

CHAPTER 2

BACKGROUND FEATURES OF THE PROPOSED CORRIDOR

2.1 CORRIDOR SELECTION

2.1.1 Corridor Selection Methodology

Florida Power Corporation maintains a standing "Route Selection" Committee that is charged with the responsibility of determining and evaluating viable options, then selecting a proposed transmission line route or corridor and substation site(s). This committee is activated subsequent to determination of need for a line and/or substation. Representatives from Transmission Engineering (Chairman), Substation Engineering, System Planning, Real Estate, Local Customer Operations personnel and Transmission Construction are permanent members of this committee.

The Chairman may, at his option, or on advice of the standing committee, elect to call on other departments to act as members protem and may also employ outside consultants where additional resources and/or expertise is required.

In the case of the proposed Central Florida — Kathleen transmission line, Florida Power's EHV Project Manager and representatives from Environmental and Licensing Affairs acted as members protem. Also, a project team from the Environmental Systems Division of Commonwealth Associates, Incorporated, Jackson, Michigan, was employed as advisors and to complete any research necessary in selection of the corridor and preparation of this Application.

The line voltage and approximate location of the proposed Kathleen Substation were determined as discussed in Section 1.1. The north and south boundaries of the study area were fixed by the existing Central Florida Substation and the desired location of the proposed substation. The east and west limits were determined because of, and were bound by, the Green Swamp Area of Critical State Concern and communities along State Road 471, respectfully.

A general chronology of events, after establishing study area boundaries, was as follows:

1. Known environmentally sensitive locations within the study area were identified by Florida Power Corporation's environmental personnel.
2. The environmental overlay prepared in Step 1, United States Geological Survey maps, aerial charts and photographs were utilized to define sensitive areas, common corridors and to develop potential corridors for line routes. Three corridors were identified for further evaluation by air surveys and during those surveys, three additional options were identified. Committee members representing Engineering, Construction and Environmental Departments played primary roles during this phase of the evaluation.
3. The proposed corridor was selected from the six options after the Committee combined input from the following Florida Power Departments:

Environmental and Licensing — identified environmentally sensitive areas in the corridors, evaluated effect of construction activities and determined whether mitigative steps were feasible.

Real Estate — made preliminary contact and secured input from the Forest Supervisor of the Withlacoochee State Forest concerning routing through the forest. They also provided the number of real estate parcels involved, their approximate relative cost and land use.

Substation Engineering — determined property requirements for Kathleen Substation and that no additional property is required at Central Florida Substation.

Transmission Construction — determined the relative effect options would have on construction and defined various construction techniques for environmental personnel. They also determined necessary clearing, roadways, fences, culverts and tower pad requirements for all corridors.

Transmission Engineering — provided design, foundation and material requirements for all routes based on present information available.

4. Commonwealth Associates, Incorporated, was employed to review input from the Route Selection Committee, make Federal, State and local governmental agency contacts, complete the research and studies, and, if necessary, make recommendations for additions to the six options considered by Florida Power Corporation.

2.1.2 Major Alternative Corridors

In total, six corridor options were developed (Figure 2-1). Five have been designated as alternative corridors along with the proposed corridor. They can be identified as the two northern alternatives, A and B; two central alternatives, C and D; and one southern alternative, E. Each uses portions of other corridor alignments, and all retain segments of the proposed corridor.

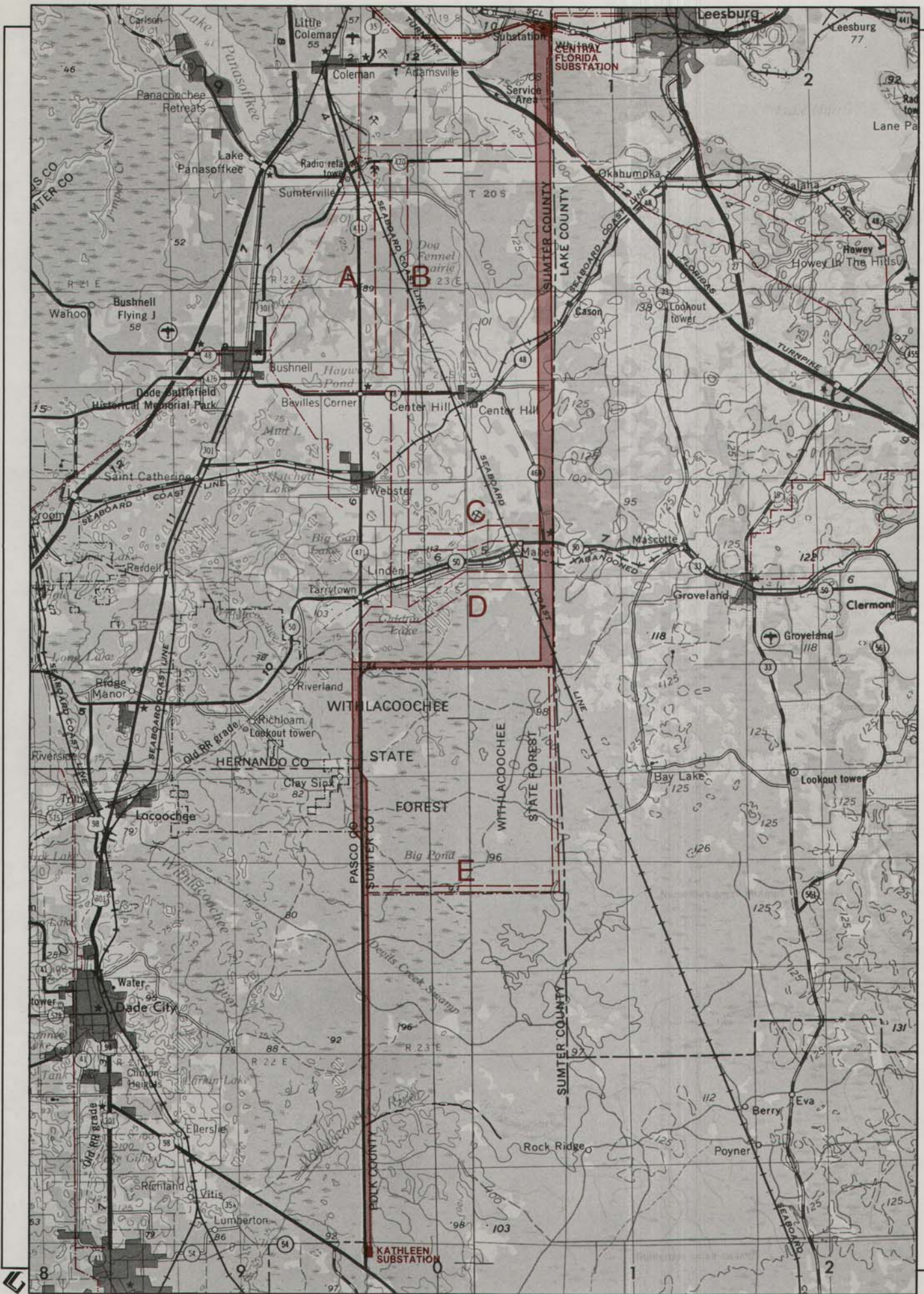
The two northern alternatives (A and B) leave the proposed corridor alignment approximately one mile (1.6 kilometers) south of the Sunshine State Parkway. At this point, they turn due west for approximately 5 miles (8 kilometers). Turning south, they again join the proposed corridor approximately 16 miles (26 kilometers) later at the Withlacoochee State Forest, following its alignment to the proposed Kathleen Substation.

The primary difference between the two alternate alignments is that portion along State Route 471 north of Bevilles Corner. While Alternative Corridor A is immediately adjacent and parallel to the highway, Alternative Corridor B is one mile to the east. The two alternates measure approximately 45.0 miles (72.4 kilometers) and 43.9 miles (70.6 kilometers) in length, respectively.

These corridors were designated as alternatives primarily because of the potential impacts to land use activities if the proposed transmission line were constructed in one of these corridors. The northern portions of both alternatives cross a considerable amount of intensively cultivated agricultural lands. Much of the agricultural area is dominated by row crops. East

IMAGE QUALITY

AS YOU REVIEW THE NEXT GROUP OF
IMAGES, PLEASE NOTE THAT THE ORIGINAL
DOCUMENTS WERE OF POOR QUALITY.



of Sumterville, mining activities would be a major hindrance to acceptable centerline delineation. The municipality of Webster, along with its growing environs, and associated development along SR 471, would also pose a problem to final line routing. Field investigations have indicated that residential activity may be impacted by a potential routing through this area.

Another noteworthy point relative to Alternative Corridors A and B is the research being conducted by individuals regarding the Seminole Indians in Sumter County. To date, two Seminole villages have been identified, one in and the other near the corridors' alignment (Figure 2-5). Through a search of original land grant plats and survey notes for Sumter County, information has tentatively verified these sites.

The first village site is known as "Jumper's Town", located in the SE 1/4 of Section 32, T. 21 S., R. 23 E. It has been described as "the home of Chief Jumper after the Moultrie Creek Treaty of 1823" (personal communication, Mr. Vernon Berry, 1981). The second site, "Pelacklakaha", is located in the SW 1/4 of Section 17, T. 21 S., R. 23 E. It is described as "Old Abraham's Town, for the Negro slave interpreter and later Sub-Chief Micanopy, after the Moultrie Creek Treaty of 1823. This was also the home of Micanopy after he left his village, Okahumpka, at the time of the Dade Massacre" (personal communication, Vernon Berry, 1981).

While these sites are not currently in the site files of the State of Florida nor on the National Register of Historic Places, it appears that the site information has been comprehensively researched and thus has been considered in corridor delineation. It is likely that, as additional archeological research is conducted in the area, more cultural resource sites related to the Seminole Period will be discovered.

Therefore, because of existing land use patterns (particularly agriculture and surface mining), developing areas such as the community of Webster, and known cultural resource sites, Alternative Corridors A and B were discarded in favor of the proposed corridor.

The central alternatives, C and D, utilize a majority of the north-south alignment of the proposed corridor. Only the east-west portions are new delineations, located on either side of State Route 50. The two alternative corridors measure 44.6 miles (71.8 kilometers) for C and 44.2 miles (71.1 kilometers) for D.

The proposed corridor was selected over these alignments because of the more intensive agricultural activity occurring along both east-west alignments, the development along SR 50, and the many angles which eventually would be required to route a transmission line through this area.

In addition, although no known historic or archeological sites have been specifically identified in or near each of these corridors, they are in proximity (approximately two miles) to the cultural resources found relative to the Seminole Period.

Alternative Corridor D also passes through a biologically sensitive area. The National Audubon Society (NAS) has identified a wading bird colony on Merritt Pond. Although empty at the time of the Audubon survey (1980), the potential does exist for its future use.

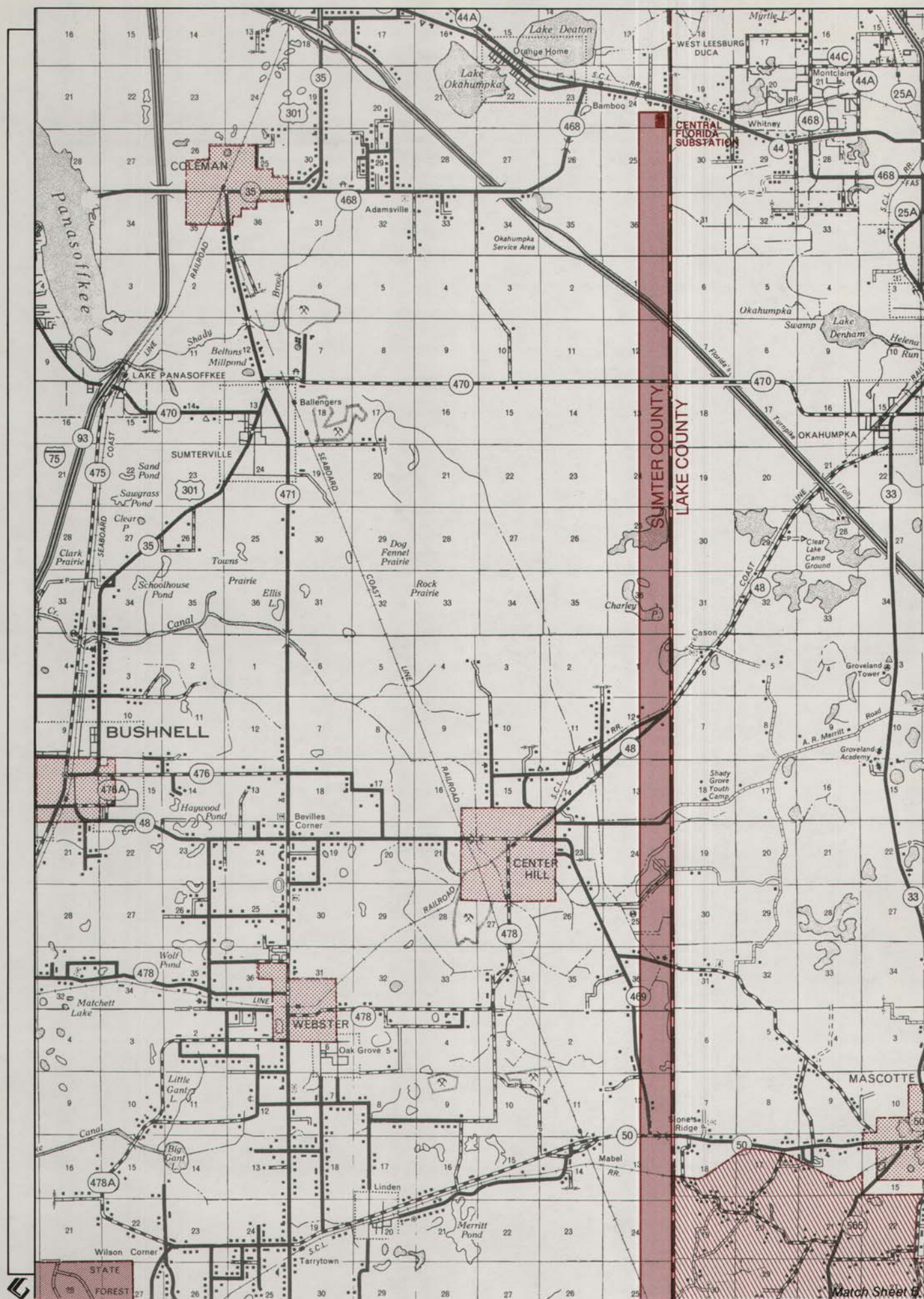
The fifth corridor option, Alternative E, follows the proposed corridor and the eastern and southern boundaries of the Withlacoochee State Forest. It measures 43.6 miles (70.2 kilometers) in length.

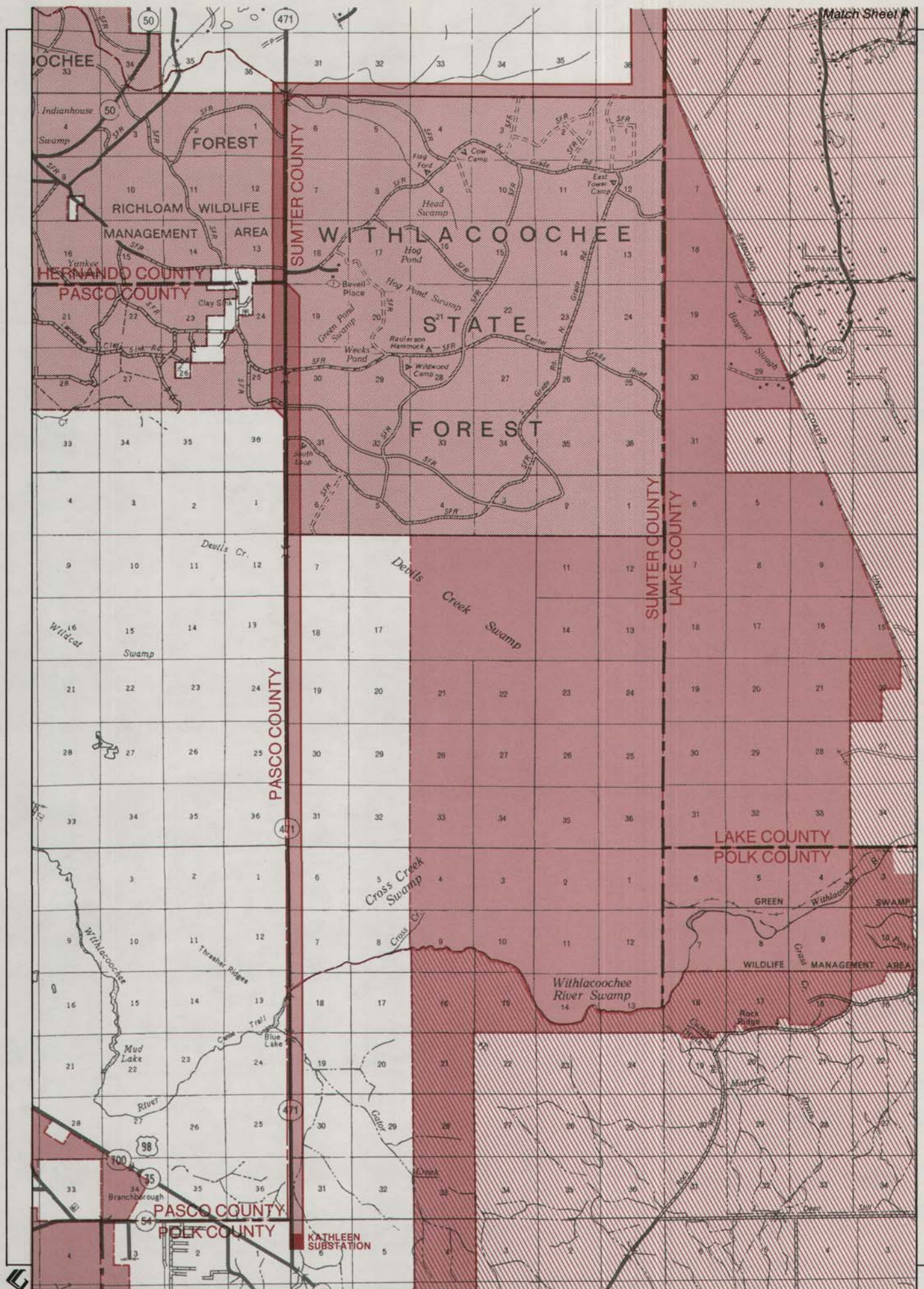
Alternative E was rejected in favor of the proposed corridor because of its potential impact to more state lands: 13 miles (21 kilometers) versus 7 miles (11 kilometers). Although timber production activities (clearing and planting) are apparent, construction of access roads, right-of-way clearing, and structure erection and stringing have the potential to disrupt natural systems throughout this relatively inaccessible area of the forest. This alternate was also rejected because of its proximity to the Green Swamp Area of Critical State Concern and the Southwest Florida Water Management District (SWFWMD) landholdings (Figure 2-2).

2.2 CORRIDOR DESCRIPTION

2.2.1 Governmental Jurisdictions

Governmental jurisdictions encompassed by the study area are shown in Figure 2-2. These include portions of five Florida counties: Hernando, Lake, Pasco, Polk and Sumter. Four incorporated municipalities are located within the study area: the cities of Bushnell, Center Hill, Coleman and Webster, all in Sumter County.





Major public landholdings include parts of the Richloam Unit of the Withlacoochee State Forest and the Richloam Wildlife Management Area, and lands owned and managed by the Southwest Florida Water Management District. Part of the State of Florida designated Green Swamp Area of Critical State Concern is also included within the study area.

The proposed corridor will extend through four of the five counties in the study area. It will parallel the boundary of Lake County for approximately 20 miles (32 kilometers), while remaining in Sumter County. None of the four cities will be affected; Center Hill, nearest the proposed corridor, is still approximately 1.3 miles (2.1 kilometers) distant.

Of the public landholdings, the Withlacoochee State Forest will be most affected. The proposed corridor passes through approximately 7 miles (11 kilometers) of forest land, and directly borders the Forest Boundary for 6 miles (9.6 kilometers). The Green Swamp Area of Critical State Concern is not entered by the corridor, however, the corridor does parallel its boundary for approximately 3 miles (4.8 kilometers). Landholdings of the Southwest Florida Water Management District are not crossed by the proposed corridor.

2.2.2 Easements, Titles, Agency Works, Zoning and Land Use Plans

The proposed corridor crosses state and county roads as described in 1.2. Florida Power Corporation will construct the line to adhere to the requirements of the Department of Transportation Utility Accommodation Guide, July 1979, and furnish "as-built" drawings on completion of the project where the line crosses state roads. In addition, all applicable county ordinances have been reviewed and the line will be constructed to meet the applicable requirements for overhead transmission lines where the line crosses county roads.

Where applicable, joint DER/U.S. Army Corps of Engineers' applications will be filed for the list of "Water Bodies Crossed by this Corridor", Table 4-2, Section 2.2.7, and for other waters of the State, (SAJ Form 983, July 21, 1977, or as subsequently amended). Filing(s) will be concurrent with final line design (i.e., subsequent to establishing structure locations, conductor heights, crossing angles, etc.).

Comprehensive planning activities are being conducted throughout the study area at all levels of government. The Florida Division of Forestry is currently updating their second

10-year property management plan for the Withlacoochee State Forest, while the Southwest Florida Water Management District has recently completed a water management plan for the Green Swamp area.

Regional Planning Councils are also active in the area, providing general planning and advisory services on a broad multi-county level. They include the Central Florida Regional Planning Council (Polk County), Tampa Bay Regional Planning Council (Pasco County), and the Withlacoochee Regional Planning Council (Hernando and Sumter Counties).

Four of the five counties in the study area have completed comprehensive plans pursuant to the Florida Local Government Comprehensive Planning Act of 1975 (LGCPA), while the fifth county, Pasco, is in the process of completing its plan. In the immediate vicinity of the proposed corridor, minimal development is projected. Future land uses proposed reflect the present situation; i.e., forest, wetland, improved pasture and agriculture. Therefore, because the intent of this planning is to retain the present character of the area, mapping of such future land use categories was determined unnecessary. FPC has reviewed the approved plans and believes that the proposed project is compatible.

Zoning activity in and along the proposed corridor is predominantly in the agricultural category. Occasionally, a small area is rezoned to residential, usually for a single family dwelling or mobile home classification.

Zoning in the proposed corridor consists of ten districts (Figure 2-3):

Hernando County

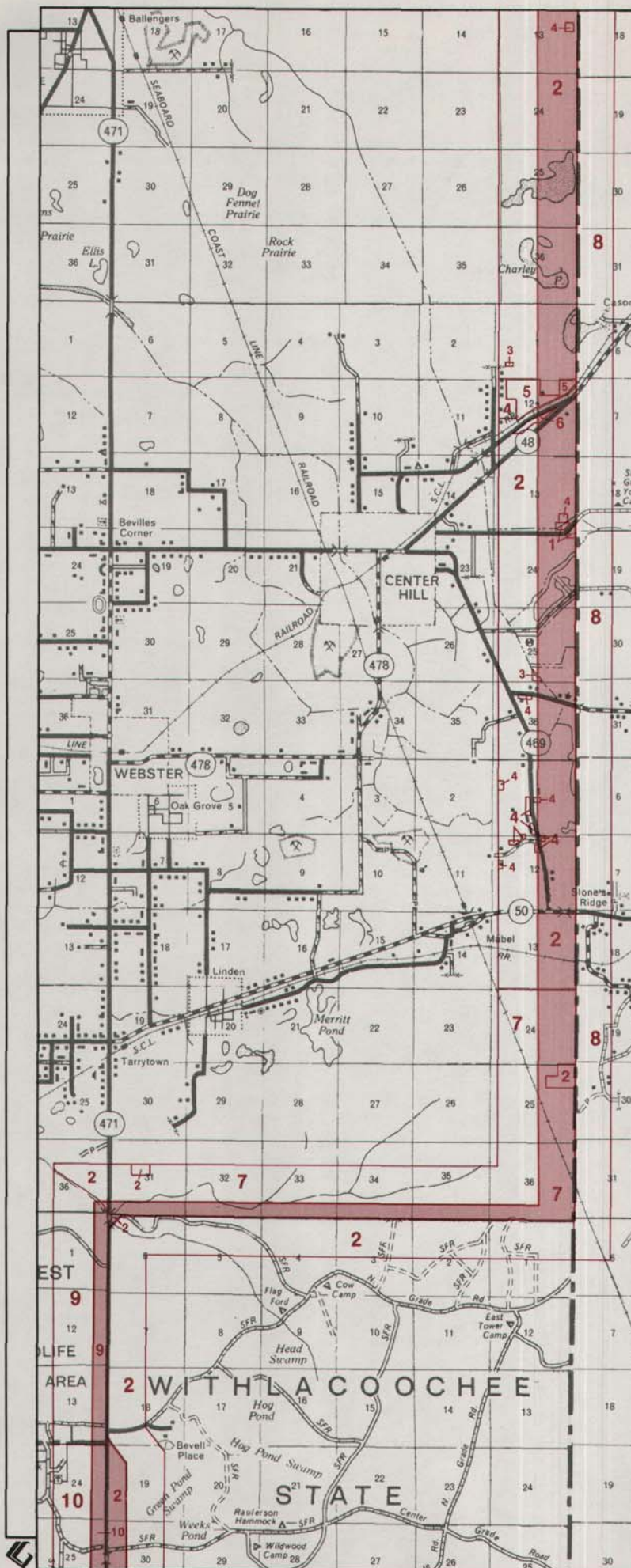
AG Agriculture

Pasco County

AC Agricultural Conservation

FIGURE 2-3 ZONING

CENTRAL FLORIDA-KATHLEEN
500KV TRANSMISSION LINE
FLORIDA POWER CORPORATION



 Proposed Corridor

SUMTER COUNTY

1. A-1 Agricultural/Residential
2. A-5 Agricultural
3. RR-5 Rural Residential
4. RR-1 Rural Residential
5. R-1-M Mobile Home Residential
6. C-1 Neighborhood Commercial
7. M-1 Industrial

LAKE COUNTY

8. A Agricultural

HERNANDO COUNTY

9. AG Agricultural

PASCO COUNTY

10. A-C Agricultural Conservation

POLK COUNTY

11. R-C Rural Conservation



0 2 MILES
0 2 KILOMETERS

SOURCE:
Current County Zoning Ordinances.

BASE MAP SOURCE:
Florida Department of Transportation,
Current County Highway Maps.

Polk County

RC Rural Conservation

Sumter County

A-1 Agricultural/Residential

A-5 Agricultural

RR-5 Rural Residential (five acre minimum)

RR-1 Rural Residential (one acre minimum)

R-1-M Mobile Home Residential

C-1 Neighborhood Commercial

M-1 Industrial

Most of the corridor has been zoned A-5 in Sumter County, with similar categories applying in the other counties. Small areas (approximately one acre per parcel) east of Center Hill are zoned A-1 and RR-1, while a larger tract in Section 12, T. 21 S., R. 23 E. is zoned R-1-M. The site has been slated for development as a residential mobile home park. However, field investigations (January 1981) indicate that no construction activity has occurred as yet at the site. Immediately adjacent to this proposed development, a small area is zoned C-1, in all likelihood to eventually provide limited retail and professional services to the planned residential area.

The industrial zone, M-1, encompasses approximately 12 square miles immediately north of the Withlacoochee State Forest. The proposed corridor crosses approximately 9 miles (14 kilometers) of the zone along its eastern and southern perimeter.

Zoning as it relates to the construction and operation of a transmission line falls into one of three categories: Permitted, Permitted by Special Exception, and Not Permitted. In the Sumter County Zoning Ordinance, transmission lines are addressed under the following clause: "Buildings, structures or uses maintained or operated by a body having the power of eminent domain". Regarding the seven districts involved in Sumter County, the proposed transmission line is addressed as:

A-1	Special Exception
A-5	Special Exception
RR-5	Special Exception
RR-1	Special Exception
R-1-M	Special Exception
C-1	Not Permitted: Variance Required
M-1	Permitted Use

Other counties along the proposed corridor address transmission lines as follows:

Hernando — permitted after review and approval by the County Board of Commissioners or after an exemption from such review and approval.

Pasco — permitted use subject to restrictions recommended by the Development Review Committee and approved by the Board of Adjustments.

Polk — permitted use.

The four Sumter County cities which are situated in the study area, are not within the proposed corridor. Additionally, as a majority of the land area within the proposed corridor is presently zoned and planned for agriculture, the proposed transmission line should not require any changes in the county or regional planning process, as potential conflicts with planned land uses should be minimal.

State agency work continues on a regular basis within the Withlacoochee State Forest. The Florida Department of Agriculture and Consumer Services, Division of Forestry, and the Florida Game and Fresh Water Fish Commission (GFWFC) are jointly managing the Forest "to achieve a pattern of natural resource uses that will best meet the needs of the public". This is being accomplished by these state agencies through a "multiple use concept which embraces enhancement of the environment, outdoor recreation, wildlife, land and water conservation, and a continuous supply of raw material for forest industries' production of consumer goods" (Division of Forestry, 1972).

2.2.3 Land Use

Land use within the study area and the proposed corridor is generally characterized by low levels of development, consisting primarily of pine flatwood forest, cypress domes and stands, improved pasture, and agricultural activity in the form of citrus groves. Residential activity is sparsely located throughout the area, with higher densities occurring in the communities of Center Hill and Webster. Small commercial and service establishments which meet the daily needs of local residents, are also primarily situated in the developed areas, though some "commercial crossroads" activity occurs at selected major highway intersections.

Within the proposed corridor itself, land use is dominated by agricultural activities and wetland forest (Figure 2-4 A-M). The figure identifies the various land use types occurring within and adjacent to the proposed corridor as interpreted from 1979 and 1980 aerial photography. The categories are those defined in *The Florida Land Use and Cover Classification System: A Technical Report*, Level I (April 1976). As can be seen, agricultural land uses dominate the proposed corridor, followed by wetlands and forested uplands. Agricultural activities consist primarily of citrus groves, while the wetlands category is made up almost exclusively of stands of cypress and pond pine (see Section 2.2.8 for discussion of vegetation).

The northern portions of the proposed corridor, from the Central Florida Substation to the Withlacoochee State Forest, contain the most diversity in land use patterns. Extensive agricultural development occurs in the form of improved pasture (some of which is also being managed for hay production), row crops, and large tracts of citrus groves. Interspersed with these agricultural activities are numerous wetlands and non-farm residences. This land use pattern is typical to the east of the corridor in Lake County, as well as to the west in Sumter County. Approximately 13 single family residences have been identified within this portion of the corridor, with another 45 dwelling units located outside the corridor but within one-half mile.

Wooded areas near the substation consist mainly of southern mixed hardwoods. As the corridor approaches the state forest, forest type changes to a pine flatwoods/cypress wetlands category. Cypress domes remain common, though many have been cleared to provide increased pasture.