

A TEACHER'S GUIDE TO *FLORIDA'S BIG DIG*

by

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Synopsis: The story of Florida's Atlantic Intracoastal Waterway from 1881 to 1935: How a privately built toll way became a toll-free public waterway of the federal government.

Introduction: Public Highways, Forever Free (1676 to 1847).

Early American canals resulted mostly from private efforts as early as 1636. Private owners charged tolls for the use of these canals. In the early 1800s, Congress argued over whether the Constitution prohibited spending federal money on inland waterways many felt were the responsibility of the states or local governments. The federal government generally avoided aiding these private efforts. The U.S. Army Corps of Engineers prepared early surveys but Congress expended little federal money toward construction. Eventually, federal policy dictated that federally controlled navigable waterways should become "public highways, forever free."

Questions.

1. What stopped Congress from funding early waterway efforts?
2. How did Congress circumvent the early restrictions on funding?
3. What arguments were used by early proponents of federally funded inland waterway support?
4. What arguments were used by opponents to federally funded waterway support?
5. What led to the formation of early federal waterways policy dictating that federally controlled waterways were public waterways, forever free?
6. What was the Canal Era in America?
7. How did waterway policy evolve in Florida?

Chapter 1: Westcott's Dream (1824-1884)

Army surveys for inland waterway construction in Florida began as early as 1824. The Seminole Wars led the Army to consider construction of inland waterways to transport personnel and material before the advent of the railroad. In 1854, Army engineers headed by Lt. Horatio Wright built the Haulover canal at Titusville, linking the Mosquito Lagoon to the Indian River. After the Civil War, a destitute Florida eventually permitted private companies to construct private waterways in exchange for state land and the right to collect tolls. One of those companies was the Florida Coast Line Canal & Transportation Company, organized in Saint Augustine in 1881. Headed by Dr. John D. Westcott and

three other St. Augustine investors, this Florida canal company began building in St. Augustine south to Miami, and later, north to Jacksonville, what would become the Intracoastal Waterway.

Questions.

1. What factors led Congress to fund construction of the first Haulover cut between the Mosquito Lagoon and the Indian River?
2. What was the condition of the Florida economy following the Civil War?
3. What role did agriculture play in the Florida economy?
4. What factors led to the organization of the Florida canal company?
5. What made Westcott and his director colleagues suited to lead the canal company?
6. What role did land grants and tolls play in attracting investors?
7. What kind of equipment did the Florida canal company use in early dredging of the waterway?

Chapter 2: New England Money (1885-1892)

In the late 1880s and early 1890s, the drying up of local money forced Westcott to look to Civil War financier Jay Cooke, early Bell Telephone investor George Bradley, a Providence-born entrepreneur now living in Washington, D.C., and other New Englanders for financing. Bradley became the Florida canal company's largest single stockholder and president, 1899-1906. Samuel Maddox, a prominent Washington, D.C. lawyer, served as company secretary. Irish-born George Francis Miles oversaw the work as general manager and later president. Miles involved Canadian colleagues in the Canadian Pacific Railway like Sandford Fleming as investors and in the early years in some of the original dredging. Miles met with a Montreal barrister, Donald MacMaster, to interest Canadian investors in the project. Canal company directors hired acclaimed Chicago engineer Elmer Corthell to survey the work that lay ahead and estimate the cost of completion. Corthell also assessed the economic prospects of the Florida east coast in 1889. Steamboat companies began to compete for transportation business along the coast while the tiny Celestial Railway linked Lake Worth to the Indian River until the Flagler railway and the Intracoastal Waterway connected Juno Beach and Jupiter. By 1890, the Florida canal company had earned 345,972 acres of state land for dredging the waterway from Titusville to Jupiter.

Questions.

1. What was Bradley's background and experience before undertaking the Florida waterway project?
2. What did Corthell's survey reveal about the kind of dredging work that lay ahead and the cost to complete the work?

3. What was Cortwell's assessment of the economic conditions along the lower Florida east coast?
4. Describe the rivalry between the Indian River Steamboat Company and the East Coast Transportation Company
4. What types of cargo did the early steamboats transport?
5. What attracted outside investors to the Florida waterway?
6. What challenges lay ahead in dredging the Florida waterway?
7. What was the official name of the Celestial Railway and how did it get its name?

Chapter 3: Beginnings (1891-1895)

In the early 1890s, the federal government began assessing the need for an intracoastal waterway for coastal defense purposes. In 1892, Florida canal company directors formed the Boston & Florida Atlantic Coast Land Company to buy 100,000 acres of Florida canal company land for \$100,000. Other entities formed to finance the waterway were the Lake Worth Land Trust and the New River Land Trust to buy canal company land. Sir Sandford Fleming, other Canadians, and New England investors began investing in the Florida canal company. In 1893, the State of Florida and Florida canal company agreed to relinquish and the U.S. government agreed to assume control over a 138-mile stretch of the Indian River. Henry Flagler agreed to finish his railroad to Miami for a portion of the Florida canal and the Boston & Florida companies' land grant, invested some cash in the dredging operations, and headed the Florida canal company from 1893 until 1896. In 1896, both the Florida waterway (to a large extent) and the Florida East Coast Railroad were completed to Miami. Flagler unexpectedly resigned as president of the Florida canal company and began disposing of his Florida canal company holdings.

Questions.

1. Why did the Florida canal and other land companies agree to grant Flagler a portion of their lands for Flagler finishing the railway to Miami?
2. What qualified Albert Sawyer for his role as president of the Boston & Florida Atlantic Coast Land Company?
3. What role did the Boston & Florida land company play in the building of the Florida waterway?
4. What were the advantages in using land trusts to finance the waterway?
5. What role did Julia Tuttle and Horace Cummings play in financing the construction of the waterway?
6. What role did the federal government play in planning an Atlantic intracoastal waterway in the early 1890s?
7. Why did the Florida canal company and the State of Florida agree to relinquish and the U.S. government agree to assume control over a 138-mile stretch of the Indian River?

8. What interested the Canadian engineers and investors in the Florida waterway?
9. What caused Flagler to dispose of his canal company holdings?
10. How did Louis Pio found White City?
11. What was Louis Haupt's justification for the federal government constructing an Atlantic coast inland waterway?

Chapter 4: Developing the Land (Jan.1896-April 1897)

By 1896, Flager had completed his railway to Miami while the Florida canal company finished major portions of the waterway for transportation along the Indian River, Lake Worth, and Biscayne Bay by deepening cuts to make shallow natural waterway routes navigable. The Florida canal company began developing and selling its state land grants land along with Flagler, using agents allied with Flagler and his various companies. The canal company also formed the Walker Land Trust to bring in building products manufacturer Edward Walker of Springfield, Mass. Among the joint land developments along the lower east coast were White City, Boynton Beach, Delray Beach, Boca Raton, Dania Beach and Hallandale Beach. In 1896, Florida canal company insiders began organizing the Indian River and Bay Biscayne Inland Navigation Company to buy steamers to ply the Florida waterway for passenger and freight transportation. By the end of 1896, the State of Florida had turned over 579,000 acres of public land to the canal company after dredging the waterway from Ormond Beach to Miami.

Questions.

1. What attracted Springfield, Mass. building products manufacturer Edward Walker to invest in the Florida waterway?
2. What did state engineer Jonathan Edwards report to the state improvement funds trustees (The Florida Cabinet) on the state of the Florida waterway?
3. Why had the company failed to complete the cut between Lake Worth and the Indian River?
4. What was the Belleville Plantation? And what was its purpose?
5. Who was the Florida canal company's 'ace in the hole' in dealing with the Florida Legislature? And why?
6. What was the chief complaint of Swedish Lutheran land purchasers at Hallandale?
7. What was the chief product transported by the Florida canal company's steamers?
8. What were the advantages for early settlers in using transportation and buying land from the Florida canal company or the Flagler railway and land companies?
9. Why did the New Englanders agree to pool their Florida canal company stock?

Chapter 5: Steamboating (1897-1898)

While the Florida canal company and the related Boston & Florida land companies garnered as much as \$15 an acre from its grants of Florida state lands, the Indian River steamboat company struggled to make a profit with expensive repair work on its two steamers, *St. Augustine* and *St. Sebastian*. At the same time, Michigan investors, including William Linton and Nathan Boynton, began developing Lake Worth land and the settlements of Linton (Delray Beach) and Boynton (Boynton Beach).

Questions:

1. What crops did the Indian River steamboat company transport?
2. What problems did the Florida canal company face in requesting the Florida legislature for an extension of time to complete the Florida waterway?
3. What obstacles hindered the completion of the Jupiter to Lake Worth Cut?
4. What role did Michigan investors William Linton and Nathan Boynton play in the development of south Florida?

Chapter 6: Sea Water Gold (Jan. 1898- Nov. 1898)

While the Florida canal company and its related steamboat company struggled to make a profit, several company directors and stockholders invested in a Maine company advertising machinery that allegedly could profitably convert sea water into gold. Completion of the Walker Land Trust to fund waterway and steamboat operations brought wealthy Springfield, Mass. building products manufacturer Edward Walker fully into the picture. The U.S. Army employed the Florida canal company to transport mortars and munitions down the inland waterway during the war with Spain in Cuba, 1898, while the Indian River steamboat company charged a hefty \$4.30 each to transport passengers from Titusville to Palm Beach, compared to \$1 a day, on average, for day labor.

Questions:

1. What effect did the weather have on agriculture along Florida's lower east coast during the early part of 1898?
2. Who was Wallace Moses and how did he travel to and from the Belleville Plantation to superintend the farming operations there?
3. What role did Sawyer play in his Florida waterway colleagues investing in the sea water gold venture and what happened to their investments?
4. How successful was the Florida canal company's steamboat venture in transporting produce and passengers?
5. What interest did the U.S. Army have in the waterway during the Spanish American War?
6. How successful was the Florida canal company in completing the

- repurchase of its securities sold to Flagler?
7. What were the various methods the canal company used in disposing of its land grant?
 8. What were the main methods for financing construction of the waterway in the late 1890s?

Chapter 7: Ramie (Feb 1899-Dec. 1900)

The Florida canal company began exploring the possibility of growing a form of natural fiber, ramie, on company lands, and later decided to use company lands to invest in a new venture formed by New York lawyer Phillips Abbott. Miles relinquished the presidency to Bradley in 1899. Bradley considered cutting off all funds for operation of the steamboat venture, limiting expenses to maintenance only. Stockholders elected Sawyer's son, Hayden, to the board of the Florida canal company in March 1900. Two politically important Michigan investors became interested in Delray and Boynton lands while famed New York advertising executive Charles Austin Bates attempted to put together a pool of investors. Sawyer invested in a small farming operation west of Fort Pierce. Initial ramie experiments proved unsuccessful. Miles stirred up trouble with Boston & Florida Atlantic Coast Land Company directors over the lack of returns on his Canadian friends' investments in the land company.

Questions:

1. Why was the Florida canal company interested in the ramie experiment?
2. What was happening to waterway construction while the canal company investigated ramie and attempted to sell land.
3. In addition to Linton and Boynton, what was the significance of two more Michigan investors' interest in buying Delray and Boynton land?
4. Who were some of the potential investors in the ramie operation and why was their participation important to the Florida canal company?

Chapter 8: Slowing Down (May 1901-April 1903)

Waterway dredging continued to slow down while Florida canal company investors looked for other opportunities to invest. Hiram Smith's small farm west of Fort Pierce continued to flourish. The pineapple business boomed along the east coast in 1901. Canal company directors considered offering all of their land grant to Flagler and throwing in the waterway for nothing. Miles persistently pressed the Florida canal company and its affiliated enterprises for compensation in the form of land for brokering past sales of land owned by the various related entities.

Questions:

1. Describe the ways in which the Florida canal company attempted to raise capital to fund dredging operations.
2. What form of compensation did Miles seek for his efforts in selling canal company land?
3. Describe the canal company's efforts to finance ramie growing along the Florida east coast.
4. Characterize the canal company's efforts in selling its land in 1901-1902.
5. What real estate subdivision did Sawyer's Lake Worth Trust create west of the original Town of Boynton?
6. What museum lies situated today in the middle of the subdivision west of the original Town of Boynton?

Chapter 9: Death and Uncertainty (Nov. 1903-March 1906)

Three major figures in the Florida canal company died within a span of three years from 1903 to 1906. Albert Sawyer died in 1903; Edward Walker, in 1905; and George Bradley, in 1906. Within months of Sawyer's death in 1903, the State of Florida sued to freeze further grants of state land after the state had conveyed 475,015 acres to the canal company; the Florida canal company countersued to keep the state from transferring its promised land to others. By the end of 1903, the canal company had completed a waterway from Ormond to Miami but still struggled to finish the intransigent stretch between the Matanzas and Halifax rivers. The creation of the Lake Worth Drainage District threatened confiscatory taxes on Florida canal company land the state intended to drain. Walker, the company treasurer, died of Bright's disease in 1905. Five months later, on March 26, 1906, the canal company's largest stockholder and investor, George Bradley died, leaving in doubt the completion of the waterway.

Questions:

1. Who succeeded Albert P. Sawyer as president of the Boston & Florida land company and as sole trustee of the three Bradley trusts?
2. How successful was the Florida canal company in completing the cut between the Matanzas and Halifax rivers?
3. What income had the Boston & Florida land company earned since its inception in 1892?
4. What well-known Canadian railway engineer held a substantial stake in the Boston & Florida land company?
5. Describe Governor Broward's inspection trip down the waterway in December 1904.

Chapter 10: More Uncertainty (Mar. 1906-Nov. 1906)

Bradley's executor and trustee, the Rhode Island Hospital Trust Company, moved slowly in deciding whether to advance additional sums in completing the waterway. The vacancy in the office of the presidency upon Bradley's death remained for over a year while the Trust Company and the remaining investors pondered completing the waterway. Bradley's wife Helen eventually forewent her income from the Bradley estate and initially loaned it to the Florida canal company to pay dredging expenses, expecting repayment out first land sales. Flagler bought 2,500 acres of canal company land west of West Palm Beach at \$10 an acre but waited months before closing the transaction. While Hayden Sawyer vacationed in the New Hampshire mountains, on October 13, 1906, one of the two dredges working in the Matanzas and Halifax river cut, the *Wimbee*, burned to within inches of the waterline. The loss of the *Wimbee* again cast more doubt over completion of the Florida waterway.

Questions:

1. What were the factors the Rhode Island Hospital Trust Company considered in deciding whether to invest further sums in completing the Florida waterway?
2. What gave the surviving investors confidence that the waterway would someday be completed?
3. What concerned the surviving investors over completing the waterway?
4. Which of the surviving investors were interested in investing additional sums in the project?
5. What plan did Miles put in place after the loss of the *Wimbee* to finish the waterway without delay?
6. What delayed closing the sale of the Lake Worth lands to Flagler?

Chapter 11: Dry Old Gentlemen of Providence (Nov. 1906-Oct. 1907)

In December 1906, just nine months after Bradley's death, the Florida canal company, controlled by Bradley's executor in Providence, and the State of Florida settled litigation that had tied up Florida's public lands for more than three years. The State of Florida agreed to convey 200,000 acres of public land for \$50,000 and escrow 100,000 acres for the extension of the waterway to Jacksonville and another 234,000 acres to finish incomplete sections of the waterway from St. Augustine to Miami.

Questions:

1. Who loaned the Florida canal company the first money needed to pay operating expenses after Bradley's death, why, and on what terms?
2. Why did the Providence trust company that controlled Bradley's estate eventually agree to loan the money necessary to extend the canal to Jacksonville and complete the remaining portions to state specifications?

3. What were the advantages and disadvantages for the Florida canal company in settling with the Florida improvement fund trustees over state lands promised the company for dredging the waterway?

Chapter 12: The Philadelphian (1901-Apr. 1908)

On November 18, 1907, more than 500 representatives of the Atlantic coastal states led by Philadelphia congressman Joseph Hampton Moore assembled in Philadelphia to create the Atlantic Deeper Waterways Association (ADWA). The purpose of the ADWA was to lobby Congress for the funds to construct what would become the Atlantic Intracoastal Waterway (AIW). Joining the Republican from Philadelphia was North Carolina congressman John Humphrey Small, a Democrat. Moore led the ADWA until 1947, long after the completion of the waterway in 1935 from Miami to Trenton, NJ.

Questions:

1. What was the impetus behind Moore creating the Atlantic Deeper Waterways Association?
2. What role did President Theodore Roosevelt play in drawing attention to the need for inland waterway improvements?
3. What other inland waterway associations arose to address the growing problem of inland waterway transportation and the failure of the railroad industry to meet the nation's needs for transportation?
4. What gave rise to this national renaissance in inland waterway improvements throughout the United States?
5. What role did George F. Miles of the Florida canal company play in this national renaissance in inland waterway construction, nearly a hundred years after the completion of the Erie Canal in 1825?
6. What legislation did Moore and Small file in the House of Representatives to lay the groundwork for the creation of the AIW? And when was it filed?
7. What interest did Miles draw from the ADWA and President Theodore Roosevelt in the Florida waterway?

Chapter 13: Almost There (Apr. 1908-Nov. 1908)

In April 1908, labor shortages, mechanical breakdowns, dredging difficulties and arguments over the best means of dredging the waterway continued to plague the Florida canal company. Dredging the northern extension from St. Augustine to Jacksonville proved far more difficult than expected. Bickering among Florida canal company board members led to the resignation of longtime board member and secretary, Samuel Maddox, a prominent Washington lawyer and former president of the Bar Association of the District of Columbia. Miles attended the National Drainage Congress and the important Conference of Governors and later discussed the progress of the Florida waterway with

Roosevelt at the nation's capital.

Questions:

1. What were the labor shortages and how were they resolved?
2. What was the National Drainage Congress?
3. What was the Conference of Governors?
4. What role did low turpentine prices play in the Florida canal company's operations?
5. What problem did the Florida canal company encounter in issuing the new 1907 bonds to complete the waterway?
6. What role did Jacksonville banker Bion Fletcher, holder of the canal company's escrowed lands under the 1906 agreement, play in Broward's bid for election to the U.S. Senate in 1908?
7. Why was Miles opposed to using excavators in the northern extension?
8. What were Maddox's grounds for rejecting the Rhode Island Hospital Trust Company's plan for redeeming the old 1903 bonds before the issuance of the 1907 bonds?

Chapter 14: Gaining Speed (Nov. 1908-Nov. 1910)

In November 1908, state improvement fund trustees took no action on the Florida canal company's request to approve tolls on the Florida waterway, neither approving nor disapproving them. In January 1909, just days after leaving office, ex-Governor Broward wrote the Florida canal company, expressing an interest in inspecting canal company lands on behalf of a group of investors. During the first week of September 1909, company dredges and excavators removed 53,352 cubic yards of material in the northern extension, the largest excavation ever in a one-week period. In January 1910, state trustees approved the sale of 150,000 acres of canal lands at \$2.65 an acre to John Murdoch Barrs, a close friend of Broward. The impending sale to Barrs forced Flagler to file the first of two lawsuits against the Florida canal company to stop the sale, claiming the canal company owed Flagler some of the lands based on agreements dating back to 1892. Flagler and the Florida canal company settled in 1913, resulting in the canal company transferring 20,000 acres of land to the Flagler railway.

Questions:

1. What led to the replacement of George Miles as general manager of the Florida canal company?
2. What commission did Miles attend in December 1908 at the nation's capital despite his lingering illness and why did he attend it?
3. When and where did the canal company first collect tolls on the waterway?
4. What factors did the state trustees consider in approving the sale of 150,000

- acres of state land to John Barrs at \$2.65 an acre?
5. What factors did the Florida canal company consider in agreeing to a sale of 150,000 acres of its land grant to Barrs?
 6. What role did Congress play in increasing the sale of the Florida canal company's lands.
 7. Why was the Florida canal company interested in the creation of the Mississippi to Atlantic Inland Waterway Association?

Chapter 15: Canadian Trouble (May 1910-Nov. 1912)

By the middle of 1910, Florida legislators had become concerned over the amount of state land conveyed to the Florida canal company compared to the Florida canal company's alleged failure to maintain sections already completed. In turn, Miles's Canadian colleagues, led by Sir Sandford Fleming, began demanding a return on their investments made in the Florida canal company and its allied enterprise, the Boston & Florida land company, as early as 1892. The directors of the Boston & Florida land company elected Fleming's son-in-law, Montreal solicitor E. D. H. Hall, a director of the company to represent the interests of the Canadian group in that enterprise. Meanwhile, Sawyer offered the Florida waterway for sale at \$2,750,000. More than 50,000 residents had now settled along the waterway.

Both the ADWA and the NRHC convened well-attended and important national waterway meetings. Ex-Florida Governor Broward delivered the keynote address at the ADWA annual meeting at Providence, a month before his death on October 1, 1910, at the age of 53. A Corps of Engineers board preferred the more centrally-located route of the St. Johns River down the Florida coast instead of the Florida waterway. In 1912, land speculators in Everglades land west of Miami garnered prices as high as \$80 to \$120 an acre. Miles started the first of three ultimately unsuccessful steamboat operations hindered by a combination of boat repair problems and a lack of regular waterway maintenance. In April 1912, the State of Florida completed the first of five Everglades drainage canals, linking Fort Lauderdale on the Atlantic Coast to Fort Myers on the Gulf via the New River to Lake Okeechobee to the Caloosahatchee River.

Questions:

1. What tract of land did the Florida canal company subdivide near Fort Pierce in 1910?
2. What effect did Broward's win in the Senate election have on the Florida canal company's waterway project?
3. Although work progressed well in the northern extension, what challenges remained in the work already completed?
4. Who famously asserted that "we [in Florida] don't dig canals with [surveying] levels, we dig them with dynamite."

5. What arguments did Broward make at the ADWA meeting at Providence for federal intervention inland waterway improvements?
6. How extensive was Broward's vision of a coastline American inland waterway system?
7. How effective were the ADWA and the NHRC in advocating federal intervention in American inland waterway improvements?
8. What policy did noted Pennsylvania engineer Lewis Haupt advocate for inland waterway improvements?
9. How valuable in 1912 were the Boston & Florida lands compared to their original value in 1892?

Chapter 16: A Land Grab from the Start? (Nov. 1912-Nov. 1914)

Amidst protests from business groups along the Florida east coast, in November 1912, Florida improvement fund trustees (the Florida Cabinet) approved the transfer of 117,000 acres of state land out of escrow held by Bion Barnett, the last of 13 transfers to the company. In total, the State of Florida conveyed 1,030,128 acres of public land for 268 miles of inland waterway from 1881 to 1912. The Boston & Florida company declared a 7-1/2 % dividend (or \$7.50 for every share of stock originally issued at \$100 a share). Miles and his Canadian colleagues began negotiations among themselves in Canada over a settlement of their ownership in the Florida canal and the Boston & Florida land companies.

In September 1913, the U.S. Army Corps of Engineers endorsed improvement of an intracoastal waterway from Beaufort, N.C., to the St. Johns River in Florida, but rejected extending improvements south along the Florida east coast based on sparse population and minimal economic benefits to the nation to be gained from the improvements. ADWA enthusiasts met in November 1913 at the annual meeting at Jacksonville, Fla., while members of the Mississippi to Atlantic Inland Waterways Association convened at Palatka. A few weeks later, almost a thousand delegates attended the NRHC meeting at Washington, D.C. In January 1913, Florida trustees at Tallahassee approved then rescinded a plan to implement a toll schedule on the private Florida waterway. In January 1914, Boston & Florida directors declared a whopping 16% stock dividend, indicating a dramatic increase in Florida land sales along the Florida east coast. Local Florida east coast groups continued to lobby the Corps of Engineers in favor of the old Florida East Coast Canal route versus the St. Johns River route.

Questions:

1. Was the Florida canal company's plan "a land grab from the start"?
2. What plans was Miles making for the waterway that made his complaints about the lack of waterway maintenance ring hollow?
3. Was there a lack of waterway maintenance?

4. Was there a public outcry when state trustees granted 250,000 acres of state land to the Flagler railway? Why or why not?
5. Why did Miles sue the Florida canal company?
6. What progress had the Mississippi to Atlantic Inland Waterway Association made in constructing an inland waterway between the Mississippi River and the Atlantic Ocean by November 1913?
7. Although Gleason and Miles complained about the amount of the Florida canal company's tolls, what action had Miles taken in the past that now undercut his opposition?
8. What position did the ADWA take in the competing plans of supporters for a St. Johns River route versus those of the old Florida East Coast Canal?

Chapter 17: Waterway Madness (June 1915-1922)

In June 1915, dividends on Boston & Florida land company stock slipped from 16% to 12%, representing a substantial decline in land sales along the Florida east coast. Representatives of 14 east coast and central Florida counties met in July 1915 to form the Florida East Coast Chamber of Commerce to advocate inland waterway improvements among other things. Other groups sprang up to support the St. Johns River route like the Florida East Coast Canal Association. In December 1915, the Langfitt Board of the Corps of Engineers held a hearing in Jacksonville to consider both routes. In June 1916, dividends on Boston & Florida land company stock slipped again from 12% to 10%, representing steadily declining land sales. In August 1916, the Langfitt Board decided in favor of the St. Johns River route. In November 1916, the Florida East Coast Canal Association meeting in Fort Lauderdale asked the Corps to delay action on the Langfitt report. In November 1917, 2,000 members of the ADWA met in Miami, focusing attention mostly on the development of ports along the Atlantic coast, including Florida's east coast. George Bradley's widow, Helen, an important financial backer of the waterway following George's tragic death in 1906, died on January 10, 1919.

By October 1919, the Boston & Florida land company had sold 14,000 acres at nearly \$16 an acre in instalment payments to Harry S. Kelsey then developing Kelsey City in Palm Beach County. In June 1920, however, the Boston & Florida company declared no dividends because of rising taxes (more than triple the prior year's total), despite the sale to Kelsey. Kelsey also got behind in his land payments to the Boston & Florida company. Aylen Harcourt Brook, a New York City advertising executive and Cape Cod Canal supporter, retired to Fort Lauderdale and immediately immersed himself in backing a federal takeover of the Florida waterway. By the early 1920s, the Florida canal company had dredged six large cuts and installed six chains across the waterway to collect tolls at six narrow stretches. While tolls amounted to \$19,016 against operating costs of \$15,159 in 1920, the Florida canal company sustained a deficit of \$19,000 a year after paying maintenance costs. Operating the waterway was a losing proposition.

Questions:

1. Identify the early Florida canal associations and describe their activities?
2. Describe the activities of the Boston & Florida land company and its success in selling land during the period 1916-1918.
3. Describe the Ely lawsuit filed against the Florida canal company in 1916.
4. Describe the State of Florida's lawsuit against the canal company seeking cancellation of its charter in 1917.
5. What was the focus of the ADWA annual meeting in Miami in 1917?
6. During World War I, what were the advantages of a federally controlled waterway?
7. What contributions did the Chesapeake and Delaware Canal make to the American war effort?
8. What profits did the Bradley estate reap from the Boston & Florida land company and the Bradley trusts from 1906 to 1918?
9. What was the value of Boston & Florida land company stock in 1919?
10. What was the value of the lands of the Boston & Florida land company remaining for sale in 1919? And what was the average fair market value per acre?

Chapter 18: A Lively Bunch of Boys (1922-Apr. 1925)

To prepare a report on the feasibility of a takeover of the Florida East Coast Canal or to develop a new waterway using the St. Johns River south to Titusville via artificial canal and then south using the southern portion of old East Coast Canal, the Army Corps of Engineers held four hearings in 1922. The hearings were held at Titusville, West Palm Beach, Daytona, and Sanford. The hearing at Sanford was especially heated because the selection of the St. Johns River would literally mean economic life or death for cities and towns dependent on that centrally located route. Meanwhile, the Florida canal company offered the waterway to the federal government for \$1.2 million, \$800,000 less than the amount offered six years earlier. The year 1922 also brought Charles Burgman and Col. Gilbert Youngberg in the controversy over a federal takeover of the private waterway. Youngberg encouraged chamber and other citizen groups to provide the facts and figures supporting a federal takeover. Burgman reorganized one of the older chamber groups into the Association of Chambers of Commerce of the Florida East Coast to gather the information the Corps of Engineers needed to gain Congressional support.

The Rhode Island Hospital Trust Company, as trustee of Bradley's estate, foreclosed on Bradley's mortgage on the Florida waterway for an indebtedness owing the Bradley estate approaching \$1 million and ultimately obtained title to the waterway at a foreclosure sale held in St. Augustine.

Questions:

1. What were the arguments pro and con for the St. Johns River route as opposed to the old Florida East Canal for the northern portion of a federally controlled waterway?
2. What position did Jacksonville take in the debate over the two waterway routes, and why?
3. What work had Youngberg's predecessor accomplished in amassing the economic statistics necessary to support a federal takeover of the waterway?
4. What role, if any, did Burgman's background play in reorganizing the old Florida east coast canal chamber into an effective advocate for a federal takeover of the old Florida East Coast Canal?
5. What role did pioneer Brevard County citrus grower J.J. Parrish play in the burgeoning Florida east coast chamber movement?
6. How did the Florida canal company's offer of a sale of the waterway for \$1.2 million compare to what the company had invested in dredging the waterway?
7. Had Bradley and other investors in the Florida canal company, the Boston & Florida land company, and the Bradley trusts reaped any profits from their investments in the enterprise after payment of taxes and other expenses of maintaining the properties?
8. Why was it necessary for the Florida canal company to eliminate the potential claims of the Florida canal company's unsecured bond holders?

Chapter 19: The Boston Restaurateur (Jan. 1925-Jan. 1928)

After Pennsylvania steel magnate J. Leonard Replogle forfeited a \$50,000 option to buy the waterway, a Boston-based restaurateur Harry S. Kelsey bought it for \$550,000.00 in 1925. Kelsey made a down payment of \$50,000 and paid the rest in instalments over time. Beginning in 1919, Kelsey amassed over 100,000 acres of mostly Palm Beach County land, along with considerable acreage in the western part of the county, and engaged the nationally recognized Olmsted Brothers to lay out one of Florida's first professionally planned cities, Kelsey City (now Lake Park), north of West Palm Beach between Lake Worth (part of the East Coast Canal) and the Atlantic Ocean. The string of parcels Kelsey soon accumulated extended from Jupiter south to Fort Lauderdale.

Burgman's chamber group met at the Hollywood Beach Hotel, battered in the September 1926, two months later for an important meeting. Various speakers urged that the state legislature seek a forfeiture of the Florida canal company's legislative charter for its failure to maintain the waterway at its required depth of five feet. With additional statistics justifying a federal takeover of the waterway, Youngberg submitted an entirely new report to his superiors who, in turn, endorsed the report with few modifications and presented it to Congress.

On January 1, 1927, Congress approved a federal takeover of the Florida waterway contingent on the State of Florida buying the waterway and necessary right of way and turning it over to the federal government for enlargement and future maintenance. On May 25, 1927, Governor John Martin signed into law the creation of the Florida Inland Navigation District (FIND) to acquire the waterway from Kelsey and turn it over to the United States government. FIND

Questions:

1. Why did Replogle decide to forfeit his \$50,000 option payment?
2. What plans did Kelsey make for the use of the waterway?
3. What happened to toll collections along the waterway from 1925 to 1927?
4. What sections of the waterway were particularly poorly maintained in 1926?
5. What was the projected cost of deepening the waterway to 8 feet and widening it to 75 feet, on average, according to the Army Corps of Engineers' report to Washington?
6. What other projects were approved by Congress for acquisition or improvement of existing inland waterways along the Atlantic coast?
7. Why was Florida the only state on the Atlantic coast required to buy its waterway and turn it over to the federal government free of charge?
8. What steps did Burgman's chamber group take in March 1927 to secure an option to purchase the waterway if Congress approved the project?
9. How much had Kelsey spent in improving the Florida waterway by December 31, 1926?
10. Who was elected first chairman of the Florida Inland Navigation District (FIND) and how was he elected?
11. Describe, generally, by occupation, the first members of the board of commissioners of FIND.
12. Who was chosen first chief engineer of FIND and what made him especially qualified to serve?
13. How did FIND begin the process of appraising the right-of-way required by the Corps of Engineers to widen and deepen the Florida waterway?

Chapter 20: A Crowning Achievement (June 1928-Present_

On June 28, 1928, voters in the eleven counties comprising FIND overwhelmingly approved the bond issue to purchase the waterway from Harry Kelsey and acquire right-of-way. Dade County State Attorney N. Vernon Hawthorne appealed the bond issue to the Florida Supreme Court, which ultimately turned aside Hawthorne's objections. The appeal delayed the issuance of bonds and the purchase until December 3, 1929. Federal authorities dropped the tolls chains and the waterway became officially known as the "Intracoastal Waterway from Jacksonville, Florida, to Miami, Florida," a free public waterway. In 1931, Bradley's trustees opened the Emma Pendleton Bradley Hospital in

East Providence, Rhode Island, the first hospital in the country devoted exclusively to the treatment of children with mental illness. By 1935, the Army Corps of Engineers had completed the Atlantic Intracoastal Waterway from Jacksonville, Florida, to Miami, Florida to a depth of eight feet and a width of 100 feet.

Questions:

1. Which county narrowly approved the bond issue in 1928? And why was the vote so close?
2. Why did Hawthorne appeal the bond issue to the Florida Supreme Court?
3. What did Hawthorne's appeal cost the District?
4. Who became head of FIND after the death of Burgman and his posthumous loss of an election to retain his seat on the board.
5. What was the Ship Canal Authority of the State of Florida? And what was its purpose?
6. What county joined FIND in 2004 and how supportive were its voters of the measure?

Epilogue

The federal government's construction of the Panama Canal dwarfed the construction of the Florida waterway in terms of cost and workers lost, yet the Panama Canal is only 50 miles long, while the Florida waterway extends almost 400 miles from Miami to Jacksonville. The Panama Canal's dredging work cost \$1.51 a cubic yard; the Florida waterway, only twenty-seven cents a cubic yard on average.

The Florida canal company and its related enterprises competed with the Flagler railway and its related enterprises in the sale of land and transportation, and in the process lowered prices for newly arriving settlers at the turn of the last century.

Today, the Florida waterway, like all other waterways along the Atlantic Intracoastal Waterway from Norfolk, Virginia, south struggles to obtain federal funding. Fortunately the State of Florida's FIND provides a significant portion of the costs of maintenance. What is in store for the future remains to be seen.

Questions:

1. What are the justifications for federal funding of the Florida waterway?
2. What are the arguments against federal funding?
3. What does the future hold for federal funding of the Florida waterway.
4. Do the costs of maintenance outweigh the benefits of a Florida waterway?