Appendix C – Summary of Routing and Siting Alternatives Analysis for the East Walton Plan

Coordinated by Gayle Houston, Georgia Transmission Corporation (2006-2008) and summarized by Christopher D. Smith, Georgia Transmission Corporation (2023)

Appendix C – Summary of Routing and Siting Alternatives Analysis for the East Walton Plan

Introduction

The East Walton Plan was also referred to as the Northeast Georgia Reliability Project. The current proposal is referred to as the East Central Georgia Reliability (EGCR) Project. The same project components exist between the East Walton Plan and the ECGR Project.

Alternatives analysis was performed for the following new facility components of the proposal:

- East Walton 500/230 kV Substation
- Bostwick 230 kV Switching Station
- East Walton – Rockville 500 kV Transmission Line
- East Walton – Bostwick 230 kV Transmission Line
- East Walton – Jacks Creek 230 kV Transmission Line
- East Walton – Bethabara 230 kV Transmission Line

The alternatives analysis conducted between 2006 – 2008 was led by Ms. Gayle Houston, Environmental and Regulatory Coordinator with GTC. This appendix documents the following steps:

- East Walton 500/230 kV Substation Alternatives and Site Selection
- Bostwick 230 kV Switching Station Site Alternatives and Site Selection
- Transmission Lines Alternate Corridors
- Development of Alternate Transmission Line Routes
- Preferred Route Selection

This Appendix includes language and figures from the 2006 – 2008 analysis developed by Ms. Houston. The selection of preferred sites and routes reflects the properties and ROWs acquired by GTC between 2008 - 2013. GTC developed alternate corridors using steps identified in the EPRI/GTC Overhead Electric Transmission Line Siting Methodology.

This Appendix contains the following Figures:

- Figure A-1 – East Walton Substation Alternate Sites
- Figure A-2 – East Walton Substation Preferred Site
- Figure B-1 – Bostwick Switching Station Preferred Site
- Figure C-1 - East Walton-Rockville 500 kV Transmission Line & Bostwick – East Walton 230 kV Transmission Line, Built Perspective Corridors
- Figure C-2 - East Walton-Rockville 500 kV Transmisison Line & Bostwick – East Walton 230 kV Transmission Line, Environmental Perspective Corridors
- Figure C-3 - East Walton-Rockville 500 kV Transmission Line & Bostwick – East Walton 230 kV Transmission Line, Engineering Perspective Corridors
- Figure C-4 - East Walton-Rockville 500 kV Transmission Line and Bostwick – East Walton 230 kV Transmission Line, Simple Average Perspective Corridors
- Figure C-5 - East Walton - Jacks Creek 230 kV Transmission Line, Built Perspective Corridors

- Figure C-6 - East Walton - Jacks Creek 230 kV Transmission Line, Environmental Perspective Corridors
- Figure C-7 - East Walton - Jacks Creek 230 kV Transmission Line, Engineering Perspective Corridor
- Figure C-8 - East Walton - Jacks Creek 230 kV Transmission Line, Simple Average Perspective Corridor
- Figure C-9 - Bethabara – East Walton 230 kV Transmission Line, Built Perspective Corridor
- Figure C-10 - Bethabara – East Walton 230 kV Transmission Line, Environmental Perspective Corridor
- Figure C-11 - Bethabara – East Walton 230 kV Transmission Line, Engineering Perspective Corridors
- Figure C-12 - Bethabara – East Walton 230 kV Transmission Line, Simple Average Perspective Corridors
- Figure D-1 – East Walton – Rockville Alternative Routes
- Figure D-2 – East Walton – Jacks Creek Alternate Routes
- Figure D-3 – Bethabara – East Walton Alternate Routes
- Figure E-1 –East Walton - Rockville Preferred Route
- Figure E-2–East Walton – Jacks Creek Preferred Route
- Figure E-3 –Bethabara - East Walton Preferred Route

A. East Walton 500/230 kV Substation Alternatives and Site Selection

Alternative sites for East Walton 500/230 kV Substation were identified in an area bounded by Highway 186 on the south, Jones Wood Road on the east, Apalachee River on the northeast, George Laboon Road on the northwest, and Beardon Road on the west. Several sites within the study area boundary were studied.

East Walton Substation Site A

Site A is located in the northwest quadrant of the intersection of Highway 186 and Jones Wood Road in Walton County, Georgia. Site A is undeveloped and forested; therefore, the proposed East Walton 500/230 Substation should be out of view of passersby on Highway 186 and Jones Wood Road. A substation access road off either Highway 186 or Jones Wood Road would provide good vehicular access to the site for delivery of equipment, construction vehicles and future maintenance traffic. There is a rock quarry, Hanson Aggregates Southeast, on the southwest quadrant of Highway 186 and Jones Wood Road. The rock quarry would make it challenging to route the proposed East Walton-Rockville 500 kV and the Bethabara – East Walton 230 kV Transmission Lines to connect to the south side of the proposed East Walton 500/230 kV Substation. (Refer to the East Walton 500/230 kV Alternative Substation Sites Map)

East Walton Substation Site B

Site B is on Jones Wood Road south of where the road turns west. The site is approximately 0.6-miles north of Site A. It is undeveloped and forested; therefore, the proposed East Walton 500/230 kV Substation should be out of view of passersby on Jones Wood Road. A substation access road off Jones Wood Road would provide good vehicular access to the site for delivery of equipment, construction vehicles and future maintenance traffic. There is a rock quarry, Hanson Aggregates Southeast, across Highway 186 from Site A that would make it challenging to route the proposed East Walton-Rockville 500 kV and the Bethabara – East Walton 230 kV Transmission Lines to connect to the south side of the proposed East Walton 500/230 kV Substation. (Refer to the East Walton 500/230 kV Alternative Substation Site Map)

East Walton Substation Site C

Site C is located 1.65-miles from the intersection of Highway 186 and Jones Wood Road. It is approximately 0.9-miles from Site A and 0.5-miles from Site B. This site is not forested; therefore, the proposed substation would be seen by the passersby on Jones Wood Road. It would be somewhat more difficult to transport equipment, construction vehicles and future maintenance traffic to Site C as it is a narrow road with relatively sharp turn near Site B. (Refer to the East Walton 500/230 kV Alternative Substation Site Map)

East Walton Substation Sites D, E, F, G

Sites D, E, F, and G are north of Jones Wood Road, across from Sites B and C. All four sites are set back off Jones Wood Road on undeveloped land. These sites would be visible by passersby on Jones Wood Road. A substation access road would need to be built from Jones Wood Road in order to provide good vehicular access to the site for delivery of equipment, construction vehicles and future maintenance traffic. All four of these sites

are south of the Apalachee River and bordered by Apalachee River tributaries. (Refer to the East Walton 500/230 kV Alternative Substation Site Map)

Site H – the Preferred East Walton 500/230 kV Substation

Site H is located on the north side of Highway 186, 2.8-miles west of Jones Wood Road and 1.7 miles east of Beardon Road (Highway 83) in Walton County, GA. This site is undeveloped and forested; therefore, the proposed East Walton 500/230 kV Substation should be somewhat out of view of passersby on Highway 186. An access road from Highway 186 would provide good vehicular access to the site for delivery of equipment, construction vehicles and future maintenance traffic. There are no built or natural obstacles on the south side of Highway 186 that would interfere with connecting the proposed East Walton-Rockville 500 kV and Bethabara – East Walton 230 kV Transmission Lines to the proposed East Walton 500/230 kV Substation. (Refer to the Preferred East Walton 500/230 kV Substation Site H Map)

During field investigations of the Preferred East Walton 500/230 kV Substation site, no National Register of Historic Places (NRHP) listed or eligible archeological sites or historic structures were found. No wetlands or threatened or endangered species or their habitat were identified.

Figure A-1 – East Walton Substation Alternate Sites

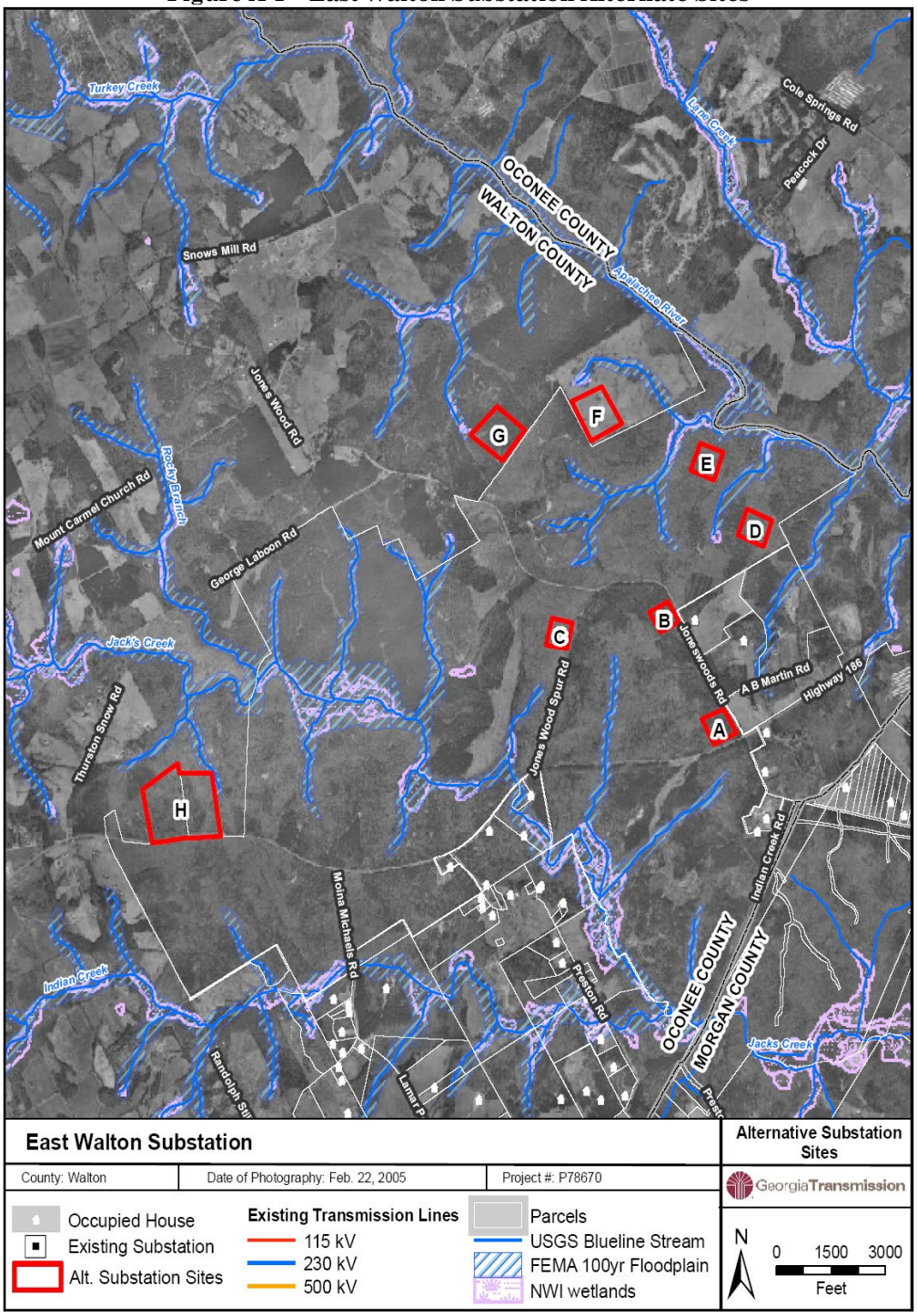
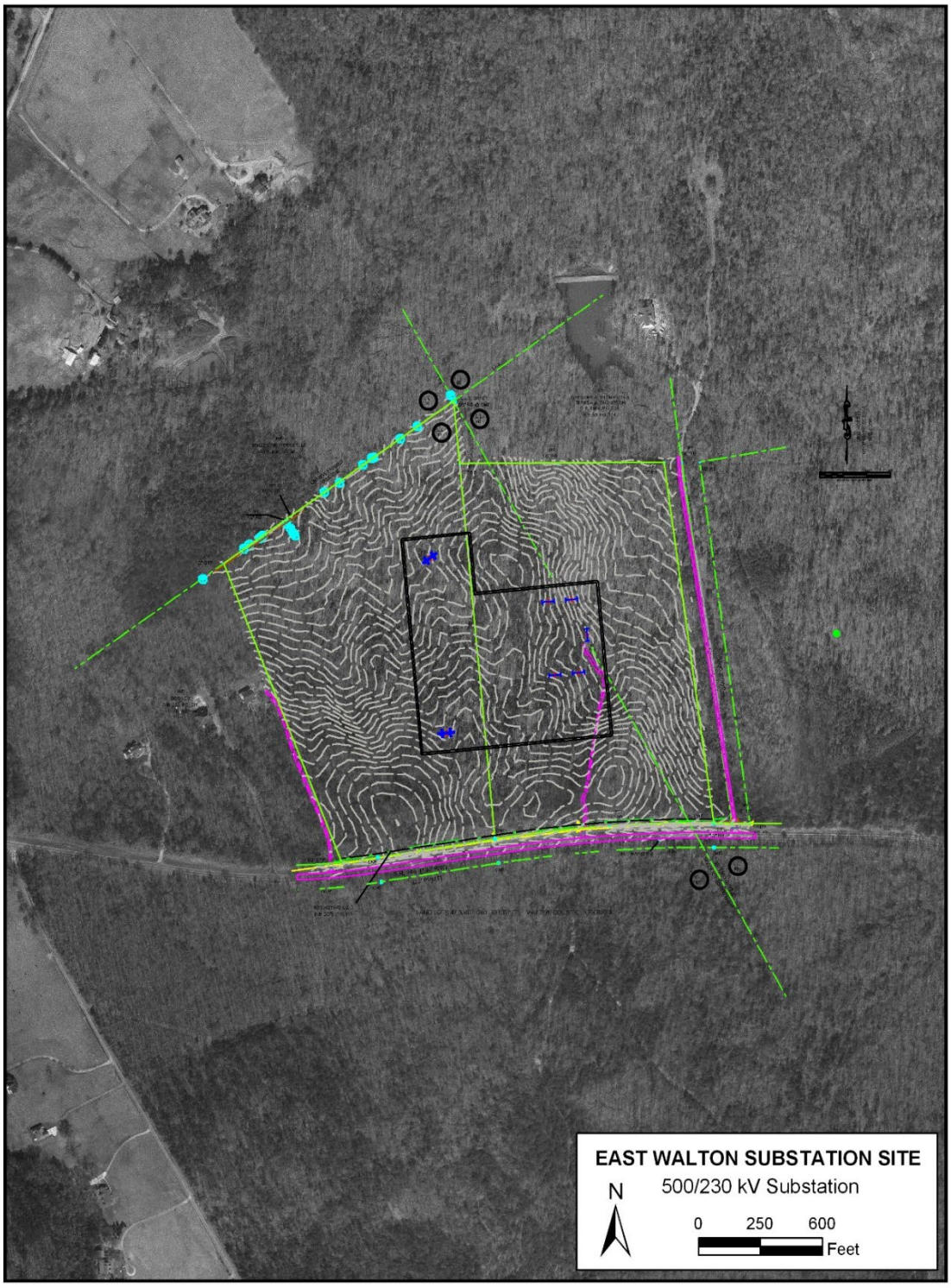


Figure A-2 – East Walton Substation Preferred Site



B. Bostwick 230 kV Switching Station Site Alternatives and Site Selection

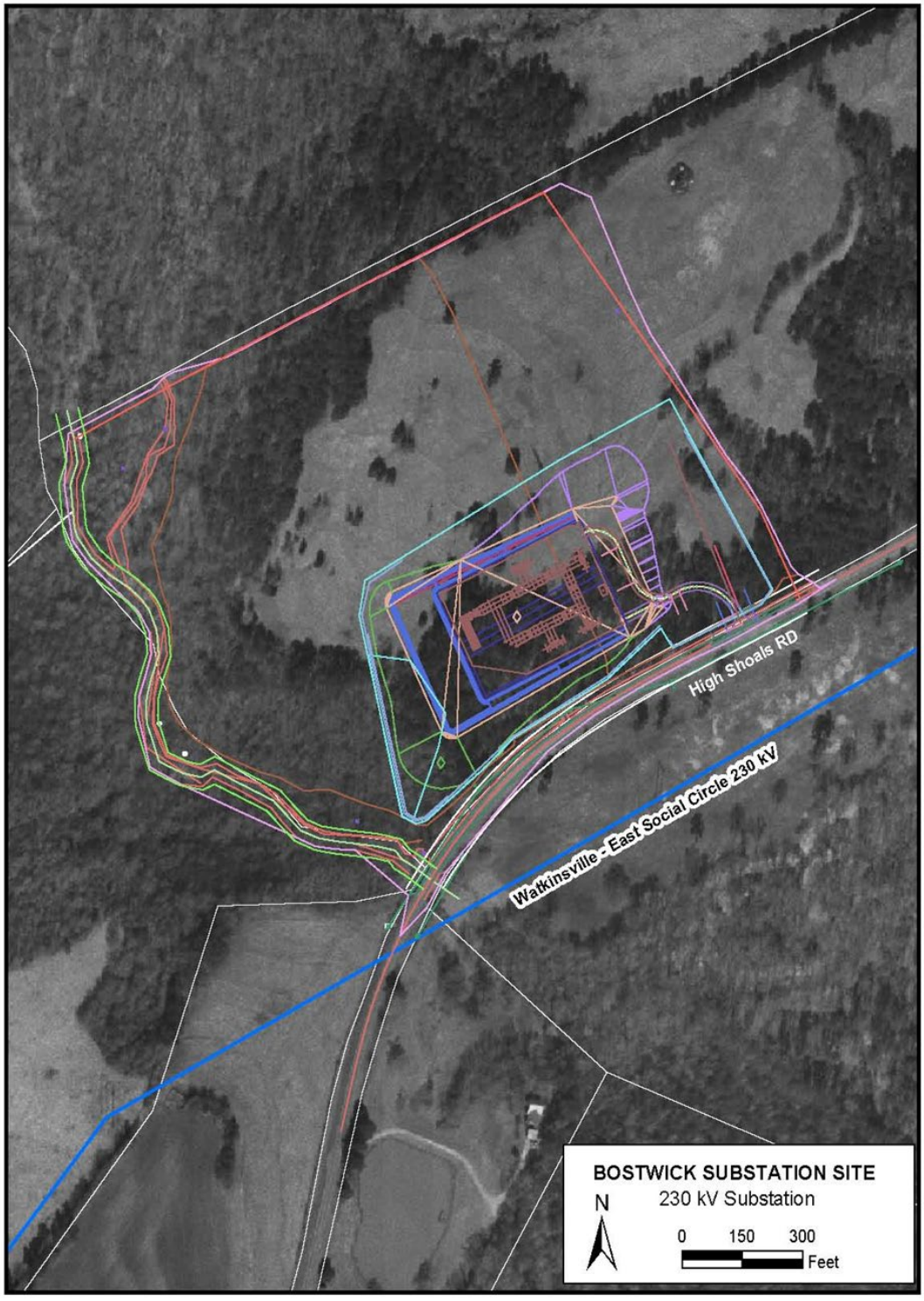
The existing East Social Circle - East Watkinsville 230 kV Transmission Line parallels the south side of High Shoals Road. The East Social Circle - East Watkinsville 230 kV Transmission Line would be looped into the Bostwick Switching Station.

Two sites were considered for the Bostwick 230 kV Switching Station. Site A is located on the south side of High Shoals Road and Site B on the north side of High Shoals Road. Site A would be a good site for the Bostwick Switching Station because the switching station would be in-line with the East Watkinsville-East Social Circle 230 kV Transmission Line. However, field investigations found that Site A is low and wet. Therefore, it would not be an appropriate site for the Bostwick Switching Station.

The proposed Bostwick Switching Station would be built on Site B that is located on the north side of High Shoals Road 1.8-miles east of Bostwick Road and 1.3-miles west of Rehoboth Road in Morgan County, Georgia. This location was chosen so that the existing East Social Circle-East Watkinsville 230 kV Transmission Line could be pulled across High Shoals Road and looped into the proposed Bostwick Switching Station. The East Walton-Bostwick 230 kV Transmission Line would start at the Bostwick Switching Station, travel 5.2-miles to the northwest and terminate at the East Walton 500/230 Substation. (Refer to the Bostwick Switching Station Site Map below.)

During field investigations of the Bostwick 230 kV Switching Station site, no National Register of Historic Places (NRHP) listed or eligible archeological sites or historic structures were found. No wetlands or threatened or endangered species or their habitat were identified.

Figure B-1 – Bostwick Switching Station Preferred Site



C. Transmission Lines Alternate Corridors

GTC developed alternate corridors using steps identified in the *EPRI/GTC Overhead Electric Transmission Line Siting Methodology*. GTC generated alternate corridors utilizing GIS datasets and techniques that create maps of suitability values (in a continuum from most preferred to least preferred areas) for locating a new transmission line. The geographic database includes layers such as existing linear infrastructure, hydrography, land use, land cover, slope, cultural resources, and other features within the study area.

The following maps represent corridor analysis preformed for the proposed East Walton – Rockville 230 kV Transmission Line, the proposed East Walton – Jacks Creek 230 kV Transmission Line, and the proposed Bethabara – East Walton 230 kV Transmission Line using three perspectives identified in the *EPRI/GTC Overhead Electric Transmission Line Siting Methodology*. These perspectives include the Built Environment, Natural Environment, and Engineering Requirements. Stakeholders in the Built Environment Perspective recognized that places of special value to the community are less preferable for transmission line siting, while also recognizing some landscape elements associated with the Built Environment cannot normally coexist with an overhead electric transmission line ROW (yard trees, signage, outbuildings, etc.). Many of these data layers have features that represent a higher probability of encountering those landscape elements. The Natural Environment Perspective sought to minimize disturbance to ecological resources and natural habitats. The Engineering Requirements Perspective focused on minimizing the cost of construction by seeking the shortest path and opportunities for co-location while avoiding areas that pose significant construction obstacles.

The Alternate Corridors are generated by emphasizing the different Perspectives. Emphasis is achieved by combining all three preference surfaces with a weighted average in which one of the Perspectives is considered to be five times more important than the other two. In addition to the corridors generated for each Perspective, a simple average preference surface is used to establish a consistent base line for all three Perspectives.

Results of the corridor analysis performed between 2006-2008 are shown in the graphics below. These graphics were developed at the time of the analysis.

Figure C-1 - East Walton-Rockville 500 kV Transmission Line & Bostwick – East Walton 230 kV Transmission Line
Built Perspective Corridors

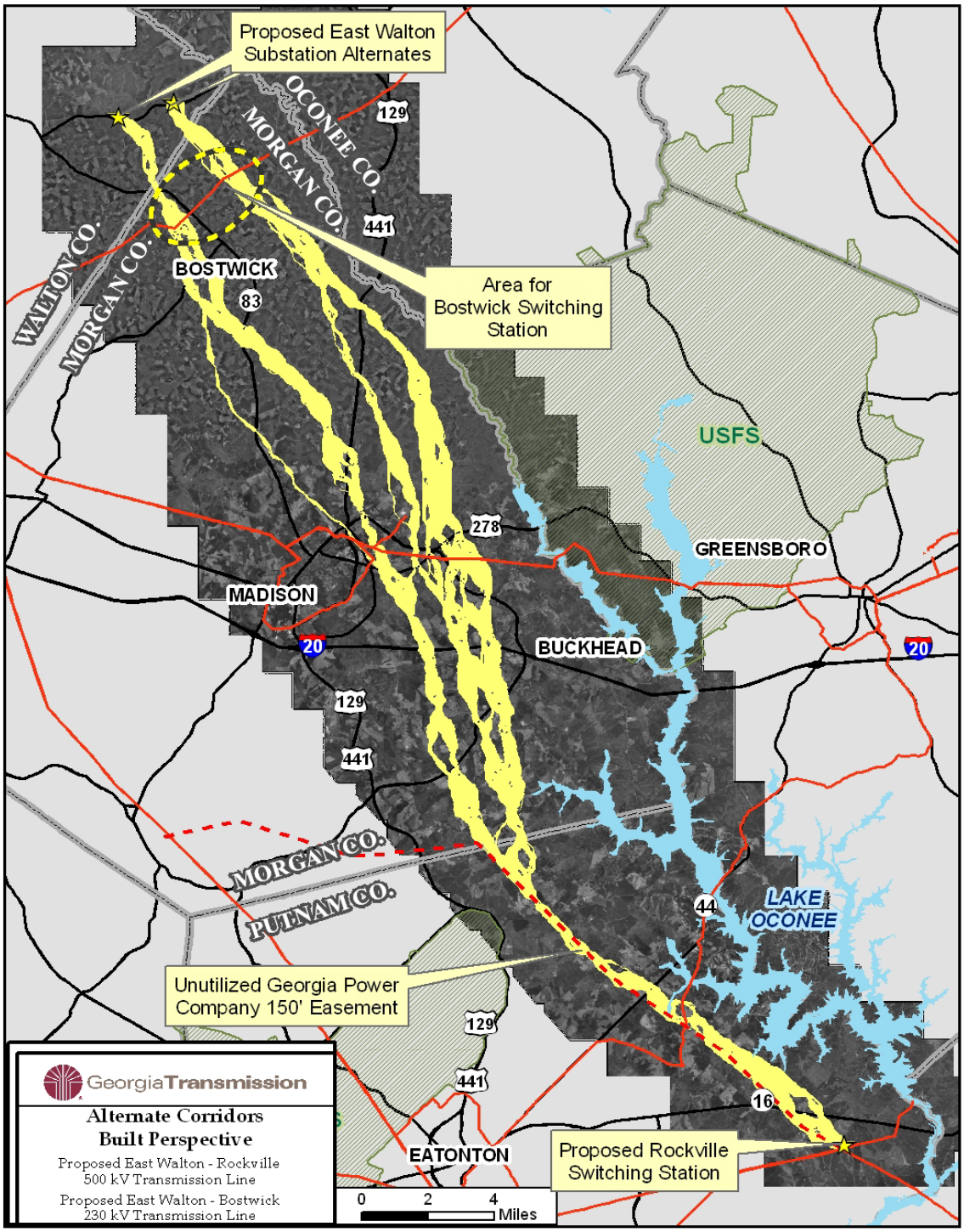


Figure C-2 - East Walton-Rockville 500 kV Transmisison Line & Bostwick – East Walton 230 kV Transmission Line
Environmental Perspective Corridors

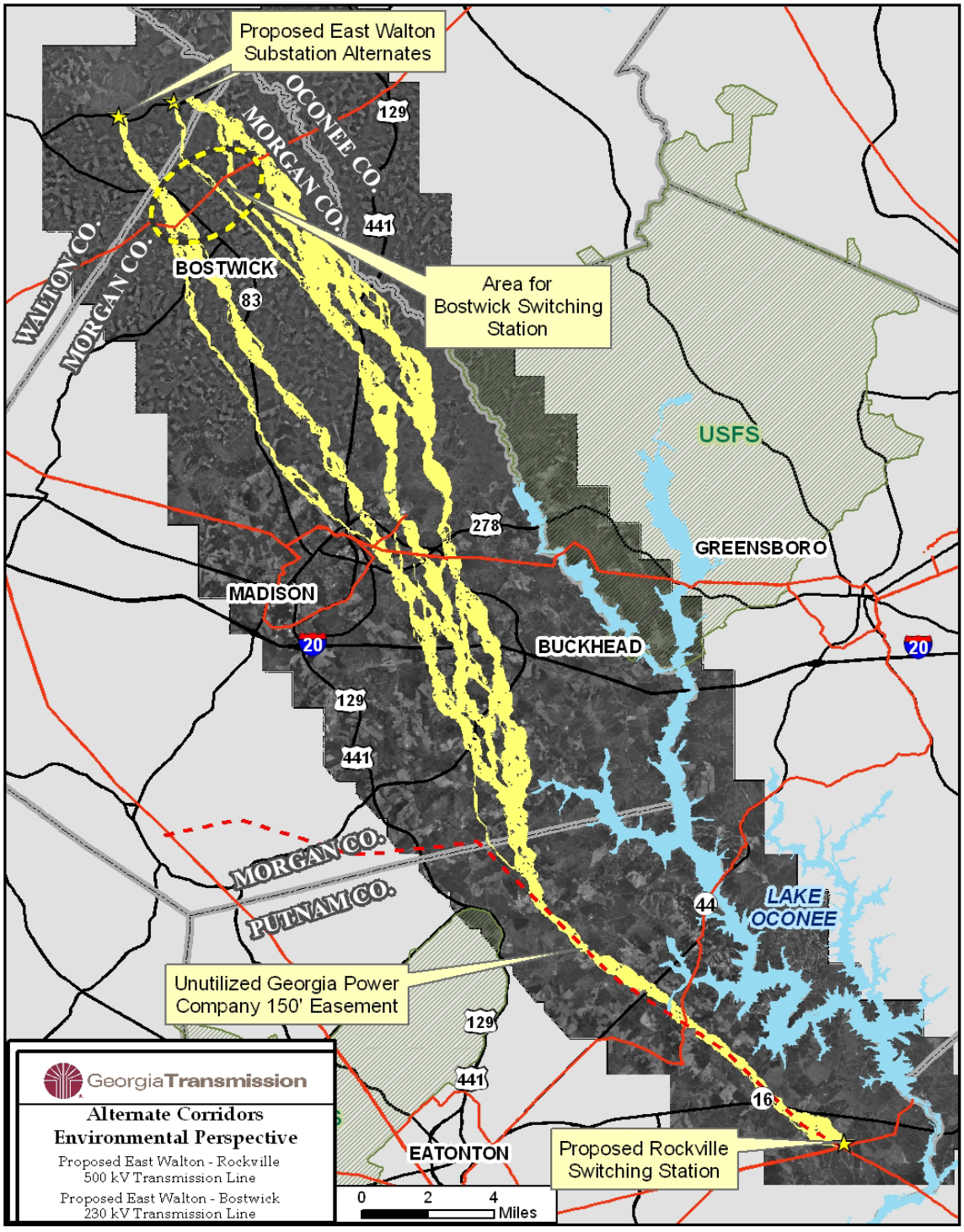


Figure C-3 - East Walton-Rockville 500 kV Transmission Line & Bostwick – East Walton 230 kV Transmission Line
Engineering Perspective Corridors

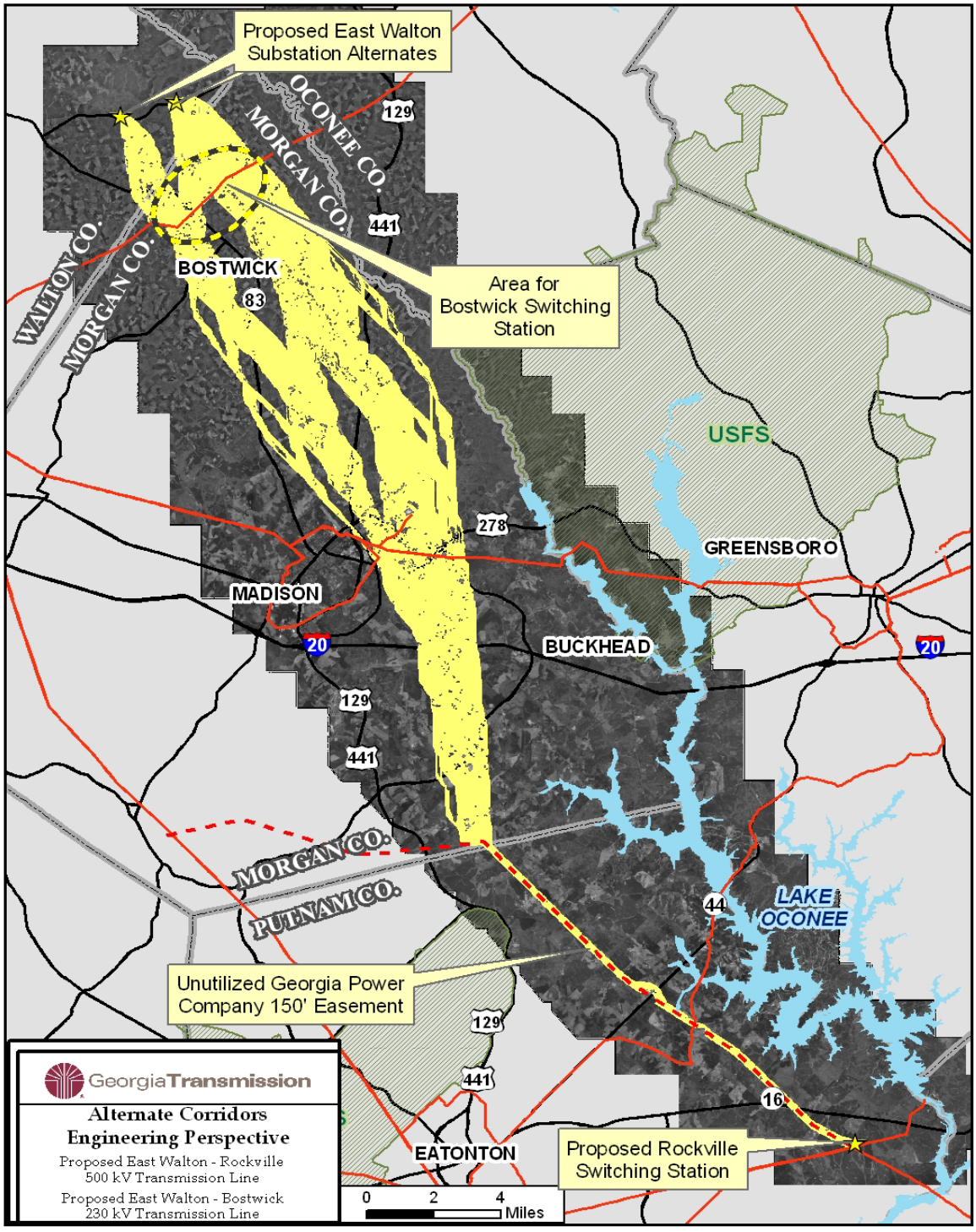


Figure C-4 - East Walton-Rockville 500 kV Transmission Line and Bostwick – East Walton 230 kV Transmission Line
Simple Average Perspective Corridors

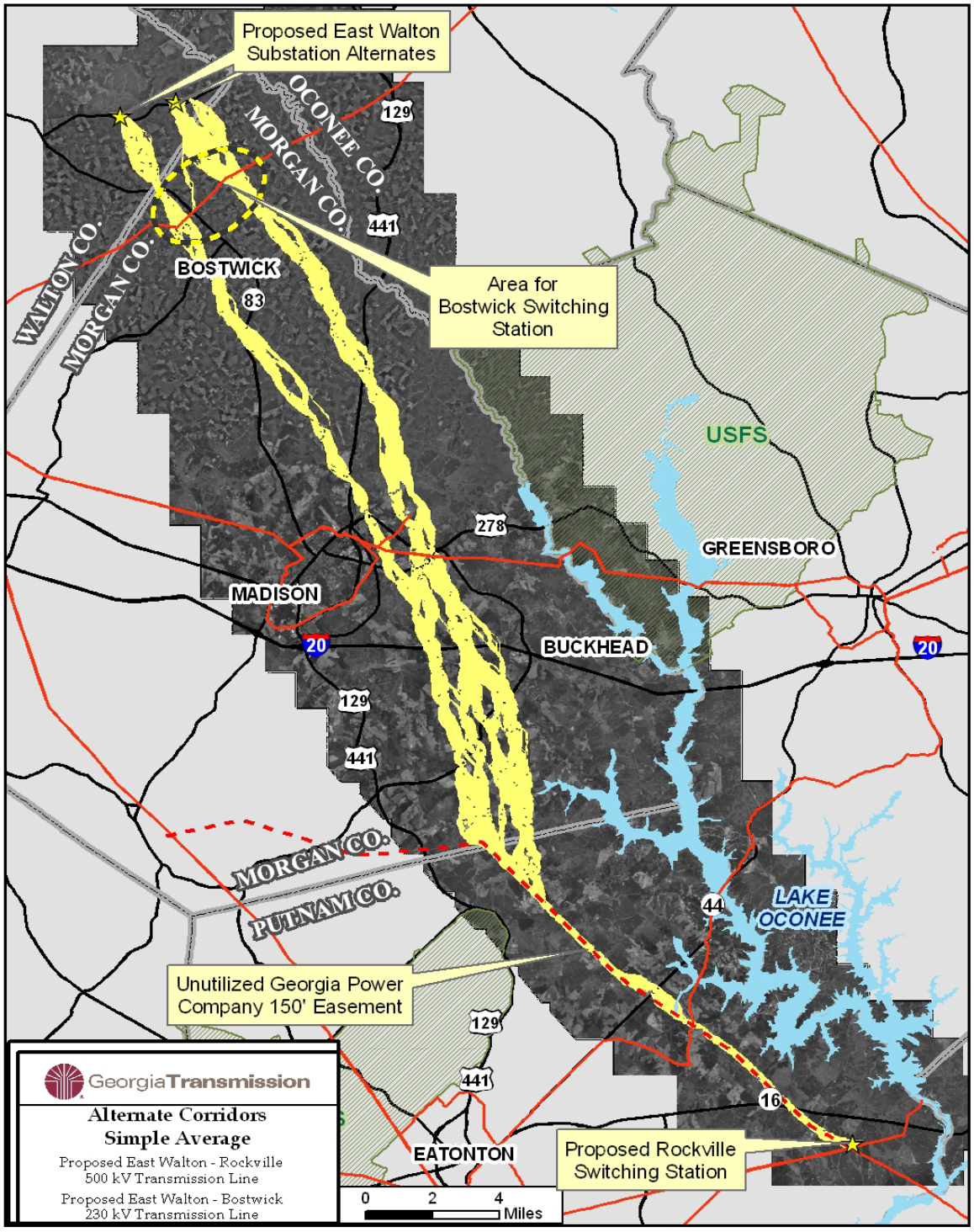


Figure C-5 - East Walton - Jacks Creek 230 kV Transmission Line
Built Perspective Corridors

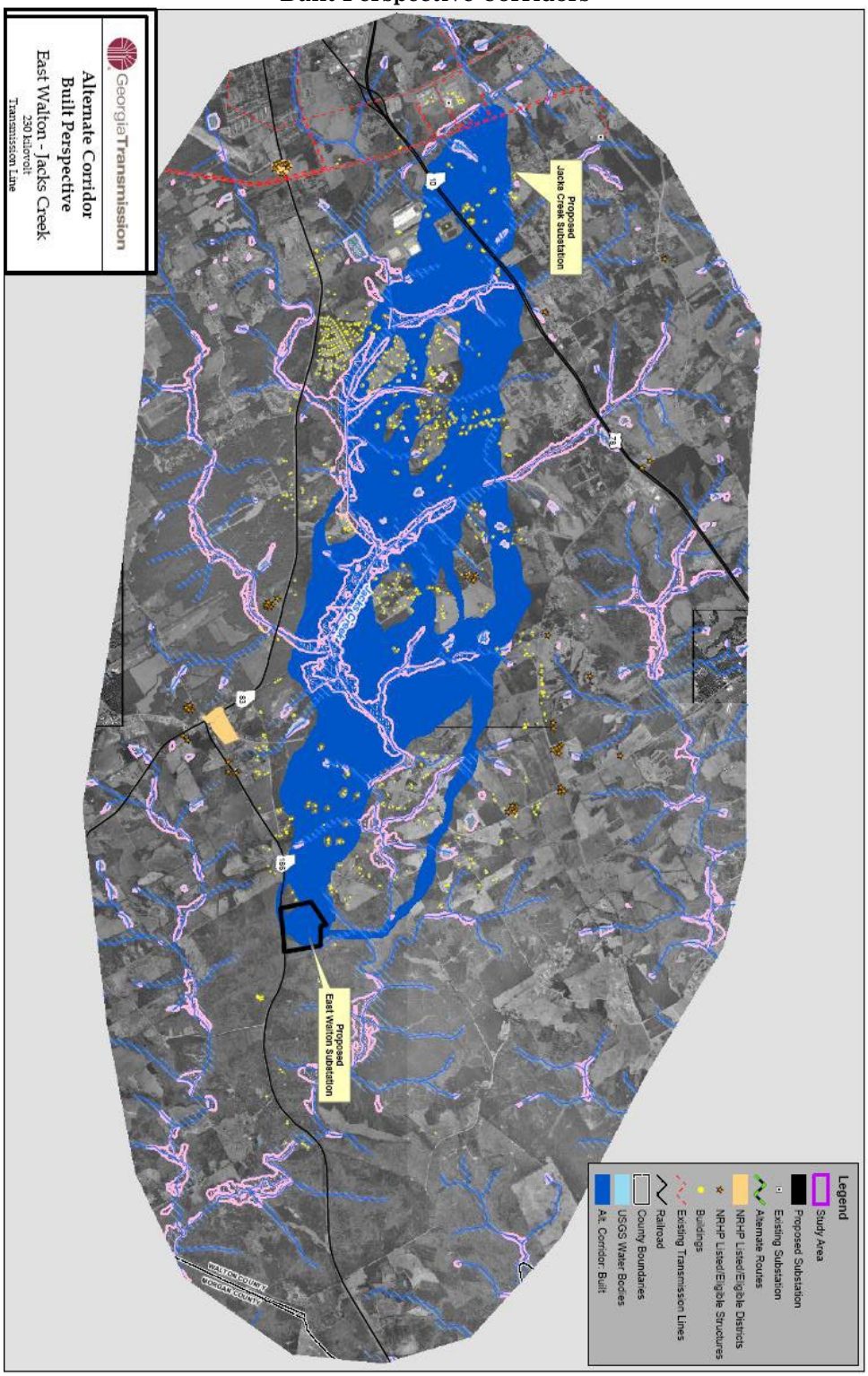


Figure C-6 - East Walton - Jacks Creek 230 kV Transmission Line
Environmental Perspective Corridors

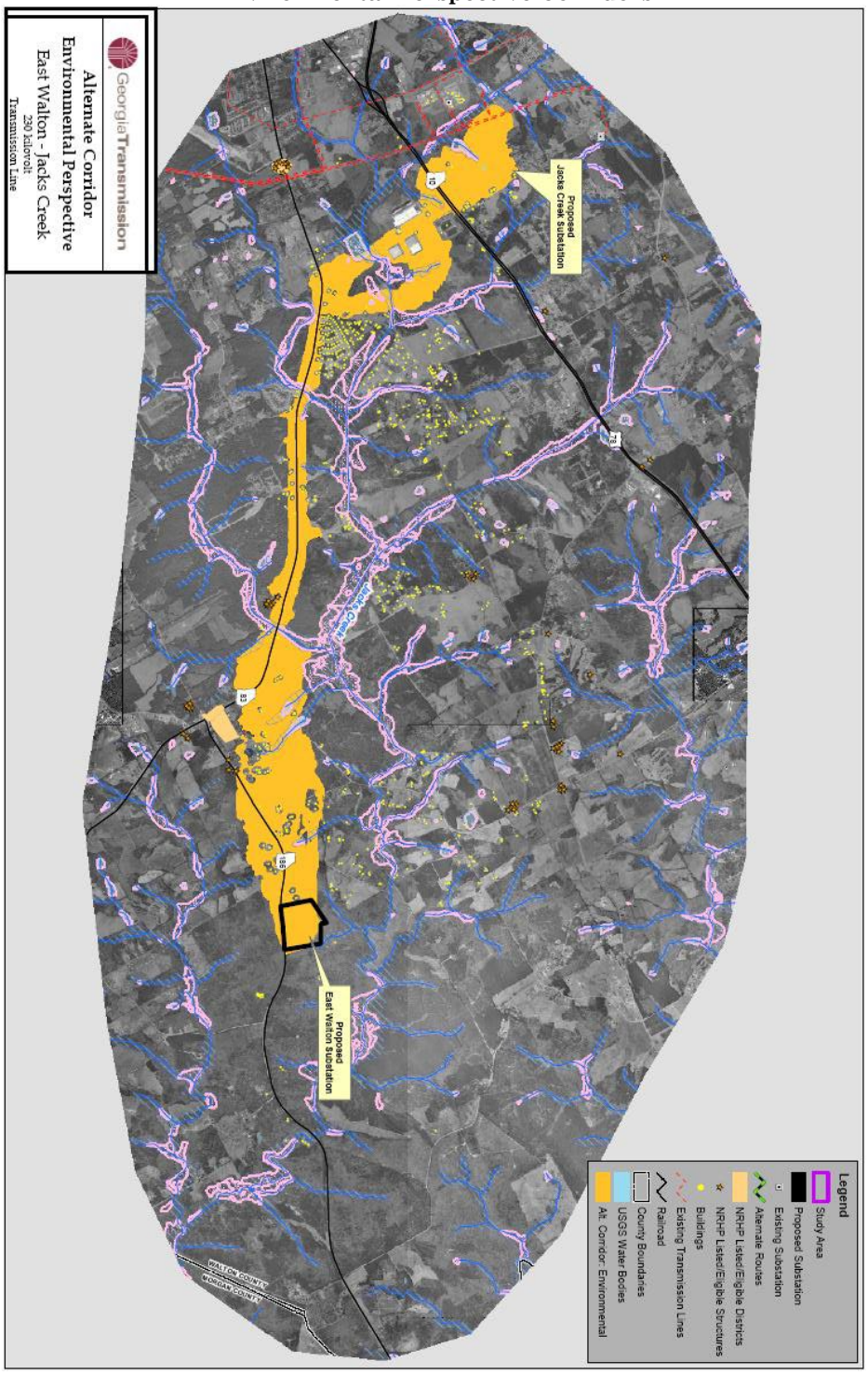


Figure C-7 - East Walton - Jacks Creek 230 kV Transmission Line
Engineering Perspective Corridor

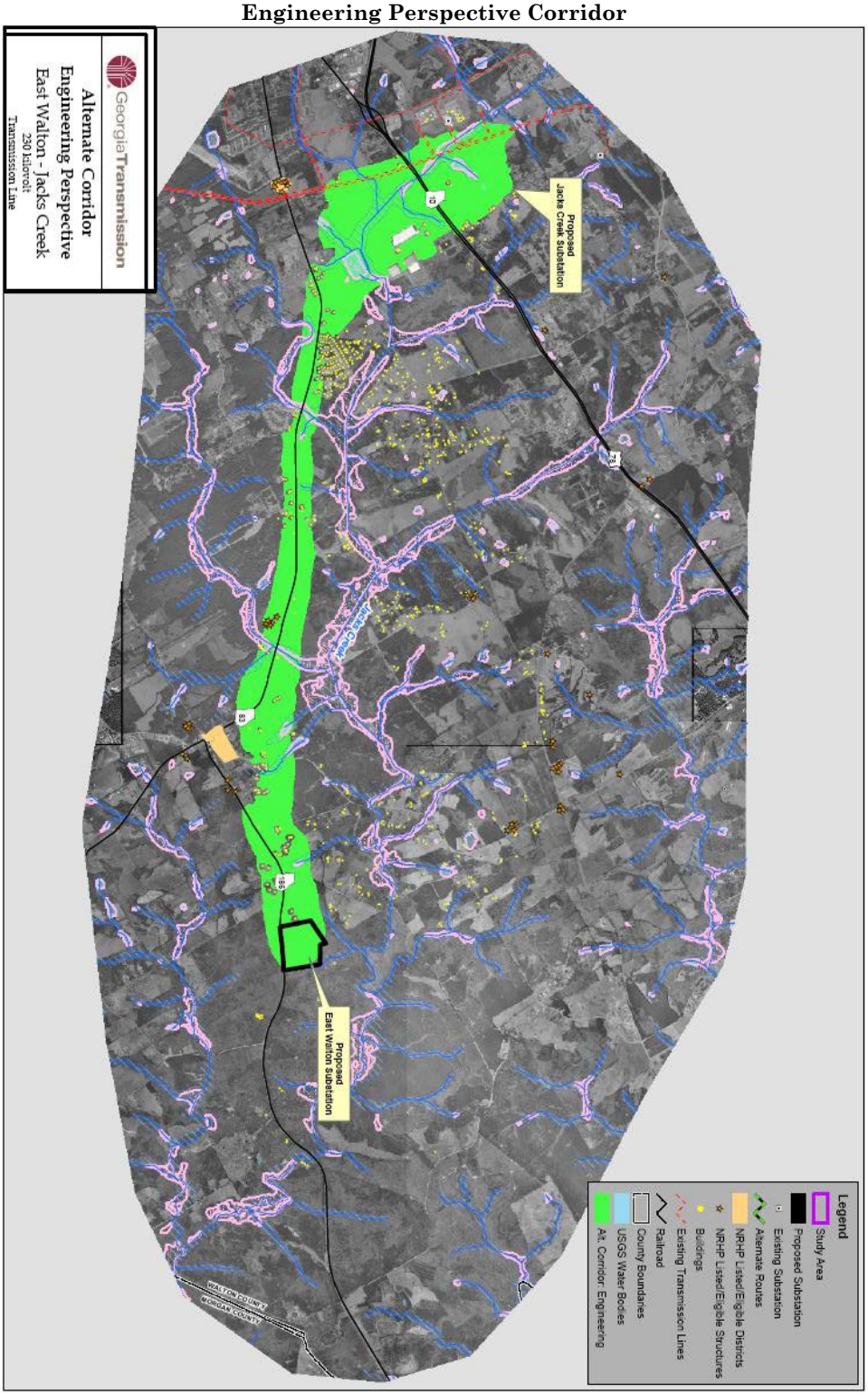


Figure C-8 - East Walton - Jacks Creek 230 kV Transmission Line
Simple Average Perspective Corridor

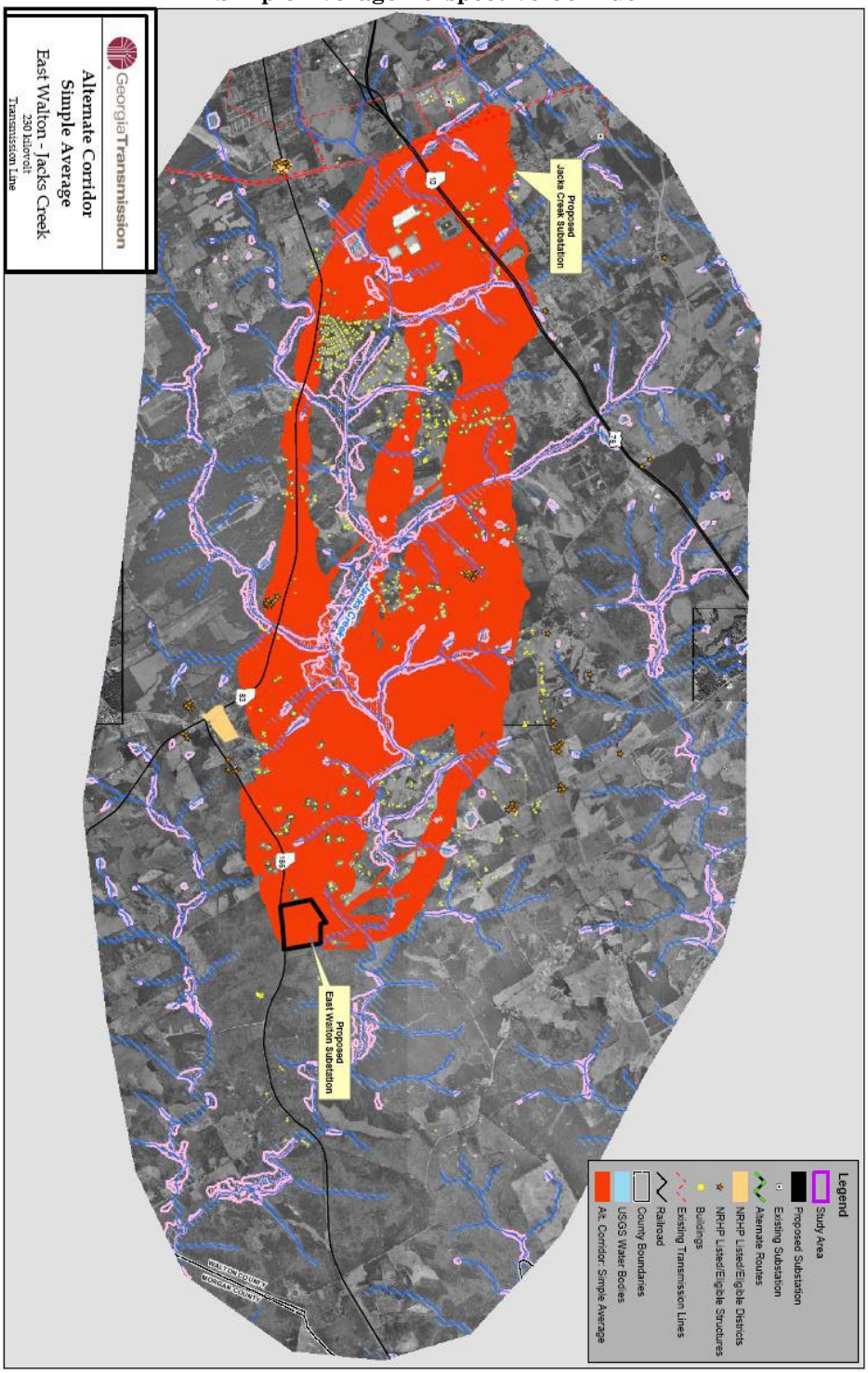


Figure C-9 - Bethabara – East Walton 230 kV Transmission Line
Built Perspective Corridor

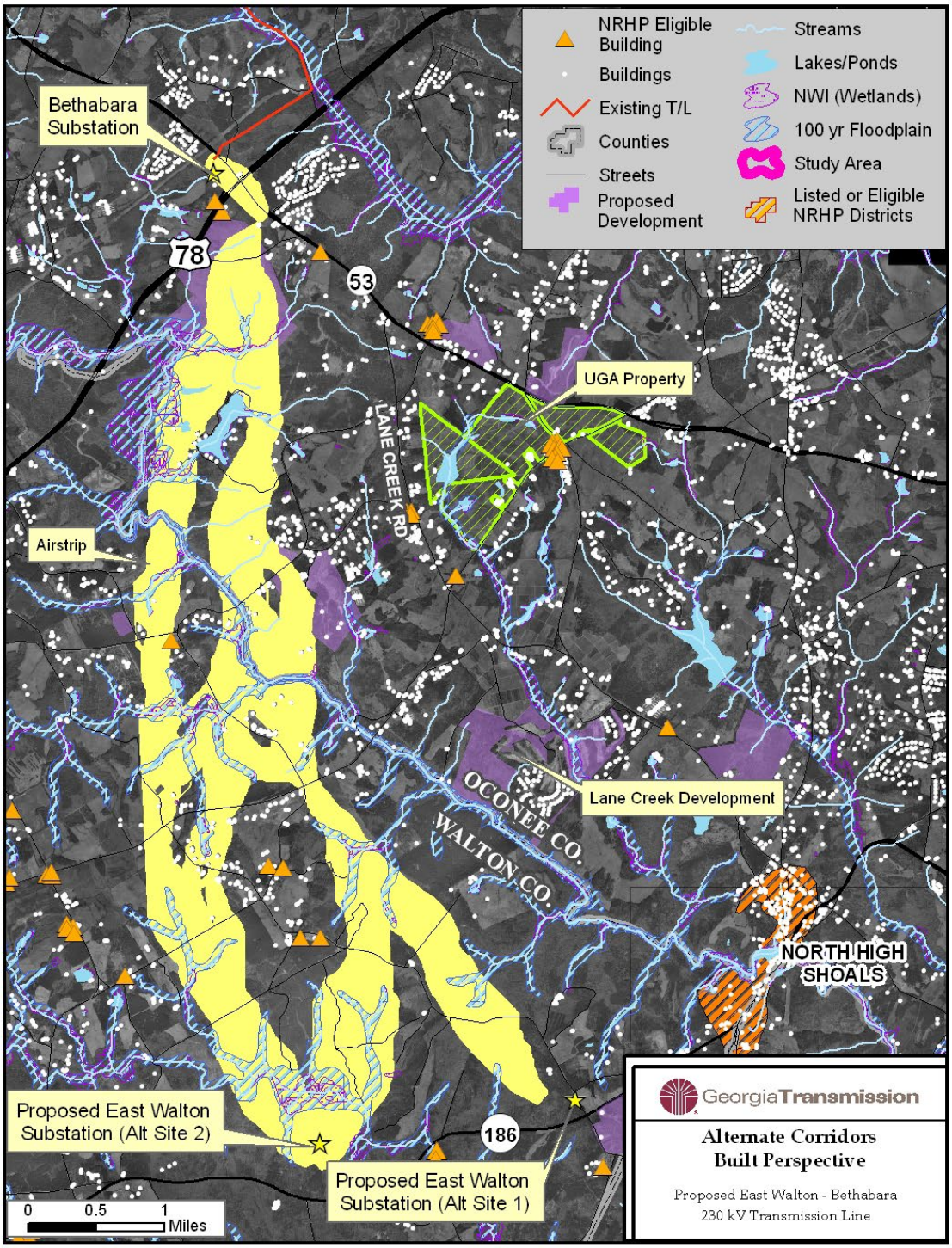


Figure C-10 - Bethabara – East Walton 230 kV Transmission Line
Environmental Perspective Corridor

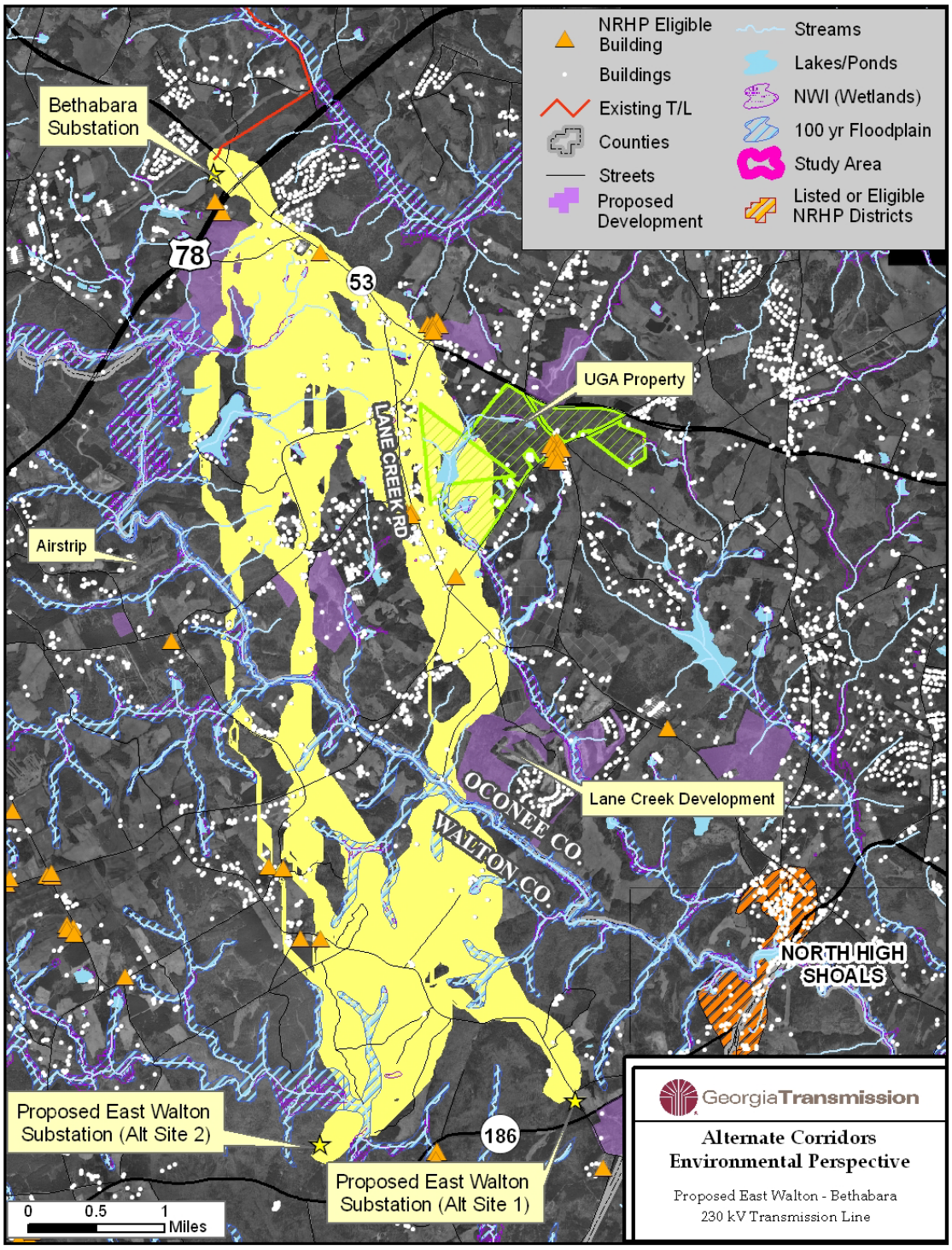


Figure C-11 - Bethabara – East Walton 230 kV Transmission Line
Engineering Perspective Corridors

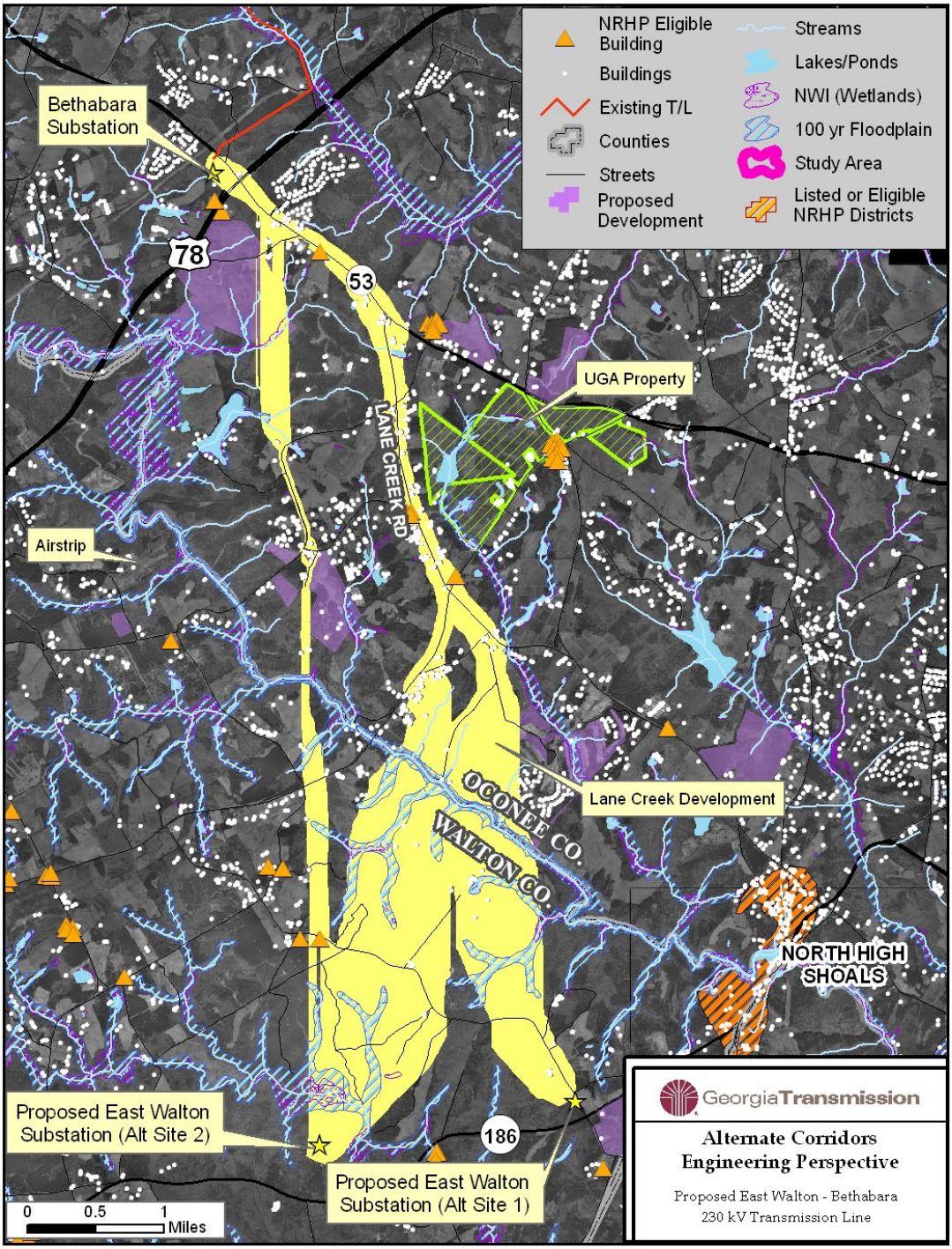
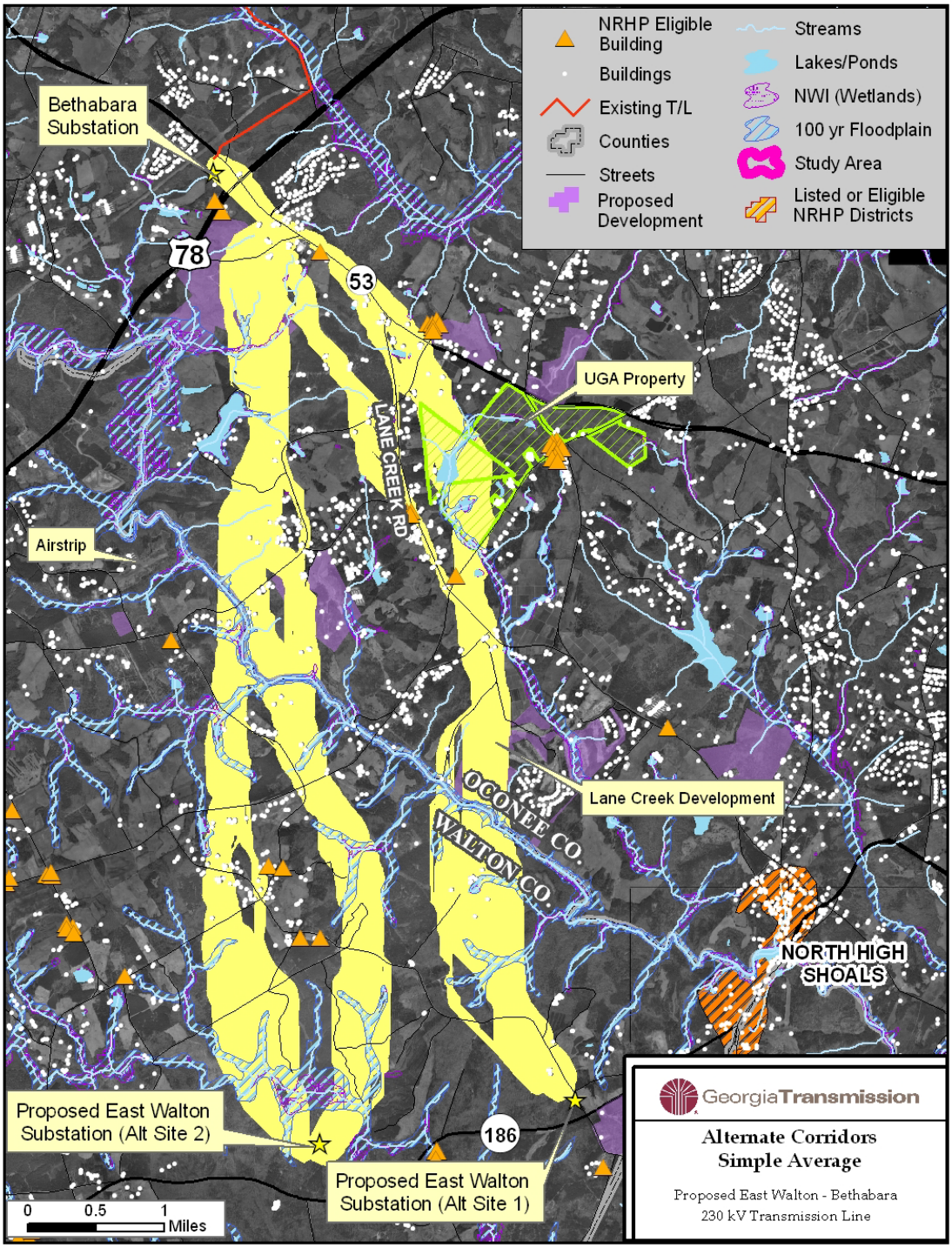


Figure C-12 - Bethabara – East Walton 230 kV Transmission Line
Simple Average Perspective Corridors



D. Development of Alternate Transmission Line Routes

The GTC project team evaluated the alternate corridors between preferred substation sites and delineated practicable route alternatives. Existing corridors, land use patterns, environmental conditions, project cost, and engineering requirements were considered by the project team during the delineation, evaluation, and selection of the preferred route.

East Walton-Rockville 500 kV Transmission Line Alternate Routes

Western and Eastern East Walton-Rockville 500 kV Transmission Line Alternatives
The Western and Eastern Alternative Routes of the East Walton-Rockville 500 kV Transmission Line exit the proposed Rockville 500 kV Switching Station in an existing, vacant ROW. Both Alternatives travel 14.85-miles in a southeast to northwest direction through Putnam County in the existing, vacant ROW.

The proposed Rockville 500 kV Substation would be located 3.0 miles southwest of Walton Dam and 0.4-miles east of the intersection of the existing Scherer-Warthen 500 kV and Eatonton Primary-Walton Dam 230 kV Transmission Lines in Putnam County, Georgia. The proposed East Walton 500/230 kV Substation would be located on the north side of Highway 186 approximately 1.7-miles from Beardon Road (Highway 83).

Both the Western and Eastern East Walton-Rockville 500 kV Transmission Line Alternative Routes cross these roads from south to north: Springs Road, Sparta Road, Long Shoals Lane, Ward Chapel Road, Phoenix Street, Oconee Lake Parkway, Denham Road, Harmony Road, and last the Putnam-Morgan County line. At the county line the route splits into two alternatives.

Western East Walton-Rockville 500 kV Transmission Line Alternative
At the Putnam-Morgan County Line the Western Alternative continues in a northwest direction crossing Cochran and then Enterprise Road. Near the Morgan County Church of Christ, the route crosses Seven Island Road, then turns northeast and crosses Enterprise Road again. The route turns northwest and crosses Bethany Road, Barrow Grove Road and then Little Sugar Creek. Then, the alternative route continues in a north-northwest direction on the east side of Madison, GA for 4.9-miles crossing South Sugar Creek, Sanders Highway, Baldwin Dairy Road, Plainview Road, Buckhead Road and Lower Apalachee Road. North of Madison, GA the route proceeds in a north-northwest direction crossing Highway 44/120/24, Hard Labor Creek, Sandy Creek Road, Howard Tramplin Highway, Fairplay Road, and Peppers Road west of the Bostwick GA Historic District. North of Bostwick, the route crosses Hardeman Mill Road. North of Hardeman Mill Road, the route crosses the East Social Circle-East Watkinsville 230 kV Transmission Line. The proposed Bostwick Switching Station is located on the north side of High Shoals Road approximately 2.2-miles east of this alternative route. The route continues for 5.1-miles, crossing Bostwick Road, Braswell Church Road into Walton County, crosses Indian Creek, Mona Michael Road, and connects to the proposed East Walton 500/230 kV Substation.

The Western Alternative Route is approximately 43.5-miles long. It crosses the hydrology, transportation, and recreation resources listed below. The Western Alternative Route would require the relocation of no (0) houses and no other structures, such as barns or sheds. There are 11 houses within 300 feet of the proposed ROW.

Streams Crossed

- Indian Creek
- Jacks Creek
- Bucks Creek
- Big Branch
- Long Branch
- Hard Labor Creek
- Briar Creek
- Sugar Creek
- South Sugar
- Clarks Fork
- High Log Branch
- Denham Branch
- Rush Creek

Floodplains Crossed

- Indian Creek
- Jacks Creek

Transportation

- SR 186
- SR 129
- US 278
- I-20
- SR 44
- SR 16
- Family Lines Railroad

Eastern East Walton-Rockville 500 kV Transmission Line Alternative

At the Putnam-Morgan County Line the Eastern Alternative Route is east of the Western Alternative Route. The Eastern Alternative continues in a northerly direction crossing Clarks Fork Road, Sugar Creek, Porter Road, Seven Islands Road, Sanders Highway, and passes by the western side of the Buckhead, GA Historic District. North of Buckhead, GA the route turns northwest for 17.2-miles crossing Buckhead Road, Saffold Road, Jefferson Davis Memorial Highway, Lower Apalachee Road, Southern Apalachee Road, Highway 128/44/24, and Price Mill Road, Then the route goes over the existing East Watkinsville-East Social Circle 230 kV Transmission Line and passes the Bostwick Switching Station. Then, it crosses Indian Creek, Braswell Church Road, Mona Michael Road, and connects to the proposed East Walton 500/230 Substation.

The Eastern Alternative Route is approximately 45.8-miles long. It crosses the hydrology, transportation, and recreation resources listed below. The Eastern

Alternative Route would require the relocation of no (0) houses and 1 other structure, such as a barn or shed. There are 27 houses within 300 feet of the proposed ROW.

Streams Crossed

- Indian Creek
- Turkey Creek
- Big Sandy Creek
- Little Sandy Creek
- Hard Labor Creek
- Mile Branch
- North Sugar Creek
- South Sugar Creek
- Little Sugar Creek
- Clarks Fork
- High Leg Branch
- Denham Branch
- Rush Creek

Floodplains Crossed

- Indian Creek

Transportation

- SR 186
- SR 83
- SR 129
- US 278
- I-20
- SR 44
- SR 16
- Family Lines Railroad

Bostwick – East Walton 230 kV Transmission Alternate Routes

Western Bostwick – East Walton 230 kV Transmission Line Alternative

The proposed Bostwick - East Walton 230 kV Transmission Line Western Alternative Route would parallel the proposed East Walton-Rockville 500 kV Transmission Line Western Alternative Route from the Bostwick Switching Station that is located on High Shoals Road at the intersection with the East Walton-Rockville 500 kV eastern alternative route for approximately 5.2-miles to connect to the East Walton 500/230 kV Substation.

The proposed Bostwick - East Walton 230 kV Transmission Line would share a 225-foot ROW with the proposed East Walton-Rockville 500 kV Transmission Line. The Bostwick - East Walton 230 kV Transmission Line Western Alternative Routes would cross some of the same streams and roads as the proposed East Walton-Rockville 500 kV Transmission Line Eastern Alternative Route.

The Bostwick - East Walton Western Alternative Route would require an additional 2.15-miles of transmission line parallel to the East Social Circle-East Watkinsville

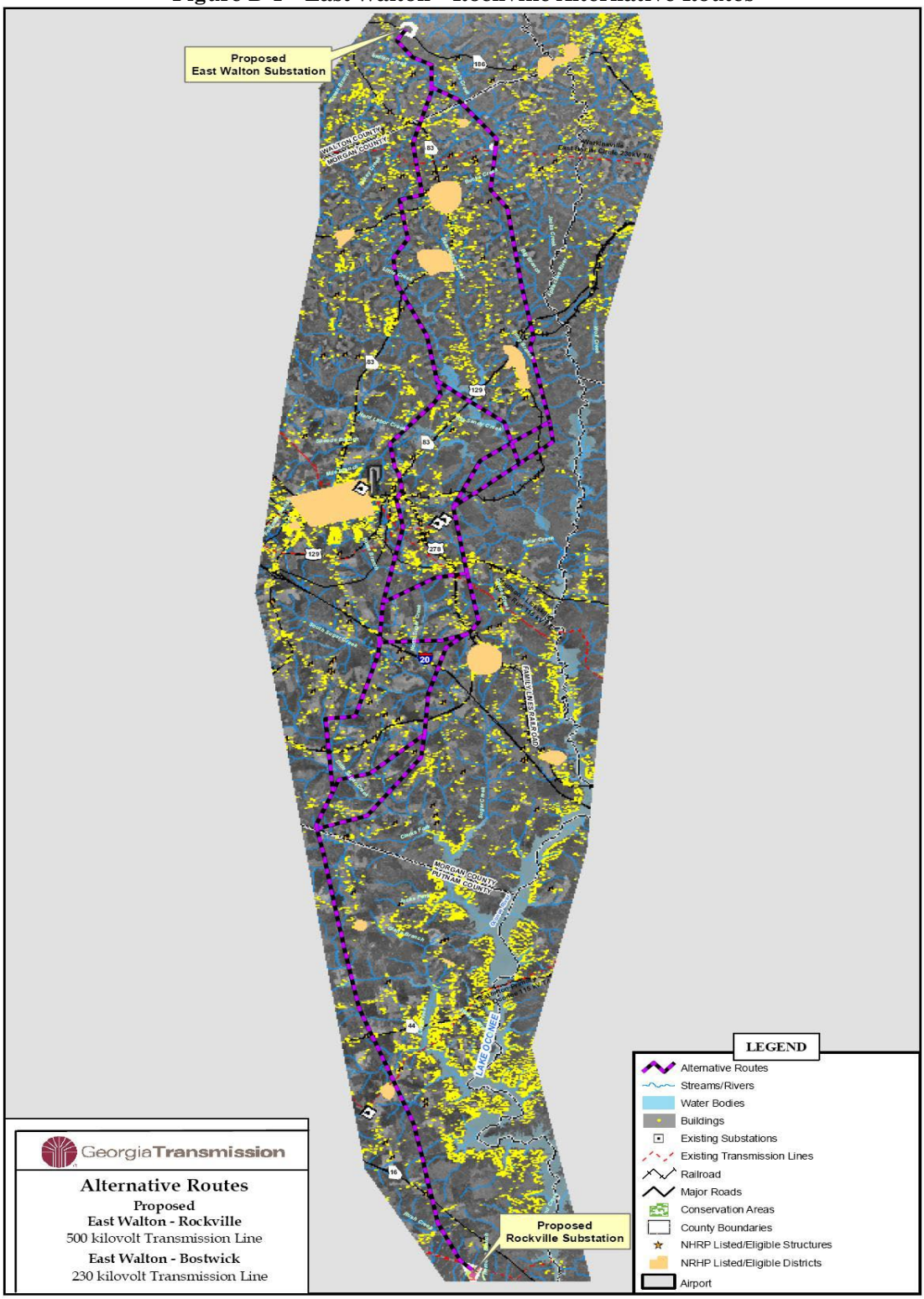
230 kV Transmission Line in order to connect the Bostwick Switching Station to the Bostwick - East Walton 230 kV Transmission Line Western Alternative.

Eastern Bostwick – East Walton 230 kV Transmission Line Alternative

The proposed Bostwick - East Walton 230 kV Transmission Line Eastern Alternative would parallel the proposed East Walton-Rockville 500 kV Transmission Line Eastern Alternative Route from the Bostwick Switching Station that would be located on High Shoals Road at the intersection with the East Walton-Rockville 500 kV Eastern Alternative Route for approximately 5.2-miles to connect to the East Walton 500/230 kV Substation.

The proposed Bostwick - East Walton 230 kV Transmission Line would share a 225-foot ROW with the proposed East Walton-Rockville 500 kV Transmission Line. The Bostwick - East Walton 230 kV Transmission Line Eastern Alternative Route would cross some of the same streams and roads as the proposed East Walton-Rockville 500 kV Transmission Line Eastern Alternative Route.

Figure D-1 – East Walton – Rockville Alternative Routes



East Walton-Jacks Creek 230 kV Transmission Line Alternative

The proposed East Walton-Jacks Creek 230 kV Transmission Line Alternative Routes all exit the East Walton 500/230 kV Substation to the north. The proposed alternative route immediately turns west for 1.3-miles crossing Jim Edmonson Road. About 1,600-feet west of Jim Edmonson Road the Alternative Route splits into two routes.

Northern East Walton-Jacks Creek 230 kV Transmission Line Alternative

The proposed Northern Alternative Route continues cross-country for approximately 1.9-miles passing north of two ponds and south of a large wetland system associated with Jacks Creek. Then the Northern Alternative Route connects with Highway 83 and runs parallel to State Highway 83 for 3.9-miles until it connects with the proposed Jacks Creek Substation. The proposed Jacks Creek Substation would be built by MEAG on MEAG owned property on Old Atlanta Highway.

The proposed Northern Alternative Route is approximately 7.8-miles long. It crosses the hydrology, transportation, and recreation resources listed below. The Northern Alternative Route would require the relocation of no (0) houses and 1 other structure, such as a barn or shed. There are 28 houses within 300 feet of the proposed ROW.

Streams Crossed

- Jacks Creek
- Grubby Creek

Floodplains Crossed

- Jacks Creek
- Grubby Creek

Transportation

- SR 83
- SR 78

Central East Walton-Jacks Creek 230 kV Transmission Line Alternative

The proposed Central Alternative Route continues cross-country for 0.85-miles. This section is located 1,350-feet north of Good Hope Road and 550-feet south of the two ponds. On the western side of the ponds, the Central Alternative Route turns northwest for about 0.35-miles. Then the alternative route turns southeast for 0.5-miles until it connects with Highway 83. From there the Central Alternative Route is the same as the Northern Alternative Route. It parallels State Highway 83 to MEAG's proposed Jacks Creek 230 kV Switching Station.

The proposed Central Alternative Route is approximately 7.7-miles long. It crosses the hydrology, transportation, and recreation resources listed in the table on the next page. The Central Alternative Route would require the relocation of no (0) houses and 1 other structures, such as a barn or shed. There are 32 houses within 300 feet of the proposed ROW.

Streams Crossed

- Jacks Creek

- Grubby Creek

Floodplains Crossed
- Jacks Creek
- Grubby Creek

Transportation
- SR 83
- SR 78

Southern East Walton-Jacks Creek 230 kV Transmission Line Alternative

The proposed Southern Alternative Route continues cross-country for 1.9-miles. This section is also located 350 feet north of Good Hope Road and 550-feet south of the two ponds. On the western side of the ponds, the Southern Alternative Route continues southeast for 0.25 miles until it connects with Highway 83. From there the Southern Alternative Route is the same as the Northern and Central Alternative Routes. It parallels State Highway 83 to MEAG's proposed Jacks Creek Substation.

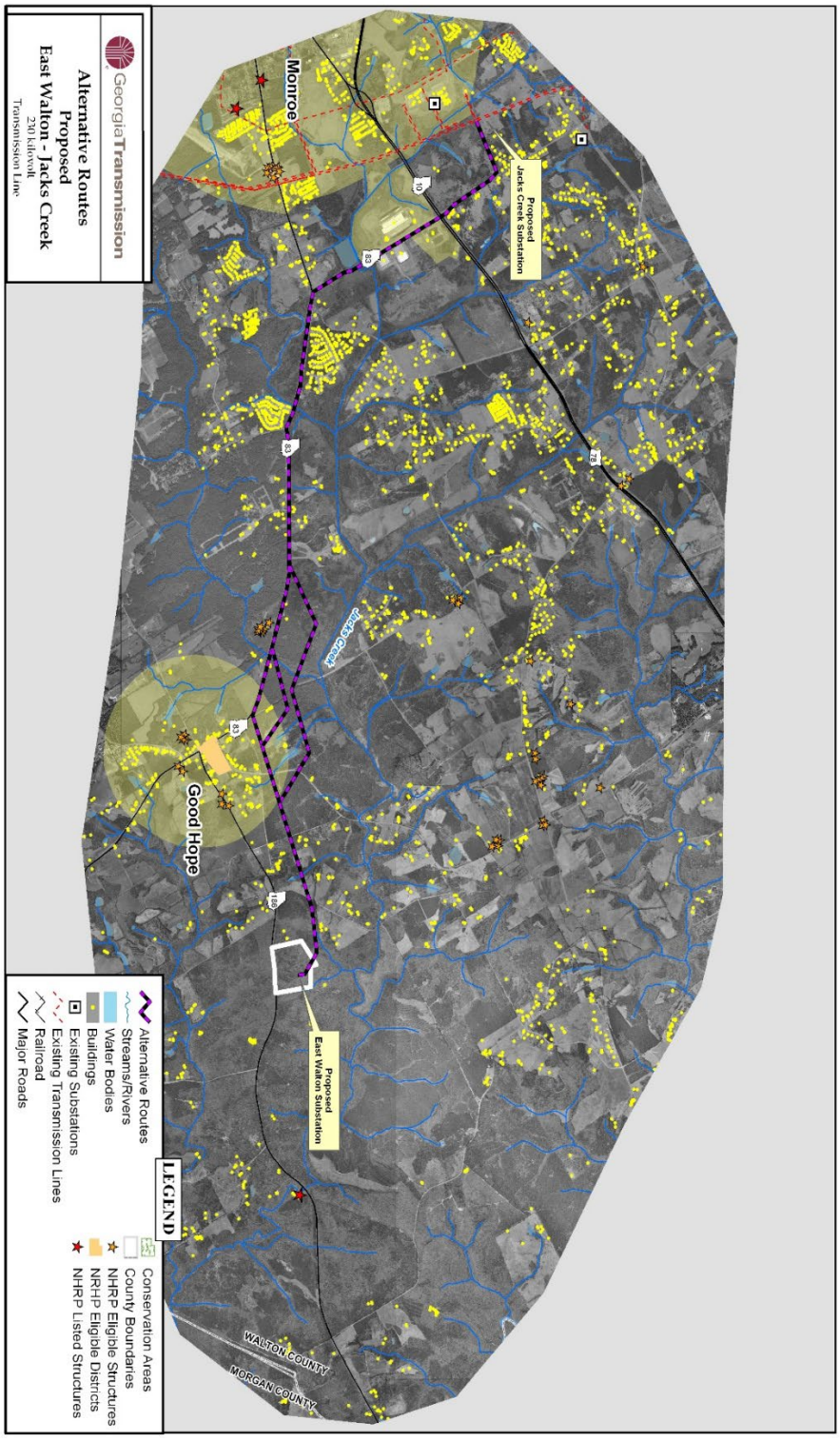
The proposed Southern Alternative Route is approximately 7.65-miles long. It crosses the hydrology, transportation and recreation resources listed below. The Southern Alternative Route would require the relocation of no (0) houses and 1 other type of structure, such as a barn or shed. There are 34 houses within 300 feet of the proposed ROW.

Streams Crossed
- Jacks Creek
- Grubby Creek

Floodplains Crossed
- Jacks Creek
- Grubby Creek

Transportation
- SR 83
- SR 78

Figure D-2 – East Walton – Jacks Creek Alternate Routes



Bethabara - East Walton 230 kV Transmission Line Alternative Routes

The proposed Bethabara - East Walton 230 kV Transmission Line Route exits the proposed East Walton 500/230 kV Substation to the north for 0.8-miles. Then the proposed route turns northeast following George Laboon Road for 1.7-miles. At this point the proposed route splits into four separate alternative routes.

Route A - Bethabara - East Walton 230 kV Transmission Line Alternative

The proposed Bethabara - East Walton 230 kV Transmission Line Alternative Route A continues in a northeasterly direction for 2.2-miles. Then the route turns north for a short distance where it connects with Route B at Peacock Drive. Alternative Route A crosses the Apalachee River and a few large properties.

The proposed Bethabara - East Walton 230 kV Transmission Line Alternative Route A is approximately 11.6-miles long. It crosses the hydrology, transportation, and recreation resources listed below. Alternative Route A would require the relocation of 1 house and 2 other structure types, such as barns or sheds. There are 45 houses within 300 feet of the proposed ROW.

River and Streams Crossed

- Apalachee River
- Jacks Creek
- Lane Creek
- Rocky Branch

Floodplains Crossed

- Apalachee River
- Jacks Creek
- Lane Creek
- Rocky Branch

Transportation

- GA 53-Hog Mountain Road
- GA 10/US 78 – Monroe Highway

Route B - Bethabara - East Walton 230 kV Transmission Line Alternative

The proposed Bethabara - East Walton 230 kV Transmission Line Alternative Route B leaves Laboon Road and continues in a northeasterly direction until it crosses the Apalachee River. Then, Alternative Route B continues in a northeast direction until it reaches Peacock Drive and connects with Alternative Route A.

Both Alternative Routes A and B continue on the same route from Peacock Drive to Cole Springs Road for approximately 0.5-miles where the routes connect with Alternative Route C at Rodgers Road.

The proposed Bethabara - East Walton 230 kV Transmission Line Alternative Route B is approximately 12-miles long. It crosses the hydrology, transportation, and

recreation resources listed below. Alternative Route B would require the relocation of 1 house and 2 other structure types, such as barns or sheds. There are 46 houses within 300 feet of the proposed ROW.

River and Streams Crossed
- Apalachee River
- Jacks Creek
- Rocky Branch
- Land Creek

Floodplains Crossed
- Apalachee River
- Jacks Creek
- Rocky Branch
- Lane Creek

Transportation
- GA 53 – Hog Mountain Road
- GA 10/US 78 – Monroe Highway

Route C - Bethabara - East Walton 230 kV Transmission Line Alternative

The proposed Bethabara - East Walton 230 kV Transmission Line Alternative Route C leaves Laboon Road and continues in a northwesterly direction across three large parcels and the Apalachee River. Then Alternative Route C crosses the planned Phase 5 of Lane Creek Subdivision and Golf Club, which is now constructed. The route goes in a northerly direction on Rodgers Road for 0.3-miles to the intersection of Rodgers Road with Snows Mill Road.

The proposed Bethabara - East Walton 230 kV Transmission Line Alternative Route C is approximately 9.7-miles long. It crosses the hydrology, transportation, and recreation resources listed below. The Alternative Route C would require the relocation of 1 house and 1 other structure type, such as a barn or shed. There are 30 houses within 300 feet of the proposed ROW.

Rivers and Streams Crossed
- Apalachee River
- Jacks Creek
- Rocky Branch
- Lane Creek

Floodplains Crossed
- Apalachee River
- Jacks Creek
- Rocky Branch
- Lane Creek

Transportation
- GA 53 – Hog Mountain Road
- GA 10/US 78 – Monroe Highway

Route D - Bethabara - East Walton 230 kV Transmission Line Alternative

The proposed Bethabara - East Walton 230 kV Transmission Line Alternative Route

D leaves Laboon Road and turns north for 1.4-miles to Snow's Mill Road. It turns northeast and crosses the Apalachee River leaving Walton County and entering Oconee County. Alternative Route D parallels Snow's Mill Road and the existing electric distribution transmission line. The route turns onto Rodgers Road and parallels the road and existing transmission lines to State Highway 53 (Hog Mountain Road).

The proposed Bethabara - East Walton 230 kV Transmission Line Alternative Route D is approximately 10.1-miles long. It crosses the hydrology, transportation and recreation resources listed below. Alternative Route D would require the relocation of 1 house and 2 other structure types, such as barns or sheds. There are 47 houses within 300 feet of the proposed ROW.

All four Alternative Routes converge on Rodgers Road and continue as one route on Lane Creek Road to Highway 53 (Hog Mill Road). Then, the one combined route turns west on Highway 53 and connects to the Bethabara 230 kV Substation.

River and Streams Crossed

- Apalachee River
- Streams Crossed
- Jacks Creek
- Lane Creek
- Rocky Branch
-

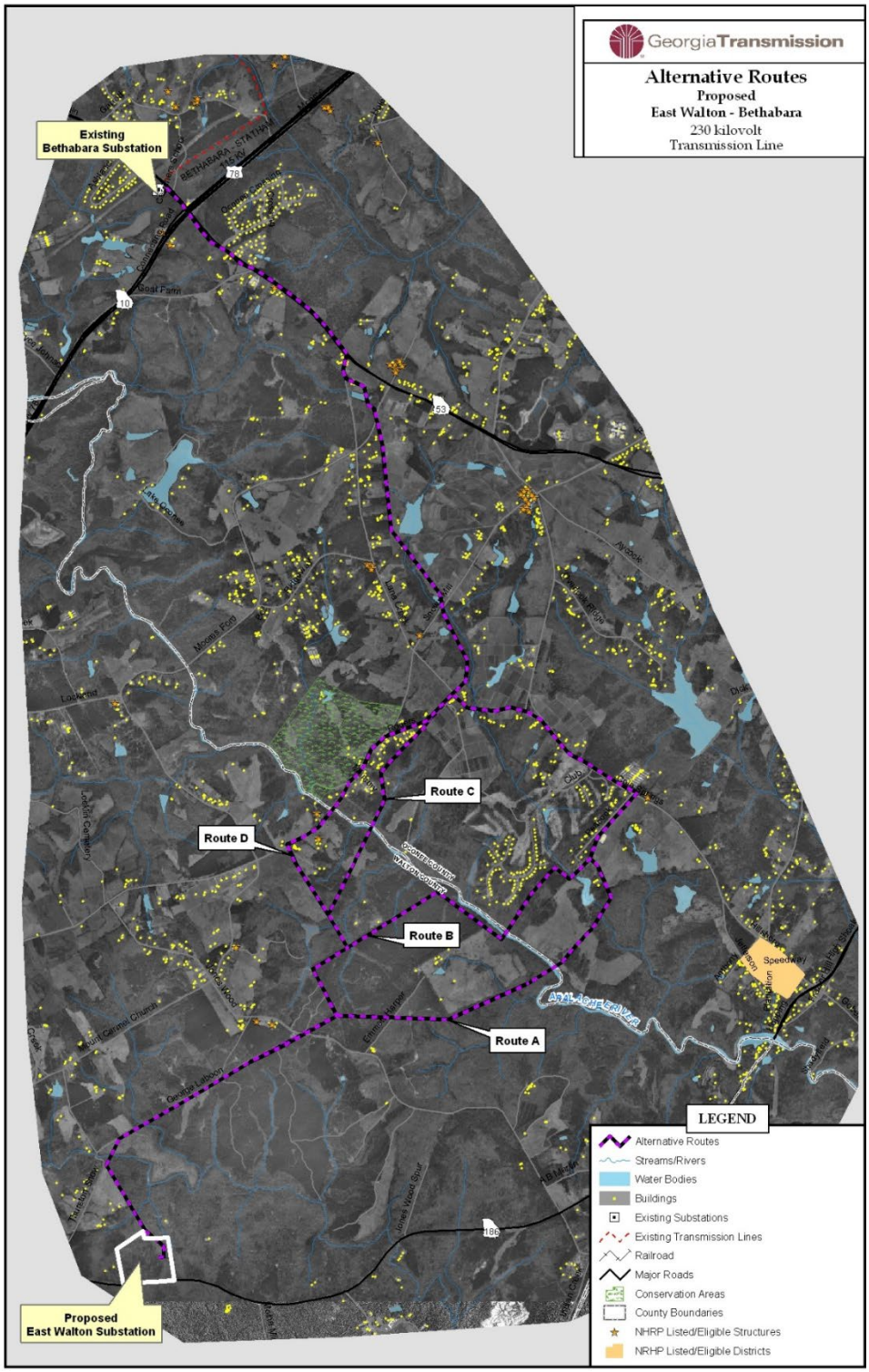
Floodplains Crossed

- Apalachee River
- Jacks Creek
- Lane Creek
- Rocky Branch

Transportation

- GA SR 53 – Hog Mountain Road
- GA SR 10/US 78 – Monroe Highway

Figure D-3 – Bethabara – East Walton Alternate Routes



E. Preferred Route Selection

Preferred East Walton-Rockville 500 kV Transmission Line

The preferred East Walton-Rockville 500 kV Transmission Line Route is the Eastern Alternative Route described in the previous section. The Eastern Alternative Route exits the proposed Rockville 500 kV Substation in an existing, vacant ROW and travels approximately 15-miles in the existing vacant ROW through Putnam County to the Putnam-Morgan County line.

The proposed Rockville 500 kV Substation would be located 3.0-miles southwest of Walton Dam and 0.4-miles east of the intersection of the existing Scherer-Warthen 500 kV and Eatonton Primary-Wallace Dam 230 kV Transmission Lines in Putnam County, Georgia. The proposed East Walton 500/230 kV Substation would be located on the north side of Highway 186 approximately 1.7-miles from Beardon Road (Highway 83).

The preferred route crosses the following roads from the proposed Rockville Substation to the Putnam-Morgan County Line: Springs Road, Sparta Road, Long Shoals Lane, Ward Chapel Road, Phoenix Street, Oconee Lake Parkway, Denham Road, and Harmony Road.

At the Putnam-Morgan County Line, the preferred Eastern Alternative Route continues in a northerly direction crossing Clarks Fork Road, Little Sugar Creek, Porter Road, Seven Islands Road, Sanders Highway (I20), and it passes by the western side of the Buckhead, GA Historic District. North of Buckhead, GA, the route turns northwest for 3.8-miles crossing Buckhead Road, Saffold Road, Jefferson Davis Memorial Highway, Lower Apalachee Road, Southern Apalachee Road, Highway 128/44/24, and Price Mill Road. Then the route goes over the existing East Watkinsville-East Social Circle 230 kV Transmission Line and passes the Bostwick Switching Station. Next, it crosses Indian Creek, Braswell Church Road, Mona Michael Road, and connects to the proposed East Walton 500/230 Substation.

The preferred East Walton-Rockville 500 kV Transmission Line Eastern Alternative Route is approximately 50-miles long. The Eastern Alternative Route would require the relocation of no (0) houses and 4 other structure types, such as barns or sheds. There are 10 houses within 300-feet of the proposed ROW.

The 51.98-mile route was selected as the preferred route for the following reasons:
The majority of the preferred route crosses rural portions of Putnam, Morgan, and Walton Counties.

- The preferred route is the shortest route
- The preferred route is in the vicinity of the least houses
- The preferred route would not require the relocation of any residencies
- The preferred route would minimize effects to Cultural Resources
- The preferred route has the least environmental and community impacts

The preferred route would occupy a 150-foot ROW. The towers would range in height from

90 - 180 feet above the ground. The environmental studies provided in this Environmental Assessment and associated documents support the location and construction of the East Walton-Rockville 500 kV Transmission Line.

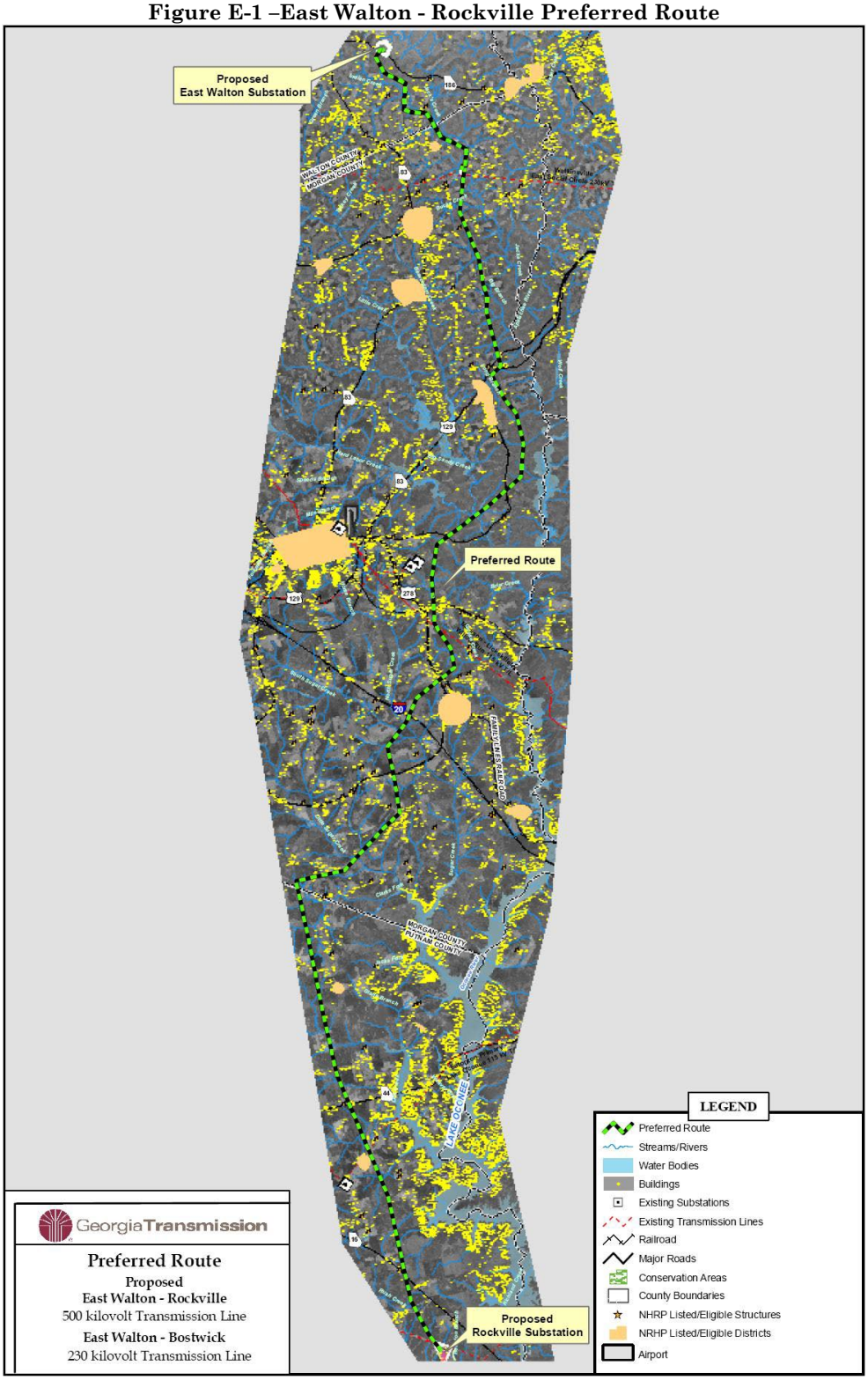
Preferred Bostwick - East Walton 230 kV Transmission Line

The preferred Bostwick - East Walton 230 kV Transmission Line Eastern Alternative would parallel the proposed East Walton-Rockville 500 kV Transmission Line Eastern Alternative Route from the Bostwick Switching Station that would be located on High Shoals Road at the intersection with the East Walton-Rockville 500 kV Eastern Alternative Route for approximately 5.2-miles to connect to the East Walton 500/230 kV Substation.

The proposed Bostwick - East Walton 230 kV Transmission Line would share a 225-foot ROW with the proposed East Walton-Rockville 500 kV Transmission Line. The Bostwick - East Walton 230 kV Transmission Line Eastern Alternative Route would cross the same streams and roads as the preferred East Walton-Rockville 500 kV Transmission Line Eastern Alternative Route.

The preferred Bostwick - East Walton 230 kV Transmission Line route would occupy 25-feet of the shared East Walton-Rockville 500 kV Transmission Line 225-foot ROW. The poles would range in height from 90 - 120 feet out-of-ground. The preferred route would have the least impact to the environment and communities in the area. The environmental studies and results provided in this Environmental Assessment support this location and construction of the Bostwick - East Walton 500 kV Transmission Line.

Figure E-1 –East Walton - Rockville Preferred Route



East Walton-Jacks Creek 230 kV Transmission Line

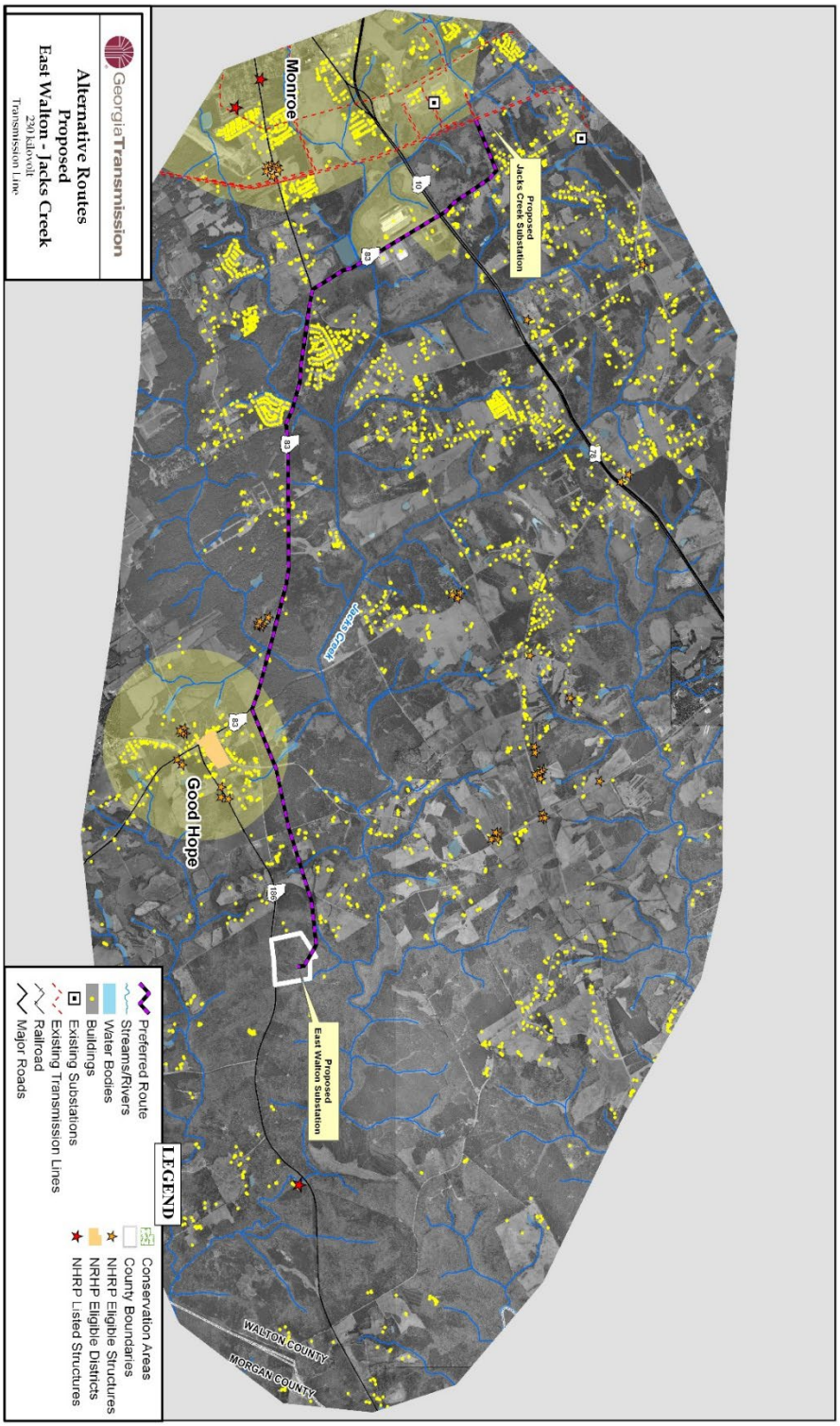
The preferred East Walton-Jacks Creek 230 kV Transmission Line route exits the Jacks Creek 230 kV Switching Station that is located on Old Atlanta Highway, turns south and then east where it follows Highway 83 for 3.3 miles to the intersection of Jacks Creek Road and Good Hope Road. From the intersection of Jacks Creek and Good Hope Roads, the proposed transmission line runs for 2.1-miles cross-country and connects to the proposed East Walton Substation.

The approximately 8.0-mile route was selected as the preferred route for the following reasons:

- The majority of the preferred route parallels SR 83.
- The preferred route is the shortest route
- The preferred route is in the vicinity of the least houses
- The preferred route would not require the relocation of any residencies
- The preferred route would cause No Adverse Effects to Cultural Resources
- The preferred route has the least environmental and community impacts

The preferred route would occupy approximately 6-miles of 30-foot roadside ROW and approximately 2-miles of 100-foot cross-country ROW. The poles would range in height from 70-110-feet out-of-ground. The preferred route would have the least impact to the environment and communities in the area. The environmental studies and results provided in this Environmental Assessment support this location and construction of the East Walton-Jacks Creek Transmission Line.

Figure E-2–East Walton – Jacks Creek Preferred Route



Bethabara - East Walton 230 kV Transmission Line

The preferred Bethabara - East Walton 230 kV Transmission Line exits the proposed East Walton 500/230 kV Substation and travels north to George Laboon Road. Then, the route follows George Laboon Road for 1.4-miles. Next, the route turns northeast until it reaches Snow's Mill Road. It travels along the northeastern edge of Snow's Mill Road until it reaches Rodgers Road. It goes along Rodgers Road and then turns north along Lane Creek for 2.5-miles until it reaches State Highway 53 (Hog Mountain Road). The route parallels Hog Mountain Road for 1.75-miles to connect to the Bethabara 230 kV Substation.

The preferred Bethabara - East Walton 230 kV Transmission Line Eastern Alternative Route is approximately 10-miles long. The Eastern Alternative Route would require the relocation of no (0) homes and 4 other structures, such as barns or sheds. There are 10 homes within 300 feet of the proposed ROW.

The Southern Cross-Country route was selected as the preferred route for the following reasons:

The majority of the preferred 10-mile route crosses rural portions of Walton and Oconee Counties.

- The preferred route is the shortest route.
- The preferred route is in the vicinity of the least houses.
- The preferred route would not require the relocation of any residencies.
- The preferred route would cause No Adverse Effects to Cultural Resources.
- The preferred route has the least environmental and community impacts.

The preferred route would occupy a 100-foot ROW when cross-country and a 30-foot ROW when paralleling a road. The towers would range in height from 70 - 110-feet out-of-ground. The Preferred Route would have the least impact to the environment and communities in the area. The environmental studies and results provided in this Environmental Assessment support this location and construction of the Bethabara - East Walton 230 kV Transmission Line.

Figure E-3 –Bethabara - East Walton Preferred Route