

## Chapter VI. The Sawmill at Enterprise

Our third research question guiding this data recovery emphasized an Industrial Period (1880-1920) research theme. In Chapter II, we presented a general research theme to guide our investigation of the industrial sawmill complex at Enterprise:

***Industrial Period Research Themes (1880-1920).*** Preliminary historical research indicates that 38HR490 may have been abandoned by the 1880s. However, by 1910 it appears that the site is the center of activity associated the community of Enterprise. Spurred by a thriving lumber industry, a number of sawmills sprang up in the county. Initial research revealed that Mr. J. W. Singleton owned and operated a sawmill at Enterprise. The structural remains at this site identified along the river margin provide an opportunity to archaeologically investigate intact features associated with a sawmill. Furthermore, historical research should provide details about small privately owned sawmills in the area and shed light on this once-thriving lumber community.

This portion of our research therefore falls under the auspices of *Industrial Archaeology*, a term first used 50 years ago to apply to the study of the physical remains of the Industrial Revolution in England (1750-1830) (Nevell 2007). Although initially referring to the archaeology of the physical remains of the Industrial Revolution, the term “industrial archaeology” has come to mean “the recording, study, interpretation and preservation of the physical remains of industrially related artifacts, sites and systems within their social and historical contexts” (Clouse 1995). In the United States, the emphasis on such research began after World War II when the retooling of industry began to destroy elements of an earlier industrial heritage (Clouse 1995). Industrial archaeological sites can include factories, bridges, railroads, mills of all types, mines, ironworks, even potteries. In the 1980s, industrial archaeologists in the United States began to focus on the manufacturing industries of the eighteenth and nineteenth centuries under the auspices of historic archaeology. There was an increasing recognition of the importance of textiles mills, iron works, mineral mines, and other such industries as they fell into decline. English industrial archaeologists continued to focus on studies of the mechanics, or physical character, of individual industries or structures. Nevell (2007) calls this a “techno-centric approach” but noted that it had a “consequent lack of synthesis.” Researchers (Clouse 1995; Joseph et al. 2004) in the field advocate the use of these studies as indicators of social change and suggest a link between mechanization and social processes. This expansion of the original intent of the phrase *industrial archaeology* can result in a more comprehensive view of how industries contributed to society, both economically and socially. To understand the system in operation at Enterprise, we focused on the concepts of the community, the labor force, technology, and commerce/economy.

As we conducted our historical research, it became apparent that there is virtually no information on sawmills in South Carolina available. Particularly, there are no reports documenting archaeological investigations of such resources. We therefore felt that the most significant value of this investigation would be to provide such data. For this reason, we have focused intensively on the forestry industry. To understand the broader context of the sawmill, the following discussion

presents an overview of the lumber industry in the United States, focusing on what was occurring in the northern coastal region of South Carolina. Finally, we present specific data about what was transpiring at Socastee Bluff and 38HR490 during the lumber industry boom of 1880-1920.

## Overview of the Forest Industry

Although our focus on the sawmill pertains to the production of usable lumber (e.g., planks, railroad cross ties, structural beams), the forest industry can be divided into three major economic endeavors (South Carolina Forestry Commission [SCFC] n.d.):

1. Naval Stores (1700-1720; 1820-1880);
2. Timber and Lumber (1870-1930);
3. Paper and Pulp Wood (1930-present)

Each of these three aspects of the forestry industry played important roles in the economic development of South Carolina in general, and Horry County in particular.

**Naval Stores.** The first significant commercial timber industry in the Carolinas was the naval stores industry. Naval stores is the collective name of all products derived from the gum of the pine tree, primarily used in caulking and waterproofing ships, although a wide range of associated products were derived from the processed pines (Horry County Historical Society [HCHS] 2004). By the early 1700s, the southern yellow pine was the major source of naval stores (tar, pitch, and turpentine) in the Carolinas.

Tar and pitch made from the sap of pine trees greased wagon wheels, waterproofed cordage, and caulked ships. Traditionally the tar was obtained from the Baltic countries, but the wars with France jeopardized the supply and raised the price. British officials and Americans took advantage of the large tracts of pine trees in the state and by 1700 Carolinians were making pitch and tar in considerable quantities (Weir 1983). The season for making these products was long, costs were low and raw materials were abundant.

The southern portion of the state initially dominated the naval stores industry, but that production was disrupted by the Yamassee War (1715-1717). As a result of this, the vast majority of the tar and pitch exported came from the northern part of the state after 1715. By 1717 nearly 44,000 barrels a year were being exported from South Carolina (Weir 1983). However, within the next several years, the market was glutted. Also, Swedish tar was often preferred by English rope makers as it was made from green trees where Carolinians made theirs from dead trees. South Carolinians responded by making pitch instead of tar and began harvesting the trees themselves. The naval stores boom was running its course by the end of the period and was significantly decreased by 1720 when the focus turned to cultivation of indigo and rice production (Weir 1983), activities for which Horry County was not suited.

Major commercialization of the industry occurred in the 1800s (HCHS 2004.). A second boom in Horry County began in the 1820s and peaked in the 1880s. The industry was still active, albeit on a lesser scale, until just before World War II (SCFC n.d.). By then, the (long leaf) pine forests were depleted and the industry moved to other parts of the Southeast where long leaf pine forests were still intact (HCHS 2004).

**Timber and Lumber.** The timber and lumber industry primarily focused on the manufacture of lumber used for construction. Timber refers to standing or felled trees. Lumber is the end product of timber processing as a material suitable for construction use.

Early colonial mills were primitive and logs were cut using two man teams who practiced the pit-sawing method (Brodbeck 2003; Williams 1989). This method involved first squaring the logs using axes and then placing the log on a frame over the pit. Two men, one above and one below, would laboriously hand saw boards, with a hard day's work yielding anywhere from 100-200 board feet of sawn lumber (Nassey 1960). Although fairly primitive, this technique was in common usage in the Southeast until the Civil War (Nassey 1960). The relatively low demand for wood and the community markets allowed for this primitive method to be successful (Nassey 1960). The method had a low site impact and was environmentally friendly, as only selective trees were cut (Nassey, 1960; Williams 1989).

The next technological innovation in sawmills is the conversion to water power. This new system, called a Muley saw, consisted of a single saw attached to a waterwheel from which it derived its power (Nassey 1960). Even though this system was often used in conjunction with grist mills, it was capable of sawing 8,000 board feet a day (Williams 1989). This method was capable of supplying a greater amount of wood for growing communities demanding lumber. Additionally it created few pollutants and still cut a relatively limited amount of wood which limited its impact on forests.

Mill location was an important consideration. The proposed location needed to have adequate access to and from the mill whether by water or rail, there had to be abundant water both for power and for the employees, and there had to be sufficient level land for constructing the mill (Climax Locomotive [CL] 2007).

Despite the technological innovations being applied, logging still involved a great deal of manual labor. Logs were brought to the mill by horse or ox teams. At the mills, logs had to be loaded and moved by hand as initially only the saw was powered. As mills grew larger, they would be placed in more permanent facilities on a river, where the logs could be floated downstream to them. An early improvement to these permanent mills was the development of a water powered moveable carriage to move the log into the saw blade.

By far the greatest improvement in technology for sawmills was the introduction of the steam engine. First introduced into sawmill operations in 1830, it further increased output and timber

production, although the steam engine did not replace the water wheel on a large scale until the 1880s (Williams 1989).

The introduction of the circular saw was another significant development in the lumber industry (Nassey 1960). It was invented in England in the early 1800s, but was not installed in southeastern sawmills until the 1880s (Nassey 1960). The new circular saws were capable of sawing 40,000 board feet of lumber in one day, far exceeding anything done before (Williams 1989). The introduction of this new technology was immediately implemented during the move of the lumber industry from the Great Lakes region to the Southeast (Nassey 1960).

The circular saw was in common use up to World War I, when it was replaced by the band saw (Nassey 1960). The band saw was more efficient and was introduced primarily to the larger sawmills. The band saw consists of a long ribbon-like saw, which revolves around two large wheels, much like a belt. The band saw's advantages over the circular saw were reduced wasted wood and higher sawing speed. Daily production with the band saw rose to 75,000 board feet (Williams 1989:261).

Most mills today still use variations of the band saw technology, and the larger mills have fully mechanized the production process, requiring less labor and higher output requirements to maintain production (Brodbeck 2003). Mills have strived to increase efficient output while reducing maintenance and labor costs (Sternitzke 1963:9). The lumber industry in general has increased the efficiency of wood use by 41 percent between 1952 and 1998, which has in part reduced the timber output over the past few years (Prestemon and Abt 2002:305). Today, most sawmills are computerized and can make hundreds of thousands of boards per day.

**Paper and Pulp Wood.** In 1884, Major James Lide Coker of Hartsville, South Carolina became the first person to make paper entirely from southern pine (SCFC n.d.). This breakthrough opened a new market for pine throughout the Southeast. In 1936, the International Paper Company opened a paper mill in Georgetown. Although the region's forest resources could no longer support the lumber industry, they were sufficient to support the production of wood pulp based paper (Bridwell 1991, II:48; Rogers 2002:503). The activities of International Paper revived barge traffic on the rivers around Georgetown by transporting logs to their mill. In addition, paper mill operations brought a revival in foreign commerce as salt cake was imported from Europe for paper production (Bridwell 1991, II:59). Although World War II virtually eliminated Georgetown's maritime commerce, the production and distribution requirements of International Paper Company kept both port and rail facilities operating (Rogers 2002:503).

As with the lumber industry, the pulp wood/paper industry spread to the Northwest. The first paper mill on the west coast was built in Camas, Washington in 1883. Washington continues to lead the nation in paper production. Today vast tracts of land in the northeastern corner of South Carolina are shifting from paper company ownership to developers. Demand for land is high as the population continues to grow.

## Overview of the Lumber Industry in the United States

Sawmills were often among the first local industries established in “semisubsistence economies of the newly settled areas (Brodbeck 2003; Williams 1989:95). During the colonial period, sawmills were often small-scale operations run by individual farmers or families. They required little labor, often only two men, but were vastly important to the survival of the communities. Sawmills were so important to early pioneer settlements that towns made grants and townsfolk held shares in what was essentially a cooperative enterprise (Williams 1989:95).

Prior to 1810, the lumber industry in the United States was still very much a facet of agriculture (Brodbeck 2003; Williams 1989). Most mills at this time were very small, often worked by one or a few farmers on a part time basis. Production was far from efficient (Brodbeck 2003):

the scale of operations was small. Tools were crude and hand-forged, production was restricted, distribution haphazard, and the market local. There was little competition and little incentive to initiate change. Simply, timber getting was still an adjunct to agriculture settlement, and the timber cut was mainly the by-product of the land clearing and the concern of a multitude of small mills that dotted the country to serve the agricultural population (Williams 1989:163).

As the lumber industry moved to the use of water-powered mills, grist mills may have been modified and adapted to sawmills (Williams 1989). Entry into the sawmilling industry was easy at this period in time as the initial investment could be as low as a few thousand dollars (Nassey 1960). This created overproduction and a surplus which suppressed timber prices and kept the rate of failure high (Nassey 1960). This was the era of the small lumbermen, as numerous markets and an endless timber resource in an undeveloped region favored the small producer. The success of these small operations would later suffer from further advances in technology and the transportation systems.

The sawmill industry began to change during the mid nineteenth century (Brodbeck 2003; Williams 1989). As the country developed, the lumber industry switched from one and two man operations to large industrialized operations employing 20 to 100 men. Four categories (Williams 1989:167) that influenced the industry as it moved across the country are:

1. *Technological advancements* in saws, machinery, and the introduction of the steam engine increased the speed and output of sawmills;
2. The *development of local transportation* (roads, tramways and rail lines, river traffic) made it economically feasible to transport men and supplies to work camps, and then deliver the timber to sawmills;
3. The *development of a national transportation system* connecting areas with timber surplus and those with timber demand helped shift the local market to a national and even global market; and

4. The *development of wholesale centers* at key points in the distribution system, which helped mesh together a complex network between forests and markets.

Advances and improvements in technology, transportation systems, and market distribution centers enabled the timber and lumber industry to rapidly deplete the vast forests of the United States (Brodbeck 2003).

The Northeast was the first region to be targeted by large scale commercialization of the timber and lumber industry (Brodbeck 2003; Williams 1989). In 1839, New York led the nation in timber production, accounting for 30 percent of all lumber produced (Brodbeck 2003; Williams 1989). Additionally, the surrounding areas of Maine, Pennsylvania and New England accounted for another 33 percent. The rest of the country accounted for the rest of wood production. The Northeast led timber production until 1860 when the industry was forced to reestablish itself due to a depleted timber resource (Williams 1989).

Due to the nation's increasing demand for lumber, commercial logging and lumber operations shifted to the Great Lake region (Brodbeck 2003; Williams 1989). Between 1869 and 1889 timber production in Michigan was five times that of New York. By 1870 the Great Lake states were in full production and by the early 1880s industry investors were already looking for future timber supplies due to the rapidly declining timber resources (Nassey 1960). Timber resources in the Great Lake region were greatly reduced by 1900, by which time the industry had already shifted to the southeastern United States (Williams 1989).

The shift of timber production to the Southeast was much like the shift that had occurred 30 years before from the Northeast to the Great Lakes region. However, the harvest of Southeastern forests was moving at a more rapid pace as technology in the sawmills and logging operations was more efficient and capable of producing more timber. The production of timber in the Southeast went from 1.6 billion board feet in 1880 to an estimated 15.4 billion board feet in 1920 (Williams 1989). New technology was immediately applied to southern sawmills; the use of steam engines and circular saws replaced the old waterwheel sawmills.

In the 1880s, abundant natural resources, cheap and plentiful labor, and a rising demand for the lumber provided the ingredients for a prosperous industry in the Southeast (Nassey 1960). The Southeast's land ownership patterns were also advantageous to the lumber industry. Here, millions of acres could be purchased and consolidated into private ownership (Williams 1989). These factors combined to make the South the next big timber production center.

By 1900, the commercial timber and lumber industry had already started shifting its focus to the Northwest. At that time, the Northwest was estimated to contain roughly one half to two thirds of the remaining forests in the United States (Williams 1989). So, although the South reached its maximum timber production by 1920 (Williams 1989), the Northwest had almost matched the timber production of the Southeast by that time. The Northwest remains the leading area in timber and pulp wood/paper production (NA 2007).

## Labor Force and Technology

A modern-day logging field crew would be comprised of four to eight men. During the late nineteenth/early twentieth century, crews would be significantly larger. Although everyone would be expected to be able to do a variety of tasks, there were specific positions within the crew. Some of the logging positions of today focus on modern technology and equipment, but many remain the same as they would have been during the nineteenth century. The *fallers* cut down the trees. *Buckers* trim off the tree tops and branches and “buck” the tree into logs of specified lengths. *Choke setters* fasten cables or chains around the logs to be skidded (dragged) to the loading area or deck. *Log sorters* sort and move the logs based on the tree species and log size. *Log graders* inspect the logs for defects and measure the logs to determine their volume. A typical crew would include two fallers, one bucker, two choke setters, and several men to load the logs onto trucks or tram cars. Both turpentine and timber industries brought wealth to the property and mill owners. The laborers were often paid in tokens imprinted with the name of the issuing company. These tokens were valued at between one cent and one dollar, and could be redeemed at the commissary store owned by the issuing company (Lewis 1998).

Once the lumber industry became commercialized, mills grew substantially in size. A general listing of necessary mill employees includes the general manager, sawmill foreman, master mechanic, yard foreman, and supply clerk. The four key employees needed at every mill were the sawyer, saw filer, millwright, and the blacksmith (CL 2007). The millwright and blacksmith in particular were responsible for keeping the mill running and in good repair. The saw filer had to be knowledgeable about the “hook, pitch, and shape” of the saw teeth needed to cut different types of wood (CL 2007). Skilled men were always in demand and were often “raided” from other mills (CL 2007).

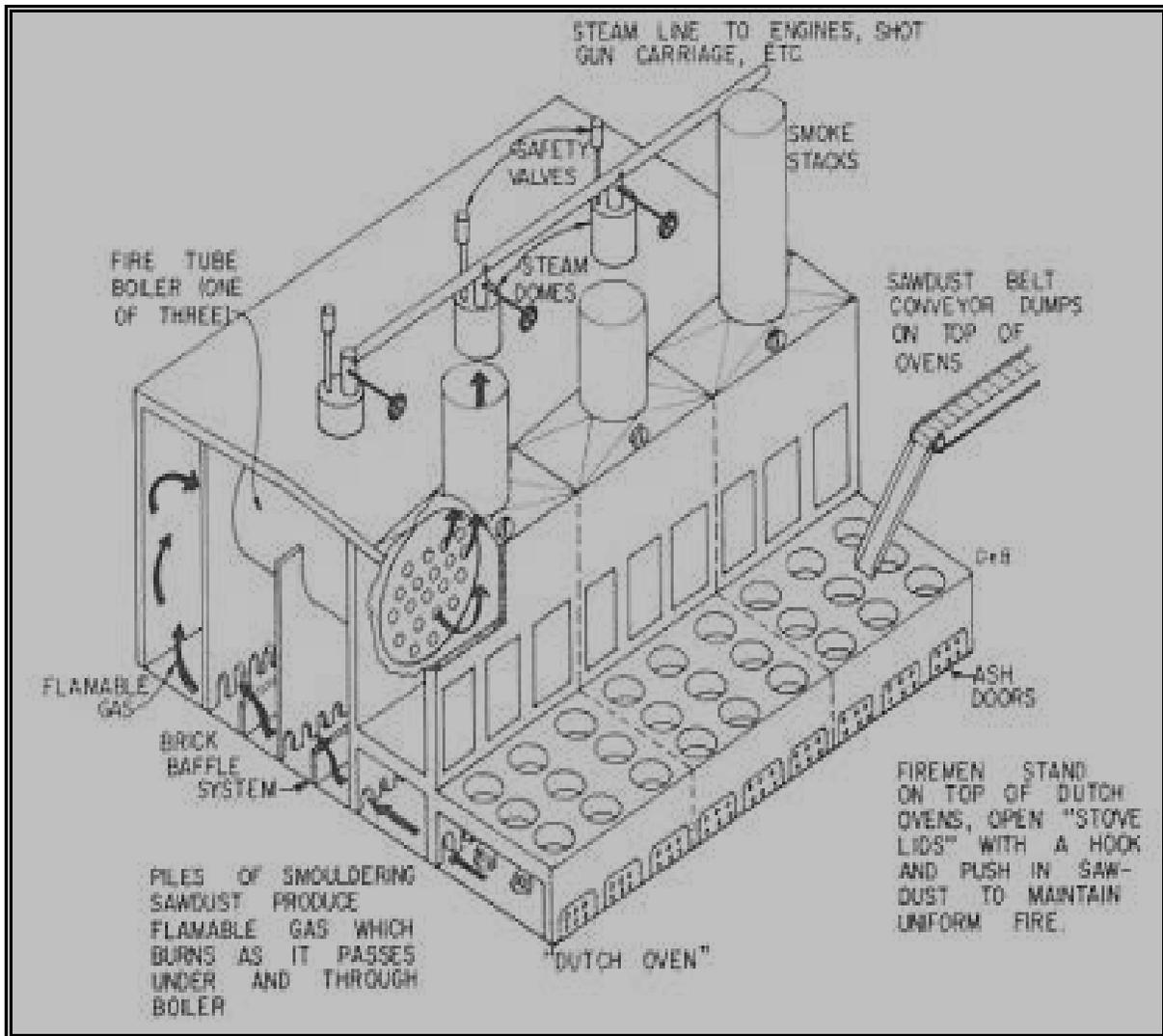
Logs were held on saw carriages that moved the logs into the saw. The speed of the saw carriages determined the mill capacity (CL 2007). The head saw would reduce logs to boards or planks. Several resaws would then cut the wood into thinner boards. Early mills had slabbing saws and their operation was controlled by the sawyer. The circular saw consisted of a saw frame, a saw arbor to which the blade was attached, a driving pulley, and a saw guide and board spreader (CL 2007).

*The Steam Engine.* The timber and lumber boom of the nineteenth and early twentieth century saw a dramatic shift in the use of manual power to mechanical power. Mechanical power was mostly associated with adaptations to the steam engine (Figure 72). In the field, steam engines were used to power tram locomotives that hauled timber to the sawmill. Small portable engines were used in the logging areas to drag logs to work yards, and to power cranes that lifted the logs onto tram cars. Steam engines were used to power river boats and ships that towed logs to the sawmill and then transported the lumber to market. At the sawmill, steam engines were used to operate the saw blade and log carriages. However, they were also adapted for the use of other specialized activities, such as powering dry kilns.



**Figure 72.** Steam engine on roadside display near Wade, North Carolina.

The steam engine providing power at a sawmill was often housed in a power plan building that also contained the engine's boilers and fuel storage bins. Depending on the size of the mill, three or four boilers would have been common (CL 2007). Figure 73 shows a drawing of a "Dutch Oven" type boiler that was in use during the lumber boom in the Southeast. This type of boiler measured 72 inches in diameter and produced 150 HP at 125-150 pound of steam pressure (CL 2007). The fuel bins would have chutes leading directly to the boiler's furnace. Sawdust was the most common form of fuel used. The engine drove a fly wheel and belt pulley, forming a connection between the powerhouse and sawmill's belt pulley. This belt pulley was on a line shaft that ran through the mill, providing the power. Other pulleys attached to the line shaft would lead to other pieces of mill machinery including the saw blades (CL 2007).



**Figure 73.** Diagram of a “Dutch Oven” type boiler (CL 2007).

*Dry Kilns.* A dry kiln removes moisture from the wood. There are several reasons for drying “green” wood (Reeb n.d.):

- Reduces shipping weight, thus shipping costs;
- Reduces susceptibility of insect damage;
- Increases wood strength (as it shrinks it becomes denser);
- Paint and surface finishes adhere better;
- Better insulator than wet wood;

One of the problems of drying wood is that it consumes a lot of energy, more than used for all other sawmill activities combined. However, fuel costs at a sawmill could be greatly reduced by using its own wood waste and sawdust for boiler fires (Reeb n.d.).

Drying schedules were carefully controlled, with specific cycles depending on species, size, and condition of the wood (Reeb n.d.). In steam dry kilns, the steam circulated through pipes in a building with stacks of wood.. Fans were used to circulate the hot air (up to 180 ° F) over the wood. The water trapped in the wood evaporated, raising the humidity in the air. The humid air in the kiln would then be vented outside the kiln as cool dry air was brought in and the cycle continued.

### **The Lumber Industry Boom in South Carolina's Northern Coastal Region**

As the naval stores market slowed, the lumber market took its place in the region's economy. In Horry County, sawn lumber began to be used in construction before the American Revolution. The first sawmill in the county may have been located in the community of Little River (HCHS 2004). The lumber industry grew quickly as demand for processed wood increased both domestically and overseas. In Horry County, the Waccamaw and Little Pee Dee rivers were the main routes for transporting timber to the mills in Conway, Bucksport, Enterprise, and even Georgetown. Large log rafts were floated or were towed by small river boats and tugs. The merging of the Black, Pee Dee, Waccamaw, and Sampit rivers at Georgetown and Winyah Bay made Georgetown the preeminent milling and distribution center for the timber industry in the north coastal region of the state. Large lumber companies constructed mills in Georgetown and immediately began shipping their products to northern markets (Bridwell 1991, II:29).

The Atlantic Coast Steamship Company, a subsidiary of the Atlantic Coast Lumber Company, developed a massive 5 million-foot capacity dock and storage shed on the Sampit River and placed several vessels in service transporting lumber to New York and New England (Figure 74) (Rogers 2002:499). The steamer *Georgetown* went into service in 1901 and could transport 1.25 million board feet of lumber. The four-masted schooner *City of Georgetown* was capable of carrying only half that amount (Bridwell 1991, II:40-41). Henry Buck is credited with beginning the large scale commercialization of the lumber industry in Horry County; his base of operations was at Bucksport. Buck moved to South Carolina in 1840 from Maine as the timber industry was waning in the Northeast. He established several sawmills on the upper Waccamaw River and by 1850, his mills were producing 3,000,000 board feet of lumber per year (HCHS n.d.). Considerable amounts of timber were also being converted to lumber at sawmills in Conway.

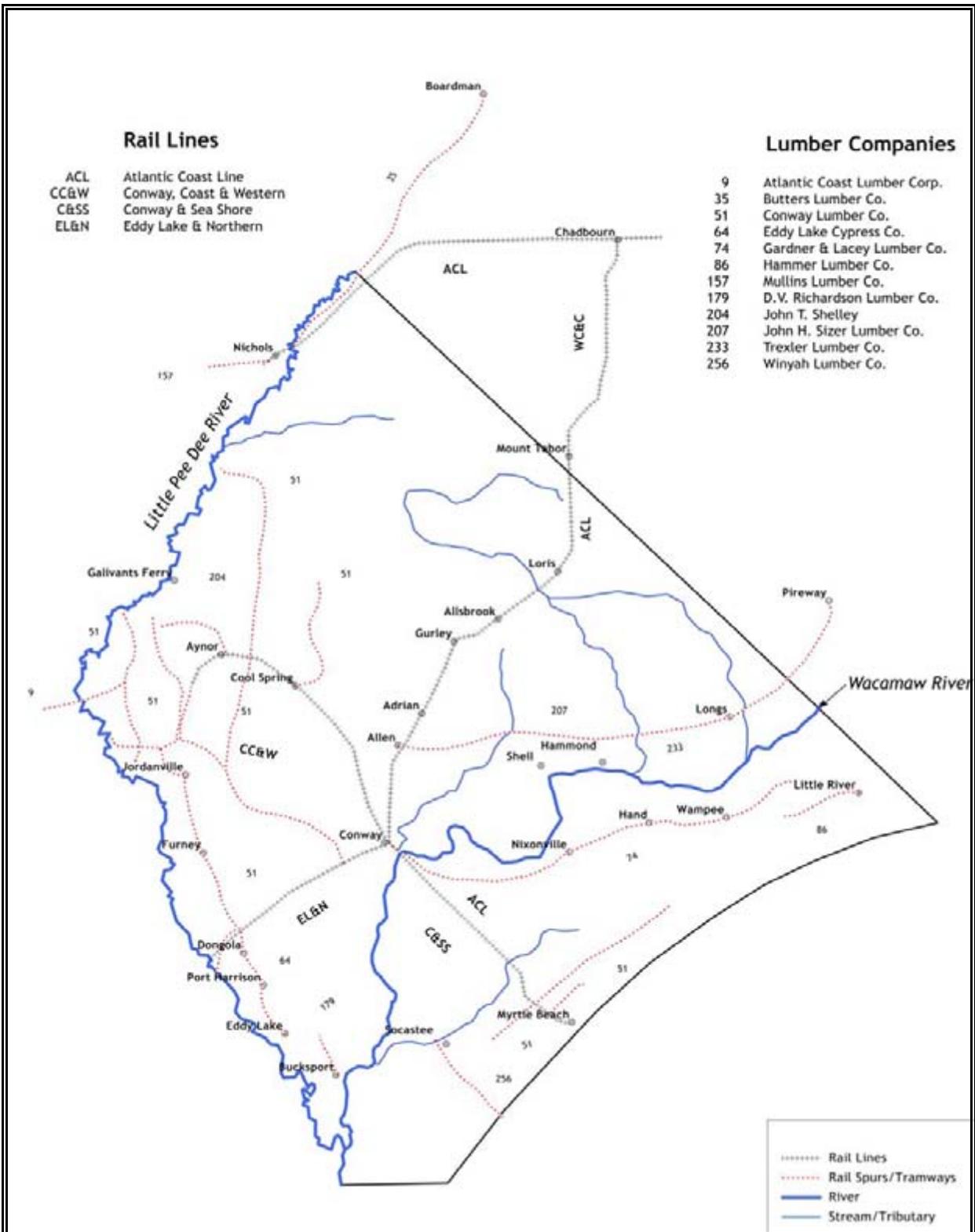
However, even the milled lumber from the Horry County mills worked its way downstream to the shipping facilities in Georgetown. Georgetown became the lumber city in the South. Logging and sawmill activities in Horry County, which peaked between 1890 and 1920, contributed to the lumber industry boom in Georgetown. Northern investors bought thousands of acres of forest and set up mills along the rivers that further boosted the Georgetown economy. By 1905, 25 percent of Georgetown's economy was lumber, valued at \$10.4 million (Bridwell 1991, II:32; Rogers 2002:499).



**Figure 74.** Schooner anchored at the Atlantic Coast Lumber Company in Georgetown (GCDL).

River vessels and ocean going ships were initially important in shipping timber to the sawmills and then redistributing the finished lumber to out of state markets. However, during the 1880s, rail lines begin to expand into Horry County and numerous rail spurs and tramways linked the logging camps and sawmills not only to Georgetown, but to other distribution points as well.

Horry County, the largest county in South Carolina, had vast woodlands in the 1800s. By the turn of the century, a number of large timber operations were active there, their growth having been facilitated by the improvement in transportation, especially steamboats, and rail and tram lines.



**Figure 75.** Map showing waterways, rail and tram lines, and general lumber company territories in Horry County during the early twentieth century (Fetters 1990:60).

After 1910, three influences began to affect the port of Georgetown. The first of these was the shift of the timber and lumber industry to the Northwest coast. As discussed previously, the timber industry had shifted from the Northeast to the Great Lakes and then to the Southeast seeking new productive sources of wood. By 1900, the industry continued its search for new sources of timber and began to shift to the Northwest where there were abundant virgin forests.

Next was the development of an efficient and extensive inland rail system. The railroads were expanding into the rural areas that had previously relied on river vessels for shipping products to markets downstream and elsewhere via the port of Georgetown. Competition with the railroad cut heavily into the volume of cargo shipped in and out of Georgetown. Local rail and tram lines could ship the timber and lumber overland to interior Sawmills and distribution points such as Conway. From here, they were more closely linked to rail lines going to the port at Wilmington or to towns virtually anywhere along the major rail lines, hundreds or even thousands of miles away.

The third influence was World War I. Georgetown's prominence was further affected as the financial priorities of World War I severely limited maintenance dredging and harbor improvement on Winyah Bay. Because Georgetown's commerce in 1919 was only 13 percent of what it was in 1916, the Charleston District of the United States Army Corps of Engineers (USACE) recommended discontinuing their maintenance of Winyah Bay and Sampit River channels (USACE 1919:2493-2494). This would place further limitations on the Georgetown port traffic. A brief revival in the lumber industry in 1923 justified the additional investment necessary to clear the Sampit bar and Winyah channel to 5.5 meters (18 ft). That was accomplished by 1937 (Bridwell 1991, II:40-41; USACE 1924:631-633). However, by that time the Great Depression had begun and Georgetown's maritime commerce declined further. In 1932, the Atlantic Coast Lumber Company, the mainstay of Georgetown's economy, closed down its operations (Rogers 2002:502).

## **Logging Activities**

Vivid images of elements of the lumber industry in Horry and Georgetown counties are available thanks to collections and displays at the Horry County Historical Society, the Horry County Museum, and the Georgetown County Digital Library. These images focus on field activities and portray the environmental setting, the specific activities involved, the material culture related to the industry, and perhaps most interesting, the actual people who were involved in the day to day tasks necessary.

The first step in the logging process would have been the identification of an appropriate tract of land and the acquiring of the logging rights to that property. Next a tram line would be established (Figure 76). In more remote areas, field camps might be erected (Figure 77). Alternatively, the workers could have the option of returning to "civilization."



**Figure 76.** Crew laying track for the tram line (GCDL).



**Figure 77.** Portable houses at a remote logging camp (GCDL).

A two man crew would cut the trees with a whipsaw (Figure 78), typically about 1 foot from its base. After the limbs and top were cut off, the trunk would be cut into logs (Figure 79), which were then transported to a loading or sorting deck. It was a common practice to use mule or oxen teams to move the logs these relatively short distances (Figure 80). More mechanized methods of moving the logs gradually became available. Portable steam engines (sometimes called “donkey in the woods”) powered winches and small cranes for dragging logs and loading them onto tram cars for transportation to the mill (Figures 81 and 82). If the river was being used to transport the logs to the mill, they would be slid into the river and tethered together to form large rafts which were then floated or towed with a river boat or tug to the sawmill (Figure 83).

Figure 84 shows a logging crew in Georgetown County posing on a tram car. Presumably, this photo depicts most of the members of the crew and shows between 30 and 35 black and 13 white men. The row of loggers sitting on the edge of the tram car is comprised of black men; several more can be glimpsed over the shoulders of those seated. They appear to be from late teens to 50s in age with most being in their twenties. They are all wearing the same boots and are fairly heavily dressed. These men are likely the tree fallers and buckers. One black man standing near the end of the tram car appears to be the eldest and is dressed differently; it is especially obvious that he is not wearing boots as virtually all the other laborers. We can speculate that he holds a more skilled or more supervisory position. The row of men standing on the tram car are predominantly white and seem to be older than the tree fallers. Their ages range from 20s to 50s but most appear to be in their 30s or 40s. These men likely hold the more skilled positions or drive the mule carts. Two white men appearing to be in their 20s stand on the tram engine and may have been the engineers/steam engine operators. One black man wears a white apron. He probably served as cook for the crew when out in the woods. Finally, on the right side of the photo is a middle aged white man wearing the same boots as the fallers. His demeanor suggests that he is the crew foreman. The make-up of this group is interesting. There are obvious differences between the races and the age groups. The black men are generally younger than the white men and most are obviously the most physical of the laborers. Most of the white men are more mature and generally dressed in such a way as to indicate that they perform less labor intensive tasks or are in supervisory roles.

## **Layouts of Sawmills in the Study Region**

Details about sawmills in South Carolina are relatively sparse. The Sanborn Fire Insurance Company’s property maps provide the best detail on the layouts of Sswmills in the region. Mills in the project vicinity (i.e., Conway and Georgetown) vary widely in size and layout. The Gardiner and Lacey Lumber Company and the Atlantic Coast Lumber Company, both in Georgetown, were huge operations covering 50 acres or more. Mills more similar in size and scope to the Enterprise mill are discussed below.



**Figure 78.** Two man crew felling a tree with a whipsaw (Horry County Museum display).



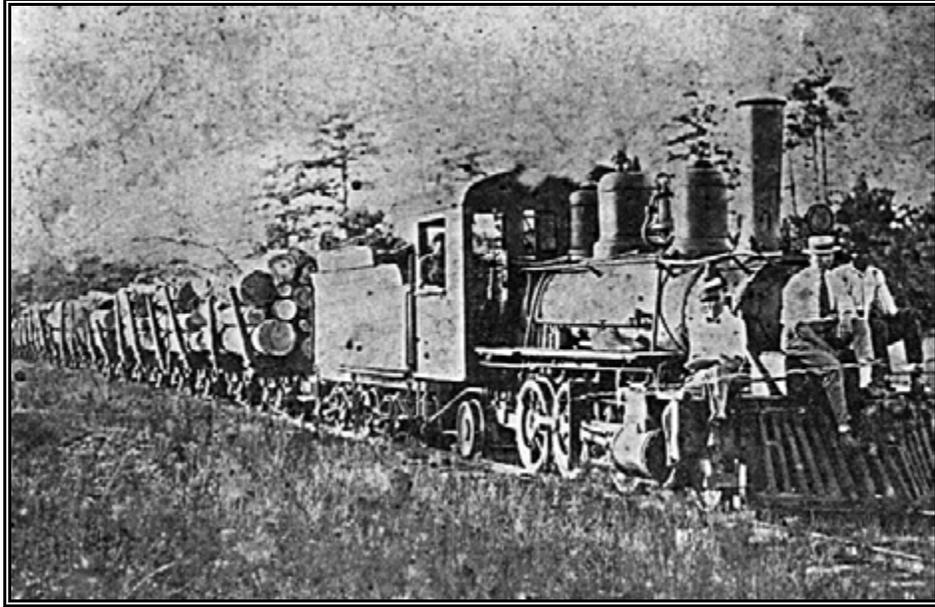
**Figure 79.** Crew with felled lumber (GCDL).



**Figure 80.** Logging crew and mule teams in Horry County.



**Figure 81.** Logging operation showing logs on tram cars and small portable steam engine.



**Figure 82.** Logging tram locomotive and tram cars loaded with logs in Horry County (IRQ).

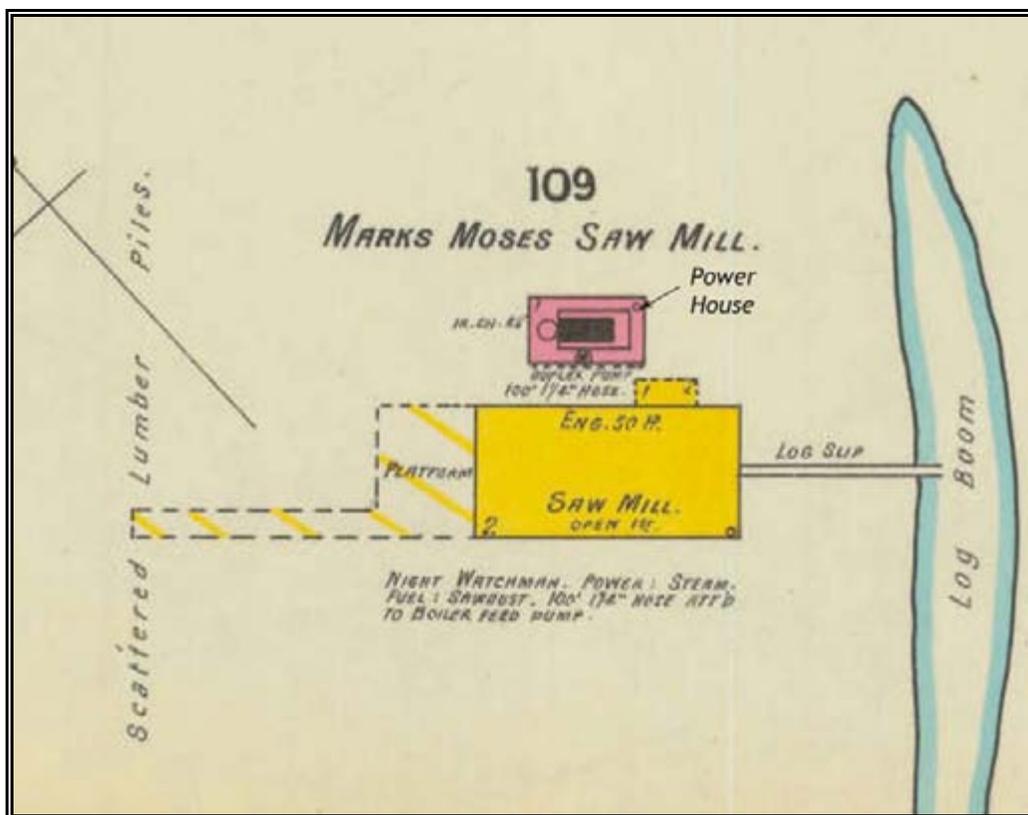


**Figure 83.** Raft of tethered logs at sawmill in Georgetown (GCDL).



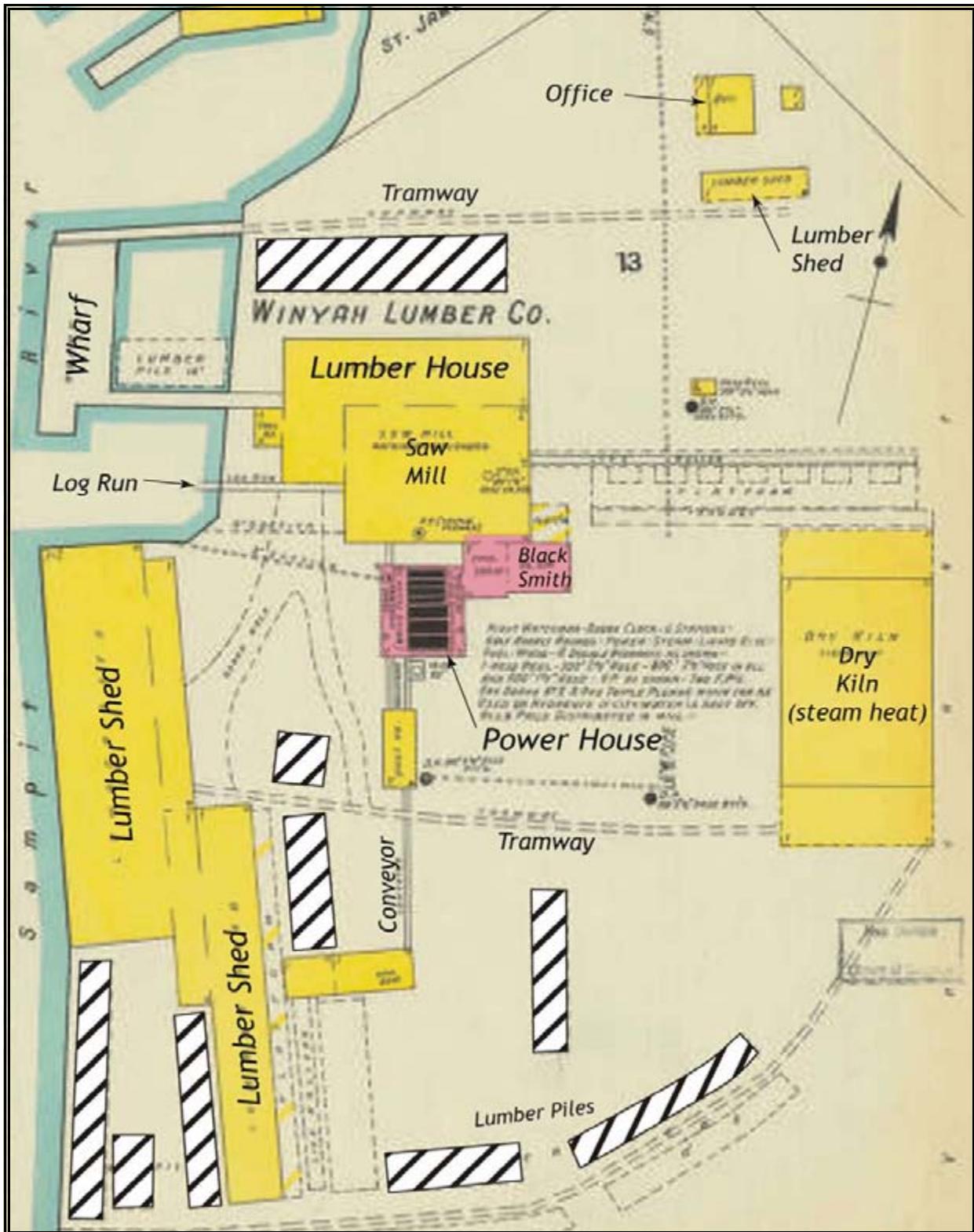
**Figure 84.** Logging crew posing for a photograph (Georgetown County Digital Library).

*Marks Moses Sawmill.* The Marks Moses Sawmill in Georgetown is probably similar in size and layout to the Enterprise Sawmill shortly after it was established. Features of this sawmill shown on the 1899 Sandborn map (Figure 85) include a log slip for moving logs from the water directly into the sawmill where it was cut into lumber. The “OPEN 1<sup>ST</sup>” label is likely referring to a two-story building with a first floor with open sides. The sawmill building has a large exterior platform, probably for temporarily stacking lumber as it first comes out of the sawmill building; it is not clear if the platform has a roof. Just a few feet from the mill building is the steam engine and boiler. These facilities are generally housed in a building or shed referred to as the power house whose most obvious feature would be a tall, narrow smoke stack. The 50 horse power (hp) steam engine worked one or more large fan belts which powered a large circular saw. Beyond the platform are scattered lumber piles apparently stacked out in the open.



**Figure 85.** Map of Marks Moses Sawmill in 1899 (Sanborn 1899:Sheet 4).

*Winyah Lumber Company.* Located along the Sampit River in Georgetown, the Sanborn map from 1908 shows that the Winyah Lumber Company (Figure 86) was much larger and more complex than the Marks Moses Sawmill. This sawmill was likely larger than the one at Enterprise, but it shares a number of common features. Along the Sampit River frontage are Lumber Piles, Lumber Sheds, a Wharf, and an embayment with a Log Run leading into the sawmill. Built on to the northern side of the sawmill building is an area labeled as a Lumber House, possibly for storage of dried lumber before it was moved out to the wharf for loading onto ships. On the west side of the Lumber House is a Tool House; which appears to be an attached room or shed. On the south side of the mill is a Blacksmith Shop and an Engine Room housing a 250 hp engine. The blacksmith shop is also connected to the power house, which is only a few feet from the sawmill building. The power house has a brick floor and has a conveyor system linking it to a Dust House. The Dust House likely houses sawdust used as free fuel for the steam engine. On the east side of the sawmill is a “Live Roller” (conveyor?) and Platform with a short Tramway which moved the lumber to the Dry Kiln. The dry kilns had asbestos roofing and cement floors and ceilings. However, the ends were closed with cloth curtains. At the north end of the property is a building labeled Office. A series of tramways, conveyors, and boardwalks, and an underground water system form an interwoven network within this sawmill/lumber yard complex. It seems that the Sampit River is the only access and exit for timber and lumber at the Winyah Lumber Company; no rail or tramways appear to exit the property inland.



**Figure 86.** Map of the Winyah Lumber Company Sawmill at Georgetown in 1908 (Sanborn 1908:Sheet 6).

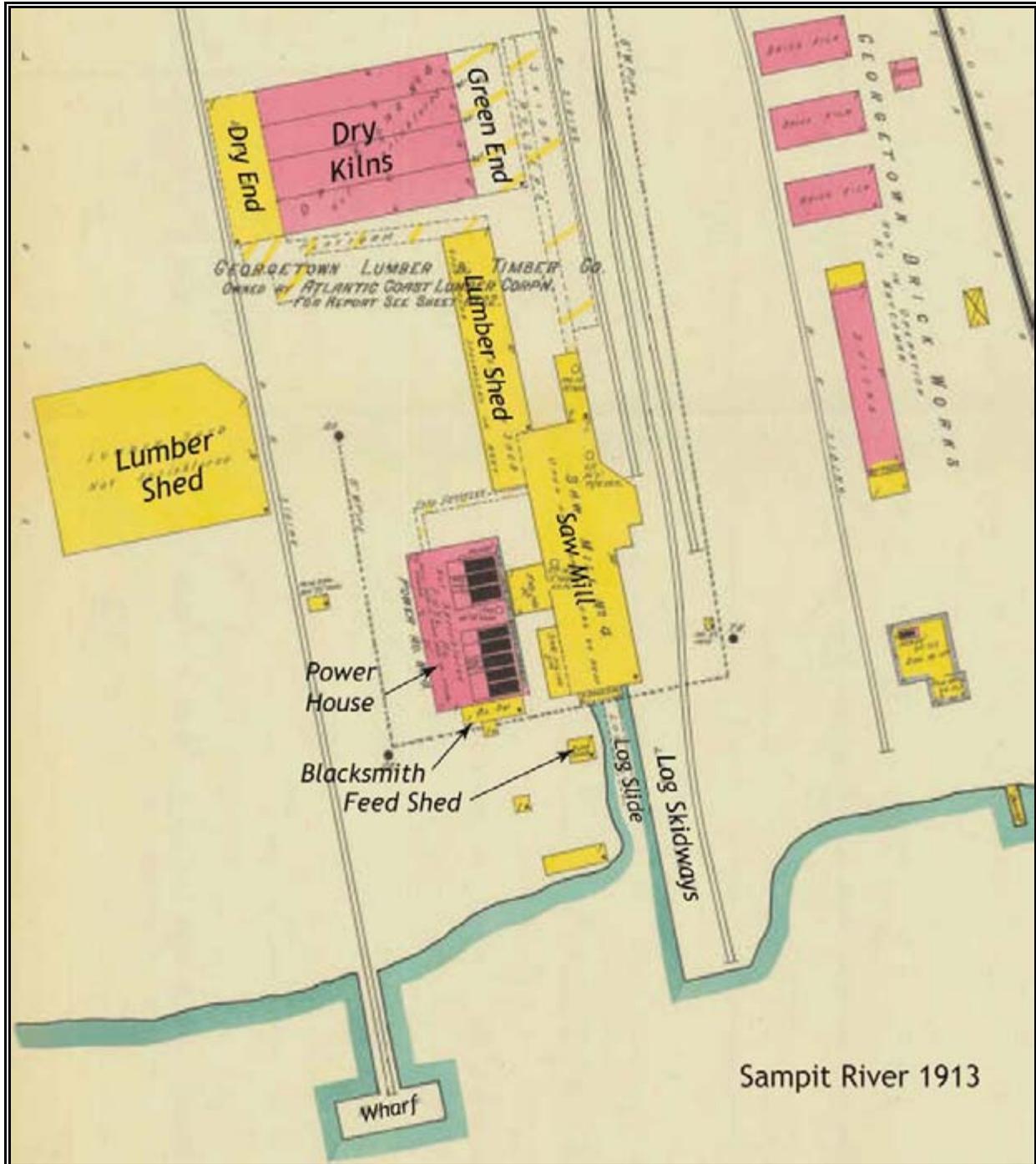
*Georgetown Lumber and Timber Company.* As depicted on the 1913 Sanborn map, the Georgetown Lumber and Timber Company is smaller and slightly less complex than the Winyah Lumber Company (Figure 87). Also located on the Sampit River, this mill is just west of the Georgetown Brick Works. In 1913, the Georgetown Lumber Company was actually owned by the Atlantic Coast Lumber Corporation; the Sawmill and Power House are both labeled *NO 4*, indicating this was one of four operations of the Atlantic Coast Lumber Corporation.

The river frontage for the Georgetown Lumber Company includes a Log Slide for bringing the logs into the sawmill and a Wharf for loading the lumber on ships for further distribution. On the west side of the Log Slide is a small Feed Shed, indicating that activities probably included one or more mule teams. Notes on the map indicate that the Power House is an iron frame building with a corrugated steel roof. The Power House also includes a Fuel House section. A conveyor system moved the fuel (sawdust) from the sawmill to the Power House/Fuel House. The Power House is connected to the sawmill by an engine room with a 100 hp engine. A black smith shop is attached to the south end of the Power House.

The Dry Kiln is the farthest building from the river frontage, and is located at the far northern end of the property. On the east side of the kiln is a platform or shed labeled Green End, and on the opposite side is a shed or room labeled Dry End; this indicates which end of the kiln the green lumber entered and which end the dry lumber exited. In 1913, two of the four dry kilns burned. The two surviving kilns were constructed of brick; presumably the two that were destroyed were not. The Sanborn map includes a statement that the two destroyed kilns were to be reconstructed in the same manner as the two surviving kilns. This construction consisted of steel rails on a brick foundation, brick dividing walls extending under the platform, and ventilators lined with asbestos.

Two Lumber Sheds are shown on the map: a long narrow shed attached to the north end of the sawmill and a larger shed on the western side of the property. This operation may have taken advantage of both ships and rail systems for bringing in timber and for transporting the processed lumber, as a system of rail spurs or tramways lead to the river frontage and exits the property inland. A water system is present at the complex, linked by a 6 inch waterline to the City water system. The water system is linked to a series of hydrants, boilers, and an “open head” sprinkler system on the roof of the sawmill and an adjacent lumber shed.

*Conway Lumber Company.* Located along the bank of the Waccamaw River in Conway, the Conway Lumber Company is about 19 linear km upriver from Enterprise. Following the course of the river, the distance is considerably longer. As shown on the 1920 Sanborn map (Figure 88), the Conway Lumber Company was a large modern operation with several features not present at the mills described above. Main features labeled on the map include the sawmill, Dry Kilns, primary and secondary Power Houses, Fuel Vault, Ripping Shed, Planing Mill and a number of Lumber Sheds, and an Office. Also present are two Machine Shops, one attached to the Planing Mill and one as a



**Figure 87.** Map of the Georgetown Lumber and Timber Company in 1913 (Sanborn 1913; Sheet 23).

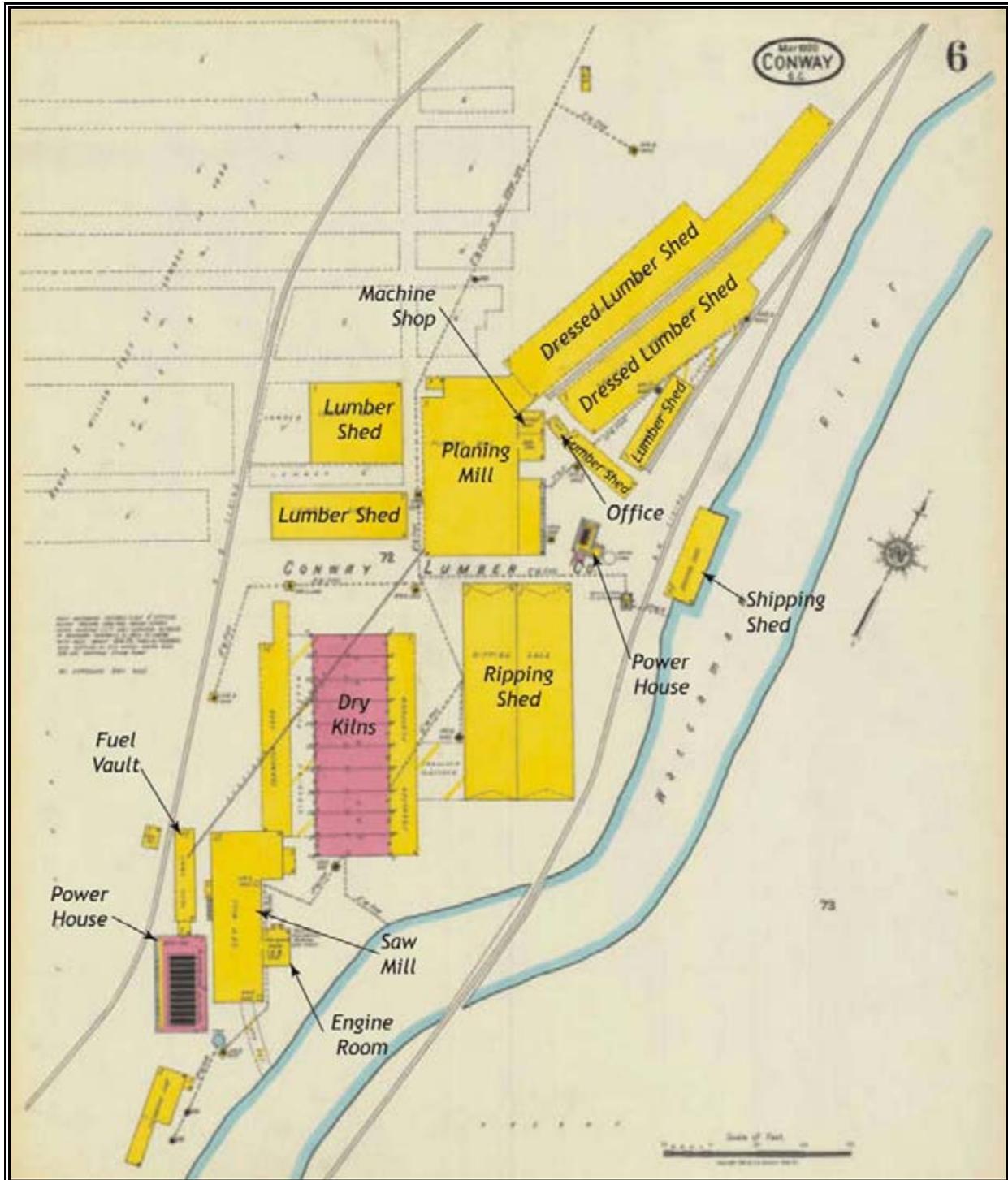


Figure 88. Map of the Conway Lumber Company in 1920 (Sanborn 1920:Sheet 6).

separate building at the south end of the property. A series of Lumber Piles are located in the northwest part of the property, with a notation that there is about 8 million feet of lumber in the yard. The complex is linked to the city water system, and smaller tap lines are distributed throughout the site. The sawmill has an attached engine room, with a 600 hp engine running the sawmill and a 30 hp engine for the "Dynamo" (an electric generator, probably for lights and limited power for some machinery or tools). A Shavings Blower links the Fuel House and the Planing Mill. As with the Georgetown Lumber and Timber Company, the complex includes an elaborate water system, linked by an 8 inch waterline from the city water system. The water system is linked to a series of hydrants, boilers, and an "open head" sprinkler system on the roof of the sawmill and an adjacent Lumber Shed. This mill also would have taken advantage of the river and rail lines for transporting the processed lumber, as it too had a system of rail spurs or tram ways leading to the river front and exiting the property inland.

A number of specialized sawmills were also present in both Georgetown and Conway. For example, the 1913 Sanborn maps for Conway show the Willow Bank Boat and Oar Manufacturing Company with its own sawmill, Log Run, Mill House, and Engine House. This complex also had an Oar Mill, consisting of a Planing and Turning building and an Engine Room. Other maps show shingle mills. There is no evidence that any of these specialized activities were being carried out at Enterprise.

Several of the recurring features of the sawmill complexes discussed above are relevant to understanding the operation at Enterprise:

- Power house - includes engine, boiler, smokestacks, etc. Often has blacksmith shop attached. Secondary power houses are often on-site for more specialized functions;
- Lumber sheds - usually pole sheds for storage of green and dry lumber;
- Dry kiln - structure heated by steam from boiler; sometimes constructed of brick and concrete;
- Mill Building - building housing log carriage, rollers, saw blade, etc.;
- Tramway - used for carrying unprocessed timber to mill and processed lumber to next distribution point.

In addition there was often a complex system of conveyors, steam pipes, and underground water systems. As fire posed the greatest danger, a system of hydrants and hoses was a common feature on many of the larger operations, but we are unsure if these safety measures were implemented at the sawmill at Enterprise.

### **Enterprise: A Sawmill Community**

Information specific to the community of Enterprise is sparse. A review of census data between 1870 and 1920 provided insight into the two key families associated with Enterprise; the Pyatts and Singletons. In addition to the census data, we were able to gather additional information about Singleton and the sawmill at Enterprise from sources listed in Table 32.

**Table 32. Reference Sources for Enterprise Community and Sawmill.**

Date	Source	Comments
dated 31 December 1906, filed 30 October 1907	HCDB 22:304 - Lease/indenture of 250 acres between Joseph Pyatt, Jonathan Pyatt, and Martha Heyward and W. J. Singleton.	The lease is for 5 years, with Singleton paying \$600 per year. This includes Enterprise Landing and a general reference to a sawmill.
dated 27 February 1909, filed 16 March 1909	HCDB AAA:259-263 - <i>Indenture/Agreement for Sale of Timber, etc.</i>	This is a buy-out agreement and employee contract between the Canton Lumber Company of Dover, Delaware and W. J. Singleton. The buy-out includes Singleton's timber-rights agreement with property owners dating back to 1900. Singleton would become an employee of the Canton Lumber Company with a pay of \$1200 per year.
signed 21 April 1909, filed 3 May 1909	HCDB AAA:294-295 - <i>Indenture of Bargain and Sale of Sawmill and Personal Property; Agreement and Release, and Surrender of Sub-lease</i>	This document between Singleton and the Canton Lumber Company provides a detailed listing of buildings and equipment at the Sawmill.
1971	IRQ 5:3 Pp 14-19	Letter written in 1933 by James Henry Rice to Sara Cooper (Mrs. J. B. Cooper), remembering trip to Enterprise around 1900. This doesn't specifically mention the sawmill, but has a brief discussion of visiting Enterprise and meeting with Singleton.
1978	IRQ 12:3 Pp 31-35	Article by Debbie Singleton (great-granddaughter of W. J. Singleton) written about Enterprise and the sawmill. The article seems to be based on family history and includes photographs of the Sawmill and other aspects of Enterprise. Although it provides useful information, especially the photographs, there are a number of discrepancies with other sources that raise questions about the accuracy of some details.

\* HCDB = Horry County Deed Book    \*\* IRQ = Independent Republic Quarterly

### Census Data

We found no conclusive evidence indicating who actually started the sawmill and landing operations at Enterprise. However, during the late nineteenth and early twentieth centuries the Pyatt family owned the land that the sawmill and surrounding community were built on. As indicated in the following census review of the period from 1870 to 1920, the Pyatts were a very close-knit family with large land holdings. Singleton (1978) insinuates that her great grandfather, William Jefferson Davis Singleton, came to Enterprise in the late 1870s, but in the 1880 census he is 18 years old and still lives in the Buck Township with his mother and four siblings. We can only speculate that he may have worked at Enterprise for the Pyatts while living at home. Regardless, he and his family remained involved with the Enterprise sawmill and community through the 1920s. Details gathered from official census data about the two families are presented below.

*The Pyatt Family.* Joseph Benjamin Pyatt was born around 1820. According to the 1880 census, he was 60 years old and married to Joanna. His occupation is listed as a rice planter in Georgetown County. His household also included his brother John F. (63, also listed as a rice planter), three daughters (Martha [20], Penelope [19], and Katherine [14]), two sons (Benjamin Allston [18] and Maham W. [12]), and two nephews (John S. [21], a bank clerk, and Edward [15]).

As indicated above, there is no data available from the 1890 census. The 1900 census has Joseph Ben Pyatt (80) as head of household, but lists no occupation. Apparently his wife Joanna is now dead and daughters Martha and Penelope have married and moved away. He lived with his daughter Catherine (34) and sons Benjamin (38) and Maham (32). Benjamin's occupation is listed as farmer and Maham's as lawyer.

The 1900 census also shows John S. Pyatt (41, nephew of Joseph Benjamin and cousin of Maham) as head of household and a farmer by occupation. The household also included his wife Ellena (41), three sons (John S. [10], Edward [4], and Henry [1]), and three daughters (May [7], Charlotte [6], and Julia [3 months]).

In 1910, the census still lists Joseph Benjamin Pyatt (90) as head of household. Although Martha A. is not listed in the household in the 1900 census, all three daughters are now at home (Martha A. [listed as 54, but she should be 50], Catherine [45], and Penelope Parker [listed as 51, but she should be 49]). Sons Benjamin A. (48) and William M. (Maham, 42) were still present. Penelope was apparently widowed and her son, Joseph (29), is also listed as a member of his grandfather's household. Benjamin's occupation is listed as farmer, and Maham is still listed as a lawyer.

John S. Pyatt (cousin of Maham) was 51 in 1910, and was an insurance agent. His household included his wife (the census lists her as being 48, but she would have been 51), daughters Charlotte (15) and Julia (10) and sons Edward (14) and Henry (11).

Joseph Benjamin Pyatt died before the 1920 census, and his eldest son B. (Benjamin) Allston (57) was then the head of household. He was still listed as a farmer. The household included his three sisters (Martha [age listed as 66 but she should only be 60], Catherine [55], and Penelope Parker [who would have been 59 but is listed as being 61]) and brother Maham (52), a lawyer.

The 1920 census shows John S. Pyatt (60) as an insurance agent, living with his wife (E. M. [60]), three daughters (May [27], a newspaper reporter; Charlotte [25], a hardware store stenographer; and Julia [19], a high school student), and three sons (John S. [31], an alcohol plant chemist; Edward [23], a lumber company estimator; and Henry [21], a post office clerk).

Although Singleton (1978) states that W. J. Singleton leased the sawmill property from Maham Pyatt (spelled Piott in her article), he actually leased the property from Joseph B. Pyatt, Jonathan S. Pyatt, and Martha A. Heyward (nee Pyatt?), according to the Horry County deed book. After Maham's death in 1941, an Inventory and Appraisement of Real Estate document indicates that he owned 1/4 interest in 1,315 acres and two buildings at the Enterprise Tract in Horry County. Thus, it is likely that Maham, his father Joseph B. Pyatt, his nephew John S. Pyatt, and sister Martha Pyatt (later Heyward) shared ownership of the total 1,315 acres, but the specific 250 acres leased to Singleton were owned by Joseph B., John S., and Martha.

*The Singleton Family.* In 1870, William Jefferson Davis Singleton was 9 years old, and lived in the Buck Township with his father John M. (38) and mother Frances (32). John M. is listed as a farmer. Wm. Jefferson Davis Singleton had 4 siblings: Sarah (5), Solomon (4), John S. (2), and George Lee (1).

In the 1880 census, William J. D. Singleton was 18 years old and lived in the Buck Township. William's occupation is listed as a laborer. His father, John M., seems to have died, as his mother, Frances A. Singleton (age 43), is listed as the head of household. The household also included his sisters Sarah (15) and Mary (10) and brothers Solomon (13) and John M. (4). The absence of brothers John S. and George Lee in the 1880 census suggest that they died during the previous decade.

There is no data available from the 1890 census. In 1900, W. J. Singleton (38) had left his parent's household and was a farmer living in Socastee Township. His household included his wife Mary (37) and sons Louis E. (16) and William B. (8).

The 1910 census has William J. Singleton (47) listed as a farmer in Socastee Township; Figure 89 shows Singleton at about this time. His household included wife Mary (45?) and son William B. (17). William B.'s occupation is listed as an engineer for a gasoline boat. Also in William J.'s household was Alifare Macklen (27), a house servant, and her children (daughters Edett? [8] and Margaret [1 year 6 months] and son Everett [5]). An adopted son, Joseph W. Singleton, was also in the household, and despite being only 12 years old is listed as a laborer at a sawmill. William J. Singleton's eldest son, Louis (26), had established his own household with his wife Emma (21) and an adopted son Arthur (7), and his occupation is listed as a sawmill engineer in Socastee Township.

The 1920 census lists the occupation of William J. Singleton, then 58 years old as "none." He was now married to Alifare (his house servant in 1910). Her children Everett (14) and Margaret (10) were at home, and apparently William J. and Alifare had children from their marriage; Cole (7), William J. Jr. (5), and John (4 years, 10 months). The household also included Anna Jones (37), a niece listed as a house maid, and a border named Bob Nobles (16).

It seems that William J.'s sons by his first wife (Mary) both lived in Socastee Township and may have been involved with the sawmill at Enterprise. William J.'s eldest son Louis (spelled "Lewis" in census records) lived with his wife Emma (31), and his three children (Lauren [7], Ethel [3 years 5 months], and Nelly [1 year 4 months]). Lewis's occupation is listed as a foreman at a sawmill. William J.'s son, William B., 26, had also moved out and established his own household with his wife Dorothy and three children. He is listed as a steamboat captain.

The Singleton family came to Horry County in the eighteenth century, according to Georgetown and Horry County land records. Some settled at the head of Socastee Swamp near an inlet that was called "Singleton Swash." A Wm. or Wm. J. Singleton bought three tracts of land in Horry County between 1822 and 1869 (HCDB C: 280; L: 518; P: 178). In 1882 a Wm. J. Singleton bought 442 acres at Spring Mill Branch (HCDB U:591). As he was only 8 years old in 1869, this



**Figure 89.** An early 1900s photograph of W. J. Singleton (right) and Mitch Watts standing along the tram line leading to Enterprise (Singleton 1978).

transaction may be the earliest record of William “Jeff” Singleton buying land. He bought more land in the 1890s. During this period he was in the lumber and naval stores business, and even partnered for a time with the Burroughs family (Bedford 1989). Singleton entered into an agreement with Winyah Lumber Co. in 1899 to provide timber (HCDB JJ: 443). In the next few years he bought several tracts of land and purchased timber leases on others (HCDB JJ: 597; KK: 339, 546, 547 etc).

#### **Ownership and Lease Agreements for Sawmill and Enterprise Tract**

Due to his somewhat extensive property holdings, it is somewhat surprising that Singleton never owned the sawmill property. As described above, a 1907 lease (HCDB ZZ:304; dated 1906 but filed in 1907) between Singleton and the Pyatt/Heyward family covers 250 acres and includes Enterprise Landing. This document allows Singleton to charge wharfage fees for the landing. It also describes a tramway and loading dock at Enterprise Landing that was being operated by the Winyah Lumber Company and affirms their right of way. As stated in this document, Winyah Lumber Company reserved:

....right of way across said premises as above described as now occupied and enjoyed by the Winyah Lumber Company, for their railroad or tramway, together with such rights for loading and unloading logs, timber and other articles, at the said “Enterprise Landing” as are now enjoyed by said Winyah Lumber Company., the

said “Enterprise Landing” being the terminus of said railroad or tramroad as above set forth.

The Winyah Lumber Company used Enterprise Landing as a place to retrieve logs floated along the Waccamaw River and then load them onto tram cars. They later purchased the steam locomotive *Black Maria* from the Conway Lumber Company to service the seven mile tram line from Enterprise to Garden City Beach. Operation of this tram line began in 1905 and continued until about 1915. In addition to the locomotive, Winyah Lumber Company had eight logging cars that hauled logs to the beach. They were then lashed into rafts and towed to the mill at Georgetown (Fetters 1990).

Although Singleton (1978) states that the lumber operation at Enterprise began around 1875, we found no evidence of an operating sawmill being present that early. The 1907 lease only contains an oblique mention of a sawmill:

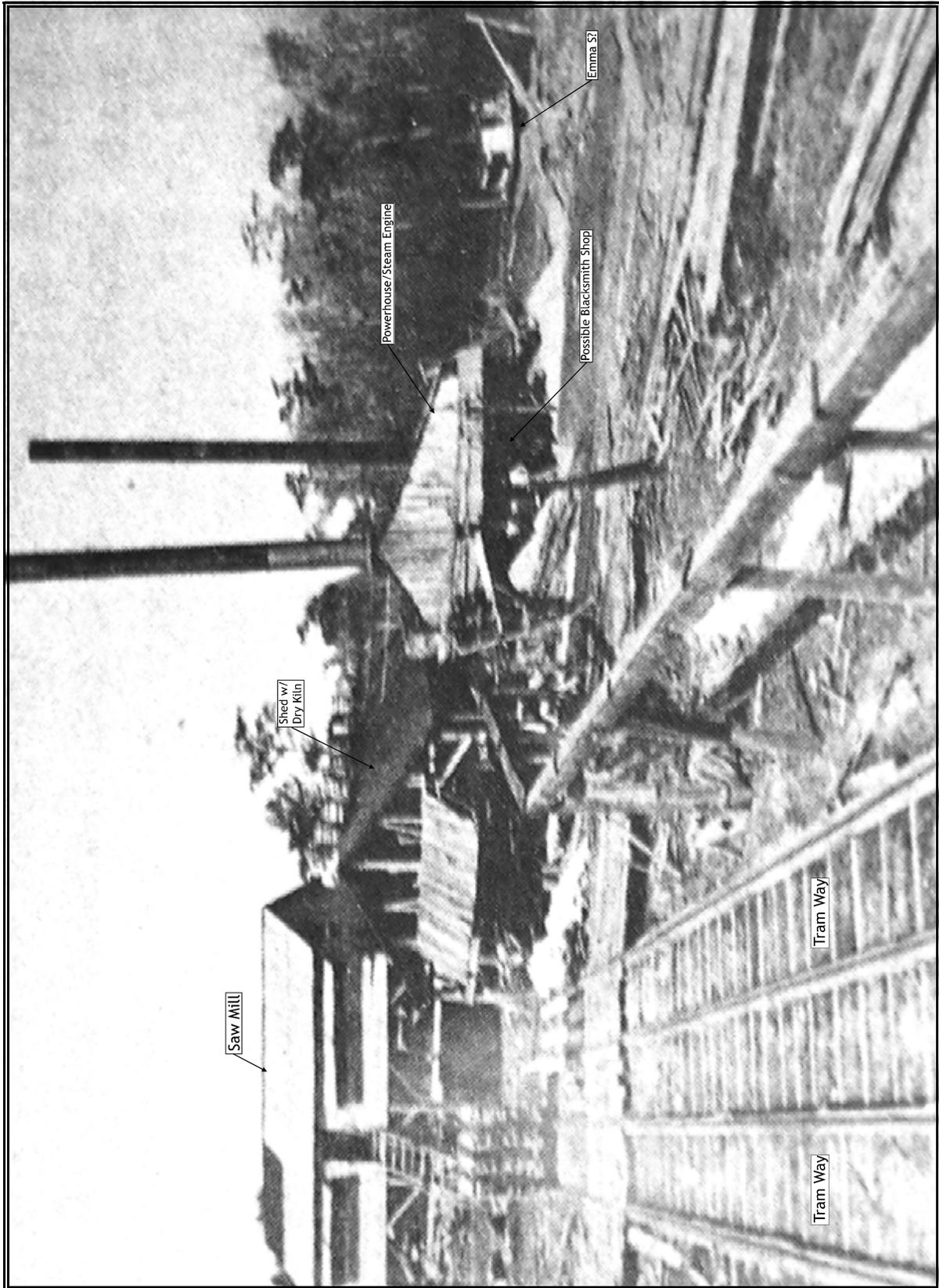
...all buildings erected on said leased premises, *except such as may be erected for the exclusive purpose of the sawing and manufacturing lumber* shall remain upon said premises and become the property of the parties of the first part (Pyatts/Heyward) at the termination of this lease.

This wording may indicate that either there was no extant sawmill, or that the sawmill, if present, would not revert back to the Pyatts and Mrs. Heyward when the lease ended. A later lease refers to an 1896 lease agreement between the Pyatts and Mrs. Heward but gives an incorrect deed book and page number. If this reference is correct, we can infer that the 1907 lease was the second renewal of the 5-year lease between the Pyatts and Martha Heyward and Singleton.

The 1907 lease also requires Singleton to maintain all standing buildings on the leased property and:

....without intermission or default, keep the buildings on said premises insured, in an amount not less than two thirds of their value, in some solvent fire insurance company. Said insurance money, in case of loss, to be applied to the restoration and repair of the buildings destroyed or damaged at all times during the tenancy...(HCDB ZZ:305)

Many sawmills in Horry and Georgetown counties were insured by the Sanborn Fire Insurance Company, but we were unable to find any evidence that a sawmill or any other property at Enterprise was covered by them. John S. Pyatt, who is listed as an insurance agent in the 1910 and 1920 censuses, may have represented the firm that insured the property.



**Figure 90.** The sawmill at Enterprise circa 1909 (Singleton 1978).

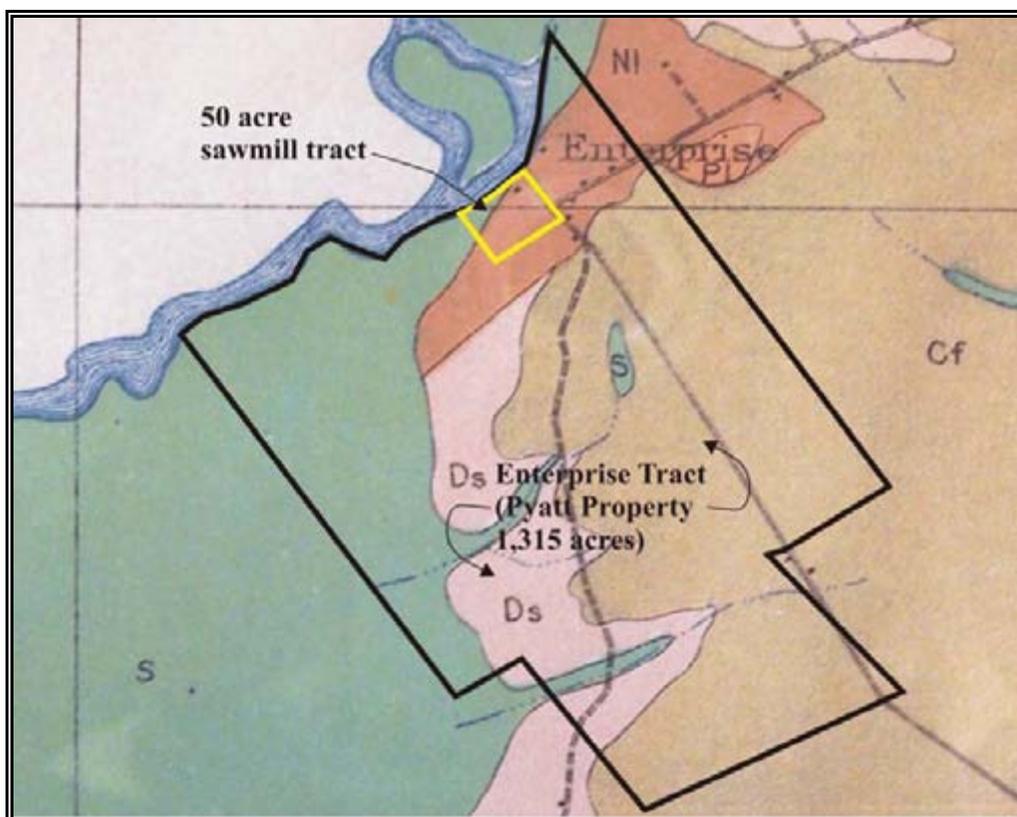
In 1909, the sawmill was clearly in operation. Figure 90 shows a portion of the mill at about this time. It is likely that drying sheds and one or two house are just out of view. On March 16, 1909, Singleton entered into an agreement with the Canton Lumber Company of Delaware, to provide timber from a number of tracts he owned or leased (HCDB AAA: 259-263). Singleton's holdings of logging rights along the Pee Dee and Waccamaw rivers, and Bull Creek were fairly extensive. Table 33 lists a number of tracts to which he held the logging rights; each of these tracts were listed as part of the timber sale agreement between Singleton and Canton Lumber. The total acreage detailed in the 1909 agreement was 1,762, plus the total from several parcels for which the acreage wasn't specified. In exchange for this timber, Singleton was to be paid \$7,750. He would also be employed as a general supervisor with a yearly salary of \$1,200 to be paid in monthly installments of \$120.00.

**Table 33.** Summary of Properties where W. J. Singleton had Acquired Logging Rights.

Acreage	Specifics of Lumber Rights	Rights Transferred From/To
126	part of Pitch Barrel tract	from WJ Singleton to MJ Singleton 1908
244	part of Pitch Barrel Bay tract, bounded by public road leading from Socastee to Collins Creek; "...said mill timber that will measure 10 (ten) inches or more in diameter at the stump, one foot from ground at the time of cutting..."	from WJ Singleton to MJ Singleton 1908
35	transfer of land from McCormick to Singleton 1900, from Singleton to Hardee 1909	Hardee to WJ Singleton 1909
100	Waccamaw River Swamp	S. Wingate to WJ Singleton 1905
20	bounded by Socastee Creek on the North; "...cypress timber that will measure twelve (12) inches or more in diameter at stump, one foot from the ground at the time of cutting..."	Mrs. AL McCormick to WJ Singleton 1903
31	"...from Richmond Plantation to the seashore"; "...also timber measuring six (6) inches or more in diameter at the stump at the time of cutting, lying, standing or growing upon that parcel..."	Mrs. Chisholm to WJ Singleton 1900
75	cypress	Dick Glover to WJ Singleton 1905
100	"...timber measuring eight (8) inches or more in diameter at stump, one foot from the ground at the time of cutting..."	? Thomas to WJ Singleton 1904
495	cypress, bounded by JM Stalvey land on east and south and Burroughs and Chapin land on north and west	? Turbeville to WJ Singleton 1901
96	cypress	? to WJ Singleton 1901
67		Joe Cox to WJ Singleton
200	timber	? to WJ Singleton "but which he will procure to be transferred and conveyed unto the said Canton Lumber Company
-	"...all cypress on property known as Woodstock owned by Burroughs and Chapin"	
100		? Johnson to WJ Singleton
100	"...one half interest in cypress and hardwood timber in land known as Fraser Swamp"	

—	cypress, on land known as the Solomon Small tract	
—	“All timber, timber rights and privileges, rights of way, and easements which shall be acquired by Singleton upon virtue of negotiations now pending with one D.V. Richardson, Bucksport, SC, to be transferred to Canton Lumber Company when acquired by him.”	

In April of 1909, Singleton again enters into an agreement with the Canton Lumber Co. A document entitled *An Indenture of Bargain and Sale of Sawmill and Personal Property: Agreement and Release, and Surrender of Sub-Lease* was executed and filed on May 3, 1909. This document described the apparent sale of the sawmill and all associated facilities. It is a lengthy and detailed document but has several sections that are of particular interest. The Canton Lumber Co. reserved the right to “take over the commissary and purchase its stock of goods at cost,” and to “take over the operation of the post office, wharf, and freight warehouse.” A 50 acre mill tract is described as being bounded by the Winyah Lumber Co. tramway and south of the “chartered wharf at Enterprise Landing.” This 50 acres are only a fraction of the 250 acres originally leased by Singleton from the Pyatts (Figure 91). Winyah Lumber Co. made a payment to Singleton of \$500 in cash, and agreed to pay him \$7,500 in the form of stock in the company to be made in payments of \$3,950 in cash and \$3,300 in company stock.



**Figure 91.** 1920s soil map showing the Pyatts’ “Enterprise Tract” and the 50 acre sawmill parcel.

Apparently the transaction fell through, because on May 3, 1909, Canton Lumber Co.

sold the mill and personal property back to Singleton. The first document is more lengthy than the second, so it is not clear that all of the timber leases and particular details are included, but it appears to be the case that they withdrew completely from the deal. He returned \$4,000 cash and \$3,500 in stocks.

During World War I, lumber prices fell drastically across the South (Walker 1991). Possibly no longer able to make a living, Singleton sold the sawmill to Wardbate Lumber Company of Conway in 1923. The mill burned down in 1928 (Singleton 1978).

### **Details of Sawmill Operation at Enterprise**

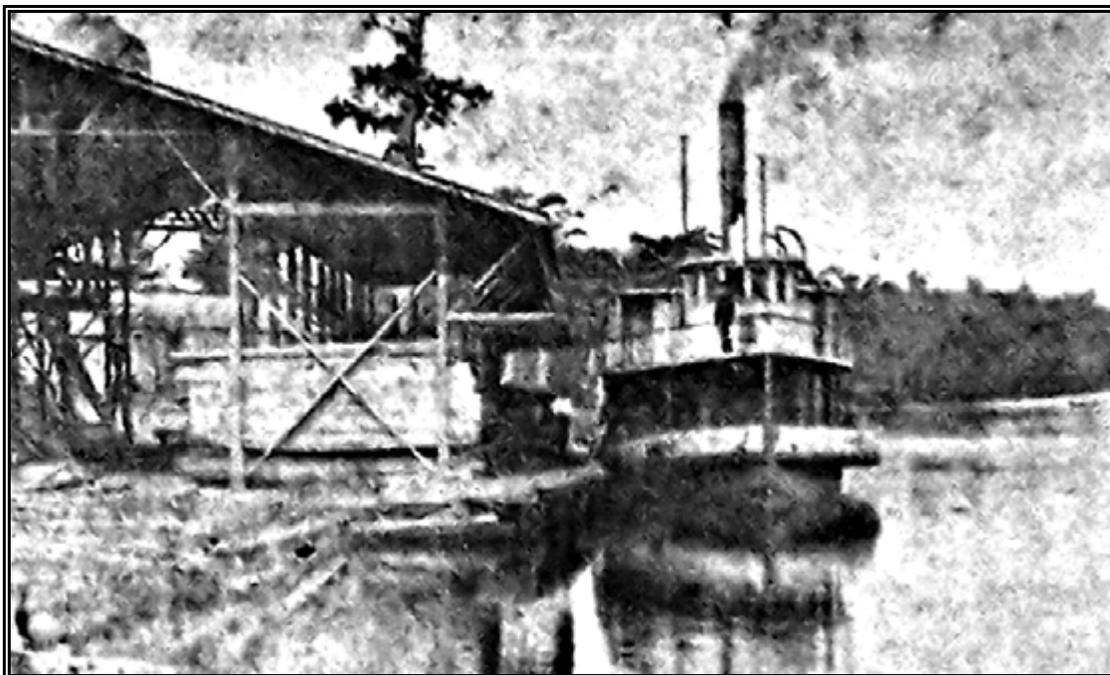
In all our research, we were not able to find a formal name for W. J. Singleton's sawmill. The sawmill seems to have remained somewhat anonymous, usually just referred to as "the sawmill at Enterprise." This raises questions about Singleton's business relationship with other lumber companies. We know he dealt with the Canton Lumber Co., and had at least limited dealings with the Winyah Lumber and Wardbate Lumber companies. It is possible that Singleton acted as a local subcontractor for the larger lumber companies. He may have supplied timber and lumber to other companies in Conway, Bucksport and Georgetown.

The May 1909 agreement between Singleton and the Canton Lumber Co. (HCDB AAA: 259-263) presents a detailed description of the sawmill and its associated facilities. This document, which served as a sales agreement between the two parties lists:

Sawmill with all tools, machinery, engines, boilers, fixtures, and appurtenances presently belonging; lumber storage sheds, dry kilns, trucks, tramways, trucks and appurtenances; blacksmith shop and tools, and all other tools, implements, appliances and equipment, and all buildings and structures used, or provided to be used by the said William. J. Singleton in the business of manufacturing lumber, including all rafting gear; also five houses standing on that portion of the said leased premises known as the mill site, hereinafter more particularly described; also two mules, two dump carts, four log carts with gear, one yoke of oxen and cart, and one gasoline boat called the "Emma S".

From the above inventory it is apparent that the milling operation was not all mechanized, as mules and oxen were listed in the inventory.

The use of the Waccamaw River to transport logs and lumber to and from the sawmill was facilitated by two river craft. W. J. Singleton owned a gasoline powered boat, the *Emma S.* and a tugboat, the *Alafair* (named after his second wife [Singleton 1978]). It is interesting to note that W. J. Singleton's eldest son, William B. Singleton, is listed as a gasoline boat engineer (possibly the *Emma S.*) in the 1910 census, and a steamboat captain (possibly on the *Alafair*) in the 1920 census. Figure 92 shows a steamboat, possibly the *Alafair*, along a wharf at the sawmill.



**Figure 92.** Loading lumber on a river boat, possibly the *Alafair*, at Enterprise (from Singleton 1978).

W. J. Singleton's other son, Louis, is listed as a sawmill engineer in the 1910 census and as a sawmill foreman in the 1920 census. Thus, it seems that the sawmill at Enterprise was very much a family run business. The Pyatt family also seems to have remained involved with the business, besides just leasing the property to Singleton. It is possible that the sawmill was insured through John S. Pyatt, who was listed as an insurance agent in the 1910 and 1920 censuses. And John's son, Edward, was listed as a lumber company estimator in the 1920 census.

Other than the family involvement in the sawmill operation, we have little information about the rest of the labor force. At the peak of business, 16 families lived at Enterprise and all were linked to the sawmill (Singleton 1978); it is very likely that most of the labor force were African American. A clue about the labor force comes in a 1933 letter by writer James Henry Rice that describes a hunting trip to Enterprise that took place prior to 1901:

“We took the tugboat *Henry P. Williams*, loaded it with all we required for two weeks, including four horses, and went up to Enterprise, sending word to Tom Cooper when we would call on him. The debarkation at Enterprise resembled the unloading of a small circus. It was our intention to sleep aboard. Bill Singleton met us and sharply vetoed the plan, insisting he could lodge us and feed us, and he certainly did. He fed daily from 40 to 60 men. A swarm of girls from the surrounding region came in at daylight to help Mrs.

Singleton, and the service was fine.”

W. J. Singleton owned a dry goods store where tenants and neighbors bought groceries. He also owned a large two-story house at Enterprise, called the Bay House, but supposedly he never lived in it (Singleton 1978). By appearance, the Bay House may have been a boarding house (Figure 93).

The 1922 soil survey map (see Figure 91) shows seven structures in the area, but when the Intracoastal Waterway was built in the 1930s, only three buildings were shown on their map (Figure 94). By 1941, it was said that Enterprise was “all but deserted” (WPA 1941:387).

### **Archaeological Associations**

Singleton leased 50 acres, on which was situated five houses. Site 38HR490 covers only about 15 of the 50 acres. Within the site boundaries are the possible remnants of at least one of these houses. Artifact distribution maps show concentrations of architectural debris (i.e., flat glass, nails) and whiteware and ironstone fragments (see Figures 76-78) in the southwest corner of the site. We are unsure whether these houses are residences for sawmill personnel or perhaps even the commissary referenced in the early 1900s documents.

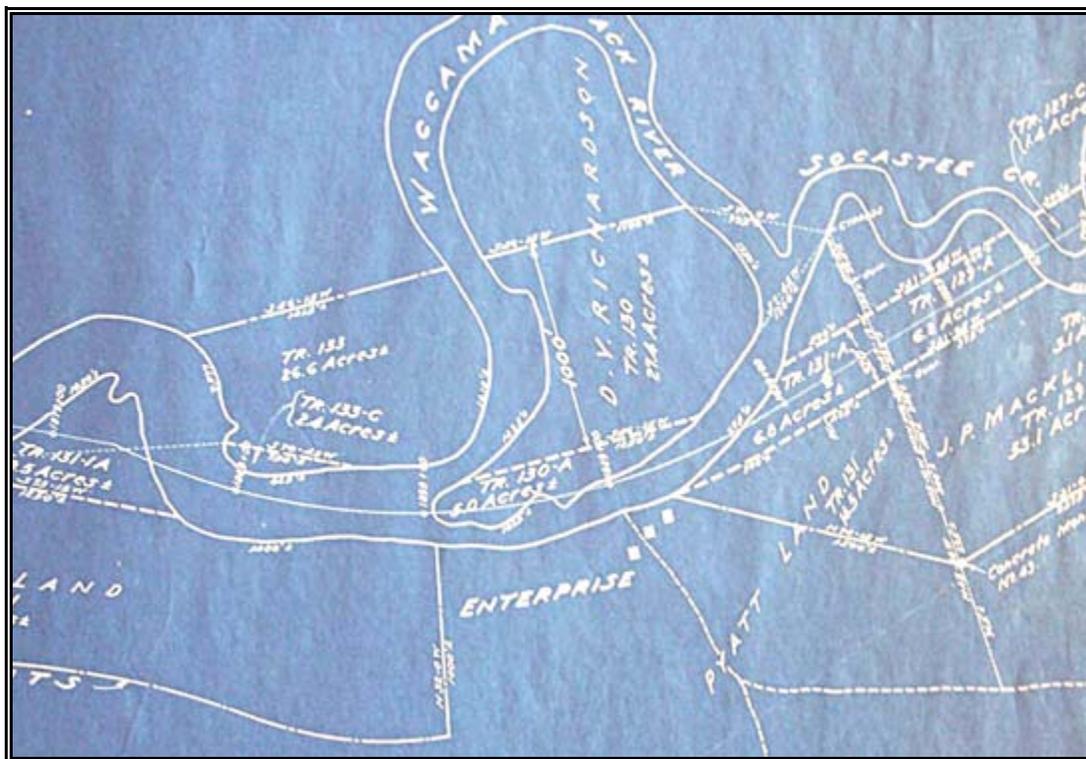
Ceramics associated with the site occupation during the lumber industry era (i.e., whitewares and ironstone) yielded a MCD of 1879 to 1881. This date range does not conform with the peak occupation period for the sawmill and its associated structures. This is not surprising as MCD results have proven inconsistent in establishing valid absolute dates in a number of nineteenth century applications (Lofstrom et al. 1982; Smith 1976; Waselkov et al. 1975). In fact, it has been suggested that the value of MCDs on nineteenth century sites lies in its ability to establish relative rather than absolute chronologies (Gerrard 1993; Parker and Hernigle 1990; Tinkham 2002).

There are inherent problems with the MCD formula, namely in that it ignores the variance in time between manufacture and discard. For example, a vessel made in 1818 and having a manufacturing date range of 1800 to 1820 may have been used consistently for many years after the end date of manufacture; it may have been *used* at a particular site from 1840 to 1850 when it was finally discarded. In this instance, the median date used in South’s formula would be 1810, and would not reflect the actual dates of use of the vessel. The MCD formula was originally developed for use on seventeenth and eighteenth century sites where ceramics have tighter and more reliable manufacture ranges. Neither South’s (1977) original formula, nor the subsequent modifications to it (Carlson 1983) can account for the longer manufacturing ranges of whiteware or ironstone. In addition, these wares contain wide variations often making accurate identification difficult (Majewski and O’Brien 1984). Finally, as they are still produced today, an arbitrary end date for the manufacturing period for most whitewares and ironstones must be used. This arbitrary end date (e.g., 1925 for ironstone) results in a mean manufacture date that predates our site’s occupation.

The overall economic status of the site’s inhabitants seems to have decreased from that of earlier residents. Although flatwares comprise 46 percent of the vessel assemblage, flatware in general was more common at this time and no longer reflected socioeconomic status. All of the



**Figure 93.** View of the Bay House in the early 1900s (Singleton 1978).



**Figure 94.** Map showing proposed Intracoastal Waterway route in vicinity of Enterprise, showing only three structures in the project vicinity (USACE 1931).

ceramic vessels would fall into Miller's (1980) low cost/low status categories thus reflecting a more "working class" occupation of the site. This would correspond to a sawmill employee.

The line of square posts running through Block 3 (see Figure 30) may be the remnants of a tram guardrail. As shown in Figure 90, these guardrails were constructed of square posts set at approximately 2 meter intervals supporting a wooden beam approximately 1.5 meters above the ground. This guardrail was laid approximately 0.5 meters off of the tram rail. If these posts do represent the tram guardrail, then the tram rail line would have run to and/or from the sawmill in an southwesterly direction. Other square posts identified in Block 3 would very well be the supports for the numerous pole sheds used for drying and storing the processed lumber.

Block 4 contained the sawmill steam engine mount (see Figures 36 and 37). A short brick wall was exposed in front of the engine mount. In front of this wall is a brick and concrete floor (see Figure 38). The brick and concrete floor and brick walls are likely associated with the Dutch kiln type of boiler described earlier. The layering of material on this floor indicates that there had been a fire at some point and the floor was repaved. Two large beams lying perpendicular to the engine mount may have served as foundation supports for the engine's smokestacks (see Figure 39). The artifacts recovered from Block 4 include many items that were likely part of the steam engine. These include glass tubes that may have been part of steam pressure gauges, large metal hooks for pulling logs into position, large conveyor chain links, and numerous large spikes (see Figures 41 through 43). The large conveyor links may have been from a conveyor leading from the fuel house to the furnace.

This data recovery has exposed the remaining features of the sawmill at Enterprise. Although we are speculating as to the function of many of these features, their characteristics can be compared with other mills operating at the time.