



ALABAMA COOPERATIVE EXTENSION SERVICE/AUBURN UNIVERSITY/AUBURN, ALABAMA

BEACHES and DUNES vs. OFF ROAD VEHICLES

a discussion of legal alternatives

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THE BEACH AND DUNE ENVIRONMENT

The beaches and dunes of coastal Alabama are part of a unique environmental system. These areas provide not only a defense against the ravages of the sea, but a unique recreational site. In recent years, several groups have voiced concern that both of these functions are threatened by man and his machine, namely, the off-road vehicle.

Sand dunes provide a natural levee against storm and tides. Covered by a variety of plant life, dunes are constantly changing. Sands shift with prevailing winds, moving down the beach. The leaves of the plants block the particles' passage, dropping them back to the ground. The plants' roots then serve as anchors, holding the millions of grains together. The beach provides the source of these sands. If a break were to form in these structures, water could cross through that break and flood inland areas. With each additional break, the protective service is greatly diminished. Erosion will quickly set in, leading to accelerated destruction of the dune. Breaks within dunes are easily formed. The plants which are so tough to winds are quite fragile to other pressures. Walking across this vegetation often is enough to destroy or hinder its growth. As soon as these plants are crushed, those areas are open to wind erosion. Sands have nothing to block their flight or anchor them in that area.

ORV's multiply this problem with their increased weight. Studies conducted in Cape Cod have shown that a few passes of an ORV infrequently is enough to destroy those plants which lie within their path and restrict new growth. Sand dunes--and beaches as well--provide nesting grounds for birds, sea turtles and many other animals. It is feared that these species might also suffer adverse effects due to the disturbance of the area.

In light of Hurricane Frederic, many home owners located along the Gulf are restoring not only their homes but their dunes as well, hoping that next time a storm arrives, their property might be better protected. The seedlings required in these efforts are quite fragile, and the sweep of a single tire could hinder any restoration efforts.

Beaches and dunes offer more than just protection, but recreational services as well. Beaches attract visitors year-round, for activities ranging from sunbathing to fishing. ORV's are used in many of these activities. Travel by vehicle on the beaches could be as simple as reaching your favorite fishing hole, or a nice secluded spot to swim. Others may use the beach as a thoroughfare, and the dunes as an obstacle course for their machines. Activities such as these could endanger both life and property. Any legislation which is drafted should take this aspect into account.

LEGISLATION OF ORV'S IN OTHER STATES

Other coastal states have faced similar problems and have enacted legislation to deal with these difficulties. Most of these regulations have met with some success and could serve as a basis for any new legislation in Alabama.

North Carolina has a statute which allows municipalities to "regulate, restrict and prohibit the use" of power-driven vehicles on the "foreshore beach strand and barrier dune system". A violation is considered a misdemeanor, punishable by a \$50 fine and/or imprisonment for not more than 30 days. This statute contains an express exception that the municipality shall not prohibit the use of such vehicles on the beaches "by commercial fishermen for commercial activities". N.C. GEN. STAT. § 160A-308

Under this ordinance several areas of North Carolina have established regulations for vehicle use on the beaches. While some areas have chosen to prohibit the use of all vehicles, many others have established elaborate licensing systems and requirements stipulating the type of vehicles which can be used.

Oregon and Maine have similar laws, as do the states of Delaware and Florida. Delaware, in its "Beach Preservation Act of 1972" provides that "no dune buggy, truck, automobile, motorized bicycle, mechanized vehicle or machine shall be operated on any public beach except in accordance with the rules and regulations" promulgated by the Department of Natural Resources and Environmental Control of that State. The Act also provides a definition of beach-- "that portion of the shore of any body of water which extends from the mean low watermark inland 1,000 feet, or to a roadway for automobiles, whichever is closer". DEL. CODE ANN. tit. 7, § 6803(d); § 6802(1).

In Florida, the Department of Natural Resources "shall establish coastal construction setback lines on a county basis along the sand beaches of the state..." Upon the establishment, approval, and recordation of such lines, no one may "drive any vehicle on, over or across any sand dune: or damage... such sand dune or the vegetation growing thereon seaward thereof..." Certain portions of the coastline may be exempted if in the judgment of the Department these areas are "not subject to erosion of a substantially damaging effect to the public". Violation is considered a misdemeanor of the second degree. (§161.053,W)

Galveston, Texas has a unique program for the management of beaches and dunes. The plan was drafted by the Island's city fathers. Beach traffic has been totally outlawed in some areas; parking facilities have been built and dune walkovers that provide beach access have become mandatory in all new subdivisions. Ordinances regarding types of plants which can be introduced to the area have also been passed. In addition, a public awareness program has been instituted which provides information on the importance of the dune and beach environments.

ORV LEGISLATION IN ALABAMA

Alabama does have some legislation regarding ORV use along the Gulf. These laws range from local ordinances to state statutes.

Measures that prohibit the use of motor vehicles on sand dunes in Mobile County have been provided for in the Alabama Coastal Area Management Program and Final Environmental Impact Statement. This same document contains a similar law for Baldwin County except that traffic is not banned from the actual beach. It should be noted that the ban is only in effect if property owners located along the beach are not in favor of vehicle operation. In addition, the Alabama Legislature passed Act No. 728 in 1977 which authorizes Baldwin County "to formulate, issue, promulgate, and enforce any reasonable rules, regulations and directives to regulate the operation of motorized vehicles upon coastal beaches or sand dunes located within the County" (see Appendix I). The CAB has also developed a rule which stipulates "it shall be in violation of the Coastal Area Management Program to alter the primary dunes system..." It could be argued that ORV traffic does, in fact, alter the dunes and therefore violates this rule. As in the laws mentioned previously, no stipulations have been mentioned regarding punishment for violation.

ENFORCEMENT OF EXISTING LEGISLATION

There are several agencies which may enforce these laws, although the primary responsibility has rested upon the Sheriff's Department. In Baldwin County the CAB has provided funding for a full-time patrol and a vehicle for his use. He is usually on duty during the daylight hours but often takes some of his own time to chase away the dune drivers during the night. He has noticed that the number of violations occurring during the winter months are substantially lower than those of the summer, but they certainly are far from non-existent. Most of the folks he stops are from out of town. These people also violate litter laws, according to the sheriff. He adds that the large quantities of trash he finds along the beach, particularly near Fort Morgan, are left by ORV users.

Under existing laws it is legal to drive the beach near Fort Morgan. The sheriff has said that during the fall he frequently will spot somewhere around 20 vehicles and up to 18 of which might have Florida tags. These are commercial fishermen, all of whom had their vehicles on the flat tidal areas of the beach, but the sheriff is quick to point out that in order to reach this area, these vehicles must cross a spot where a dune once stood at the end of an access road. The dunes in this area are all very low, offering limited protection. The break that was created by the traffic could have been a catalyst for this structural decay.

The sheriff very rarely tickets first offenders. It has been his experience that two-timers are rare. They have been informed of the law and act accordingly. In light of this, although the sheriff personally feels the law should be strengthened, he believes that any law, new or old, should be publicized.

Several groups have called for the adoption of a stricter law. They point out the police's difficulty in enforcing the existing law and the threats which ORV's pose to both life and property. They say that the existing law,

although it does not allow traffic on the dunes, promotes a temptation, and could be dangerous to the beachcomber and sunbather. They are calling for the total ban of all traffic in the beach and dune area. This, they say, will alleviate erosion problems along much of the coast and protect the rights of those who use the beach for recreational purposes. It will also eliminate many of the difficulties faced in enforcement.

Many four-wheel drive enthusiasts are also concerned with the coastal environment. They point out that four-wheel drive no longer means a kid in a pick-up truck tearing up the ground. Most are responsible and would not risk either their life or their vehicle by driving the dunes. They feel, though, that they do need access to the beach and that a complete ban will only create more problems than it solves. It will keep the law-abiding drivers off the tidal sands but won't keep the lawbreakers off the dunes.

Both the anti-ORV groups and the ORV users offered similar proposals which may help alleviate the conflict. Such things as increased parking facilities, dune walkover structures, increased patrols, and beach environment education programs should be established. An ORV owner suggested that costs for such programs could be defrayed by placing a fee on ORV enthusiasts who wish to use the beach.

FUTURE DIRECTIONS IN OFF-THE-ROAD VEHICLE LEGISLATION

During this legislative session it is probable that a bill will be introduced dealing with the control of off-the-road vehicle use on the sand dunes and beaches of Alabama. Because of the controversy surrounding this issue, it is apparent that any law which is enacted should adequately protect the interests of all parties involved and in the same token protect the lives and property of the residents of the State of Alabama. Therefore, the law should be precise and enforceable.

Strict definitions of the areas covered by the statute should be included, particularly wording which differentiates between beaches and dunes (see Appendix 2). Wording which applies to the operation of vehicles on private property might also be considered. Construction and emergency vehicles should be taken into consideration, and allowances should be made for their operation along the coast. Provisions which name the enforcing agency and the punishment given to violators may also need to be included.

Working from these guidelines, a wide variety of options exists. Some possible directions the Legislature may choose to take follow:

A. An outright prohibitory statute--A statute, enacted by the state legislature, which would flatly prohibit ORV use in designated areas, or all beaches and dunes. The statute could contain express provisions for enforcement, and define penalties for violation. This sort of statute would give perhaps the highest degree of protection to the beaches and dunes, although it might be criticized by some as harsh and inflexible, for failure to take into account the desires of ORV enthusiasts.

B. A limited statute--This type of statute, if enacted by the state legislature, would only partially remove off-road vehicles from the beaches.

This could be accomplished by providing that only certain beach and dune areas would be open to the vehicles, while other areas would remain closed, the determination to be made on the basis of probable environmental impact. A registration and permitting system might be used, perhaps to limit the number of vehicles on the beaches for a given year; funds received from registration could be used for beach and dune protection, restoration, and maintenance. Stiff penalties would probably be appropriate under such a statute, to discourage violations. This type of statute, while not offering the absolute protection provided by the first alternative discussed, has the advantage of being more flexible and may not alienate ORV enthusiasts.

C. Coastal Area Management Program control--As noted earlier in the discussion of Alabama's Coastal Area Management Program, the CAB would seem to already possess the authority to regulate or prohibit off-road vehicle use on the dunes, if it determines that such activity is not consistent with its Management Program. If efficient enforcement is provided, this would seem to give ample protection to the dunes, without the need for additional action by the legislature. The CAB does not possess the authority to ban ORV traffic from the beaches of Baldwin County--only the dunes--and this is part of the controversy. Many feel that this present program is ineffective, difficult to enforce, and is not a complete solution to the problems which exist. In addition, some might feel that a state statute would give more "solid" protection, and enforcement, than the regulatory activity of the Coastal Area Board.

D. Local and county control--As discussed previously, the state legislature already has given Mobile and Baldwin Counties some protection in this area. These statutes seem to allow for a fairly high degree of protection; however, there is apparently some feeling that these laws are not adequate. Another alternative would be to enact further legislation giving counties and municipalities the authority to develop their own laws to control ORV use. This approach has the appeal of maintaining local control, but it might not serve to protect adequately the beaches and dunes of the state, in which all of its citizens ultimately have an interest.

APPENDIX I

AA. SAND DUNE PROTECTION ACT - BALDWIN COUNTY

In 1973, the legislature enacted a measure aimed at the preservation of coastal sand within Baldwin County, Acts of Alabama, 1973, Act No. 775. The statute prohibits the operation of any motor vehicle upon coastal sand dunes located 50 feet or further from the waterline without the express written permission of the landowner. The Department of Conservation and Natural Resources is given the responsibility of posting notices to this effect at reasonable intervals along the applicable beaches.

If effectively implemented, this statute represents a dune preservation measure within the Baldwin County portion of the coastal area. The broad management authority of the Department of Conservation with respect to public lands, including those lands lying within 50 feet of the waterline, complements the Dunes Act.

BB. ISLAND BEACHES AND DUNES PRESERVATION ACT - MOBILE COUNTY

In 1975, the Alabama Legislature responded to the need for beach and dune preservation within the Mobile County portion of the coastal area by approval of Acts of Alabama, 1975, Act No. 1096. This legislation prohibits the operation of any motor vehicle upon the coastal beaches and/or sand dunes "located on any island within... (Mobile County) upon any... (recorded) subdivided portion thereof without the express written permission of the landowner and all adjacent landowners." Proper notice of the prohibition is required to be posted by the Department of Conservation and Natural Resources.

Considering the geography of the coastal area lying within Mobile County, this authority, coupled with the Department of Conservation's broad public land management authority, will protect coastal beaches and dunes from the impacts of motorized vehicle operation if effectively implemented.

CC. MOTORIZED VEHICLE ON BEACHES AND DUNES REGULATION ACT

In 1977, the Alabama Legislature passed Act No. 728, Acts of Alabama, 1977, which authorized the county governing bodies having a population according to the 1970 census of 57,000 to 61,000 to formulate, issue, promulgate and enforce any reasonable rules, regulations, and directives to regulate the operation of any motorized vehicle upon coastal beaches or sand dunes located within the county. Because of the population stipulations of this act, it applies to Baldwin County. If enacted, this act could help to provide some protection of the dunes by regulating motorized vehicles on the beaches and sand dunes.

APPENDIX II

BEACH -- a sandy shoreline area characterized by low relief, generally of gentle slope, and some vegetation. The beach extends from the waterline to 1) a change in physiographic form such as a dune or bluff, 2) a change in sediment type, such as clay from sand, and/or 3) a change in vegetation type.

Gulf beaches are those sand beaches of the mainland and islands in Alabama which are subjected to the direct wave action of the Gulf of Mexico. The upper limit of Gulf beaches is usually a transition from halophytic, succulent, prostrate plant forms such as Hydrocotyl bonariensis (pennywort), Cakile epentula (sea rocket), Iva imbricata (no common name), and Ipomoea stolonifera (seaside morning glory) to a zone occupied by grasses, shrubs, and the same prostrate forms mentioned above. Some grasses indicative of this transition are Uniola paniculata (sea oats), Spartina patens (saltmeadow cordgrass), Panicum amarulum (dune panicgrass), and Distichlis spicata (saltgrass). Shrubs found at this transition are Solidago pauciflosculosa (seaside goldenrod), Ceratiola ericoides (seaside rosemary), Ilex vomitoria (yaupon), Quercus virginica var. maritima (live oak), and Myrica cerifera (waxmyrtle).

Estuarine beaches are narrow, low energy beaches occurring along the protected margins of Mobile Bay, Perdido Bay, Mississippi Sound, and their various tributaries. The upper limit of estuarine beaches in Alabama can be distinguished easily by any or all of the three boundaries mentioned previously, that is 1) a change in physiographic form, 2) a change in sediment type, or 3) a change in vegetation type.

