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Developing Environmental Education, Nature-Based Tourism, and Outdoor Recreation Initiatives on a Solid Waste Management Site in Conway, South Carolina

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DEVELOPING ENVIRONMENTAL EDUCATION, NATURE-BASED TOURISM, AND OUTDOOR RECREATION INITIATIVES ON A SOILD WASTE MANAGEMENT SITE IN CONWAY, SOUTH CAROLINA

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by
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ABSTRACT

The Horry County South Carolina Solid Waste Authority was interested in creating a space that could serve the duties of the landfill and concurrently serve as an environmental education and recreation facility. They owned a large tract of land that was used to develop this concept. Several areas of minimal ecological importance are used as sorting facilities for storm debris and cap dirt excavation areas for use on the active landfill. The remainder of the 1,187 acre tract is planned for the development of an environmental education, nature-based tourism, and outdoor recreation center. A natural resources management plan was produced to promote and protect the ecological diversity of the tract. A geographic information system (GIS) was then produced for the tract and used to assist in making decisions on the placement of interpretive trails. This was followed up by a historical analysis of the area. The management recommendations, GIS data, and historical information were then combined to create a comprehensive educational web site for the property that showcases the efforts of the Authority to promote environmental stewardship.

DEDICATION

I dedicate this work to my Mother, Father, my brothers, and their families. I would not have been able to do this without their love and support.

ACKNOWLEDGMENTS

I would like to thank The Horry County Solid Waste Authority for funding this project and for taking interest in environmental protection and education. I would also like to thank Dr. Thomas J. Straka, Dr. Lawrence R. Gering, and Dr. William C. Norman for serving on my committee and providing incredible direction and insight throughout the project. I am also grateful to Dr. Greg K. Yarrow and Dr. Patrick McMillan for their input and advice on project details. Finally, I would like to thank Lee Williams for his hard work and dedication to making this endeavor a success.

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PREFACE

This project started out with a single purpose of providing the Horry County South Carolina Solid Waste Authority (HCSWA) with recommendations for managing a tract of land with two goals in mind: utilization of certain areas for solid waste practices and development of other areas for environmental education and stewardship. As the project moved forward it was clear that this endeavor would travel several different paths before coming back into one at the completion. The first step was to create a management plan for the many different habitat types and wildlife species. This was completed in July 2006 by fellow Clemson University graduate student Lee Williams. The next step was to develop a geographic information system (GIS) for the property that would aid in the decision making process for the placement of trails and educational areas. After the GIS was completed, the output was used to create an outline to meet the education and recreation goals that the HCSWA has for this tract. This included the need to know the history of the management of the area, which spun the project in another direction. The historical data was researched and provided enough information to produce a historical journal article documenting the tract's storied past and penchant for wildfire entitled, *History of the "Infamaous Buist Tract" and its Wildfires*. This article has been accepted for publication in the *Independent Republic Quarterly* and is included as section two of this manuscript. The historical data and the ecosystem data were integrated into the planning process to create a set of comprehensive goals for developing the tract into a showcase for industrial and environmental cooperation. This will be accomplished by the production of an interpretive trail system, an

interactive website to provide a preview of the site for potential visitors, and a field guide for the use of on-site visitors.

CREATING A DESTINATION FOR TOURISM, RECREATION, AND EDUCATION ON AN ACTIVE SOLID WASTE SITE

Introduction

Is it possible for environmental education, nature-based tourism, and outdoor recreation to coexist with solid waste management practices? That is the question that the Horry County Solid Waste Authority (HCSWA) needed to answer.

Horry County is located in the northeastern corner of South Carolina and is comprised of 1134 square miles, making it the largest county in the state in land area. Horry County is also home to the sixth largest population in the state (estimated to have 226,992 residents in 2005), was ranked first in population change from 1980-2000, and was first in average annual population growth rate from 1980-2000. It also had a population change of 4.1% from 2004-2005, placing it second in the state (South Carolina Association of Counties, 2006). In addition, the Myrtle Beach Area Chamber of Commerce (2006) estimates that the Grand Strand area received 13.2 million visitors in 2004.

The Horry County Solid Waste Authority has the responsibility of collecting and disposing the municipal solid waste (MSW) for all of the residents and visitors to the county. The South Carolina Department of Health and Environmental Control (SCDHEC) states that Horry County produced 7.9 pounds of MSW per person per day and a total of 315,398 tons of MSW for the 2005 fiscal year. This calculation is based on SCDHEC's population estimation of 217,608 (SCDHEC, 2006). In order to deal with all of the county's waste, HCSWA operates a 727 acre landfill on Highway 90. This facility includes a recycling convenience center, composting

facility, construction and demolition landfill, municipal solid waste landfill, and various other facilities. One of the goals of the HCSWA is to protect and maintain the environment and natural resources of the area. One way they do this is by educating the public in conservation and recycling through residential, commercial, and school programs. They were also the first landfill in South Carolina to implement a system to capture methane gas from closed portions of the landfill and transform it into electricity. This was done in cooperation with Santee Cooper and Horry Electric Cooperative and helped to create a successful Green Power program for the Electric Cooperatives of South Carolina.

The HCSWA recently acquired a tract of land that shares a border with the landfill property that they will use to expand their commitment to the environment. This piece of property is comprised of 1,187 acres of land and is commonly referred to as the HCSWA 1,187 Tract. The property is located on Highway 90 near Conway, SC (Figure1). It is entirely undeveloped and surrounded by a mixture of privately owned undeveloped timber land, residential development, and state owned land (Figure 2). One of the bordering properties is the Lewis Ocean Bay Heritage Preserve, which is a 9,383 acre natural area managed by the South Carolina Department of Natural Resources (SCDNR). The Authority has several goals for the 1,187 Tract that range from landfill activities such as utilization for storm debris collection and cap dirt excavation to restoring neglected ecosystems and maintaining

rare habitats to provide future educational and recreation opportunities. A management plan for the HCSWA 1,187 Tract was completed in 2006 by Clemson University student Lee Williams that provided prescriptions for wildlife and habitat improvements that will help the HCSWA reach their goals for the property (Williams, 2006).

Figure 1. Map showing the location of the HCSWA 1,187 Tract.

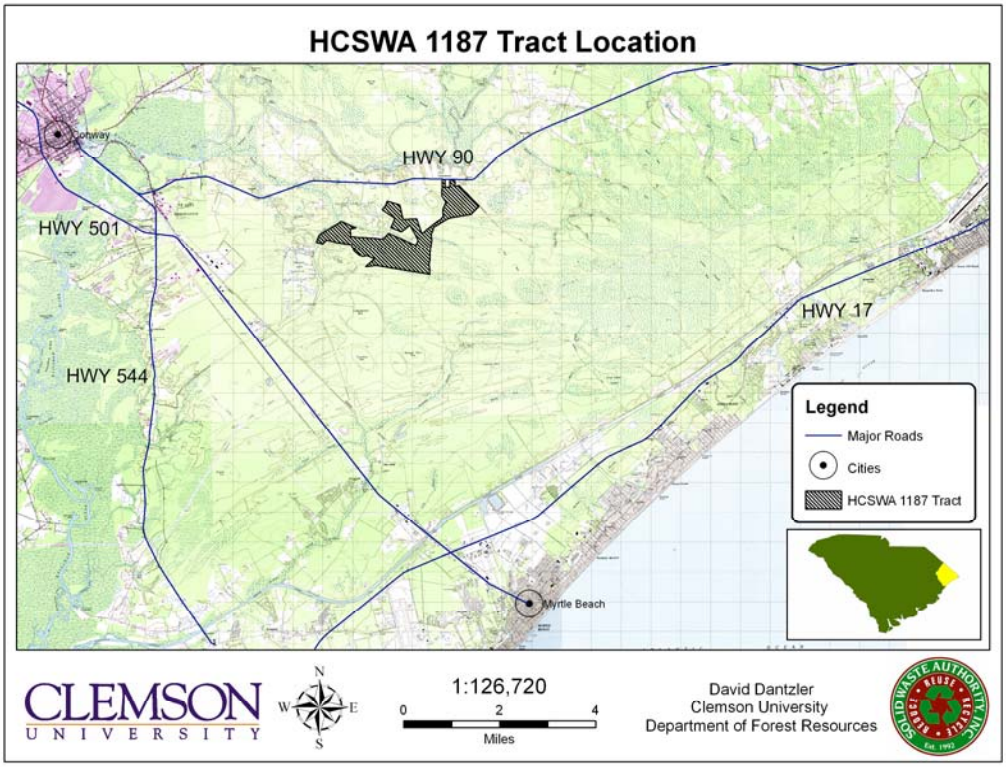
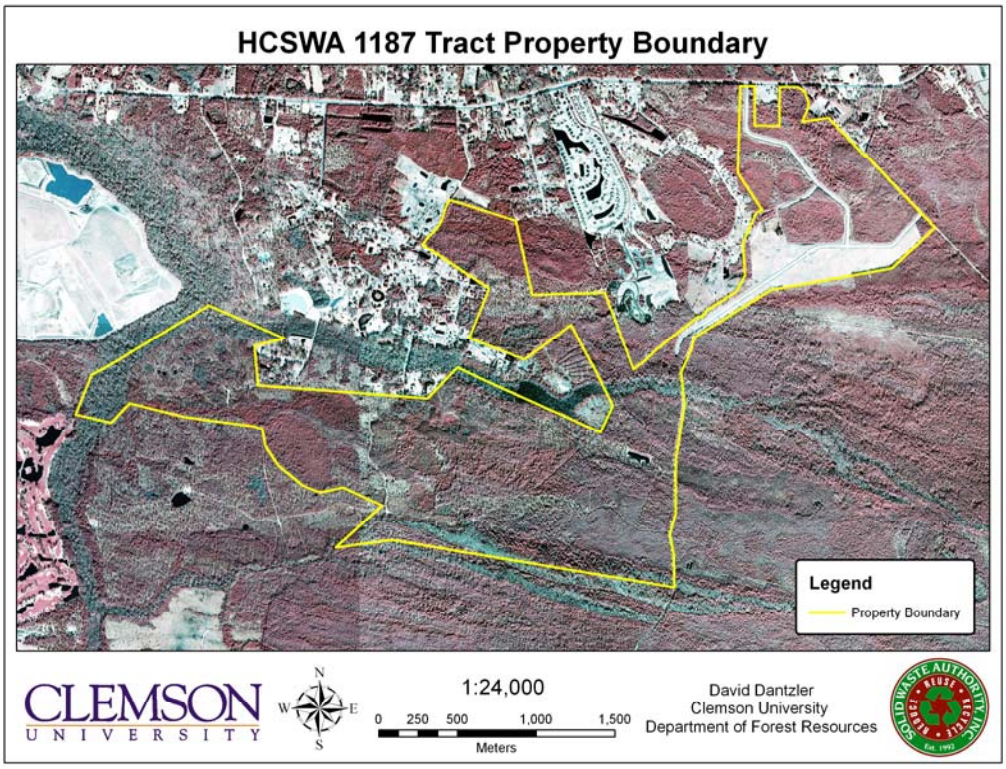


Figure 2. Map showing the property boundary of the HCSWA 1,187 Tract.



There will be two types of landfill activity occurring on the 1,187 Tract: storm debris collection and processing and cap dirt excavation. In conjunction with handling the day-to-day municipal waste for Horry County, the HCSWA must provide an area large enough to handle debris from a direct impact on Myrtle Beach by a category five hurricane. There are two areas within the tract that are designated as storm debris handling facilities (Figure 3). These areas have been clearcut and mulched in preparation for debris storage. These areas have a meadow-like appearance as they have been reseeded with native grasses (Figure 4). This will

provide some use for wildlife until they are needed for debris sorting. The Authority will also be using selected areas for excavating cap dirt for the active landfill. This excavation will occur in areas that are not environmentally sensitive or unique in order to limit the environmental impact.

Figure 3. Map showing the storm debris sorting facilities on the HCSWA 1,187 Tract.

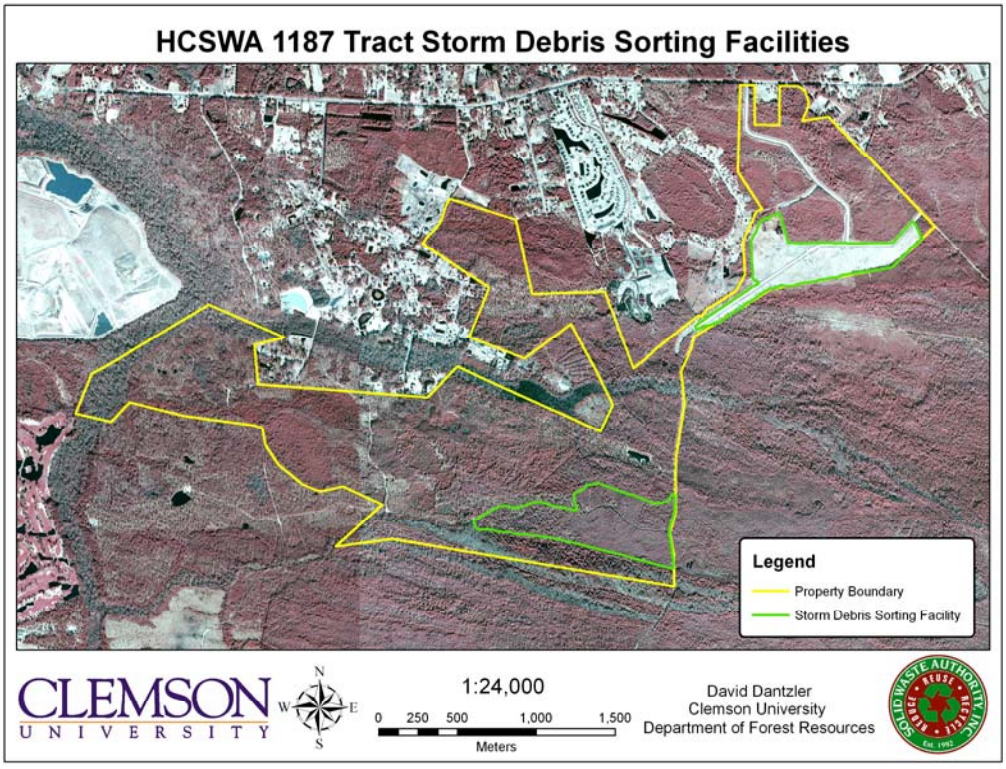


Figure 4. Photo of a storm debris sorting facility on the HCSWA 1,187 Tract.

The HCSWA 1,187 Tract contains many rare, unique habitats that provide excellent opportunities for environmental education and habitat preservation, including several intact Carolina bays, pond pine pocosins, bay forests, cypress-tupelo swamps, longleaf pine/wiregrass systems, and sinkholes. These assorted habitats provide food and shelter to a variety of wildlife species such as white-tailed deer, fox squirrels, feral hogs, and bobwhite quail. It is also one of the few places on the South Carolina coast with a healthy black bear population (Williams, 2006).

The variety of flora and fauna within the HCSWA 1,187 Tract along with its proximity to other natural recreation and tourism resources makes it an ideal location for developing an environmental education, nature-based tourism, and outdoor recreation center for the community. There are many views on what comprises nature-based tourism. The South Carolina Nature Based Tourism Association (2005) defined nature-based tourism as a sustainable economic activity that relies on an appreciation of natural and cultural resources, a desire to learn more about them, and behavior that promotes their conservation. Nature is the key point in the definition. Potential visitors to these areas are those that may want to learn about the attributes of the local ecosystems by gaining first hand experience and being a part of that environment for a short time. The 1,187 Tract has the potential for nature-based tourism because it can provide a destination for learning about the different plants and animals that the area has to offer and discovering techniques to help preserve the area for the enjoyment of future generations. It also provides and opportunity to learn about the history of the area and the occurrences that helped shape the ecosystems. One example of this could be the area's storied wildfire history. The Authority hopes to develop this property as an attraction for tourists

and local residents who enjoy nature, community groups such as garden clubs and Boy Scout Troops, as well as researchers and students from Horry County Schools and Coastal Carolina University. The proximity to Lewis Ocean Bay Heritage Preserve gives visitors to the area a chance to experience multiple coastal ecosystem sites in one trip.

Methodology

In order to determine the feasibility of creating an environmental destination on the 1,187 Tract, a geographic information system (GIS) was developed for the property. ESRI ArcView 9.1 software was used to process the data inputs that were required to produce the GIS. Completion of the GIS would allow many aspects of the property to be examined together in order to develop placement scenarios for features such as an educational center and walking trails. The GIS data is comprised of many layers of information that was acquired through fieldwork with a global positioning system (GPS) or through respected online data sources. The GPS unit that was used to collect field information on the site was a Trimble Geo Explorer XM. The North American Datum of 1983 was used with the Universal Transverse Mercator coordinate system in Zone 17 N. The raw data was differentially corrected using Trimble Pathfinder Office software version 3.0. Data that was collected in the field included roads, trails, storm debris facility boundaries, gates, a pond, and several points of interest. Other data that was acquired from other sources included the property lines, wetland boundaries, topographical maps, soil data, aerial photos, and assorted historical data. Sources for this data include the SCDNR GIS Data Clearinghouse and the HCSWA. Some of the interesting points that provide a

glimpse into the past of the property include an area that was part of an aerial bombing range target during World War II, a possible turpentine collection site, several sinkholes, an earthen log bridge that is still in use, and evidence of past avian and tree growth research. The GIS produced several maps that will be used to educate users on the features of the property. The first of these maps shows the topography of the tract by placing the property boundary on a USGS topographical map of the area (Figure 5). The next map in the series indicates the wetland boundaries on the tract (Figure 6). The third map shows the distribution of the nine soils classes that are found on the 1,187 Tract (Figure 7). The topographical map, wetland delineation boundaries, and soil class coverages that were used were retrieved from the SCDNR website. The soils map is followed by a map that shows the location of the roads that intersect the property and the gates that are used to control access (Figure 8). These roads and gates were located on site with the GPS unit. The fifth map highlights the portion of the tract that was part of a World War II bombing range target (Figure 9).

Figure 5. Map showing the topography of the HCSWA 1,187 Tract.

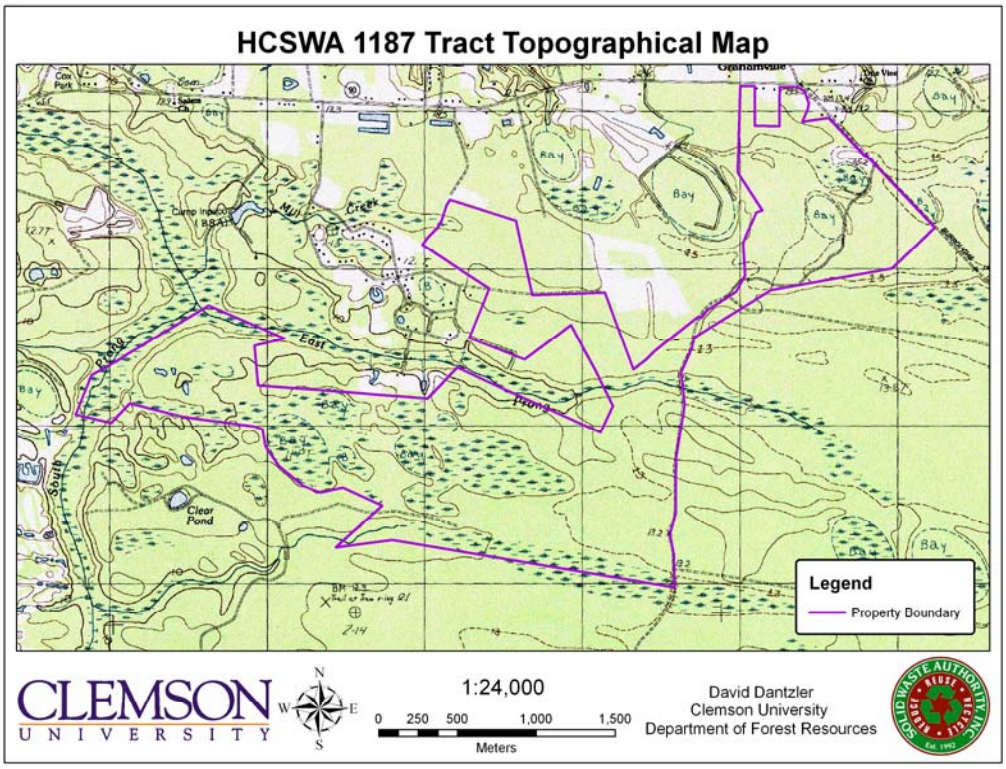


Figure 6. Map showing the wetland boundaries of the HCSWA 1,187 Tract.

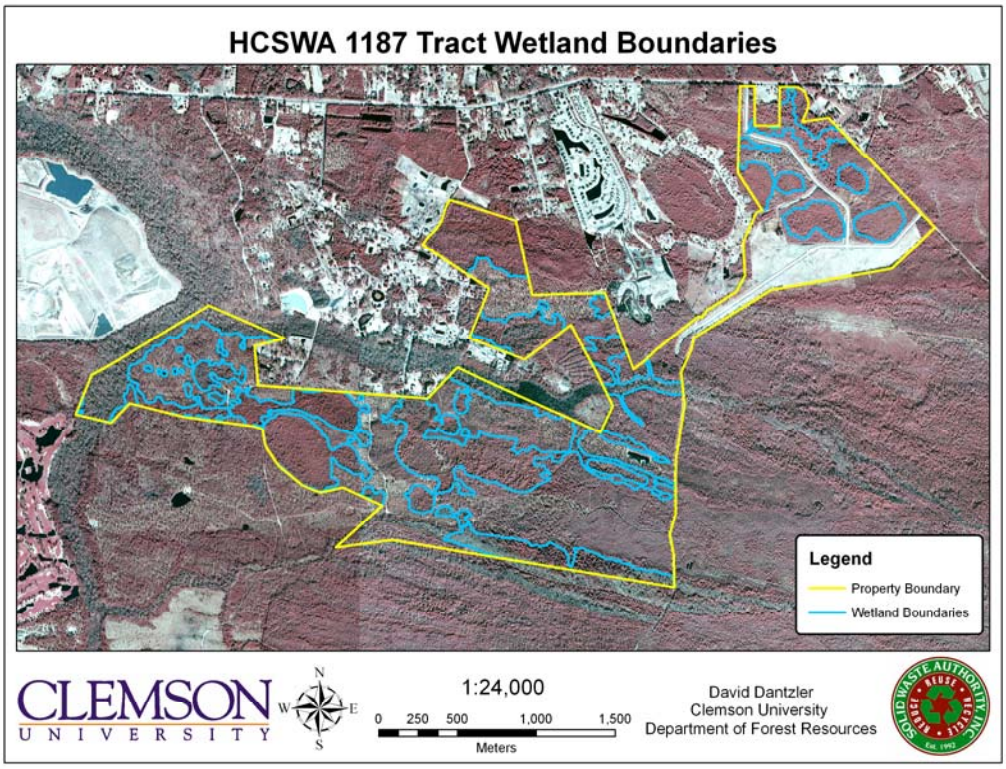


Figure 7. Map showing the soil classes of the HCSWA 1,187 Tract.

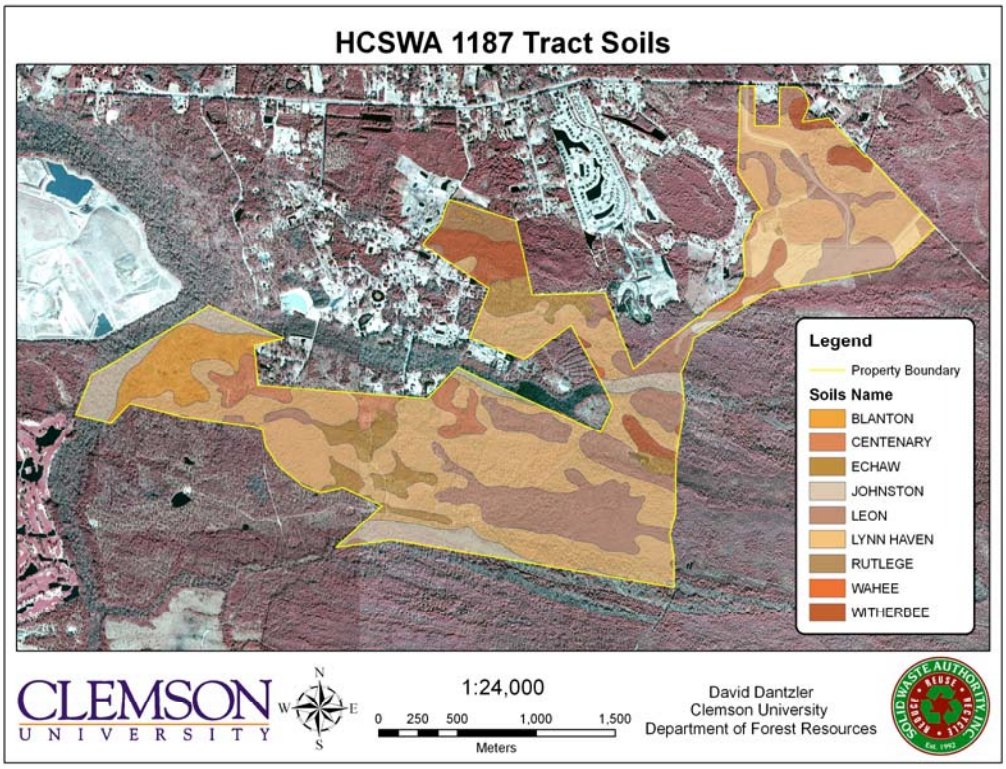


Figure 8. Map showing the interior roads and gates of the HCSWA 1,187 Tract.

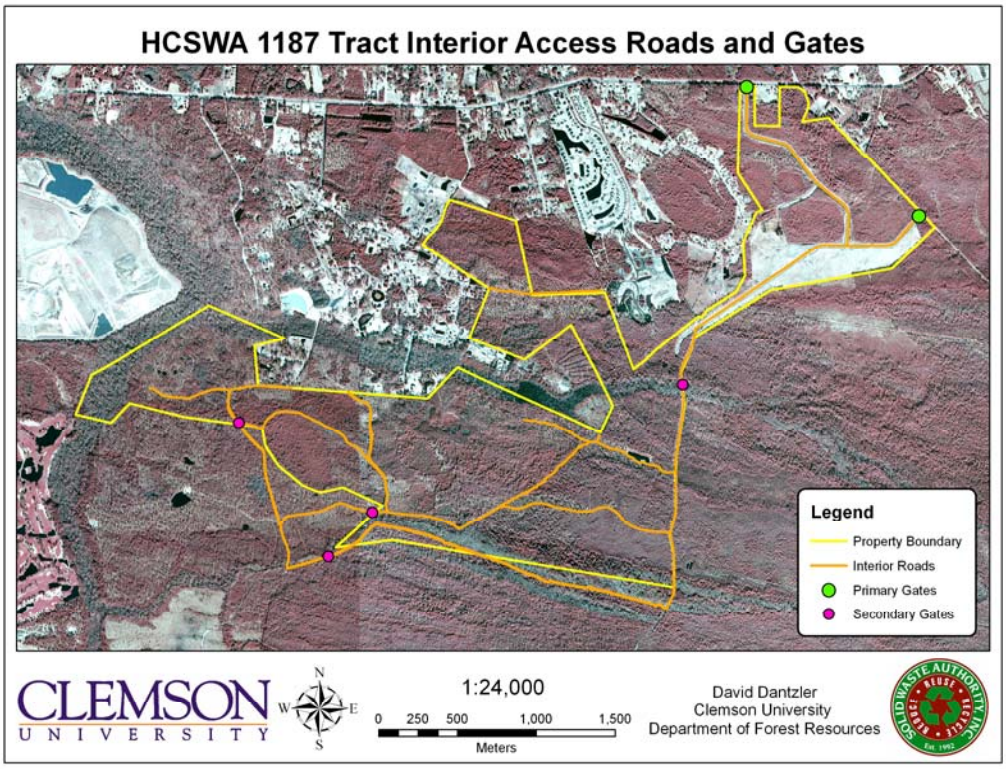
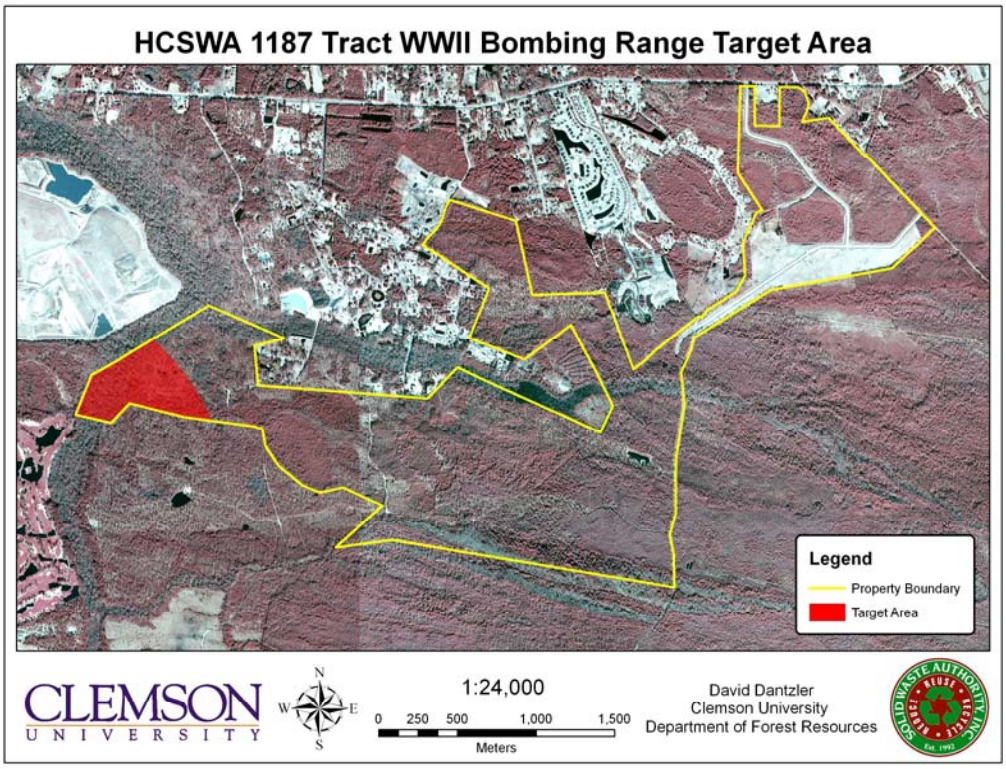


Figure 9. Map showing the portion of the HCSWA 1,187 Tract that was part of a bombing range target during WWII.



Products

The completion of the GIS lays the groundwork to create three important products: an interpretive trail system, an interactive web site, and a printed field guide. The combination of these components will provide a well rounded program that will allow the HCSWA to create a positive experience for visitors.

The first of three products is an interpretive trail system to be used by visitors to experience the diversity of the 1,187 Tract. The routing of the proposed trail system was designed with input from the HCSWA land manager and data from the GIS in order to link the existing trails on the property without encroaching on sensitive areas (Figure 10). Several components have been recommended for inclusion on the trail system such as: information kiosks or interpretive signs to display information regarding habitats, plants, and animals as well as trail directions (Figure 11); raised boardwalks in areas where the trail passes through wetlands (Figure 12); a raised observation platform on the rim of a Carolina bay to showcase the changes in vegetation (Figure 13); and an observation deck over the water in a beaver pond for wildlife viewing (Figure 14). A few details still need to be addressed in order to make this trail system a reality. There needs to be additional work done to assess the environmental impact of the proposed trail structures. An interpretation plan also needs to be developed to dictate the location and content of the trail signage and to develop educational materials that are consistent with the goals of the HCSWA.

Figure 10. Map showing proposed trails and visitor interest points on the HCSWA 1,187 Tract.

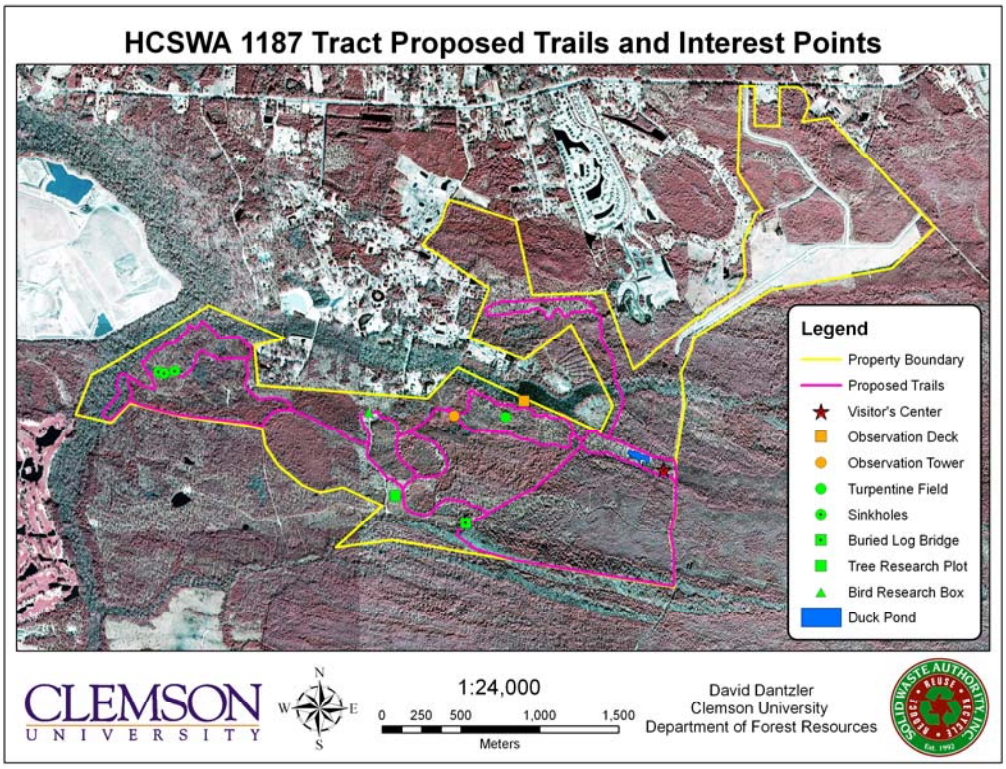


Figure 11. Examples of information kiosks and interpretive signs.

Figure 12. Example of a raised boardwalk traversing a wetland.

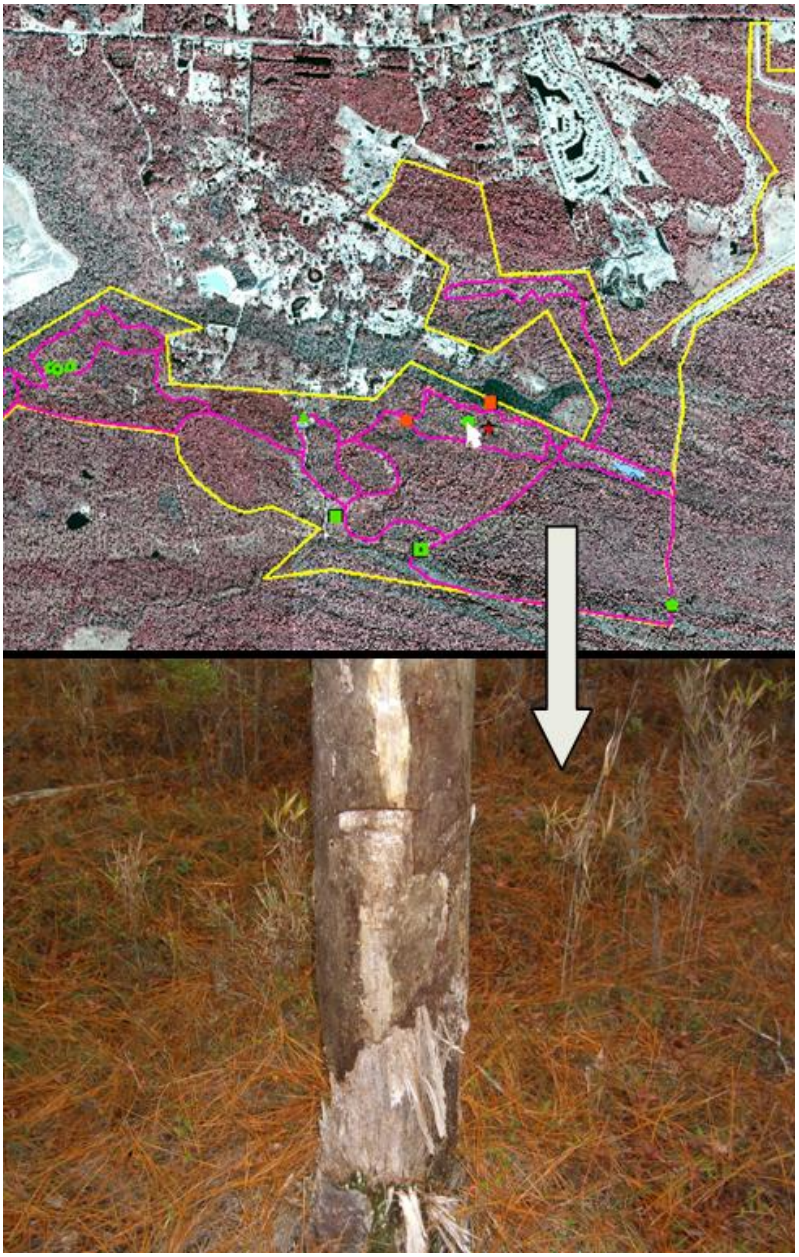
Figure 13. Example of a raised observation platform and the view from an elevated position over a Carolina bay.

Figure 14. Example of an observation deck over a lake and the view of the pond from the proposed deck location.

The second product that was developed from the completion of the GIS is an interactive web site that provides information to potential visitors of the property. It also serves as a platform for past visitors to review portions of their trip and learn more about the Horry County area. The website includes interactive maps with selectable features, photo galleries of interest points, links to historical data for the tract and the general area, a list of habitats, a list of animals, a list of plants, and information on the soil classes on the tract.

All of the maps from the GIS are available for viewing online. In certain cases the maps have interactive areas that users can select to learn more about a specific topic. This is be done by setting up hyperlinks on individual map features. For example, if web users want to learn about the turpentine industry, they can select the "turpentine field" point from the map of proposed trails and interest points. Selecting this point will take them to a separate page with photographs of the location on the tract and turpentine industry information from the management plan (Figure 15). Users will be able to use this process to access information on the individual interest points as well as soil classification data, historical information, and general photos of the property.

Figure 15. Example of the interactive map feature process where a user selects the Turpentine Field point on the map of proposed trails and interest points and is taken to a separate page with information on turpentining.



Aside from the interactive map component of the web site, users will be able to view a gallery of numerous photos taken around the tract of the plants, animals, and general features of the property. There may also be short videos included in the gallery once the trail system is fully functional.

Several interactive lists detailing the habitats, animals, and plants of the property will also be available to online visitors. The habitat list includes pocosins, Carolina bays, bay forests and swamps, longleaf pine, and ponds. The user can select any one of the habitat types to be taken to a page with information from the management plan about that habitat. The same process is continued for the wildlife information. The wildlife list includes black bear, eastern fox squirrel, feral hogs, eastern wild turkey, white-tailed deer, waterfowl, and potential endangered species like the red-cockaded woodpecker. The plant data is based on a list of nearly 400 species compiled by Dr. Patrick McMillan on an exploratory visit to the property and attests to the high diversity of the plant communities on the 1,187 Tract (McMillan, 2006). Users are also able to interact with this list. Selecting any of the plant species from the list will take the visitor to the United States Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS) Plant Database page detailing the selected species (USDA, NRCS, 2007). The final list will be that of the nine soil types found on the 1,187 Tract with links to the USDA, NRCS Official Soil Series Descriptions page for each soil type (Soil Survey Staff, NRCS, USDA, 2007).

Another interesting aspect of the web site to visitors will be the connection to historical data about the area in which the 1,187 Tract is located. It is part of an area that is locally known as the Buist Tract as the majority of the area was purchased by Mr. George Buist during the depression. It changed hands in the late 1930's when a

subsidiary of the International Paper Company purchased it from Mr. Buist. During World War II, much of the land in the area was claimed by the government to be used as a bombing range. After the war, most of the land was sold back to the previous owners. Development along the route from Myrtle Beach to Conway has taken its toll over the years and the tract has been sold off piece by piece. This area has also been the host of several destructive wildfires over the last half century, including the largest fire in South Carolina history. All of this historical information ties in to the educational goals of the HCSWA. The second portion of this manuscript addresses the storied history of this part of Horry County in detail.

The third product stemming from the production of a GIS for the 1,187 Tract will be a field guide for visitors. This guide will include maps for navigation of the trail system as well as information on selected plants, animals, and ecosystems. It should be concise and in pamphlet form to facilitate ease of use by trail visitors. There is also potential for the production of a detailed publication that contains a comprehensive look at the HCSWA 1,187 Tract and all that is has to offer.

Conclusions

The HCSWA 1,187 Tract is an area with tremendous potential to be a place where industrial use can coexist with environmental education, nature-based tourism, and outdoor recreation. It possesses the diversity and size to support multiple research projects and provide a destination for school and community groups to learn about the environment and history of the area. It will also provide an attraction that will give nature enthusiasts another reason to visit the Myrtle Beach area as well as providing the community residents with a place where they can get a

sense of origin in a rapidly developing landscape. Developing the trail system, web site, and field guide and providing this place as a resource to the county will be one more step for the Horry County Solid Waste Authority in their quest to provide valuable services to their community and to be good stewards of the environment.

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HISTORY OF THE "INFAMOUS BUIST TRACT" AND ITS WILDFIRES

Introduction

What is the Buist tract and what makes it infamous? The Buist Tract lies between Conway and Myrtle Beach and until recently it was the largest undeveloped tract of land on South Carolina's coast. Anyone driving down U.S. 501 from Conway to Myrtle Beach or bypassing Myrtle Beach on the Carolina Bays Parkway knows that much of the Buist Tract is now developed. The term "infamy" comes from the tract's wildfire history. It was the South Carolina Forestry Commission that used the phrase, "infamous Buist Tract,"[1] to describe the area where the single worst wildfire in state history occurred in 1976.

Thirty years ago there was little development on U.S. 501, from the outskirts of Conway to the Intracoastal Waterway. Today, at least in proximity to the highway, it is nearly all developed. Two new highways now bisect most of it. Still, large expanses of the tract remain undeveloped and much of it will never be developed. The factor that kept the area undeveloped was the almost impenetrable natural features called Carolina bays that are concentrated in the area. These bays are unique natural areas with many environmentally-sensitive plants, some of which are now protected. Lewis Ocean Bay Heritage Preserve protects nearly 9,400 acres in the heart of the area from development.[2]

This same tract has a history of being a bombing range. During World War II ground gunnery and bombing training took place in South Carolina. Large expanses of undeveloped land were needed for such training and one large expanse existed just west of the Grand Strand and Myrtle Beach, immediately west of the Intracoastal

Waterway. This area is generally bounded by State Highway 90 to the north, U.S. Highway 17 to the east and south, and U.S. Highway 501 to the west (Figure 18). Prior to World War II this area was largely privately-owned and was used for timbering, turpentining, and farming. The land was not highly productive for agriculture and was lightly settled.[3] One of the displaced landowners described the area prior to World War II as, "There was about 66,000 acres of woodlands, but very little farms within that. There was a fringe by the highway of small farms, but I expect 95 percent of it was just woods land."[4]

Nineteenth century maps show one village in the area of tract. Vaught, large enough to have a store and post office, was on the main road that led from Hickman's Crossroads in North Carolina (on what is now Highway 57) to Conway via Cox Ferry crossing on the Waccammaw River. Keep in mind there was no Waterway and the main road needed to be inland away from Little River Inlet and the swamps. The early road went south to Vaught on the northern portion of what would be the Buist Tract and then proceeded up the ridge that today is Highway 90 and over to Cox Ferry.[5] Early nineteenth century maps of Horry County usually show Vaught, and Robert Mills' 1825 map of the Horry District shows four Vaughts living on the northern portion of the area. The same map labels the vast center of the area "impassable bays."[6]

Carolina Bays

Geology and vegetation play a large role in the lack of early development in the area. Much of this area is covered in "Carolina bays." Carolina bays are shallow, generally elliptical depressions that align along their long axes in a general northwest/southeast direction.[7] They occur ubiquitously over the southeastern

Coastal Plain, ranging from New Jersey to northern Florida. But they are most common in southeastern North Carolina and the South Carolina Lowcountry.[8] Many of the Carolina bays in Horry County are surrounded by sandy rims or ridges, often more pronounced on the southeastern side. These can extend out several hundred feet. The bays range in size from a few acres to a few thousand acres.

Most of the Carolina bays in South Carolina rest on top of a thick impermeable clay layer (as much as 25 feet thick) that traps water and creates swamp bays or bogs. Usually Carolina bays have no drainage in or out of them and the main water input is precipitation and main water outflow is evapotranspiration. One thinks of these bays as being wetlands, but they are shallow basins that range from being permanently wet to sometimes dry.[9] These bays support a diverse habitat for rare plants and animals. The shallow depressions create permanent ecosystems that support a thick underbrush of evergreen plants, like sweet bay and red bay. They are the very essence of inhospitality and their impressive number in this region is the reason little development has occurred in the area.

A military report describes this area prior to World War II, "The surrounding country is thinly populated and, for the most part, densely wooded, and the ground in much of the territory is harried by an impenetrable mass of bayberry bushes, brambles and a multitude of noxious growths. A few small subsistence farms are to be found here and there but commercial planting on an extensive basis is non-existent because of the negligible agricultural value of the soil and the lack of adequate drainage."[10]

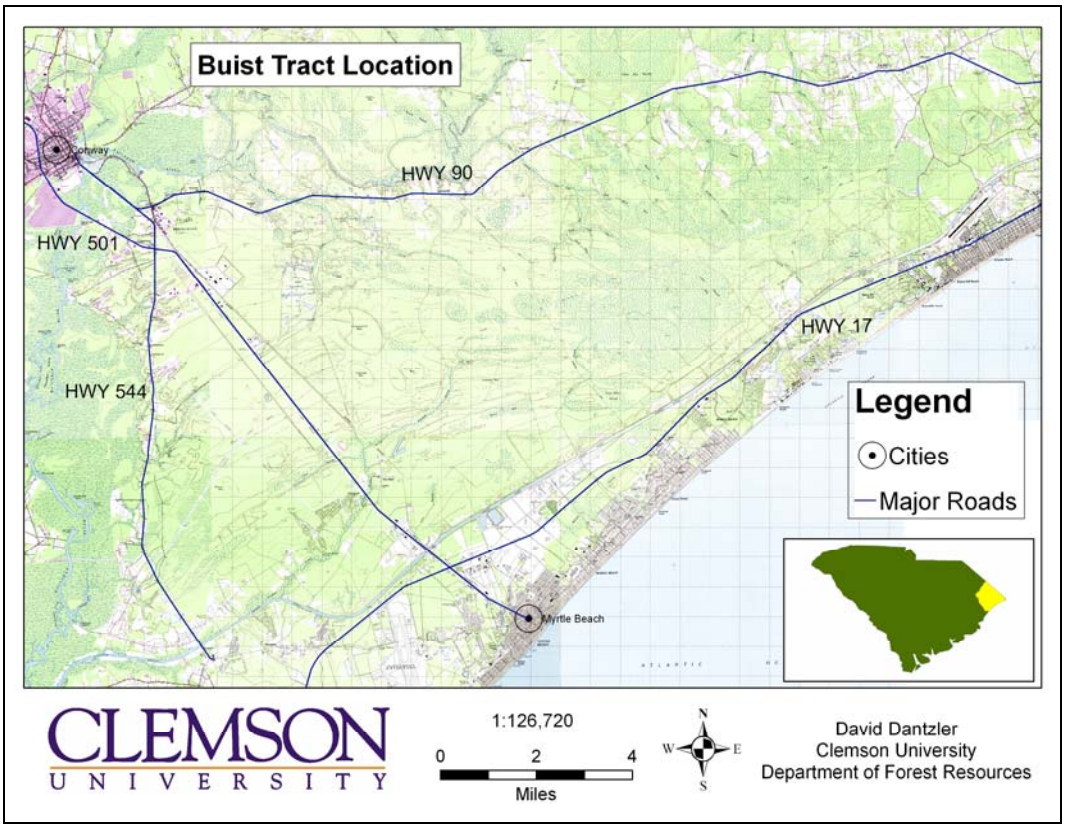
The Buist Tract

The Buist Tract is related to the large paper mill in Georgetown, SC. The Southern Kraft Company, a subsidiary of International Paper Company, constructed a Kraft mill there in the early 1930's. Their Woodlands Division began to purchase land and timber, and in 1936 they acquired a timber deed from Susie M. Tyson for the timber contained on a 600 acre tract that was part of what would become the Buist Tract. Ms. Tyson had acquired these timber rights from George Buist of Charleston. Mr. Buist engaged in land acquisition and had acquired 47,000 acres in Horry County that he called the Socastee Plantation.[11] The Socastee Plantation consisted of over 100 contiguous parcels, most of which were acquired in tax delinquency sales during the depression.[12]

Controversy arose when Mr. Buist claimed the 600 acres of pulpwood was not part of the Tyson timber deed. The Southern Kraft Company disagreed and Mr. Buist brought suit against the Company. In settling the suit discussion led to the possibility of the Company purchasing the 600 acres and eventually purchasing the entire 47,000 acres. On August 15, 1937 the Southern Kraft Company purchased 46,491 acres from George Buist for $6.00 per acre. Its boundaries were roughly Highway 544 (from Socastee to Conway), up Highway 9 to Wampee, and over to the Intracoastal Waterway (another boundary) (Figure 16). A local railroad traversed the tract from Conway to not-yet-developed Myrtle Beach along the route that would become U.S. 501. The tract was used to supply pulpwood to the Georgetown mill, logs to the Jackson Timber Company at Red Hill, and turpentine rights to chemical companies. By the end of the decade additional acquisitions brought the total acres

to 48,000, a block of land of 12 miles north to south and 6 miles east to west at its longest and widest.[13]

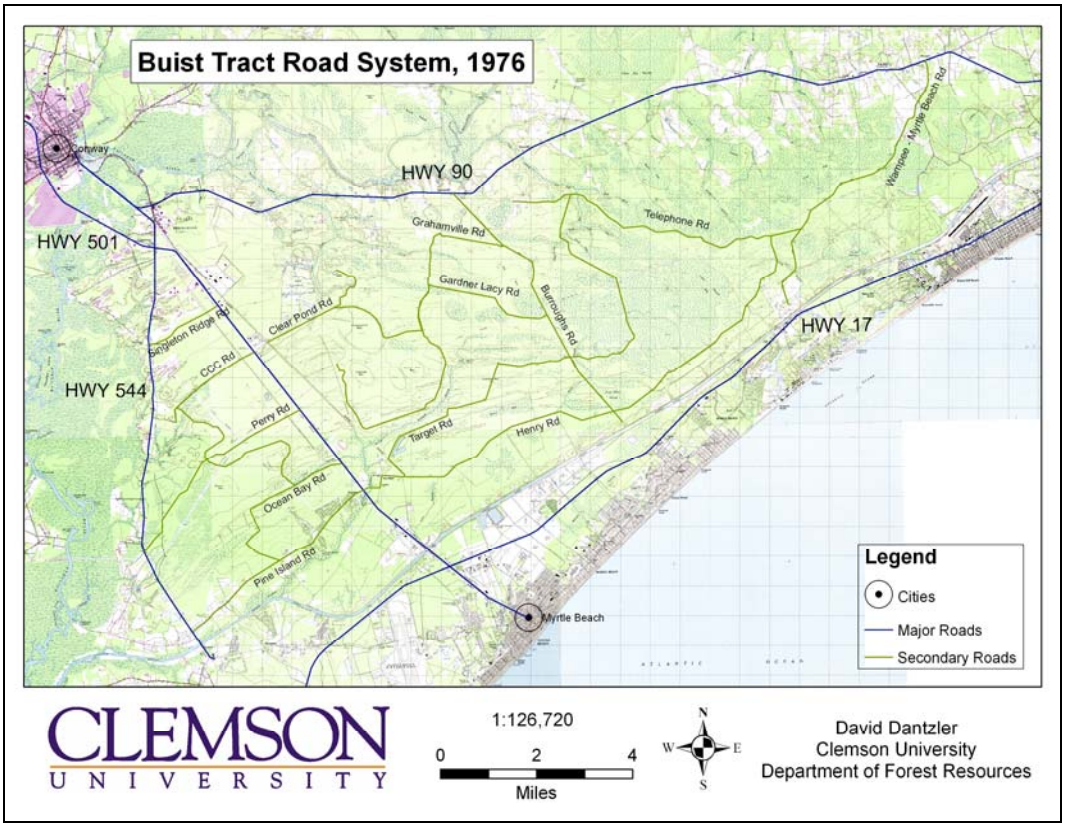
Figure 16. Map showing the general area known as the Buist Tract.



The road system consisted of single lane sandy roads. The Henry Road ran north-south, near and parallel to the Waterway (near the route of today's Carolina Bays Parkway), the Burroughs Road ran east-west from Highway 90 to the Waterway (now International Drive), and other major roads were the Telephone, CCC, Target, Gardner Lacy, Perry, Singleton Ridge, Ocean Bay, and Flowery Gap (Figure 17).[14]

At least parts of these roads are still in use. During World War II the Target and Cypress Road sections were used for aerial bombing practice and the lands adjacent to Telephone Road were used for aerial strafing practice. Thousands of bombs were exploded on the tract and many 50 caliber bullets ended up in the trees and ground.[15]

Figure 17. Map showing the road system within the Buist Tract in 1976.



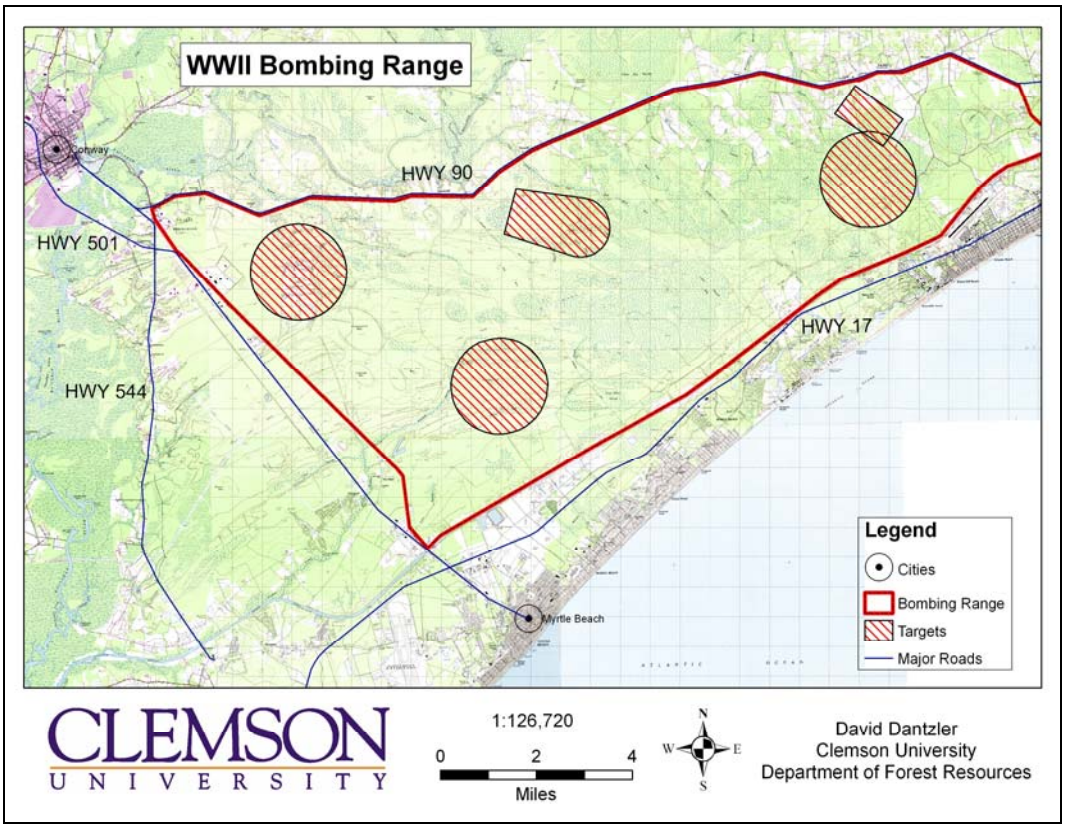
World War II Creates a Need

Part of the explanation this large block of undeveloped land persisted into this century was its use during World War II as a bombing range. Government necessity

created an uninhabited area of over 50,000 acres. This surely helped consolidate ownership and encourage the perception of wildness.

The attack on Pearl Harbor occurred December 7, 1941 and might be seen as the point of American involvement in World War II. However, weeks before that, people in Horry County were told in The Horry County Herald that large areas of their county may be required for a bombing range.[16] War Department requirements might oblige up to 300 people, mostly farmers, to move off of a proposed bombing range "...bounded by the railroad (from Red Hill to the waterway) on the southward, by highway number 90 (from Red Hill to the Wampee fire tower) and the Inland Waterway (from a point opposite the fire tower to the railroad bridge at Pine Island) (Figure 18)." Government agents had already gone through the area first leasing, then buying, land in the area. This included many homes along Highway 90. "This may turnout to be necessary, although sad and deplorable."[17]

Figure 18. Map showing the extent of the WWII bombing range and the individual target areas within the range.



Many people were upset a week later. All the other farms in the county were occupied by tenants, sharecroppers, or the owners themselves. There was little additional farm land available for any "refugees". People were to be compensated for their land and homes, but how much was the big question.[18] The first issue of the local newspaper after Pearl Harbor left little doubt what was to about to happen. Headlines screamed, "The Japanese War Situation Requires Bombing Range. Fifty-Four Thousand Acres Here are Required by the Federal Government Almost at Once. Timber Not Already Cut Will Be Left. War Department to Act Either by Outright Purchase of the Land or Condemnation."[19]

Over 300 families were expected to be displaced. The appraised value of the land and timber would be paid by the federal government. Some large land owners chose to cut and sell the timber rather than take the appraised value. There were disagreements over value, but a jury passed on contested valuations. One unanswered question was whether or not title would come back to original owners if the federal government no longer needed the land.[20] Suit was brought in federal court for immediate possession of the land; fair payment would be determined later.[21] Within a week, the newspaper reported the federal government was entitled to immediate possession of the lands and upon service of the court order could enter and take full and complete possession.[22] According to the US Army Corps of Engineers, the bombing range was comprised of 55,854 acres, of which 36,608 acres were leased and 19,246 acres were purchased.[23]

Before the month was over, it was forbidden for any additional buildings to be moved off the bombing range[24] and by the middle of February over 200 families had accepted the government offer and only 18 families remained.[25] Problems quickly arose, like a plan for owners to have one-half of property taxes for 1941 deducted from their settlement checks, but Congress legislated those away.[26] "Zero Hour" was Saturday, March 28, at noon. Everyone had to be off the land. Only seven families remained when zero hour was declared and some of those were in process of moving. Checks were already being paid to those who signed options.[27] Small problems persisted. Non-owners were removing windows and door fixtures from the new government property in April[28] and some had not been paid by July.[29] But by August a headline reported, "Plane Crashes on Bombing Range."[30]

In 1979 *The Independent Republic Quarterly* listed the individual tracts purchased and leased for the bombing range by tract number, former owner, and acreage sold or leased. A map of the range with tracts was also included in that issue.[31] That summary shows that the government purchased 19,226 acres and leased 36,196 acres. These numbers are nearly identical to the numbers published at the time. International Paper Company leased 34,684 acres to the government and Burroughs & Collins Company sold 2,334 acres and leased 142 acres. Myrtle Beach Farms had only 474 acres on the bombing range; Canal Wood Corporation had only 202 acres; and the Holliday family name is on 944 acres. Many family names are on multiple tracts, indicating adjoining family members or divided estates. Names that were on Mills' 1825 Atlas of Horry District show up on the list: Vaught, Bellamy, Vereen, Lewis, Green, Lee, and Cox.

The map of the Bombing Range confirms what the newspapers reported. Most of the farms were concentrated along Highway 90 to the north of the impassible bays of the earlier maps. These farms tended to be relatively small. Not considering the International Paper Company and Burroughs & Collins Company tracts, there were 270 tracts ranging from 0.17 to 866 acres. Table 1 gives the number of tracts by tract size.[32] Forty-nine of the tracts were less than 5 acres in size. Sixty-four percent of the tracts were less than 50 acres in size. Ninety-four percent of the tracts were less than 250 acres in size.

Table 1. Tracts sold or leased to the federal government for the Bombing Range, omitting International Paper Company and Burroughs & Collins Company lands.

Tract Size in Acres	Number of Tracts
Less than 5.00	49
5.00 to less than 10.00	26
10.00 to less than 25.00	49
25.00 to less than 50.00	50
50.00 to less than 100.00	46
100.00 to less than 250.00	35
250.00 to less than 500.00	9
500.00 to less than 867.00	6

One of the wives of a relocated farmer described the move as, "We got notice that we had to be out in thirty days, and that was almost impossible to do. After we got the notice, we got ready to move, there weren't any vacant houses in the community, so we decided we would tear down our pack house where we stored our tobacco in the summer, and we tore it down and rebuilt it on a place that we had about a mile up the road, then moved our furniture in, and it was really a 'pack house' then! We lived in there for four months while they were tearing down our other house. ... We had a small – thirty-four acres of land - up there. We rebuilt our house on it, so the house I'm living in is really the house that I lived in down the road."[33]

Depending on the time frame and source, the area was called the Conway Bombing and Gunnery Range, the Myrtle Beach General Bombing Range, or the Horry County Bombing Range. From June 1940 to December 1941 various units of the Army Air Corps were assigned to the Myrtle Beach Municipal Airport. In March 1942 the airport became the Myrtle Beach General Bombing and Gunnery Range and in 1943 it became the Myrtle Beach Army Air Field.[34]

The Conway Bombing and Gunnery Range consisted of five bombing ranges, and five small arms ranges. Primary uses were demolition bombing; practice bombing; moving machine gun firing; rifle marksmanship; pattern bombing; skip bombing; rocket firing; parafrag bombing; fixed, flexible and aerial gunnery; high medium and low altitude bombing; night bombing; and air to ground gunnery. The range was heavily used until early 1946. Starting in 1945 some leases were terminated and all were terminated by late 1948. In mid-1948 acres owned by the government were transferred to the War Assets Administration and eventually sold.[35]

In early 1949 the newspaper reported that the Federal Land Bank was renting an office in Conway to offer these lands back to former owners or others if necessary. Some of the lands were to be sold to the Town of Myrtle Beach on a priority basis and the Town of Conway had claimed some lands on the same basis. Conway had planned for an airport and perhaps a golf course on some of the land, but withdrew its application.[36] By June the office was open and former owners were notified when to call. Most of the land being offered for sale was facing Highway 90. Many people were reported to be interested in reacquiring the properties.[37] One displaced landowner reported, "We sold our property. We got it back in about four or six

years. I know we'd begun to think that we weren't going to get it back. They sold it back to us at a reduced price."[38]

In September the newspapers reported, "After a long time the former owners of the ... big section of Horry County known as the Myrtle Beach Bombing and Gunnery Range managed to convince congressmen that they should have their lands back. They had until Sept. 15 to exercise priority and it appears by great number of federal deeds now on file for record that a great majority of the former owners have their land back now and already a great development is taking place in all that section of Horry as a visit there will show. What is left will be advertised and sold off."

"It is not forgotten that the government evidently took more of these lands than was necessary for the purpose of airplane practice. It is remembered that the warplanes took the entire county as their field of operations. These plans didn't confine their operations to the land they had purchased and condemned within the lines of the bombing range. Not at all. Farmers in far outlying section remember that missiles were dropped (unintentionally of course) now and then on lands that had not been taken. But all that is forgotten now as the former owners have taken their lands back."

"The country roads and county roads are still being opened up again and are being traversed by trucks hauling out saw timber and pulp wood from large tracts. Furthermore, there are signs all about that the fields within the range are being recleared of small growth that sprang up there during the war."

"The government cut little timber off the land. They had a small mill at Nixonville and another at another point. They disposed of timber on only a few tracts near Myrtle Beach."[39]

The wild nature of the area also ensured it was an area of ample wildlife. Black bear and herds of deer were reported. For the period that the government owned the land, over five years, the game was reported to have multiplied as "never before." Bears destroyed an acre of corn field not far from Myrtle Beach near Singleton's Swash. A 300-400 pound black bear was shot there. "It is not unusual for motorists driving the new road that connects Conway and Myrtle Beach to see bears crossing the road ahead of them." The former owners posted the lands, and some owners organized hunt clubs.[40] By October problems are noted on the lands. Regular patrol of the section had ceased and trespassers went unnoticed. Hunting of bears using dogs was not entirely popular and one whole pack of bear dogs died after eating poisoned meat.[41]

Post-War Years

By the end of the 1940's 2,500 acres were added to the tract in the northern section. The air base in Myrtle Beach necessitated a shorter trip between Conway and Myrtle Beach and between 1940 and 1946 a two-lane Highway 501 was constructed through the tract (with a 210-acre right-of-way going to the state). In the early 1950's the Southern Kraft Company became the Southern Kraft Division of International Paper Company. The post-war boom started and Myrtle Beach began to develop.[42]

West of the Waterway much of the timbering was performed by E. Craig Wall's Canal Wood Corporation (they had purchased the Jackson Lumber Company and operated on their own lands and the Buist Tract) and east of the Waterway much of the timbering was performed by the Burroughs Timber Company (with ties to the land-developing Myrtle Beach Farms Company). With good foresight, the

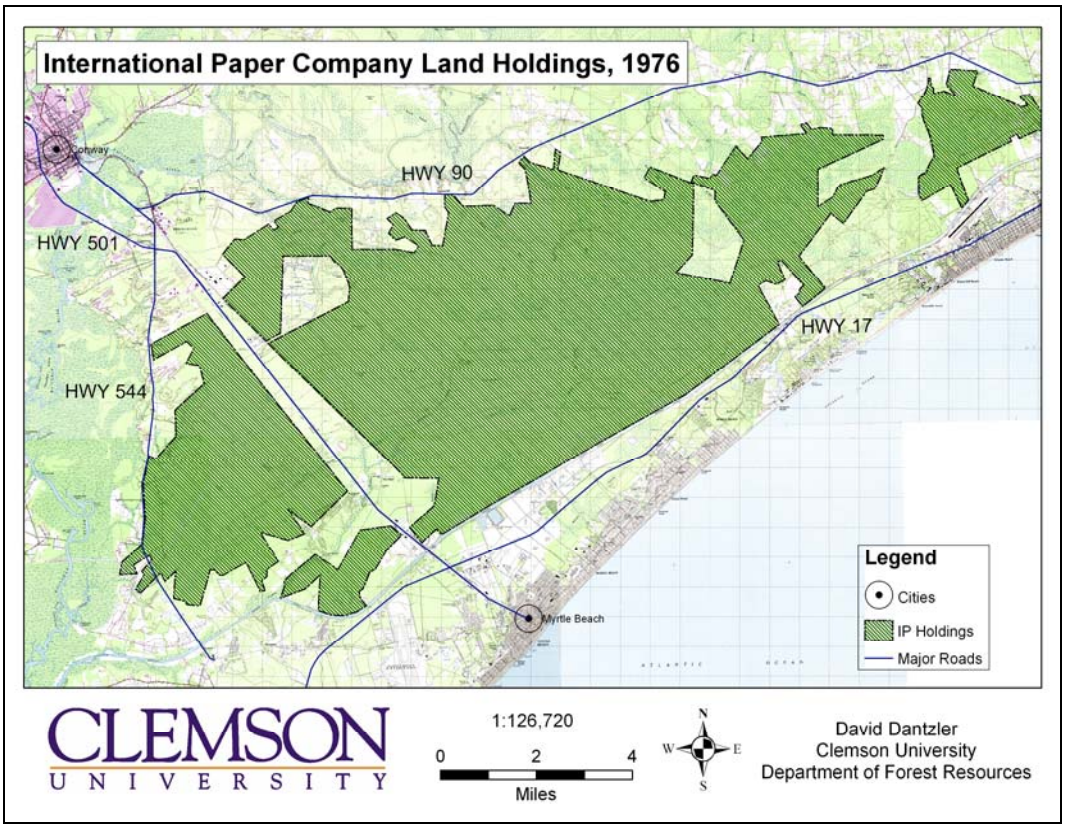
Burroughs interests proposed a land exchange with International Paper Company; 2,700 acres located in the middle of the Buist Tract on both sides of Highway 501 for 8,000 acres in northern Horry County. International Paper was mainly interested in growing timber and the exchange took place in 1956. Burroughs expected Myrtle Beach to eventually grow west along this corridor and it did. During the 1950's International Paper added another 2,700 acres to the Buist Tract, so its net acres remained the same. In the 1960's land sales exceeded purchases by 1,500 acres and the Buist Tract comprised about 49,000 acres.[43]

International Paper Company practiced intensive forestry on the tract starting in the 1950's, involving clearcutting and replanting. Prior to this, most forest regeneration on the Buist Tract was by natural reseeding. Starting mainly along the 501 corridor, land transactions started to dismantle the Buist Tract. In the early 1960's land was donated for Coastal Carolina University. E.C. Wall purchased nearly 1,000 acres of the remaining land on U.S. 501 and land immediately across from Myrtle Beach. Purchases were also made on the Brucall Road and Forestbrook section. These lands became the Waccamaw Pottery Mall complex, Waccamaw Brick Plant, and the residential neighborhoods on Burcall and Forestbrook Roads. Quail Creek Golf Club was developed on a portion of the land Mr. Wall purchased near Coastal Carolina University and this was the first of many golf courses developed on the Buist Tract. Not all development was golf courses; in the late 1960's the City of Myrtle Beach used a portion of the tract adjacent to the Waterway as a burning dump and this continued to the early 1970's until state law banned this type of landfill. The dump was covered and abandoned.[44]

The 1970's marked a major change in the Buist Tract. International Paper's land utilization department performed a corporate-wide land inventory and the Buist Tract was recognized as a major land asset (Figure 19). Mr. Clay Brittain, a local hotel owner, approached International paper with the idea to build a golf course on the Buist Tract. A land sale was not acceptable, but a land swap was possible. Mr. Brittain approached the Holliday family of Galivants Ferry, who had accumulated significant forestry acreage over several generations. They became partners and 4,000 acres of Holliday forestry land was exchanged for 900 acres of the Buist Tract. This became the Myrtle Beach National Golf Course that opened in the mid-1970's as a three course complex. Horry County acquired 255 acres to open the Atlantic Business Park and some of the land from the Holliday exchange was used to build Skyway Golf course. By the end of the 1970's there would be four golf courses on the Buist Tract.[45]

In June of 1976 International Paper Company's real estate subsidiary, IP Realty, transferred two large parcels from its inventory; they became the Burning Ridge Golf Complex and River Oaks Golf Plantation. The projects started in the early 1980's and resulted in over 1,000 housing units being added to the Buist Tract. In the early 1970's the Horry County Solid Waste Authority acquired land on the tract off of Highway 90. This pushed the Authority's holdings to over 700 acres. Eight more parcels transferred in 1978. Lands off of Burcall Road and east of Forestbrook Road were gone and lands south of Highway 544 had been sold. The western boundary of the lower Buist Tract was now Singleton Ridge Road. These sales exceeded purchases by 6,000 acres, so the Buist Tract began the 1980's with 43,000 acres.[46]

Figure 19. Map showing the land holdings of the International Paper Company as of 1976.



The western edge of the Waterway contained large sand deposits resulting from digging of the Waterway and subsequent dredging operations. International Paper Company owned the land, but the Corps of Engineers had a 1,200 foot spoil easement with the right to deposit spoil material as needed. This limited development along the Waterway. Some of sand deposits were sold for use in construction projects and beach renourishment. Much of this sand was used to replenish beaches after Hurricane Hugo in 1989. Another 12,000 acres was sold over the 1980's. Some of it became Wild Wings Golf Course and the Legends Golf

Complex. Lewis Ocean Bay Heritage Preserve was established in 1989 and today nearly 9,400 acres of the Buist Tract is preserved under state ownership. In June 1992 the tract was down to 31,000 acres; 6,000 acres south of Highway 501 and 25,000 north of it.[47] Today the development on the tract continues at a rapid pace. The four-lane Carolina Bays Parkway running parallel to the Waterway opened in 2002 and now provides easy assess to the tract. Veteran's Highway bisects the tract in the opposite direction. Many of the characteristics that made the tract infamous are still there, not far from the four lanes of pavement.

Recent Fire History

The geology and vegetation of the old bombing range ensures that the area has a long wildfire history. The vegetation on much of the area is adapted to fire ecology. A large fire was reported in early 1950, headlines read, "Greatest Woods Fire Hurts Bombing Range, Starts Near Old Myrtle Beach Highway – Flames Roll Through Tops of Pine Trees – Showers of Tuesday Morning Help Stop Further Spread." The article said, "Since the bombing range lands were sold back to the former owners some of the territory has had more or less trouble, in one way or another, but the worst fire of all turned out in that section the first of this week." Thousands of acres of timberland were burned and totally destroyed. The road from Conway to Myrtle Beach had to be closed.[48]

The fire history of the old bombing range area certainly extends back centuries. Recent fire history is well-documented and provides interesting insights into what the area is capable of in terms of a fire disaster. The Bombing Range was very close

to Myrtle Beach and today is subject to significant development pressure. This fire history ought to be a consideration in this development.

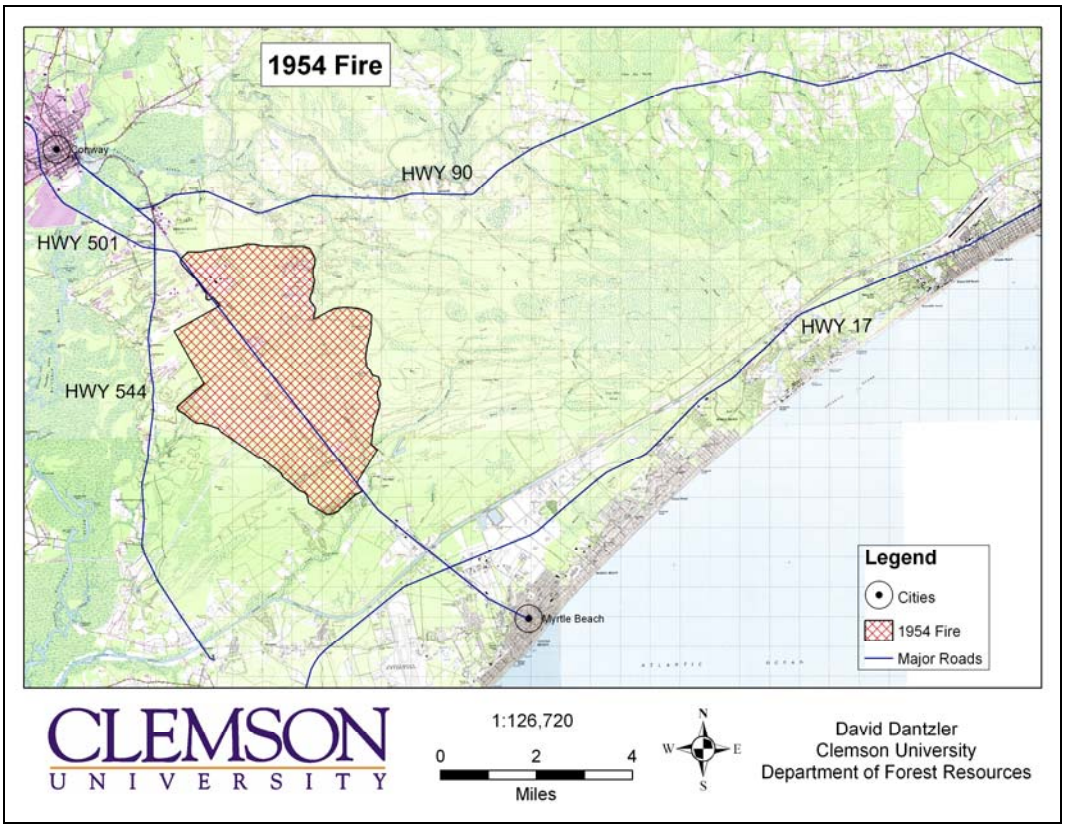
Two massive wildfires dominate the recent fire history of the old bombing range. The first fire started on Highway 501 between Conway and Myrtle Beach during the afternoon of Sunday, June 27, 1954 (Figure 20). The cause was likely a discarded cigarette or match thrown from a car.[49] It was a day of record heat (108 degrees). The fire started on the north side of Highway 501 and quickly jumped the railroad tracks and headed in a northerly direction towards Highway 90.[50] By Sunday night the area burned was 300-400 acres and the fire was under some control. Changing winds and very dry conditions prevented the firefighters from maintaining that control.[51]

Early the next day fire broke over the lines. Wind was now blowing out of the northeast and the fire jumped Highway 501 and established a second head to the south of Highway 501. There were now two heads and the fire was completely out of control. The southern head was hotter and moving towards the Inland Waterway and the Myrtle Beach Airport with a half-mile front to the south of Highway 501. Containment at Ocean Bay Road failed and the containment efforts moved to Pine Island Road, the last road before the Inland Waterway. Pine Island Road was backfired and held.[52] During the night tractor crews attempted to flank the fire on the south. Highway 501 was barricaded through the day and the smoke was so thick one could not drive faster than 10 mph.

Multiple breakovers continued to occur, both north and south of Highway 501 on both Tuesday and Wednesday. South of Highway 501 major activity was off Flowery Gap Road, Ocean Bay Road, Perry Road, and Singleton Ridge Road. North

of Highway 501 major activity was near Cotton Patch Bay, Mary's Pasture, and the Baker Tract (near Highway 90). By Thursday morning the fire was controlled, but still dangerous. Cotton Patch Bay was an exception. Early Saturday 200 cases of ditching dynamite were procured to blast a ditch to stop the underground fire in the bay. The first two sections were blasted before dark on Saturday with excellent results and blasting continued on Sunday. This fire burned 10,162 acres. Most of the burned acres were owned by International Paper Company.[53]

Figure 20. Map showing the extent of the 1954 fire.



Smaller fires occurred in the 1960's on the land. The Rambi Raceway Fire occurred on April 11, 1966 (Figure 21). This fire started north of Highway 501 not too far from Rambi Raceway. It covered a small portion of the 1954 fire near Mary's Pasture and only involved 625 acres. In 1967 the other side of Highway 501 burned in the same area as 1954 (Figure 22). This was not a small fire. It burned from April 18-20, 1967 and covered much of the area burned in the 1954 fire. The area burned was 6,005 acres.[54]

Figure 21. Map showing the extent of the 1966 fire.

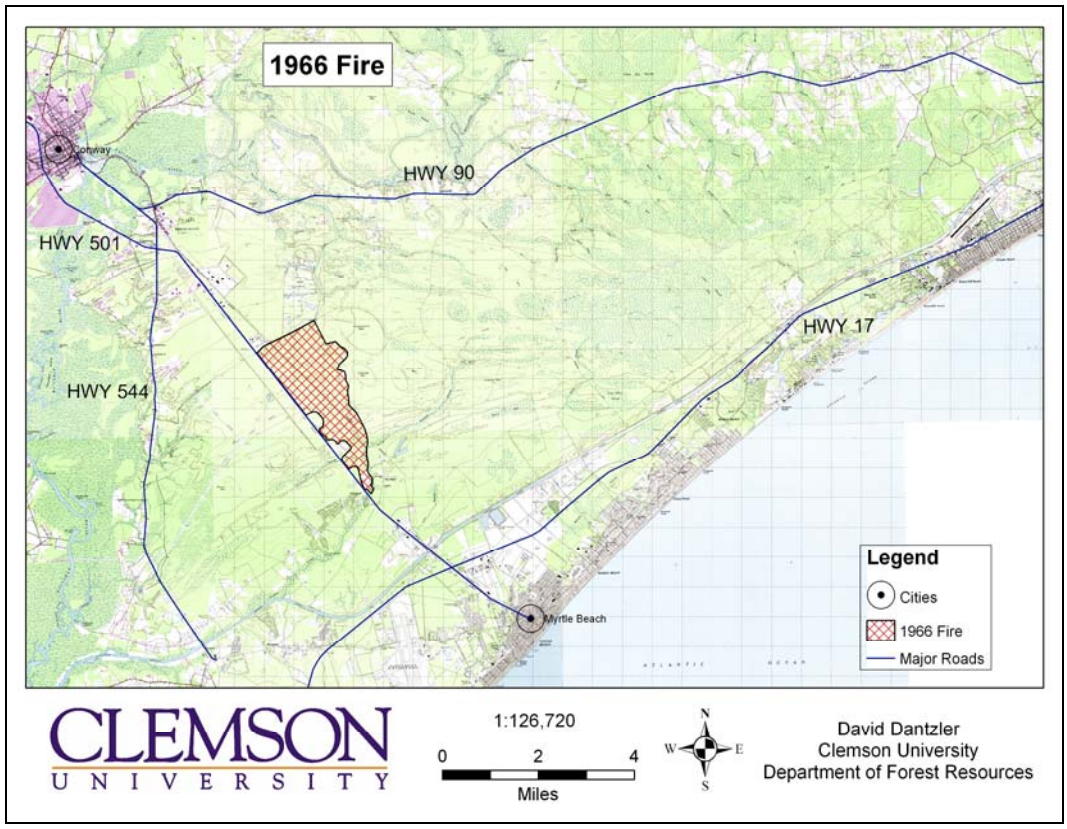
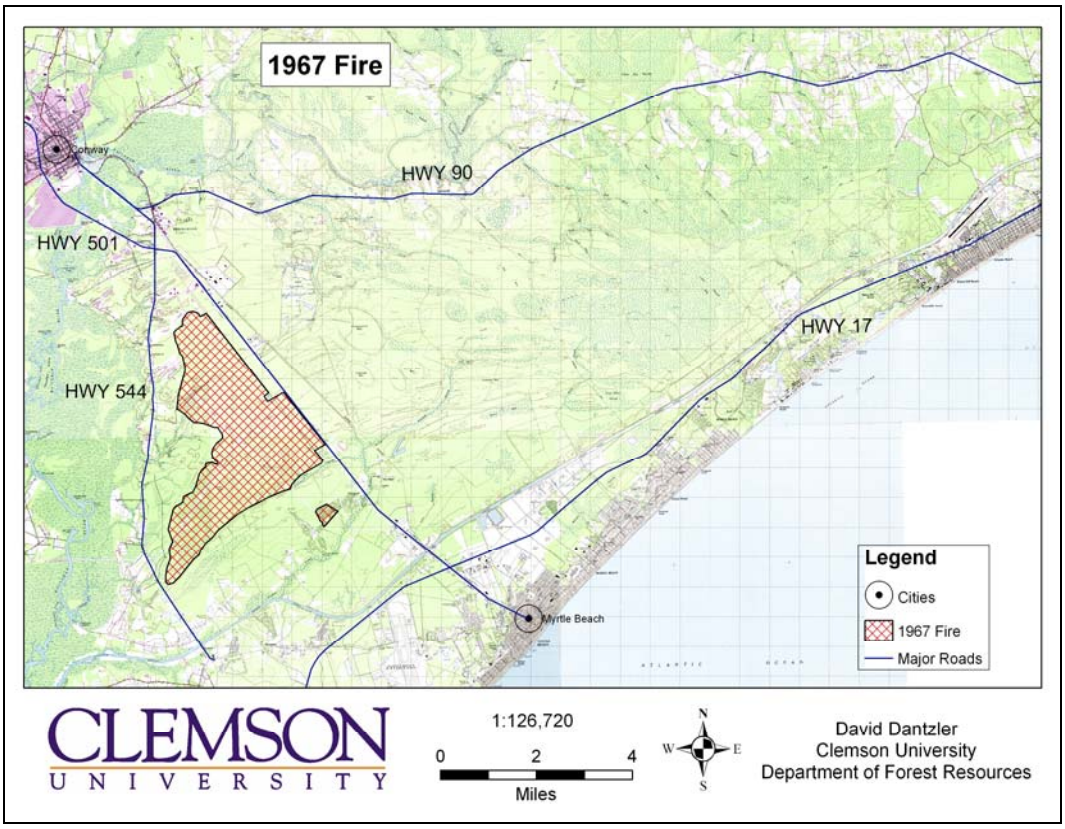


Figure 22. Map showing the extent of the 1967 fire.



The largest fire ever recorded in South Carolina started on Saturday, April 10, 1976, from an unattended campfire between Conway and Myrtle Beach (Figure 23).[55] The persons responsible were never apprehended. Extended dry weather (25 days since last measurable rainfall), wind, low humidity, volatile fuel, and difficult plowing conditions combined to frustrate containment efforts for five days. Thirty thousand acres of woodland burned; of this, 11,000 acres burned on April 10th and 17,000 acres burned on April 11th. Some of the area actually burned more than once. No homes were lost and there were no serious injuries associated with the fire. The smoke column from this fire was 12,000 feet high, extended 200 miles out to sea,

and was visible on photography taken by orbiting weather satellites. Strong convection currents carried ashes and burned debris as far as 40 miles from the fire.

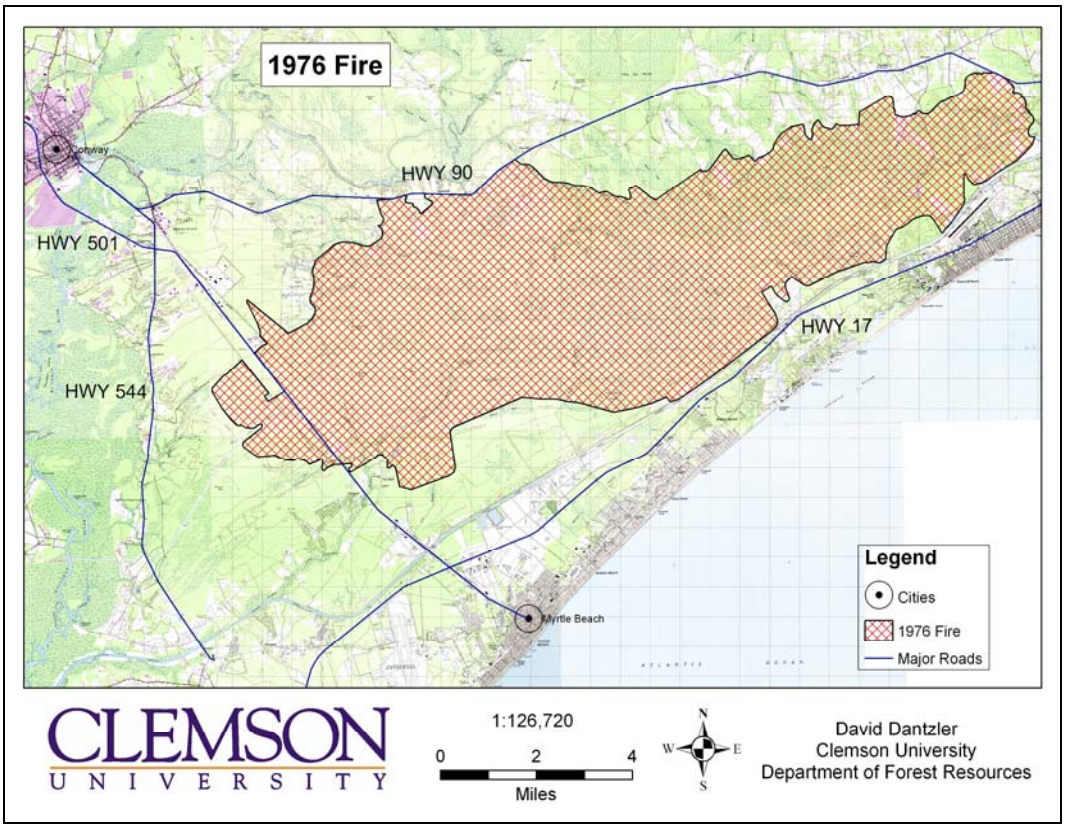
The 1976 fire started at edge of Clear Pond several miles southeast of Conway, north of Highway 501 along the northwest edge of the old bombing range.[56] The fire started about noon and was temporarily contained at 5 – 6 acres, but crowned and crossed the control lines and "spotted to the bay and just blew up."[57] Multiple attempts to control the fire by backfire failed due to pocosins and Carolina bays in the area that could not be plowed. "The area was mainly pine forest but many sections had Carolina bays, which are isolated wetland in natural shallow depressions that are largely fed by rain and shallow groundwater. The bays were full of wax myrtle and bayberry, called 'gasoline bushes' by foresters because they burn with rapid intensity. The soft wet ground made it impossible to plow fire lines through the bays. This vegetation on top of bay will burn even if it is standing in water. 'It's like pouring a 55 gallon drum of gasoline on a farm pond and lighting it.'"[58]

By midnight Saturday the fire was at Burroughs Road (this road ran parallel to U.S. 501 and about 5 miles separated the two roads) and by Sunday evening near Wampee Fire Tower. Sunday it burned to the Waterway and Highway 90 between Steritt Swamp and Tilly Swamp (mainly at Huckleberry Farm and from the Wild Horse Development Area to Tilly Swamp). Water tankers were used to protect homes along Highway 90. "The fire moved ahead of the fire lines, sometimes jumping as much as two miles ahead of the main line. The fire burned to the Intracoastal Waterway and almost jumped it in three places that are now Grand Dunes, again in the area that is Colonial Mall-Myrtle Beach and the Grand Strand Regional Airport. By Sunday night another 17,000 acres had burned and ash from

the fire covered the beach in North Myrtle Beach. Ash drifted into fishing boats working 25 miles off the N.C. coast almost 200 miles from the fire, according to fire reports. ”[59]

Monday the winds shifted and the fire moved south towards Highway 501. Fire heads came out of Cotton Patch Bay and Socastee Swamp. The Highway 501 right-of-way was completely plowed to bare ground and included an adjacent major power line and canal. Crews felt the line could be held at Highway 501. However, the fire quickly spotted across the road. The next major Road was Highway 544 and no one was sure it could be held there if conditions did not improve. South of Highway 501 the fire was burning between Perry Road and Ocean Bay Road, actually along Flowery Gap Road. Aerial tankers from North Carolina arrived on April 12th with fire retardant drops. This turned the situation. The fire was generally contained by April 12th and fully contained by the afternoon of April 13th. Demobilization occurred on Thursday, April 15th.

Figure 23. Map showing the extent of the 1976 fire.



There have been many fires on the tract since 1976. The Forestbrook Fire occurred May 11-12, 1996 and burned 844 acres south of Highway 501 between Legends Road and Forestbrook Road (Figure 24). The Long Bay Fire burned 1,911 acres from November 7-15, 2001 on the north side of Highway 501 between the Carolina Bays Parkway and State Highway 90 (Figure 25). The Legends Fire occurred June 14 – July 29, 2002 and burned 1,658 acres (Figure 26). It was the result of a lightning strike. This fire, like the 1996 fire, was in the area of Legends Road.

Figure 24. Map showing the extent of the 1996 fire.

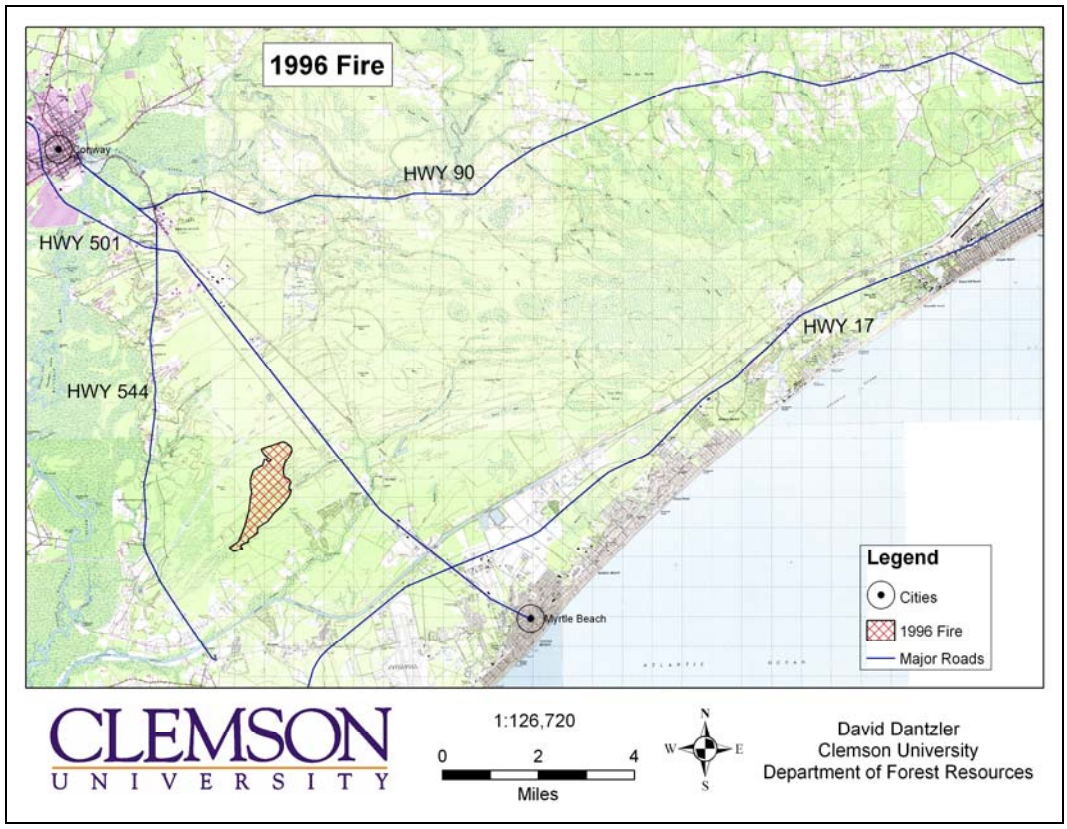


Figure 25. Map showing the extent of the 2001 fire.

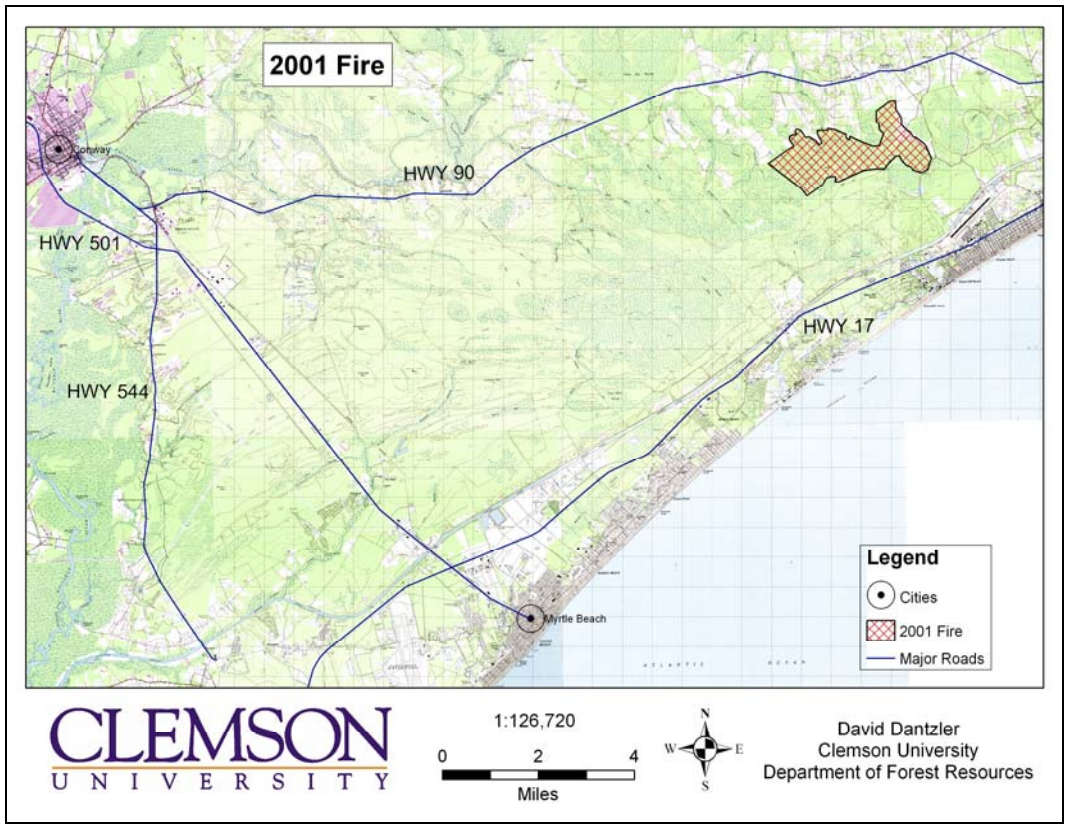
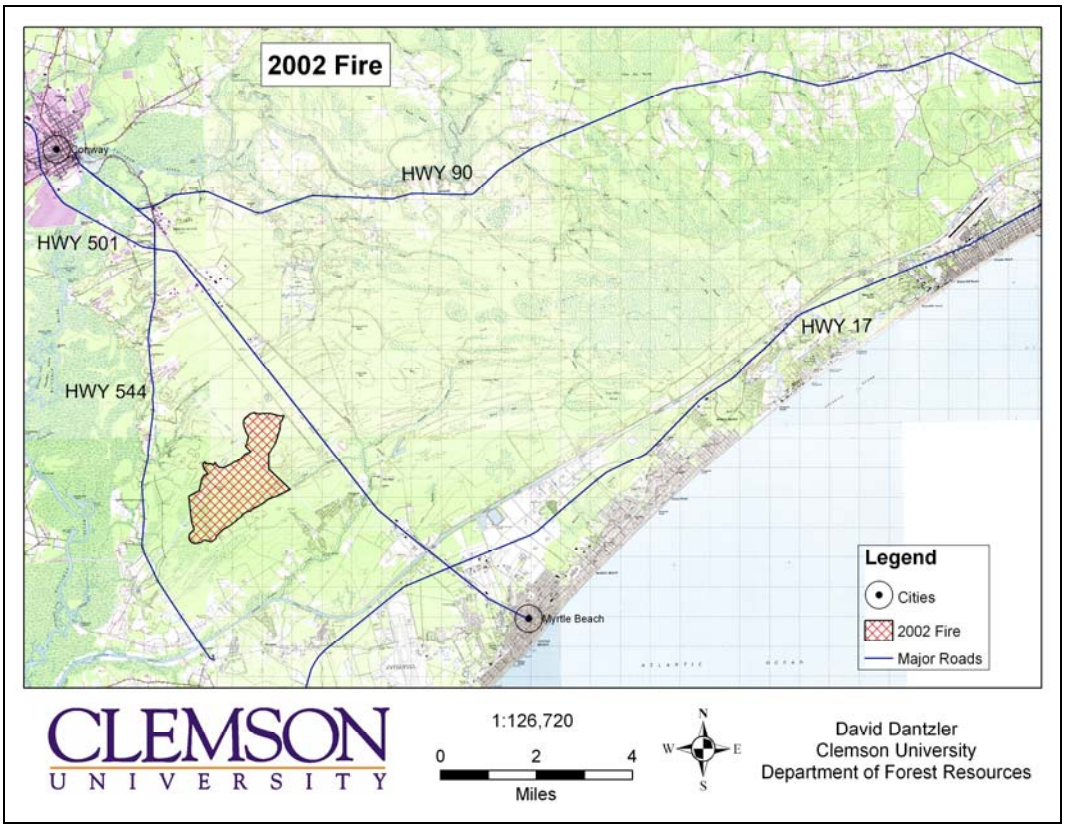


Figure 26. Map showing the extent of the 2002 fire.

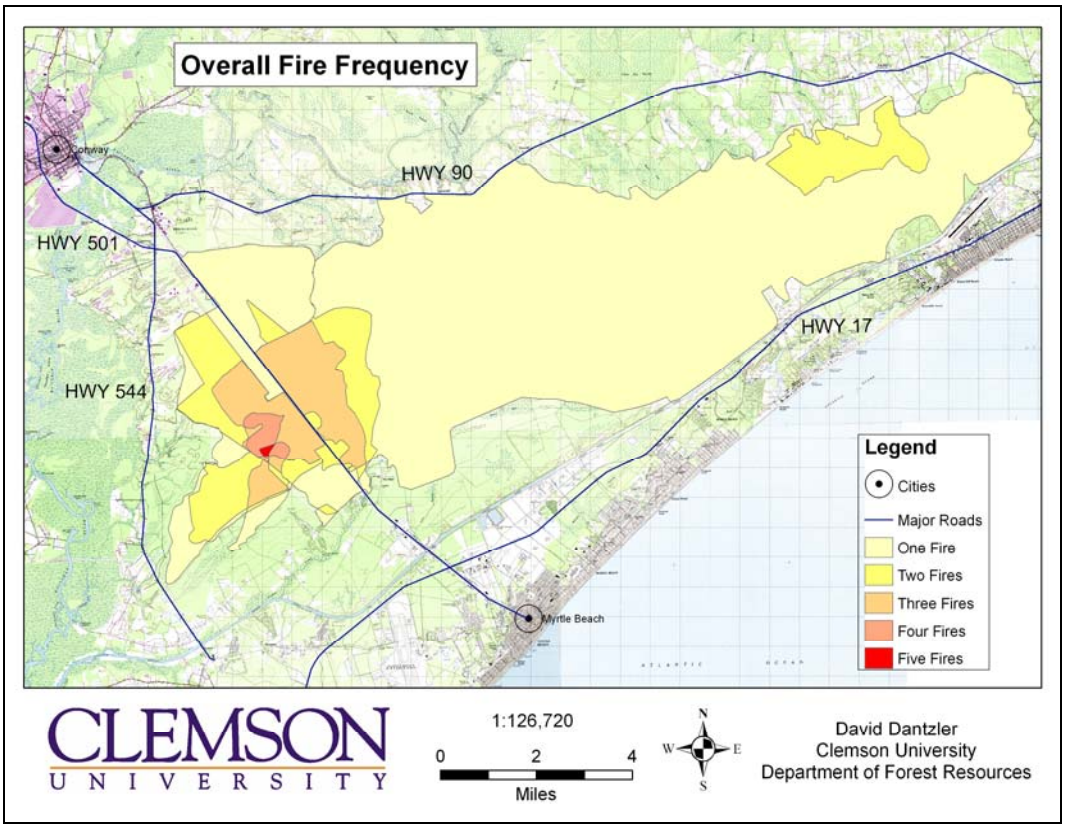


The Sun News in a thirty-year anniversary story called the 1976 Buist Tract fire "the perfect blaze." Could it happen today? The article notes, "If the conditions in 1976 were repeated – 25 days without rain, high winds and very low humidity – officials think some homes in the area would be endangered and some lost. Even with today's more sophisticated firefighting abilities, many think the area is vulnerable in even less severe conditions."[60]

Conclusions

The Buist Tract is bound to produce more wildfire history. Both the South Carolina Forestry Commission and Horry County fire officials consider the threat to have significant potential. In the past five years alone, two major wildfires threatened homes while charring 1,600 acres between Conway and the Waterway. When all of the fire coverages from 1954 to 2002 are overlayed on one another, it shows an ominous pattern that looks like a bullseye centered near the US 501 corridor where a majority of the continuing commercial and residential development is located (Figure 27). This indicates high fire risk for homes and businesses in that area.

Figure 27. Map showing the frequency of fire on the Buist Tract from 1954 to 2002.



Growing development prompted the South Carolina Forestry Commission to conduct wildfire risk assessments on 95 communities in and around the Buist Tract. Thirty communities were determined to have a high wildfire risk; for these, a customized Community Wildfire Protection Plan was developed.[61]

Each plan lists specific risk factors and provides suggestions for improved home protection. Common problems included poor access for firefighting equipment, limited evacuation routes, flammable building materials, and dangerous landscaping practices.

On a broader scale, wildfire managers have opened discussions with the Horry County Planning Commission and with Centex Homes, Inc., a major developer. Centex is already considering building an entire development incorporating wildfire protection principles.

Wildfire officials say awareness is the first step towards imported safety. The South Carolina Forestry Commission offers two wildfire protection training sessions: *How to Have a Firewise Home* is a workshop especially for homeowners and *Living on the Edge* is a program designed specifically for community leaders.

The wildfire history of the Buist Tract is fascinating. Stories about these fires make the front page of local newspapers. While the tract has been partially developed and major roads now offer substantial firebreaks, the risk is still there. Highway 501 did not stop the fire in 1976. Individual homeowners and community leaders need to anticipate the next Buist Tract fire and have plans in place. The two workshops mentioned above are excellent starting points. There are going to be additional "chapters" added to this fire history in the next few decades.

References

[1] South Carolina Forestry Commission, *Significant Wildfire Events in South Carolina History.* On the Forestry Commission website at http://www.state.sc.us/forest/foresign.htm (accessed 10/1/06). It uses this phrase when referring to the larges single wildfire in state history that occurred in 1976 on the Buist Tract.

[2] Lewis Ocean Bay Heritage Preserve has a website with a description and map at http://www.dnr.sc.gov/managed/heritage/lewisbay/description.html (accessed 10/1/06). As this is being written there are more acres planned to be added to the preserve.

[3] U.S. Army Corps of Engineers, *Final Report Engineering Evaluation/Cost Analysis (EE/CA)*
Conway Bombing and Gunnery Range, Conway, South Carolina. Contract Number DACA87-95-D0018.
Delivery Order 0039. (Huntsville, AL: U.S. Army Corps of Engineers, 2003).

[4] Robert Bell, "Myrtle Beach Aerial Gunnery and Bombing Range." Oral history transcript. *The Independent Republic Quarterly* (Spring 1979):11-14.

[5] Lt. Gen. James B. Vaught, USA Ret., personal communication 8/8/06. (Gen.Vaught knows much of the Vaught family history. The northern portion of what became the Buist Tract was part of an early Horry County plantation owned by Peter Vaught. This plantation was extended from the Singleton Swash area westward towards Wampee. It is described on a South Carolina Plantation website on-line at
http://south-carolina-plantations.com/horry/peter-vaughts (accessed 10/1/06).

[6] Robert Mills 1825 Map of the Horry District. This map is available on on-line in the David Rumsey Map Collection at http://www.davidrumsey.com/maps860033-23866.html (accessed 10/1/06).

[7] Carolyn H. Murphy, *Carolina Rocks! The Geology of South Carolina* (Orangeburg, SC: Sandlapper Publishing Co., 1995). Chapter 7 of this book covers Carolina bays, including a discussion of their origins.

[8] Rebecca R. Sharitz, "Carolina Bay Wetlands: Unique Habitats of the Southeastern United States. *Wetlands* 23(September 2003):550-562. This is an on-line journal and this article has an extensive background on Carolina bays. It can be accessed on-line at http://www.bioone.org/perlserv/?request=get-archive&issn=0277-5212&volume=23. (accessed 10/1/06).

[9] Ibid.

[10] U.S. Army Corps of Engineers, *Final Report.*

[11] Allen Moore, "History of Buist Tract Ownership" (Unpublished Report, International Paper Realty, 1992). 9 pp.

[12] Gen. Vaught, personal communication 8/8/06.

[13] Ibid.

[14] John Larry Canada, Personal Communication, August 7, 2006. Larry Canada was the forest technician responsible for the Buist Tract property from the early 1970's to the late 1980's. He identified the major road system of the Buist Tract shown on the road system map.

[15] Ibid.

[16] The Horry County Herald, Conway, S.C. November 13, 1941.

[17] Ibid.

[18] The Horry County Herald, November 20, 1941.

[19] The Horry County Herald, December 11, 1941.

[20] The Horry County Herald, December 18, 1941.

[21] The Horry County Herald, December 25, 1941.

[22] The Horry County Herald, January 1, 1942.

[23] U.S. Army Corps of Engineers, *Final Report.*

[24] The Horry County Herald, January 29, 1942.

[25] The Horry County Herald, February 12, 1942.

[26] The Horry County Herald, March 12, 1942.

[27] The Horry County Herald, March 26, 1942.

[28] The Horry County Herald, April 9, 1942.

[29] The Horry County Herald, July 30, 1942.

[30] The Horry County Herald, August 6, 1942.

[31] The Spring 1979 issue of *The Independent Republic Quarterly* contains maps of the Bombing Range with tract locations on pages 18-19 and a complete listing of tract sellers and leasers with areas on pages 20-25.

[32] Ibid.

[33] Mrs. Emerson Bellamy, 1979. "Myrtle Beach Aerial Gunnery and Bombing Range." Oral history transcript. *The Independent Republic Quarterly* (Spring 1979):11-14.

[34] U.S. Army Corps of Engineers, *Final Report.*

[35] Ibid.

[36] The Horry County Herald, January 6, 1949.

[37] The Horry County Herald, June 16, 1949.

[38] Mrs. Emerson Bellamy, Oral history transcript.

[39] The Horry County Herald, September 29, 1949.

[40] The Horry County Herald, August 24, 1950.

[41] The Horry County Herald, October 6, 1949.

[42] Allen Moore, "History of Buist Tract Ownership."
[43] Ibid.

[44] Ibid.

[45] Ibid.

[46] Ibid.

[47] Ibid.

[48] The Horry County Herald, March 16, 1950.

[49] South Carolina Forestry Commission. "1954 Myrtle Beach Fire - Bombing Range Fire." Unpublished report in fire files of South Carolina Forestry Commission, Columbia, SC.

[50] A. E. Kunz. "Kunz's Report on Bombing Range Fire." Unpublished report in fire files of South Carolina Forestry Commission, Columbia, SC, 1954. 15 pp.

[51] The Horry County Herald, July 1, 1954.

[52] W. J. Barton. "Memo to Files. Horry County Bombing Range Fire, August 30, 1954." Unpublished report in fire files of South Carolina Forestry Commission, Columbia, SC, 1954. 11 pp.

[53] The Horry County Herald, July 8, 1954.

[54] South Carolina Forestry Commission. Unpublished fire maps in files of South Carolina Forestry Commission, Columbia, SC, 1966 and 1967.

[55] Ken Cabe, "The Clear Pond Fire" Unpublished report in fire files of South Carolina Forestry Commission, Columbia, SC, 1976.

[56] J. T. Hance, "The Horry County Fire, April 10-17, 1976". Unpublished report in fire files of South Carolina Forestry Commission, 1976. 13 pp.

[57]The Sun News, April 9, 2006. The Myrtle Beach newspaper printed a thirty year anniversary story entitled "The Perfect Blaze."

[58] Ibid.

[59] Ibid.

[60] Ibid.

[61] Michael Bozzo, fire behavior forester, South Carolina Forestry Commission, personal communication, 9/22/06. Information on hosting a fire protection workshop is available by calling (843) 662-5571.

CONCLUSIONS

The process of developing a plan to promote the cohabitation of industrial and environmental goals on the Horry County Solid Waste Authority 1,187 Tract was tricky to balance. It does not matter if they are focusing on waste disposal or protecting black bear habitat on their property, their goals are to promote a healthy, stable environment. The combination of the management recommendations, the GIS information, and the colorful history of the area will come together to create an educational device that can provide numerous research opportunities for the future. The ecology and location of the 1,187 Tract particularly lends itself to various prescribed fire studies such as its use in urban-wildland interfaces and its importance to plant health and propagation in transition zones between habitat types. The Authority also has the opportunity to learn from their visitors by collecting post-visit surveys to gauge user satisfaction. This information will help the Authority determine what direction they need to take in the future to provide a more complete experience for their visitors. It will also provide visitor demographics that can be compared to other natural attractions in the area.

In the end, the Horry County Solid Waste Authority will have developed a tool that teaches the community about more than reducing, reusing, and recycling. They will have developed a tool to teach school kids about bears and Carolina bays and their parents about the history of the community that they call home. They will have given scholars a place to discover and tourists a place to visit that feels a lot farther away from the hustle and bustle of the Grand Strand than it really is. And they will do it while steadily going about their everyday business of taking out the trash.

APPENDICES

Appendix A

HCSWA 1,187 Tract Plant List

Scientific Name	**Common Name**	**Family**
Acer rubrum var. rubrum	Red Maple	Aceraceae
Acer rubrum var. trilobum	Swamp Red Maple	Aceraceae
Agalinis purpurea	Common Gerardia	Scrophulariaceae
Agalinis setacea	Needle-leaf Gerardia	Scrophulariaceae
Ambrosia artemisiifolia	Common Ragweed	Asteraceae
Ambrosia psilostachya	Perennial Ragweed	Asteraceae
Amorpha herbacea	Leadplant	Fabaceae
Ampelopsis arborea	Peppervine	Vitaceae
Amphicarpum purshii	**Pinebarrens Goobergrass**	**Poaceae**
Andropogon capillipes var. 2 'wetland variant'	Wetland Chalky Bluestem	Poaceae
Andropogon capillipes var. capillipes	Dryland Chalky Bluestem	Poaceae
Andropogon glaucopsis	Big Chalky Bluestem	Poaceae
Andropogon glomeratus var. hirsutior	Bog Bushy Bluestem	Poaceae
Andropogon tenuispatheus	Big Bushy Bluestem	Poaceae
Andropogon virginicus var. 1 'smooth variant'	Smooth Broomsedge	Poaceae
Andropogon virginicus var. decipiens	Deceptive Broomsedge	Poaceae
Andropogon virginicus var. virginicus 'old field variant'	Old Field Broomsedge	Poaceae
Anthaenantia villosa		Poaceae
Aralia spinosa	Devil's Walkingstick	Araliaceae
Aristida stricta	Carolina Wiregrass	Poaceae
Aristida virgata	Branched Three-awn	Poaceae
Aronia arbutifolia	Black Chokeberry	Rosaceae
Arundinaria tecta	Switchcane	Poaceae
Asclepias pedicellata		Apocynaceae
Axonopus affinis	Common Carpetgrass	Poaceae
Baccharis halimifolia	Groundsel-tree	Asteraceae
Bacopa monieri	Moneywort	Scrophulariaceae
Berchemia scandens	Supplejack Vine	Rhamnaceae
Bigelowia nudata	Naked-stem Goldenrod	Asteraceae
Boehmeria cylindrica	False Nettle	Urticaceae
Bulbostylis ciliaris var. coarctatus	Sandhills Hairsedge	Cyperaceae
Bulbostylis stenophylla	Slender Hairsedge	Cyperaceae
Callicarpa americana	Beautyberry	Lamiaceae
Calopogon tuberosus	Common Grass Pink	Orchidaceae
Carex debilis var. debilis		Cyperaceae
Carex floridana		Cyperaceae
Carex glaucescens		Cyperaceae
Carex joorii		Cyperaceae
Carex seorsa		Cyperaceae
Carex striata var. brevis	Walter's Sedge	Cyperaceae

Carphephorus bellidifolius		Asteraceae
Carphephorus odoratissimus	Vanilla-leaf	Asteraceae
Carphephorus paniculatus	Trilissa	Asteraceae
Carphephorus tomentosus		Asteraceae
Carpinus caroliniana	Ironwood, Hornbeam	Betulaceae
Carya glabra	Pignut Hickory	Juglandaceae
Carya tomentosa	Mockernut Hickory	Juglandaceae
Castanea pumila	Chinkapin	Fagaceae
Centella erecta		Apiaceae
Centrosema virginica		Asteraceae
Cephalanthus occidentalis	Buttonbush	Rubiaceae
Chamaecrista nictitans	Wild Sensitive Plant	Fabaceae
Chamaedaphne calyculata	**Leatherleaf**	**Ericaceae**
Chamaesyce prostrata		Euphorbiaceae
Chaptalia tomentosa	Sunbonnets	Asteraceae
Chrysopsis gossypina	Woolly Golden-aster	Asteraceae
Chrysopsis mariana	Common Golden-aster	Asteraceae
Cirsium repandum	Sandhills Thistle	Asteraceae
Cirsium virginicum	Virginia Thistle	Asteraceae
Cladina evansii	A Reindeer Moss	LICHEN
Clethra alnifolia var. alnifolia	White Alder	Clethraceae
Clitoria mariana	Butterfly Pea	Fabaceae
Cnidoscolus stimulosus	Stinging Nettle	Euphorbiaceae
Conyza parva	Southern Horseweed	Asteraceae
Coreopsis linifolia	Linear Leaf Tickseed	Asteraceae
Coreopsis major var. rigida	Whorled Tickseed	Asteraceae
Cornus florida	Flowering Dogwood	Cornaceae
Cornus foemina	Swamp Dogwood	Cornaceae
Crotalaria spectabilis	Rattlebox	Fabaceae
Croton glandulosus	A Croton	Euphorbiaceae
Ctenium aromaticum	Toothache Grass	Poaceae
Cynodon dactylon	Bermuda Grass	Poaceae
Cyperus croceus	A Flatsedge	Cyperaceae
Cyperus cuspidatus	A Flatsedge	Cyperaceae
Cyperus erythrorhizos	A Flatsedge	Cyperaceae
Cyperus filiculmis	Slender Flatsedge	Cyperaceae
Cyperus globulosus	A Flatsedge	Cyperaceae
Cyperus plukenetii	Sandhills Flatsedge	Cyperaceae
Cyperus polystachyos var. texensis	A Flatsedge	Cyperaceae
Cyperus rotundatus	A Nutsedge	Cyperaceae
Cyrilla racemiflora	Ti-ti	Cyrillaceae
Decumaria barbara	Climbing Hydrangea	Hydrangeaceae
Desmodium paniculatum	Beggar's-lice	Fabaceae
Dichanthelium aciculare	A Witchgrass	Poaceae
Dichanthelium acuminatum var. acuminatum	A Witchgrass	Poaceae
Dichanthelium angustifolium	A Witchgrass	Poaceae
Dichanthelium chamaelonche	A Witchgrass	Poaceae
Dichanthelium commutatum	A Witchgrass	Poaceae

Dichanthelium consanguineum	A Witchgrass	Poaceae
Dichanthelium dichotomum var. roanoakense	A Witchgrass	Poaceae
Dichanthelium ensifolium	A Witchgrass	Poaceae
Dichanthelium lancearium	A Witchgrass	Poaceae
Dichanthelium laxiflorum	A Witchgrass	Poaceae
Dichanthelium lucidum	A Witchgrass	Poaceae
Dichanthelium oligosanthes var. oligosanthes	A Witchgrass	Poaceae
Dichanthelium ovale var. ovale	A Witchgrass	Poaceae
Dichanthelium scabridiusculum	A Witchgrass	Poaceae
Dichanthelium scoparium	A Witchgrass	Poaceae
Dichanthelium sphaerocarpon	A Witchgrass	Poaceae
Dichanthelium strigosum var. leucoblepharis	A Witchgrass	Poaceae
Dichanthelium strigosum var. strigosum	A Witchgrass	Poaceae
Dichanthelium tenue	A Witchgrass	Poaceae
Digitaria ischaemum	Smooth Crabgrass	Poaceae
Digitaria sanguinalis	Hairy Crabgrass	Poaceae
Diodia teres	Poor-joe	Rubiaceae
Diodia virginiana	Virginia Poor-joe	Rubiaceae
Diospyros virginiana	Persimon	Ebenaceae
Drosera brevifolia	Short-leaf Sundew	Droseraceae
Drosera capillaris	Savanna Sundew	Droseraceae
Drosera intermedia	Water Sundew	Droseraceae
Dryopteris ludoviciana	Louisiana Woodfern	Dryopteridaceae
Dulichium arundinaceum	A Sedge	Cyperaceae
Eleocharis baldwinii	Baldwins Spikerush	Cyperaceae
Elephantopus nudatus	Elephant's Foot	Asteraceae
Elephantopus tomentosus	Elephant's Foot	Asteraceae
Eragrostis refracta	A Lovegrass	Poaceae
Erechtites hieracifolia	Fireweed	Asteraceae
Eremochloa ophiuroides	Centipede Grass	Poaceae
Erigeron strigosus var. beyrichii	Daisy Fleabane	Asteraceae
Eupatorium album	White Thoroughwort	Asteraceae
Eupatorium capillifolium	Dog Fennel	Asteraceae
Eupatorium compositifolium	Sandhills Dog Fennel	Asteraceae
Eupatorium leucolepis	A Thoroughwort	Asteraceae
Eupatorium mohrii	A Thoroughwort	Asteraceae
Eupatorium pilosum	Hairy Thoroughwort	Asteraceae
Eupatorium recurvans	A Thoroughwort	Asteraceae
Eupatorium rotundifolium	Round-leaf Thoroughwort	Asteraceae
Euphorbia ipecacuanhae	Carolina Ipecac	Euphorbiaceae
Eurybia paludosa	Savanna Blue Aster	Asteraceae
Euthamia minor	A Flat-top Goldenrod	Asteraceae
Euthamia tenuifolia	A Flat-top Goldenrod	Asteraceae
Fimbristylis autumnalis	A Fimbry	Cyperaceae
Gamochaeta falcata	Cudweed	Asteraceae
Gaylussacia dumosa	Dwarf Huckleberry	Ericaceae
Gaylussacia frondosa	Flatwoods Huckleberry	Ericaceae
Gelsemium sempervirens	Carolina Gessemine	Gelsemiaceae

Gentiana autumnalis	**Pinebarrens Gentian**	**Gentianaceae**
Gordonia lasianthus	Loblolly Bay	Theaceae
Gratiola pilosa		Scrophulariaceae
Helenium amarum		Asteraceae
Helianthus angustifolius	Swamp Sunflower	Asteraceae
Helianthus atrorubens		Asteraceae
Heterotheca latifolia		Asteraceae
Hexastylis arifolia	Little Brown Jugs	Aristolochiaceae
Hydrocotyle bonariensis	Beach Pennywort	Apiaceae
Hydrocotyle umbellata	Umbellate Pennywort	Apiaceae
Hypericum cistifolium	A St.-John's Wort	Clusiaceae
Hypericum crux-andraea	A St.-John's Wort	Clusiaceae
Hypericum galioides	A St.-John's Wort	Clusiaceae
Hypericum gentianoides	A St.-John's Wort	Clusiaceae
Hypericum hypericoides	A St.-John's Wort	Clusiaceae
Hypoxis leptocarpa	A Yellow Star Grass	Hypoxidaceae
Hypoxis micrantha	A Yellow Star Grass	Hypoxidaceae
Ilex cassine	Dahoon	Aquifoliaceae
Ilex coriacea	Gallberry	Aquifoliaceae
Ilex glabra	Inkberry	Aquifoliaceae
Ilex myrtifolia	Myrtle-leaf Dahoon	Aquifoliaceae
Ilex myrtifolia x cassine	Hybrid Dahoon	Aquifoliaceae
Ilex opaca	American Holly	Aquifoliaceae
Ilex opaca x cassine	Hybrid Holly	Aquifoliaceae
Ipomoea coccinea	Red Morning Glory	Convolvulaceae
Ipomoea hederacea	Ivy-leaf Morning Glory	Convolvulaceae
Iris tridentata	Savanna Flag (Iris)	Iridaceae
Iris virginica	Virginia Blue Flag	Iridaceae
Isopappus divaricatus		Asteraceae
Itea virginica	Virginia Willow	Iteaceae
Juncus biflorus	A Rush	Juncaceae
Juncus canadensis	A Rush	Juncaceae
Juncus coriaceus	A Rush	Juncaceae
Juncus debilis	A Rush	Juncaceae
Juncus dichotomus	A Rush	Juncaceae
Juncus effusus	Soft Rush	Juncaceae
Juncus marginatus	A Rush	Juncaceae
Juncus polycephalus	A Rush	Juncaceae
Juncus repens	Creeping Rush	Juncaceae
Juncus scirpoides	A Rush	Juncaceae
Kyllinga odorata	Fragrant Umbrella Sedge	Cyperaceae
Kyllinga pumila	Small Umbrella Sedge	Cyperaceae
Lachnocaulon anceps	Common Bog Buttons	Eriocaulaceae
Lachnocaulon beyrichianum	**Scrub Bog Buttons**	**Eriocaulaceae**
Lachnocaulon minus	**Small Bog Buttons**	**Eriocaulaceae**
Lechea pulchella		Cistaceae
Lespedeza angustifolia	Narrow-leaf Lespedeza	Fabaceae
Lespedeza cuneata	Sericea	Fabaceae

Lespedeza hirta	A Lespedeza	Fabaceae
Leucothoe axillaris	Dog Hobble	Ericaceae
Leucothoe racemosa	A Fetterbush	Ericaceae
Liatris graminifolia	Grass-leaf Blazing Star	Asteraceae
Liatris secunda	Secund Blazing Star	Asteraceae
Liquidambar styraciflua	Sweetgum	Altinginaceae
Liriodendron tulipifera	Tulip Poplar	Magnoliaceae
Litsea aestivalis	**Pondspice**	**Lauraceae**
Lobelia elongata	Swamp Lobelia	Campanulaceae
Lobelia glandulosa	Savanna Lobelia	Campanulaceae
Lobelia nuttallii	Nuttall's Lobelia	Campanulaceae
Ludwigia hirtella	A Boxseed	Onagraceae
Ludwigia linearis	A Boxseed	Onagraceae
Ludwigia palustris	A Boxseed	Onagraceae
Ludwigia pilosa	A Boxseed	Onagraceae
Ludwigia virgata	A Boxseed	Onagraceae
Lycopodiella alopecuroides	Foxtail Clubmoss	Lycopodiaceae
Lyonia ligustrina var. foliosiflora	A Fetterbush	Ericaceae
Lyonia lucida	A Fetterbush	Ericaceae
Lyonia mariana	A Fetterbush	Ericaceae
Magnolia virginiana	Sweetbay	Magnoliaceae
Marshallia graminifolia	Barbara's Buttons	Asteraceae
Morella carolinensis	Carolina Wax Myrtle	Myricaceae
Morella cerifera	Common Wax Myrtle	Myricaceae
Morella pumila	Dwarf Wax Myrtle	Myricaceae
Nyssa biflora	Swamp Gum	Nyssaceae
Nyssa sylvatica	Black Gum	Nyssaceae
Oenethera laciniata	A Sundrop	Onagraceae
Oldenlandia uniflora	Oldenlandia	Rubiaceae
Opuntia humifusa var. australis	Southern Prickly-pear	Cactaceae
Osmunda cinnamomea	Cinnamon Fern	Osmundaceae
Osmunda regalis	Royal Fern	Osmundaceae
Oxypolis ternata	**Savanna Cowbane**	**Apiaceae**
Panicum anceps var. rhizomatum	A Panicgrass	Poaceae
Panicum hemitomon	Maidencane	Poaceae
Panicum verrucosum	Warty Panicgrass	Poaceae
Paspalum setaceum	A Paspalum	Poaceae
Paspalum urvillei	Vaseygrass	Poaceae
Passiflora incarnata	Passionflower	Passifloraceae
Persea palustris	Swamp Bay	Lauraceae
Phyllanthus carolinensis	Carolina Phyllanthus	Phyllanthaceae
Phyllanthus urinarius	Chamber-bitters	Phyllanthaceae
Phytolacca rigida	Rigid Pokeberry	Phytolaccaceae
Pinus palustris	Longleaf Pine	Pinaceae
Pinus serotina	Pond Pine	Pinaceae
Pinus taeda	Loblolly Pine	Pinaceae
Pityopsis graminifolia var. graminifolia	Grass-leaf Golden Aster	Asteraceae
Pityopsis graminifolia var. latifolia	Broad Grass-leaf Golden Aster	Asteraceae

Plantago wrightiana	A Plantain	Plantaginaceae
Platanthera cristata	Crested Fringed Orchid	Orchidaceae
Pluchea foetida	Stinkweed	Asteraceae
Poa annua	Annual Bluegrass	Poaceae
Polygala lutea	Candyroot	Polygalaceae
Polygala mariana	A Polygala	Polygalaceae
Polygonum hydropiperoides	A Smartweed	Polygonaceae
Polygonum punctatum	A Smartweed	Polygonaceae
Polygonum setaceum	A Smartweed	Polygonaceae
Polypremum procumbens	Sidewalk Plant	Buddlejaceae
Prunus serotina	Black Cherry	Rosaceae
Pteridium aquilinum var. pseudocaudatum	Braken	Dennstedtiaceae
Pterocaulon pycnostachyum	Wingstem	Asteraceae
Pycnanthemum muticum	Mountain Mint	Lamiaceae
Quercus elliottii	Running Oak	Fagaceae
Quercus falcata	Southern Red Oak	Fagaceae
Quercus geminata	Sand Live Oak	Fagaceae
Quercus hemisphaerica	Sand Laurel Oak	Fagaceae
Quercus incana	Bluejack Oak	Fagaceae
Quercus laevis	Turkey Oak	Fagaceae
Quercus laurifolia	Laurel Oak	Fagaceae
Quercus margarettiae	Scrub Post Oak	Fagaceae
Quercus marilandica	Blackjack Oak	Fagaceae
Quercus minima	Dwarf Live Oak	Fagaceae
Quercus nigra	Water Oak	Fagaceae
Quercus stellata	Post Oak	Fagaceae
Quercus virginiana	Live Oak	Fagaceae
Rhexia alifanus	Meadow Beauty	Melastomataceae
Rhexia exalbida	Meadow Beauty	Melastomataceae
Rhexia mariana	Meadow Beauty	Melastomataceae
Rhexia nashii	Meadow Beauty	Melastomataceae
Rhexia petiolata	Meadow Beauty	Melastomataceae
Rhexia virginica	Meadow Beauty	Melastomataceae
Rhododendron atlanticum	Wild Azalea	Ericaceae
Rhus copallina	Winged Sumac	Anacardiaceae
Rhynchospora baldwinii	Baldwins Beaksedge	Cyperaceae
Rhynchospora caduca	Tall Beaksedge	Cyperaceae
Rhynchospora cephalantha var. cephalantha	Round Beaksedge	Cyperaceae
Rhynchospora chalarocephala	Savanna Beaksedge	Cyperaceae
Rhynchospora chapmanii	Chapman's Beaksedge	Cyperaceae
Rhynchospora ciliaris	Fringed Beaksedge	Cyperaceae
Rhynchospora distans	Michaux's Beaksedge	Cyperaceae
Rhynchospora elliottii	Elliott's Beaksedge	Cyperaceae
Rhynchospora fascicularis	Fascicled Beaksedge	Cyperaceae
Rhynchospora inexpansa	Drooping Beaksedge	Cyperaceae
Rhynchospora microcephala	Pocosin Beaksedge	Cyperaceae
Rhynchospora perplexa	Perplexing Beaksedge	Cyperaceae
Rhynchospora pusilla	Small Beaksedge	Cyperaceae

Rhynchospora scirpoides	Bullrush Beaksedge	Cyperaceae
Rhynchospora wrightiana	Wright's Beaksedge	Cyperaceae
Richardia scabra	Richardia	Rubiaceae
Rubus argutus	Blackberry	Rosaceae
Rubus cuneifolius	Wedge-leaf Blackberry	Rosaceae
Rubus trivialis	Dewberry	Rosaceae
Ruellia carolinensis	Carolina Wild Petunia	Acanthaceae
Rumex hastatulus	Dock	Amaranthaceae
Sabatia difformis	A Sabatia	Gentianaceae
Saccharum baldwinii	Baldwin's Plumegrass	Poaceae
Saccharum contortum	Contorted Plumegrass	Poaceae
Saccharum giganteum	Giant Plumegrass	Poaceae
Salix nigra	Black Willow	Salicaceae
Sarracenia flava	Yellow Pitcherplant	Sarraceniaceae
Sarracenia purpurea	Purple Pitcherplant	Sarraceniaceae
Saururus cernuus	Lizard's-tail	Saururaceae
Schizachyrium scoparium	Little Bluestem	Poaceae
Scirpus cyperinus	Wool Sedge	Cyperaceae
Scleria ciliaris var. glabra	A Nutsedge	Cyperaceae
Scleria minor	A Nutsedge	Cyperaceae
Scleria pauciflora	A Nutsedge	Cyperaceae
Scleria triglomerata	A Nutsedge	Cyperaceae
Senna obtusifolia	Sicklepod	Fabaceae
Senna occidentalis	Sicklepod	Fabaceae
Sericocarpus tortifolius	An Aster	Asteraceae
Sesbania exaltata	Sesbania	Fabaceae
Setaria glauca	A Foxtail Grass	Poaceae
Setaria parviflora	A Foxtail Grass	Poaceae
Seymeria cassinoides	Seymeria	Scrophulariaceae
Silphium compositum	Compasplant	Asteraceae
Smilax bona-nox	Green-brier	Smilacaceae
Smilax glauca	Whiteleaf Green-brier	Smilacaceae
Smilax laurifolia	Wild Bamboovine	Smilacaceae
Smilax rotundifolia	Round-leaf Greenbrier	Smilacaceae
Smilax smallii	Smalls Greenbrier	Smilacaceae
Solidago fistulosa	A Goldenrod	Asteraceae
Solidago odora	Sweet Goldenrod	Asteraceae
Solidago rugosa	Rough-leaf Goldenrod	Asteraceae
Solidago stricta	Wand Goldenrod	Asteraceae
Sorghum halepense	Johnson Grass	Poaceae
Sphagnum bartlettianum	A Peat Moss	Sphagnaceae
Sphagnum macrophyllum	Dead Kitten Moss	Sphagnaceae
Sphagnum palustre	A Peat Moss	Sphagnaceae
Sphagnum portoricense	A Peat Moss	Sphagnaceae
Stylisma patens var. angustifolia	Dawnflower	Convolvulaceae
Symphyotrichum concolor	An Aster	Asteraceae
Symphyotrichum dumosum	An Aster	Asteraceae
Symphyotrichum patens	An Aster	Asteraceae

Symphyotrichum pilosum	Frost Aster	Asteraceae
Symphyotrichum walteri	Walter's Aster	Asteraceae
Symplocos tinctoria	Horsesugar	Symplocaceae
Taxodium ascendens	Pond Cypress	Taxodiaceae
Taxodium distichum	Bald Cypress	Taxodiaceae
Tephrosia hispida	A Tephrosia	Fabaceae
Tillandsia usneoides	Spanish Moss	Bromeliaceae
Triadenum virginicum	Bog St. John's Wort	Clusiaceae
Trichostema dichotomum	Blue Curls	Lamiaceae
Triplasis purpurea	Sandgrass	Poaceae
Typha latifolia	Common Cattails	Typhaceae
Utricularia fibrosa	Bladderwort	Lentibulariaceae
Utricularia subulata	Terrestrial Bladderwort	Lentibulariaceae
Vaccinium arboreum	Sparkleberry	Ericaceae
Vaccinium crassifolium	Creeping Blueberry	Ericaceae
Vaccinium elliottii	Elliott's Blueberry	Ericaceae
Vaccinium formosum	Tallbush Blueberry	Ericaceae
Vaccinium fuscatum	A Blueberry	Ericaceae
Vaccinium myrsinites	**Myrsine-leaf Blueberry**	**Ericaceae**
Vaccinium tenellum	Dwarf Blueberry	Ericaceae
Verbena bonariensis	A Vervain	Verbenaceae
Verbena brasiliensis	Brazilian Vervain	Verbenaceae
Vernonia angustifolia var. angustifolia	Narrow-leaf Ironweed	Asteraceae
Viola affinis	Florida Violet	Violaceae
Viola lanceolata	Lance-leaf Violet	Violaceae
Viola primulifolia	Primrose-leaf Violet	Violaceae
Viola septemloba	Cutleaf Violet	Violaceae
Viola villosa	Hairy Violet	Violaceae
Vitis aestivalis	Summer Grape	Vitaceae
Vitis rotundifolia	Muscadine	Vitaceae
Wahlenbergia marginata	Wahlenbergia	Campanulaceae
Waltheria cochoriifolia	Chocolate Plant	Sterculiaceae
Wisteria frutescens	Wild Wisteria	Fabaceae
Woodwardia areolata	Netted Chain Fern	Blechnaceae
Woodwardia virginica	Virginia Chain Fern	Blechnaceae
Xyris ambigua	Ambiguous Yellow-eyed Grass	Xyridaceae
Xyris brevifolia	**Short-leaf Yellow-eyed Grass**	**Xyridaceae**
Xyris caroliniana	Carolina Yellow-eyed Grass	Xyridaceae
Xyris difformis var. difformis	Swamp Yellow-eyed Grass	Xyridaceae
Xyris fimbriata	Fringed Yellow-eyed Grass	Xyridaceae
Xyris flabelliformis	**Fan-leaf Yellow-eyed Grass**	**Xyridaceae**
Xyris iridifolia	Iris-leaved Yellow-eyed Grass	Xyridaceae
Xyris jupicai	Tropical Yellow-eyed Grass	Xyridaceae
Xyris platylepis	Bulbous-based Yellow-eyed Grass	Xyridaceae
Zenobia pulverulenta	Zenobia	Ericaceae

Appendix B

Black and White Maps of the HCSWA 1,187 Tract (print friendly versions)

Figure B-1 Map of the location of the HCSWA 1,187 Tract.

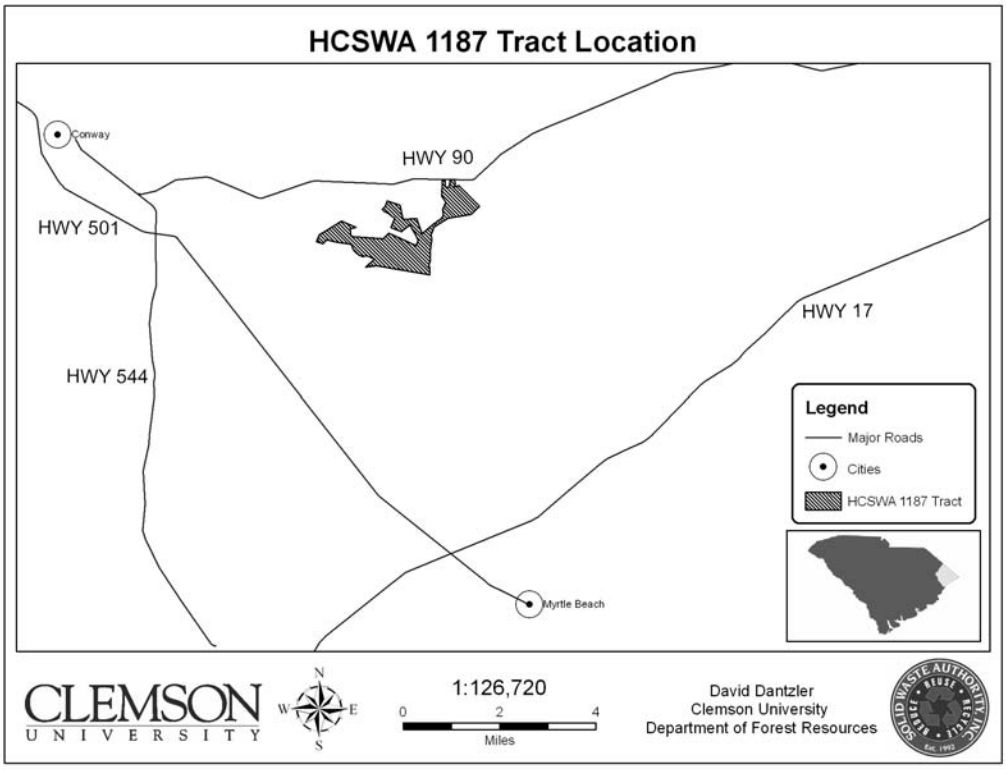


Figure B-2 Map of the property boundary of the HCSWA 1,187 Tract.

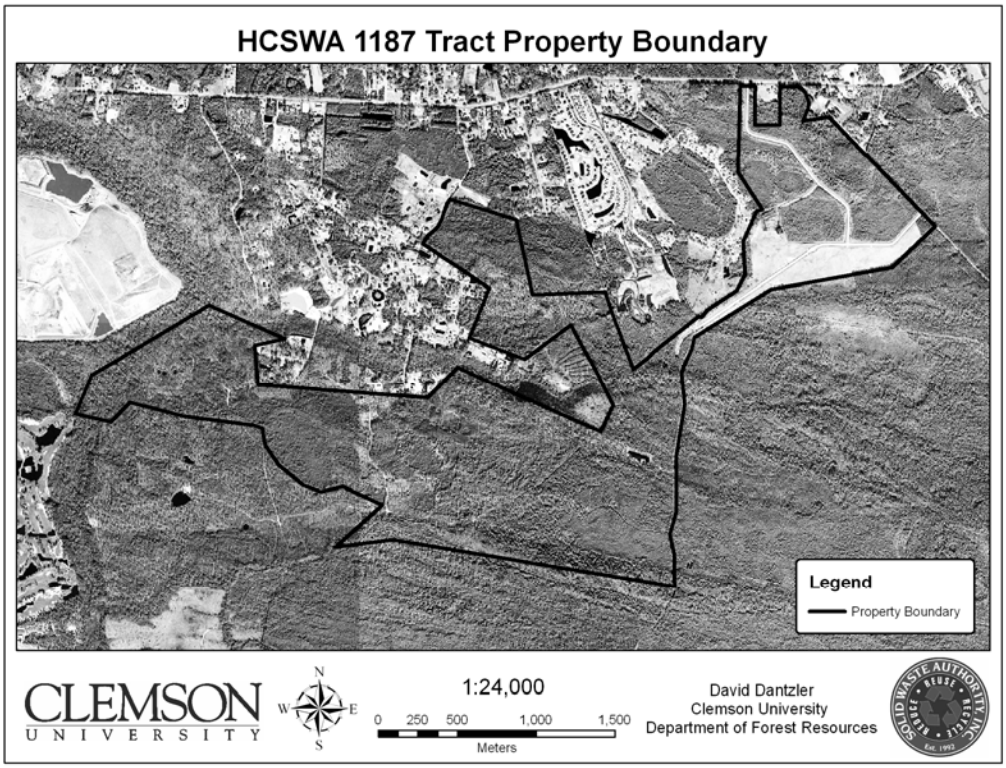


Figure B-3 Map showing the topography of the HCSWA 1,187 Tract.

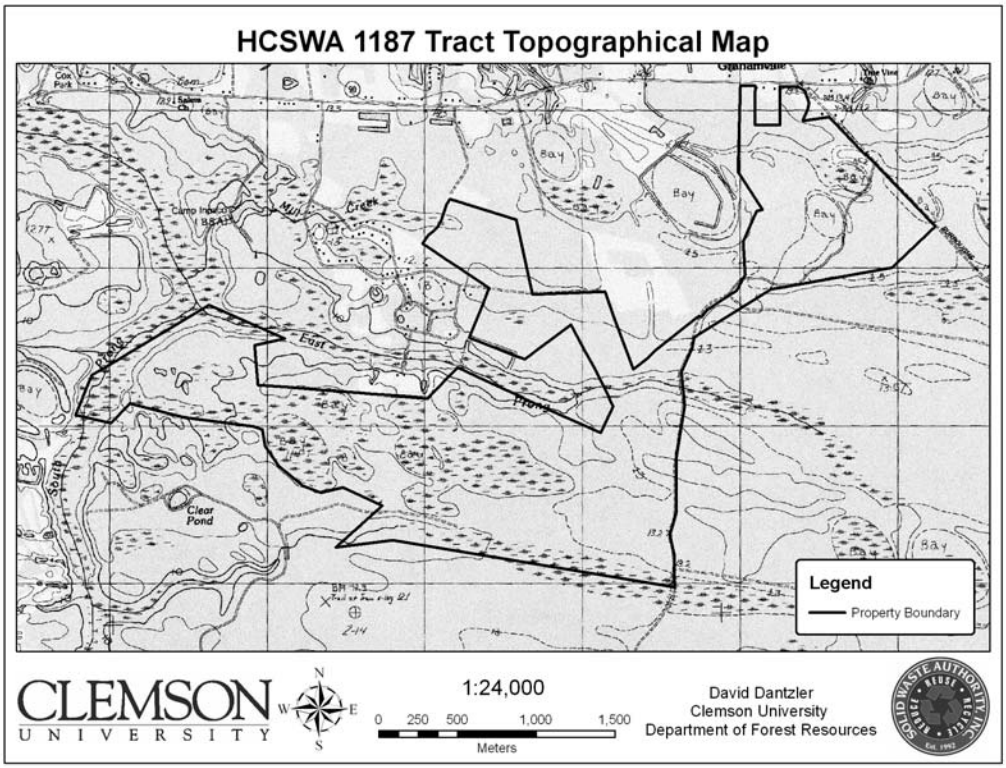


Figure B-4 Map showing the wetland boundaries for the HCSWA 1,187 Tract.

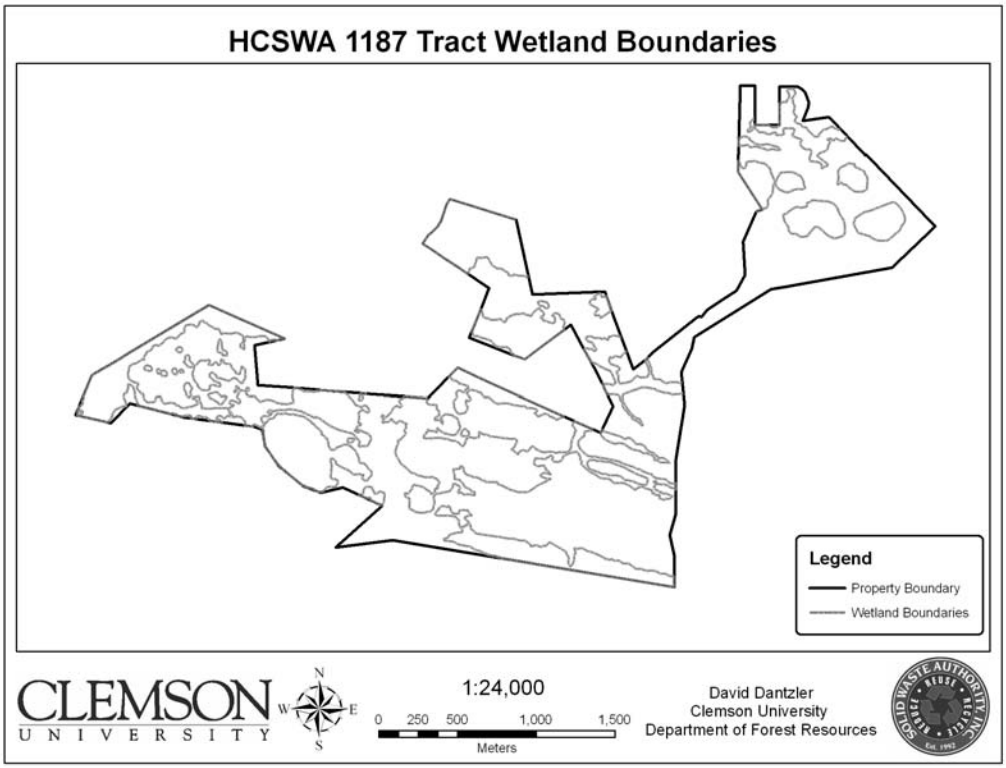


Figure B-5 Map showing the soil classes of the HCSWA 1,187 Tract.

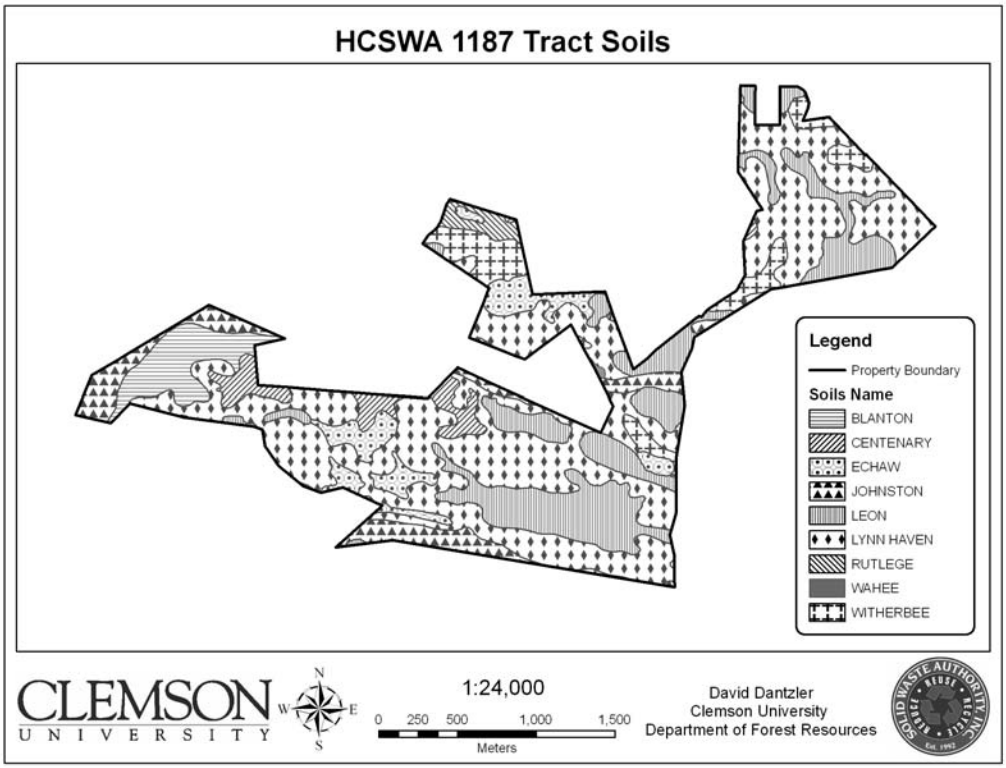


Figure B-6 Map showing the interior roads and gates on the HCSWA 1,187 Tract.

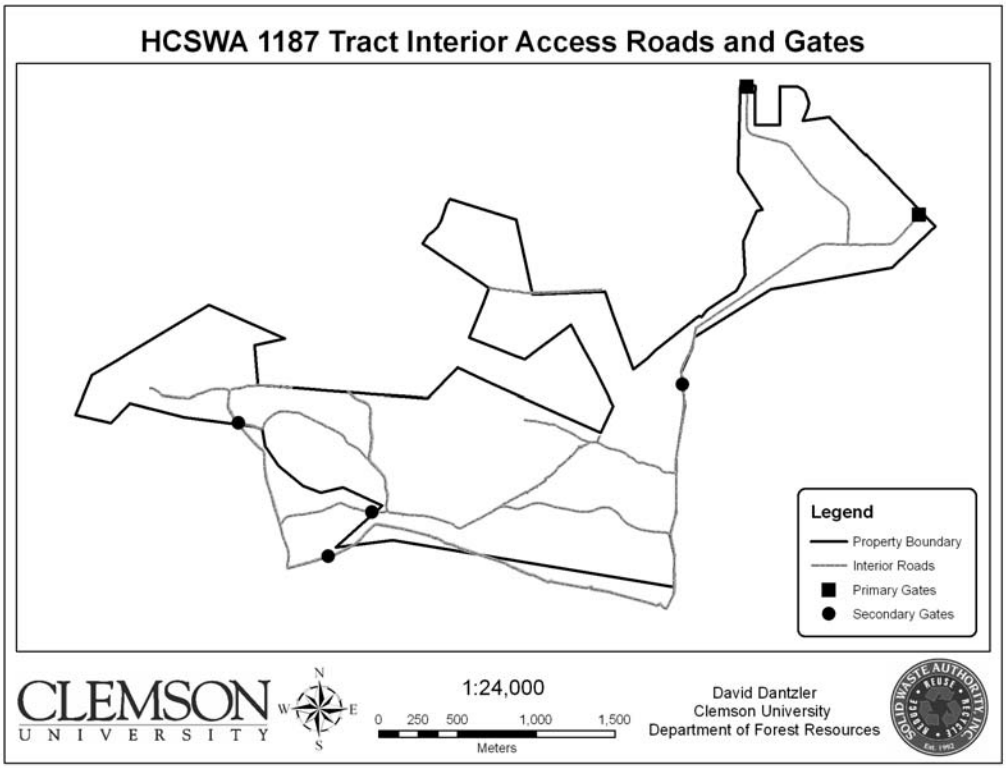


Figure B-7 Map showing the storm debris sorting facilities on the HCSWA 1,187 Tract.

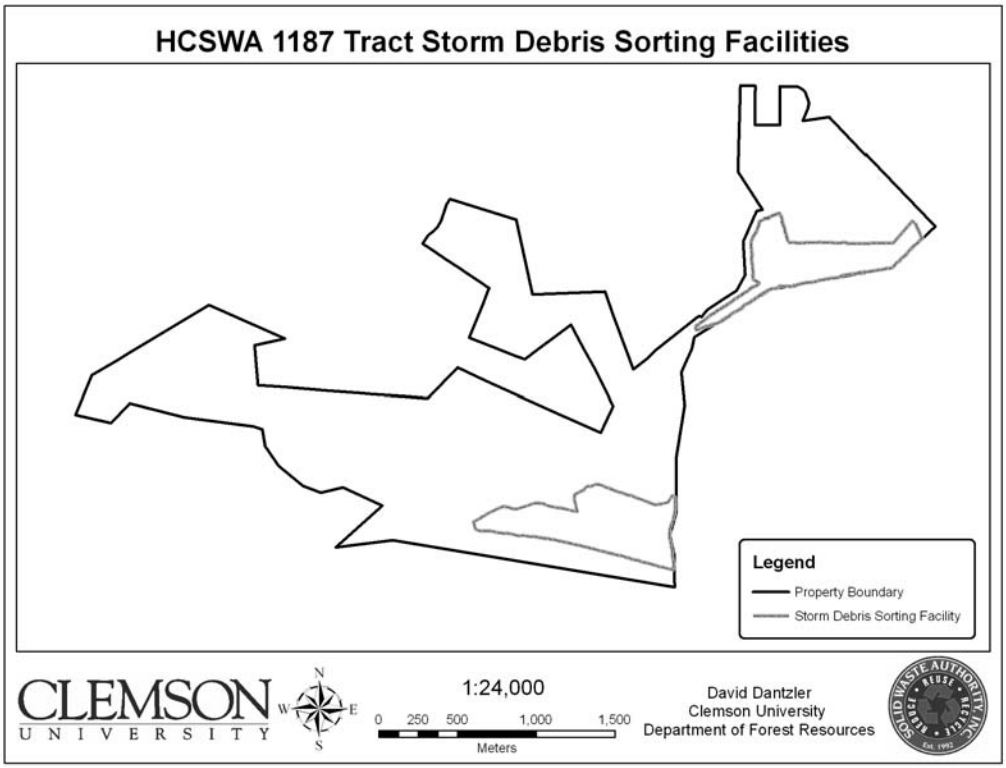


Figure B-8 Map showing the portion of the HCSWA 1,187 Tract that was part of a bombing range target during WWII.

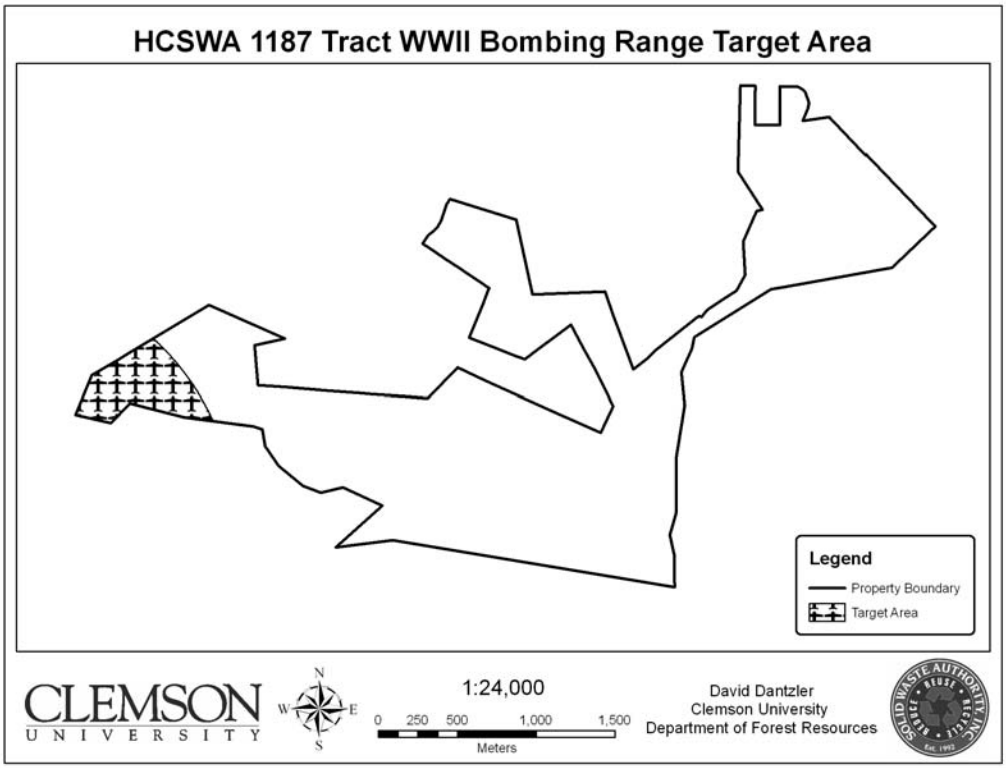
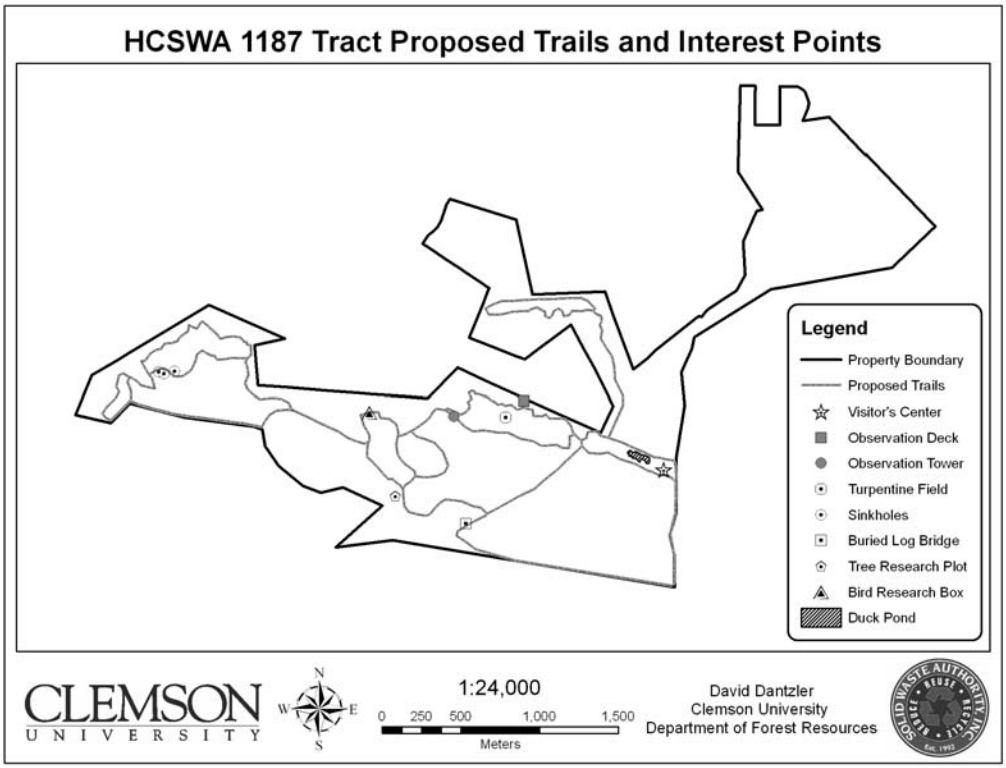


Figure B-9 Map showing proposed trails and visitor interest points on the HCSWA 1,187 Tract.



Appendix C

Black and White Maps of the Buist Tract (print friendly versions)

Figure C-1 Map showing the general area known as the Buist Tract.

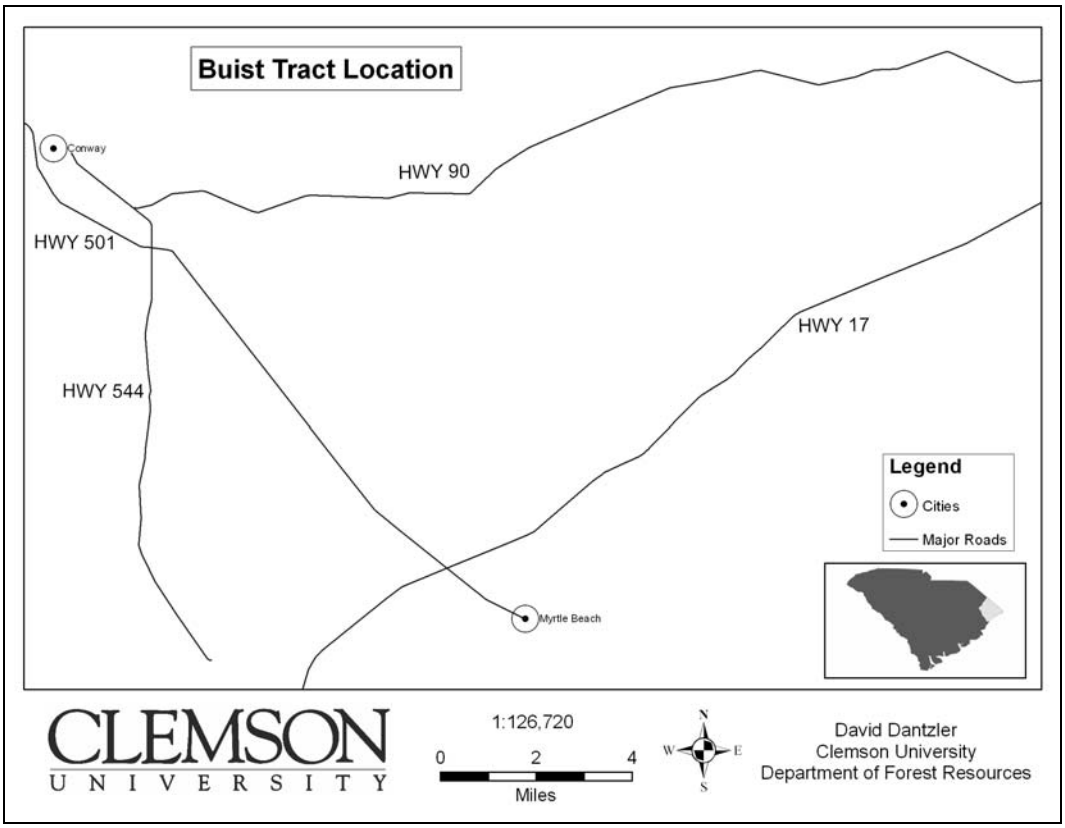


Figure C-2 Map showing the road system within the Buist Tract in 1976.

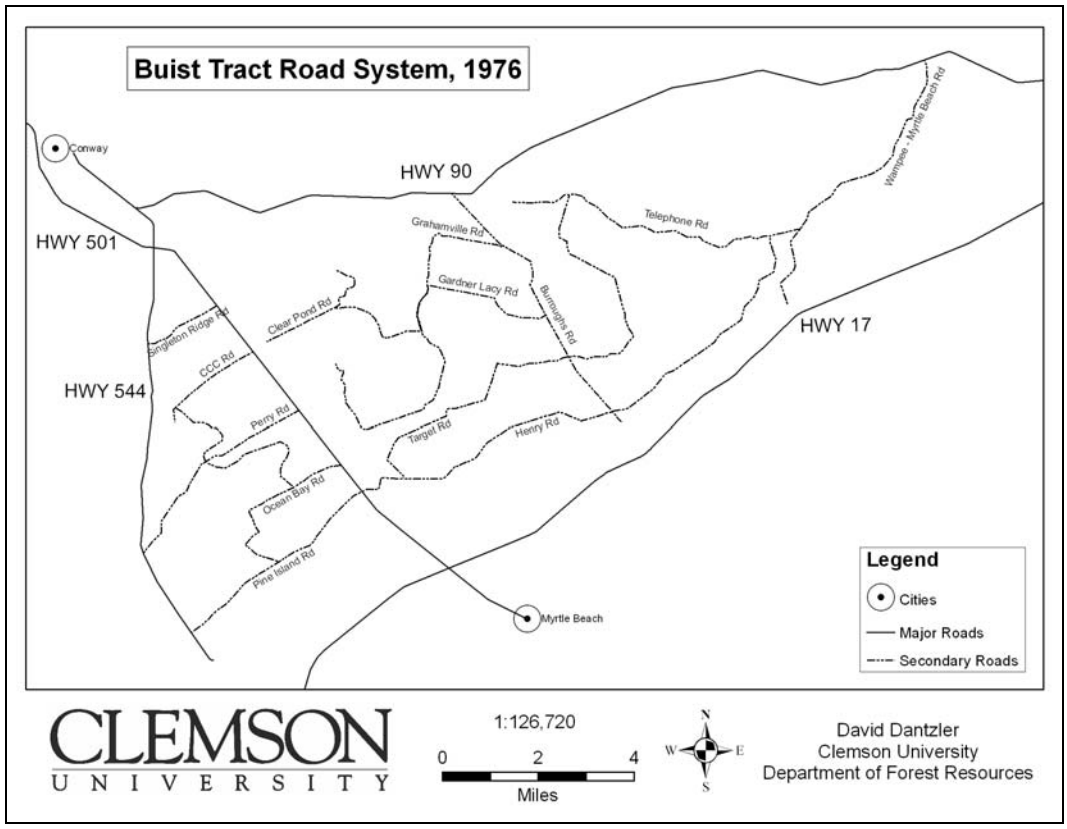


Figure C-3 Map showing the extent of the WWII bombing range and the individual target areas within the range.

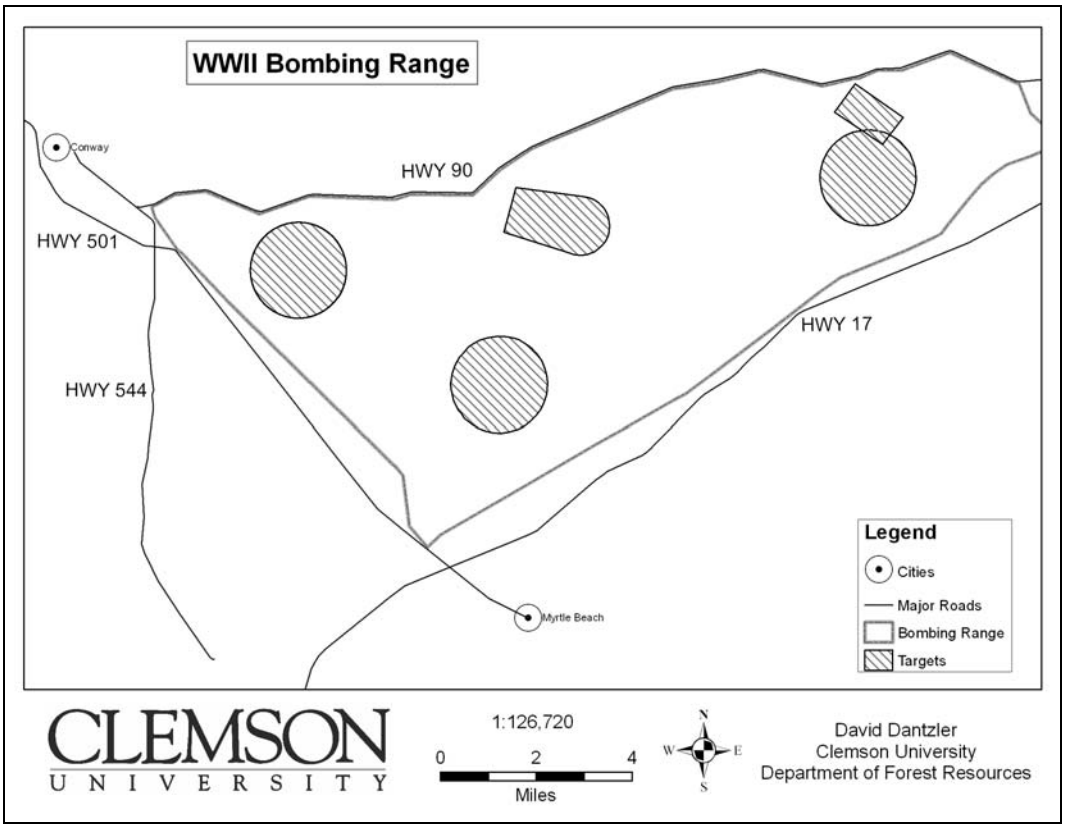


Figure C-4 Map showing the land holdings of the International Paper Company as of 1976.

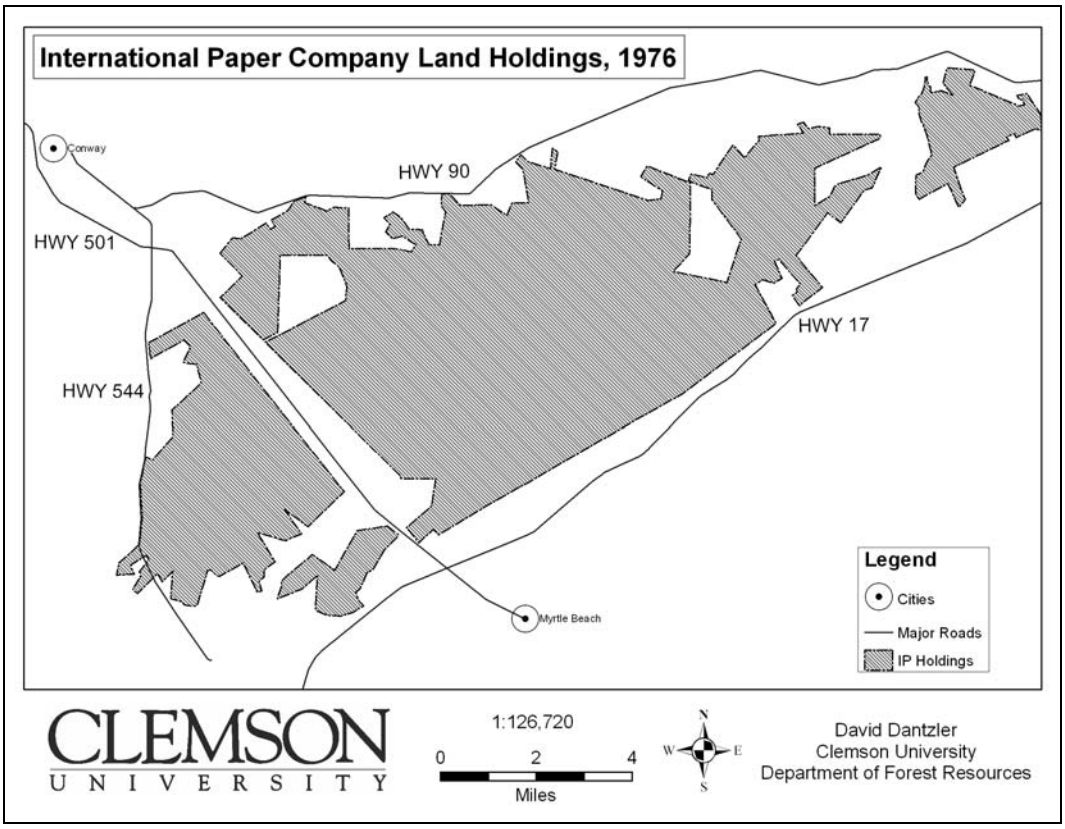


Figure C-5 Map showing the extent of the 1954 fire.

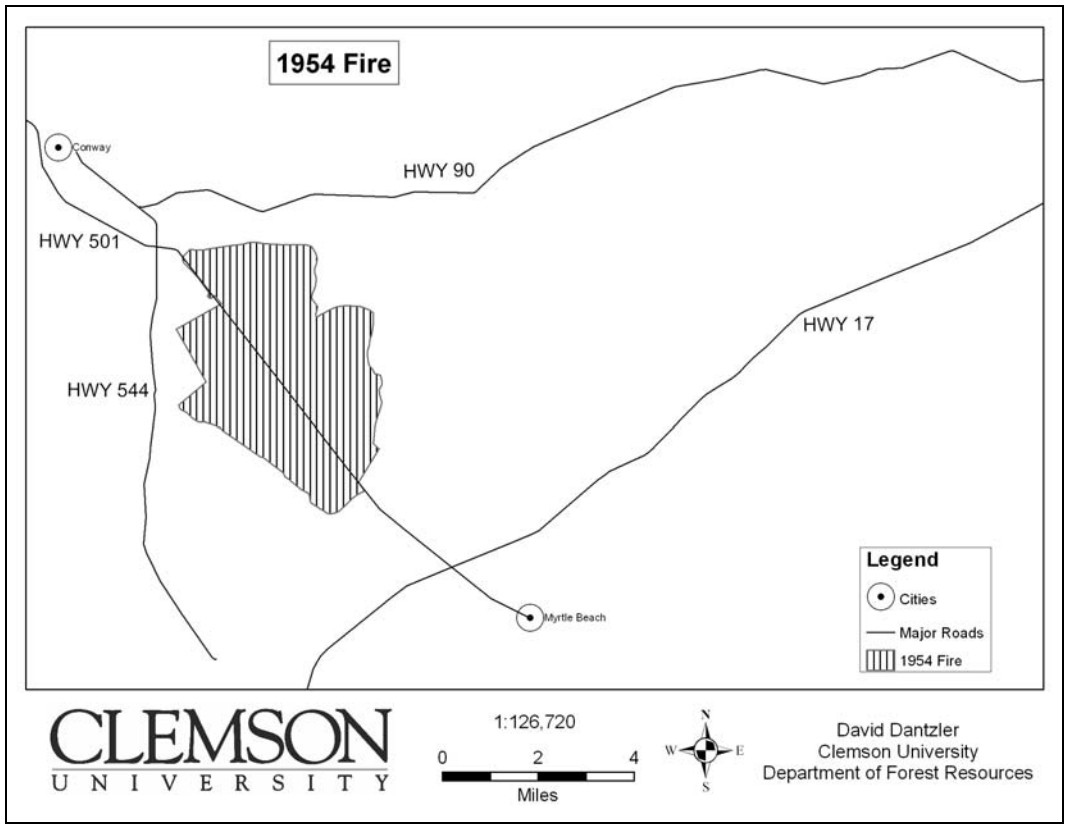


Figure C-6 Map showing the extent of the 1966 fire.

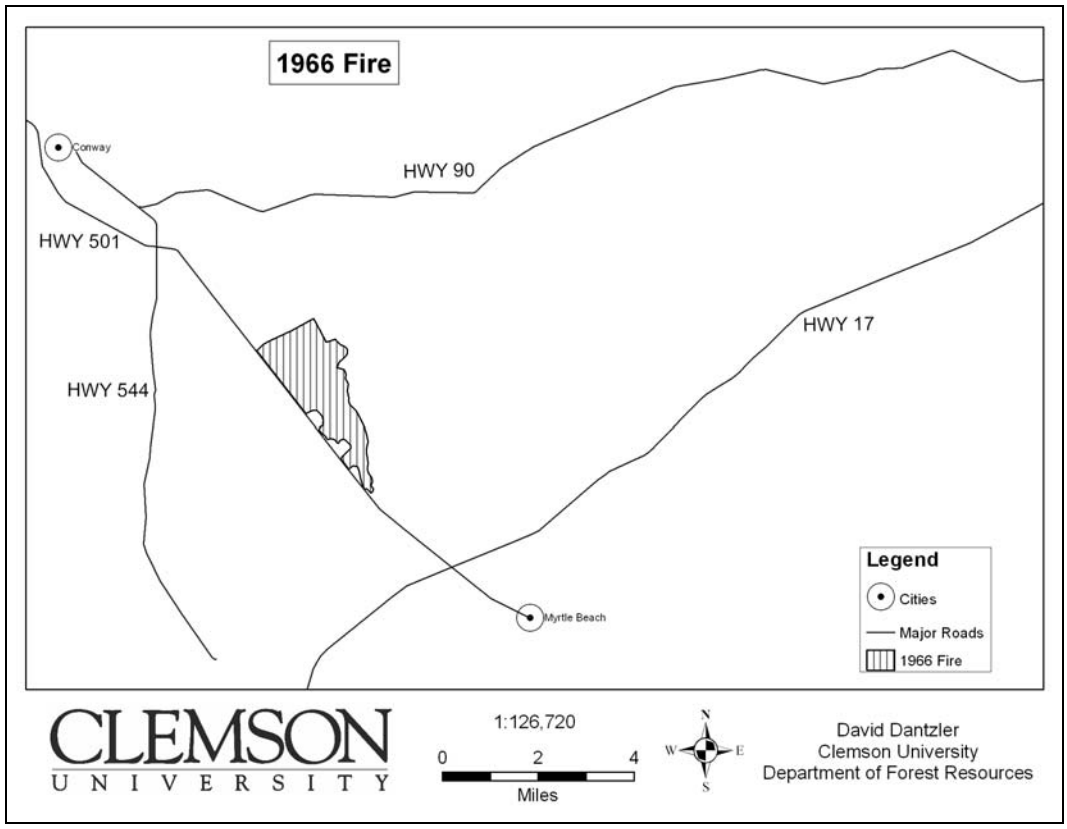


Figure C-7 Map showing the extent of the 1967 fire.

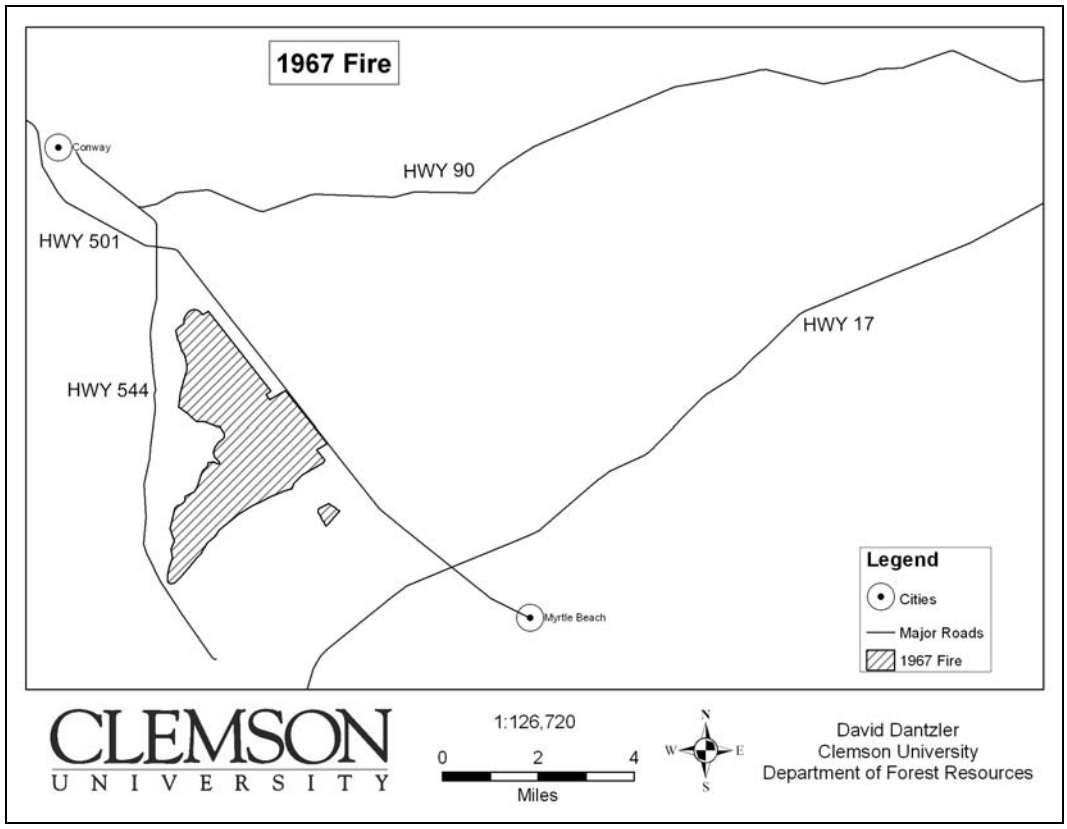


Figure C-8 Map showing the extent of the 1976 fire.

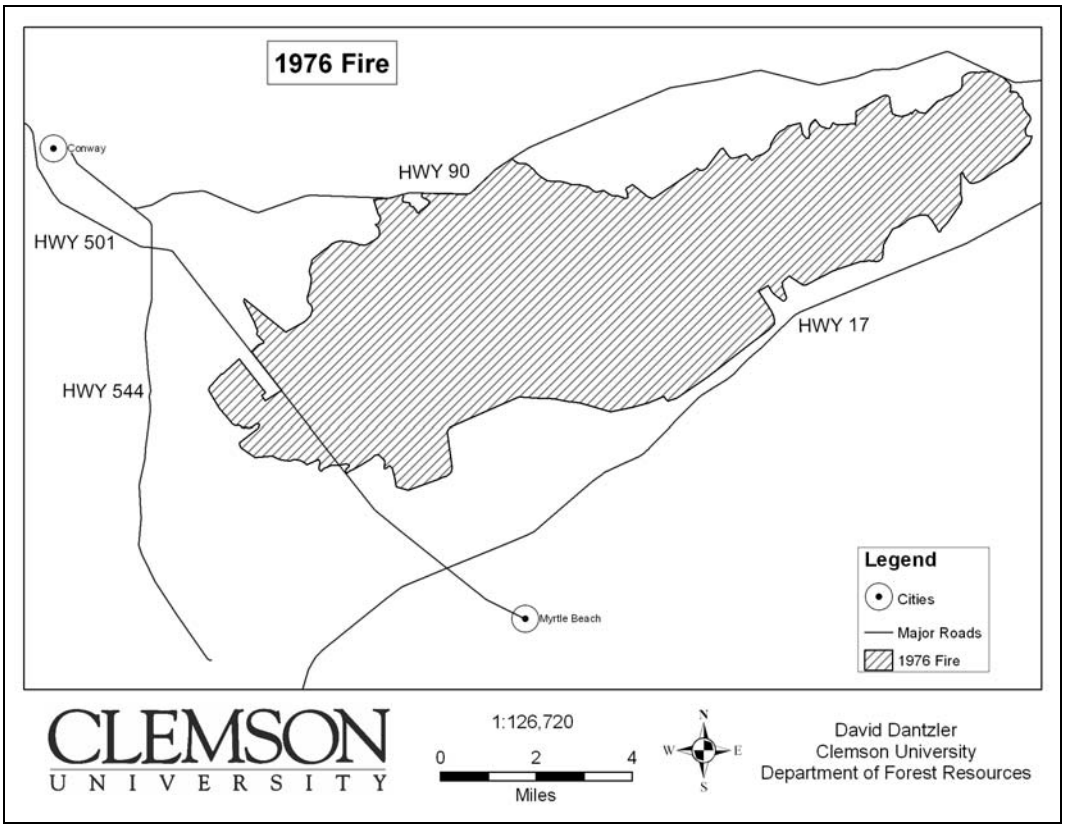


Figure C-9 Map showing the extent of the 1996 fire.

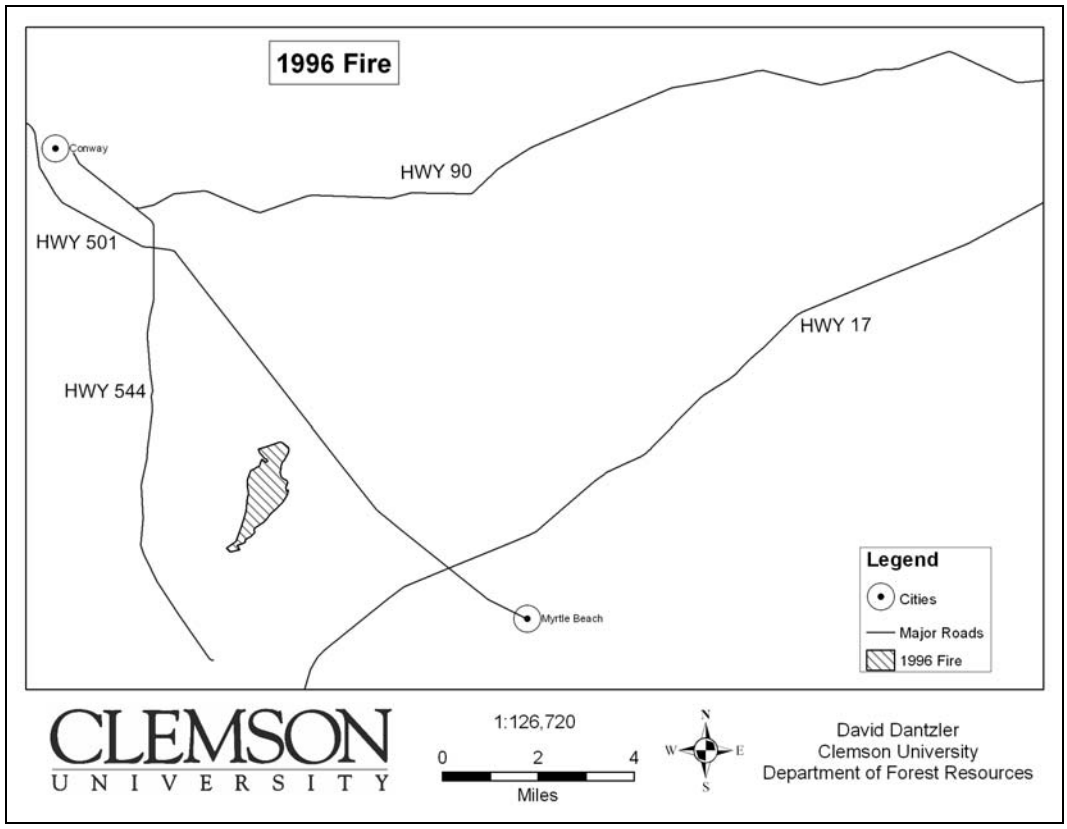


Figure C-10 Map showing the extent of the 2001 fire.

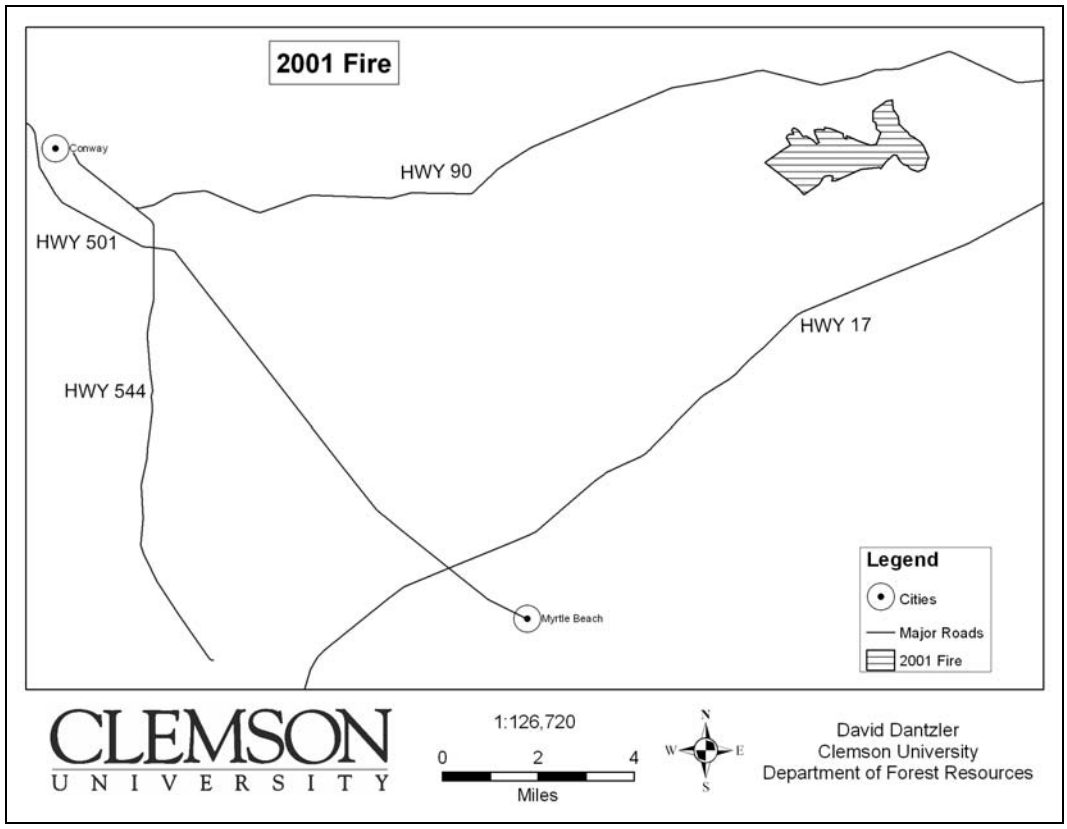


Figure C-11 Map showing the extent of the 2002 fire.

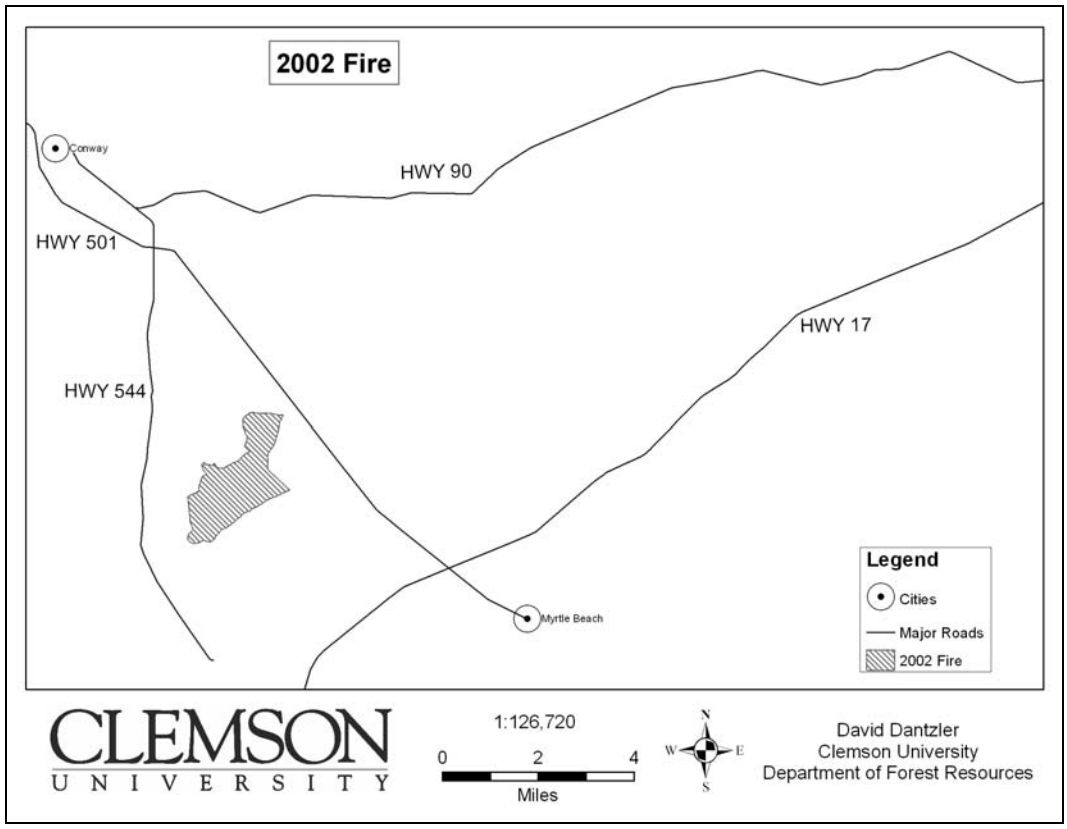


Figure C-12 Map showing the frequency of fire on the Buist Tract from 1954 to 2002.