quality Certification regulations require an evaluation of feasible alternatives to the proposed activity to ensure that adverse impacts are avoided or minimized. DHEC defines feasibility to include the concept of reasonableness, which is assessed in terms of alternative locations or sites, alternative methods of design or construction, and the no action alternative. CMP v(8).

Specifically, as it relates to the International Drive project, the following CMP policies must be taken into consideration: 1) projects "which would significantly impact a GAPC will not be approved or certified unless there are no feasible alternatives or an overriding public interest can be demonstrated, and any substantial environmental impact is minimized," CMP III-14(1)(8); 2) road projects "shall be aligned to avoid salt, brackish and freshwater wetlands wherever feasible" including use of bridging instead of filling to create roadbeds and use of existing fill areas for widening but also "median and right-of-way widths shall be limited where they will impact salt, brackish and freshwater wetlands," CMP III-22(1)(a); 3) projects "which would restrict or limit the continued use of a recreational open area or disrupt the character of such a natural area (aesthetically

or environmentally) will not be certified where other alternatives exist,” CMP III-73(D)(1); and 4) projects “which would require fill or other significant permanent alteration of a productive freshwater marsh will not be approved unless no feasible alternative exists or an overriding public interest can be demonstrated, and any substantial environmental impact can be minimized,” CMP III-73(E)(1). For road projects, the CMP requires that roads “shall be aligned to avoid . . . wetlands wherever feasible. Where they cannot be avoided, bridging of these wetlands and all navigable waterways, rather than filling to create roadbeds, will be required wherever feasible.” CMP at III-22, Policy II.B.(1)(a).

The 401 Water Quality Certification regulations also require an assessment of whether there are feasible alternatives to the International Drive project. See S.C. Code Ann. Regs. 61-101(F)(3)(b). DHEC is required to deny certification if: “there is a feasible alternative to the activity, which reduces adverse consequences on water quality” S.C. Code Ann. Regs. 61-101(F)(5)(b).

1. DHEC and the ALC Allowed the Applicant to Promote its Preferred Alternative Without Giving Serious Consideration to Other Alternatives

The County defined the purpose of the International Drive project to relieve current and anticipated traffic congestion and provide a “secondary” evacuation route to the Carolina Forest community. (Horry Ex. 3 p. 1). Admittedly, the applicant can define the project purpose in a manner that forecloses alternatives. (Tr. Day 2 pp. 22, 250). In this case, the County incorporated a need for the International Drive project into its defined purpose because of expected future development and corresponding congestion. (Tr. Day 2 p. 22). As a result, an alternative that would not entail the project moving forward was eliminated by the County as failing to meet the project purpose. (Tr. Day 2 pp. 22, 250). DHEC and the ALC adopted the County’s determination that a five-lane road

was the only alternative with merit.

Horry County's original 2013 permit application for International Drive included just two alternatives to the preferred design. (Tr. Day 3 pp. 296, 342). Both in 2014 and 2015, in response to questions, comments and concerns, Horry County was required to expand their alternatives analysis and provided additional justification supporting the preferred design. (Tr. Day 2 pp. 23-24, 250-51, Day 3 p. 305, 346; Horry Exs. 3&4). The County's 2014 and 2015 responses to comments expanded their alternatives analysis by listing options the County knew were not feasible or had already eliminated. (Tr. Day 3 p. 347).

The County's 2015 response was organized into distinct Offsite Alternatives and Onsite Alternatives sections. (Horry Ex. 4 pp. 3, 8). Under Offsite Alternatives, the County again included the preferred alternative, the Riverstone route and the No Action/No Build alternative, as well as an alternative that would run through the middle of LOBHP,¹⁵ an alternative referred to as the Truevine Community alternative that would affect an existing minority community,¹⁶ and alternatives that would involve limited improvements to Highway 501 or River Oaks Drive and Carolina Forest Boulevard. (Horry Ex. 4 pp. 3-7).

The County's 2015 response added a discussion of improvements to Highway 501 as an alternative that simply restated the problems with congestion on and growth around the highway,

¹⁵ The County had already determined that a route through LOBHP was not an alternative and ruled it out long before submitting it as part of its alternatives analysis in 2015 due to the nature of LOBHP as a Heritage Trust property. (Tr. Day 3 pp. 346-47).

¹⁶ The Truevine Community alternative is substantially similar to the preferred alternative, both following the majority of the existing alignment of the dirt road with the latter veering off that alignment near its intersection with Highway 90 where it would otherwise run through the Truevine community. (Tr. Day 3 pp. 348-49). This too was eliminated early on then later added back as part of the County's alternatives analysis in 2015. (Horry Ex. 4 p. 4).

only briefly mentioning a plan for a third southbound lane over a limited section and failing to assess the viability of more substantial improvements to the highway as a whole. (Tr. Day 3 p. 349). Likewise, the County referenced future plans to widen River Oaks Drive and Carolina Forest Boulevard but eliminated such improvements as an alternative by determining they would not meet the project purpose as defined. (Horry Ex. 4 pp. 5-6). Finally, with regard to Onsite Alternatives, the County defended the design criteria selected for the preferred alternative, including the 60-mph design speed, four traffic lanes with 10-foot shoulders and a median turning lane, no guardrails and no wildlife underpasses. (Horry Ex. 4, pp. 8-11). The U.S. Fish and Wildlife Service recommended reducing or eliminating the road shoulder to reduce impacts, but DHEC rejected that recommendation. (Pet. Ex. 5, p. 4).

While the No Action/No Build alternative was listed in the County's analysis, it never expanded upon or evaluated that alternative in any depth; rather, the No Action/No Build alternative was never considered a valid alternative by the County or DHEC and was effectively precluded by virtue of the project's defined purpose. (Tr. Day 2 pp. 22, 250, Day 3 pp. 344-45). Similarly, the ALC never meaningfully evaluated or considered it as a valid alternative and instead effectively precluded it by the project purpose as defined. (Final Order CITE).

DHEC, as the permitting agency responsible for reviewing applications for compliance with its policies and regulations, did not conduct its own alternatives analysis. (Tr. Day 2 p. 233). Nor did DHEC independently verify the information provided by the County through other means. (Tr. Day 2 p. 234). Instead, DHEC and the ALC relied on the face of the information and post hoc justification provided by the County supporting the preferred design of International Drive to arrive at the decision to authorize the project as proposed. The alternatives analysis component of a permit

application is a legal requirement, not merely an academic exercise. The County could not adequately evaluate alternatives to the International Drive project by presenting alternatives it had already rejected. Had a substantive analysis been undertaken, it would have revealed that reasonable alternatives exist that would result in fewer adverse impacts to LOBHP and its resources as contemplated under the CMP and 401 Water Quality regulations.

2. There are Feasible Alternatives to the Proposed Project that Reduce Impacts to Water Quality

There are several feasible alternatives to the proposed International Drive project, including: no action, restoration of the existing dirt road, the road proposed under the 2010 Contract, expansion of other existing roads in the area, and incorporating some amount of bridging into the current project. DHEC is tasked with making a determination as to whether there are any feasible alternatives under the regulations and must deny authorizations if any feasible alternative “reduces adverse consequences on water quality and classified uses.” R. 61-101F.5.(b).

The preferred alternative for the International Drive project involves impacts to over 24 acres of wetlands, most of which are presently pristine or near pristine in excellent condition. (Tr. Day 1 p. 237, Pet’r Ex. 8). The most effective way to protect the functions and values of those wetlands is, of course, to minimize the footprint of the road. (Tr. Day 1 p. 271). Dr. Tufford explained the wetland impacts as follows:

- Q: How could you improve connectivity and maximize wetland functions and values on this site?
A: With the road?
Q: Or not.
A: Or not. Take the existing road out and restore the whole thing. I -- I'm sorry. I'm not trying to be flip.
Q: That's ...

- A: Eliminating the impact altogether is -- is certainly the optimal thing you could do. The -- the next best thing would be to just leave things as they are, status quo or -- or possibly even add some additional ditches in there, but ...
- Q: And why is that? Can you explain to me just the -- the functional differences between a culvert and a restored wetland?
- A: Well, it goes back to what I say that the -- that the water does not exist in isolation from the rest of the wetland or -- or the -- or the adjacent upland. There's biogeochemical functions that occur, there are hydrologic functions that occur between the water and the -- and the -- and the rest of the wetland as well as there are purely ecological functions.
- Q: And just if -- if you know, would these culverts -- pipes under the road, would they serve as habitat for any of the plants that you saw in your site visit currently in the wetlands?
- A: No.

(Tr. Day 1 271:7-272:12)

The no action alternative represents the ultimate footprint minimization, and the evidence presented at trial reflects that such alternative is reasonable. DHEC's basis for authorizing the project was that the road would alleviate traffic congestion on Highway 501, which is the number one congested road in SC. However, Horry County's witnesses testified that International will have little impact on the traffic congestion problems of Highway 501, which is also slated for expansion itself. (Tr. Day 4 pp. 79-80, 93). In addition, Carolina Forest, which is the area of heavy growth driving the congestion of Highway 501, would not be served by the new road. (Tr. Day 4, p. 293).

The applicant's assertion that the road would be an evacuation route also proved to be unsupported. (Tr. Day Four pp. 33-37, 58-59). In fact, the proposed project may actually endanger public safety. (Tr. Day 1 pp. 173-74, 208, Day 2 pp. 46-47, Day 4 pp. 46-47, 180). The ten curb cuts along the new proposed roadway are intended to facilitate further development of adjacent tracts and will almost certainly increase congestion in the area. (Tr. Day 1 pp. 173-74, Day 2 pp. 26, 236, Day 5 p. 97, Chappelle Depo p. 46).

Unfortunately, the project purpose was defined so as to prevent consideration of the no action alternative, and DHEC and the ALC failed to give this alternative serious consideration. (Tr. Day 2 250:18-20 (“Q: The project purpose was defined in a manner that forecloses alternatives, right? A: Yes.”); Final Order p.7-8 (dismissing the no action alternative because of traffic congestion and water quality problems)). Appellants presented ample evidence of feasible alternatives. The no action alternative would certainly have less adverse consequences on water quality and classified uses, as well, since the wetlands that are proposed to be filled are in pristine or near pristine condition, and those in the aquatic ecosystem in the vicinity of the area would be polluted with the proposed project. (Tr. Day 1 pp. 175-76, 247-51). Thus, with no new impacts to water quality, wetlands, or habitat in this GAPC, the no action alternative is a feasible alternative that is consistent with the CMP and 401 Water Quality regulations. (Tr. Day 1 250:22-251:10).

A related alternative is the maintenance and restoration of the existing dirt road, which is presently impassable, so as to bring it back to a usable state. This feasible alternative would impact less wetlands, requiring no new fill, and have less impact on wetland hydrology than the proposed project, while allowing the emergency access that Horry County has frequently cited as the basis for the road expansion. (Tr. Day 1 pp. 250-52). This alternative was never considered by DHEC or the ALC, although the Final Order does recognize that the current road is inaccessible. (Final Order, 25)

Another feasible alternative, for which plans have already been prepared, is to build the two-lane road with three wildlife underpasses, as was agreed to in the 2010 Contract. (Tr. Day 4 p. 259, Pet’r Ex. 10). This alternative would provide an alternate route to relieve congestion and would also impact less wetlands because it would entail a smaller right-of-way. (Tr. Day 1 253:8-20, Tr. Day

2 247:1-248:2, Day 5 pp. 82-83).¹⁷ Indeed, the County's engineer testified that the proposed 125' right-of-way could be reduced to an 100' right-of-way and still comply with legal requirements. (Tr. Day 4 p. 258). This alternative would also result in fewer impacts to wildlife and avoid fragmentation of habitat through incorporation of the wildlife underpasses. (Tr. Day 1, 164-65, Day 2 44:25-45:23, Day 5 pp. 82-83). Moreover, the County realized a surplus in revenue from the RIDE II program, which it could use to construct wildlife underpasses as originally agreed rather than pursuing to pave the full four plus lanes of International Drive. (Tr. Day 4 pp. 111, 177-78). The ALC recognized that the two-lane road would not reach capacity for twenty years. (Final Order, 9). Yet, the ALC erroneously concluded that such a time limit makes the road not feasible. (Final Order, 10).

3. There are Feasible Alternatives that Would Minimize and Mitigate Adverse Impacts to Habitat and Wildlife

If a proposed project would "significantly impact a GAPC" it "will not be certified unless there are no feasible alternatives or an overriding public interest can be demonstrated, and any substantial environmental impact is minimized." CMP III-14. The Coastal Management Program policies require an assessment of alternatives when a project impacts a GAPC, wildlife or their habitats.

Mr. Gilbert reviewed the literature in an effort to determine whether any measures could be implemented to minimize and/or mitigate for the substantial impacts to LOBHP and its resources that would result from habitat loss, degradation and fragmentation. He found several studies

¹⁷ The ALC erroneously found that the right of way would have to be the same width regardless of the size of the road. (Final Order, 9). This finding is contrary to testimony, and common sense.

concluded that there is a “safe, effective design that has been used to allow large wildlife species, such as black bear, to pass under roadways and that it’s important to do so for connectivity and . . . reduction of interaction between bears and cars.” (Tr. Day 1, 164:14 to 164:20). One study found underpasses to be 86% effective in allowing bears to pass safely under the road from one side to the other. (Tr. Day 1, 165). Hamilton opined that you could “maintain the linkage of connectivity by allowing animals -- not just bears -- to go from Point A to Point B. Even if the highway is there, they can go under the highway, and that was why the proposal [for underpasses] was made, to maintain the connectivity rather than sending the bears up and over the highway.” (Tr. Day 3, p. 64, lines 9-15).

Walter McCown, Horry County’s bear expert, opined that “[w]ildlife underpasses will reduce direct mortality to bears from vehicle collisions, improve habitat connectivity and increase permeability of the road for bears (and other wildlife).” (Pet. Ex. 13, p. 7). Horry County’s McCown pointed out that crossing structures like the underpasses are estimated at 86% effective in reducing collisions between large mammals and vehicles. (Pet. Ex. 13, p. 7). McCown recommended, and DNR undertook, an effort to effectively locate the underpasses in areas based on topographic features and track studies to identify the bears’ crossing preferences. (Pet. Ex. 13, p. 7-8). McCown states that “[e]xperience has shown that some underpasses may be used by some bears virtually upon completion. . . . Inducements for bears to start using the crossings can be made by employing food or scent lures at underpasses.” (Pet. Ex. 13, p. 9). The ALC erred in rejecting these expert opinions, testimony, and evidence, to discount the viability of wildlife underpasses. McCown’s report was admitted as an admission of Horry County, and yet it was not mentioned or evaluated anywhere in the ALC’s Final Order. Instead, the ALC put considerable weight into the anecdotal testimony of

Bart Baca that a species of deer had increased in population after speed limits were reduced. (Final Order, 14).¹⁸

Decreasing the road from four lanes to two lanes would also minimize and mitigate some of the impacts to LOBHP and its resources. For “any organism crossing 125 feet versus 60 feet would be a greater risk, but, when you add in the underpasses, you increase the likelihood that any number of organisms – not just black bear – would be able to . . . successfully cross that road minimizing mortality to them and actually connecting that habitat to the habitat across the road.” (Tr. Day 5, p. 82, line 21 – p. 83, line 4). Underpasses “would not only allow bear but a lot of other wildlife to . . . cross unimpeded and would provide some connectivity, would basically ameliorate some of the isolation/habitat fragmentation.” (Tr. Day 5, p. 109, lines 19-23). Bennett was unable to uncover any scientific basis for eliminating the underpasses. (Tr. Day 5, p. 83). Implicit in the dedication agreement for LOBHP, the goal of DNR is to maintain the highest ecological and habitat integrity, and there is “no valid reason for changing from . . . two lanes to four lanes and doing away with bear underpasses, based on the goal of preserving the habitat integrity.” (Tr. Day 5, p. 110, lines 20-24).

Horry County has agreed to place a 45 mph speed limit on International Drive to address the concerns raised by the Fish and Wildlife Service, the Appellants, its own experts and those of DNR. However, a speed limit will not do anything to ameliorate the habitat fragmentation that the road will cause. (Tr. Day 3, p. 75). A “speed limit would give the driver a little more reaction time, but . . .

¹⁸ Mr. Baca testified that the key deer recovered in numbers when the speed limit was reduced. The key deer is not present in LOBHP, rendering its interactions with roads and the impact of speed limits on survival irrelevant or speculative at best. Mr. Baca’s testimony was based upon no scientific study or evaluation by anyone, including Mr. Baca, who claimed he had been talking about the recovery of key deer with a friend of his the week of the hearing. (Tr. Day 3, 262-63).

a several-thousand-pound projectile hitting an animal at 45 miles an hour is going to be pretty bad on the vehicle and animal.” (Tr. Day 3, p. 78, lines 18-22). Underpasses would maintain connectivity, avoid disrupting the travel corridors and ameliorate the highway kills. (Tr. Day 3, p. 76-77).

Hamilton testified that bears would approach a major road like this “with great caution because of the sight -- headlights and the sound of the traffic there. If there were some degree of connectivity from one side of the highway to the other underneath, they would use it.” (Tr. Day 3, p. 80, lines 4-9).

Based on the above, it is clear that feasible alternatives exist to the proposed International Drive project, which would minimize impacts to wetlands and water quality, to LOBHP, which is a special and unique area and a GAPC, and to LOBHP resources sought to be protected through the Heritage Trust Program. The ALC’s opinion fails to identify any scientifically valid reason not to include underpasses as an alternative and rejects copious scientific evidence from both Horry County and Appellants in so doing.

In this case, the ALC and DHEC erred by allowing the applicant to define the project purpose in order to foreclose the no action alternative as infeasible, when the definition of feasible expressly includes the no action alternative. Thus, the no action alternative is a feasible alternative. The no action alternative would reduce adverse consequences on water quality and classified uses because it would not fill or impact any wetlands and would allow for the continued preservation of LOBHP. Therefore, the authorization should be denied pursuant to Regulation 61-101F.5.(b).

Building the two-lane road as originally designed, planned and agreed to in the 2010 contract is a feasible alternative because it would serve to carry traffic. The road would have less impacts on

wetlands and LOBHP because it would be smaller than the proposed project. Therefore, the two-lane road is a feasible alternative that would also require denial of the project pursuant to Regulation 61-101F.5.(b). Another feasible alternative would be to construct the underpasses. That alternative would reduce the impacts on Lewis Ocean Bay Heritage Preserve and the habitats and wildlife it supports, and which are given special protection under the Coastal Management Program.

The ALC order is erroneous because the proposed project violates these regulations because it fails to minimize environmental impacts to LOBHP and the habitats and wildlife it supports, particularly when there are feasible alternatives that would reduce the impacts on those protected resources.

V. CONCLUSION

For all of these reasons, the Appellants ask this Court to overturn the orders of the ALC and deny DHEC's certifications for this project.

Respectfully submitted,

A handwritten signature in black ink, appearing to be 'Amelia A. Thompson', written over a horizontal line.

Amelia A. Thompson

Jessie A. White

Amy E. Armstrong

S.C. ENVIRONMENTAL LAW PROJECT

Post Office Box 1380

Pawleys Island, SC 29585

Telephone: (843) 527-0078

Fax: (843) 527-0540

Attorneys for the Appellants

Georgetown, South Carolina
November 23, 2016

STATE OF SOUTH CAROLINA
IN THE COURT OF APPEALS

RECEIVED

NOV 28 2016

SC Court of Appeals

APPEAL FROM THE ADMINISTRATIVE LAW COURT

Ralph King Anderson, III, Administrative Law Judge

Appellate Case No. 2016-001758

South Carolina Coastal Conservation League
and South Carolina Wildlife Federation Appellants,

vs.

South Carolina Department of Health and Environmental Control
and Horry County Public Works Respondents.

CERTIFICATE OF SERVICE

I hereby certify that on this date I served Respondents Horry County Public Works and SCDHEC with Appellants' Initial Brief, Designation of Matter and Motion to Exceed Page Limit for Initial Brief by placing copies of same in the U.S. Mail addressed to:

Stan Barnett, Esquire
Suite 100, Building F
1037 Chuck Dawley Blvd.
Mt. Pleasant, SC 29464

Nathan Haber, Esquire
DHEC/OCRM
1362 McMillan Avenue, Suite 400
Charleston, SC 29405

Michael Traynham, Esquire
DHEC Office of Counsel
2600 Bull Street
Columbia, SC 29201



Amelia A. Thompson

Georgetown, South Carolina

November 23, 2016



South Carolina Environmental Law Project

Lawyers for the Wild Side of South Carolina

November 23, 2016

a-501c3
non-profit organization

Amy E. Armstrong
Executive Director
Michael G. Corley
Staff Attorney
Amelia A. Thompson
Staff Attorney
Jessie A. White
Staff Attorney

MAIN OFFICE
430 Highmarket Street
Georgetown, SC 29440

MAILING ADDRESSES
P.O. Box 1380
Pawleys Island, SC 29585

P.O. Box 5761
Greenville, SC 29606

(843) 527-0078
(864) 412-7921
Fax (843) 527 0540
E-mail amy@scelp.org
michael@scelp.org
amelia@scelp.org
jessie@scelp.org

BOARD OF DIRECTORS

Frances Close
Chairperson

John Barton, Esq.
John Mark Dean, PhD
Margaret D. Fabri, Esq.
Paula Feldman, PhD
Susan Hilfer
Gary W. Poliakoff, Esq.
Leon Rice, Esq.
Greg VanDerwerker, MD
Nancy Vinson
Wendy Zara

BOARD MEMBER EMERITI

Daryl Hawkins, Esq.
Robert Schofield

ADVISORY COUNCIL

Josh Eagle, Esq.

Honorable Jenny Abbott Kitchings
Clerk, S. C. Court of Appeals
P.O. Box 11629
Columbia, S. C. 29211

RE: SC Coastal Conservation League and SC Wildlife
Federation v. SCDHEC and Horry County Public Works
Appellate Case No. 2016-001758

Dear Ms. Kitchings:

Enclosed for filing, please find the original and one copy each of the Appellants' Initial Brief and Designation of Matter, as well as the original and seven (7) copies of the Appellants' Motion to Exceed Page Limit for Initial Brief, along with my certificate of service.

Please return a clocked-in copy of each of the filings in the enclosed, postage-paid envelop. Thank you for your assistance.

Yours very truly,



Amelia A. Thompson

cc: Stan Barnett, Esq.
Michael Traynam, Esq.
Nathan Haber, Esq.

RECEIVED

NOV 28 2016

SC Court of Appeals