

# LAND MANAGEMENT PLAN

FOR THE

## VOGTLE ELECTRIC GENERATING PLANT



Compiled by

**GEORGIA POWER COMPANY**

**LAND FORESTRY**

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## INTRODUCTION

Vogtle Electric Generating Plant is a nuclear power plant co-owned by Georgia Power Company (a subsidiary of Southern Company), Oglethorpe Power Corporation, Municipal Electric Authority of Georgia, and the city of Dalton. The plant is operated by Southern Nuclear Operating Company. Plant Vogtle is located in the eastern portion of Burke County, Georgia, on the western bank of the Savannah River. The site is about 15 miles east of Waynesboro, Georgia.

The site consists of approximately 3,200 acres. Woodlands comprise approximately 1,800 acres of the site. Prior to construction, the land was primarily farmed for cotton. The majority of the upland acres now consist of pine plantations and pine-hardwood stands. The drains and river bottoms are comprised of mixed hardwood timber.



*Cypress Trees in Preservation Area along River Corridor*



The most recently planted pine stands have been planted in Longleaf Pine. This species is ideally suited to the soil type and topography found in this region. These stands will be un-even aged managed on long rotations. All future plantings will be Longleaf Pine, unless site characteristics dictate the planting of other species.



*Longleaf Pine Plantation*

Plant Vogtle was initially certified in 1993 by the Wildlife Habitat Council (WHC) and was recertified in 1995, 1997, and 2000 through the WHC Corporate Wildlife Habitat Certification Program. This certification was achieved by actively managing the site for wildlife and environmental education. Ecologically sound management practices serve the dual purpose of benefiting wildlife and demonstrating a meaningful, long-term commitment to the environment and the community. Plant Vogtle was nominated for the WHC Site of the Year Award in 1995.

Specific management data pertaining to these stands can be found in the Appendix.



## OBJECTIVES

The primary goal of Georgia Power Company is to manage the Vogtle Electric Generating Plant with emphasis on wildlife management within an economically viable forest while maintaining a commitment to environmental stewardship. This plan will be flexible and is not intended to preclude the collective decision making of the forester and appropriate GPC personnel. Specific timber management objectives are to:

1. Divide Plant Vogtle into manageable compartments according to land features, timber types, and land-use limitations.
2. Identify stands that have potential to be managed to rotation and to implement Timber Stand Improvement (TSI) practices, which will remove inferior trees and enhance the productivity of the residual stand.
3. Develop a timber management activity schedule for each stand with emphasis on generating revenue while improving the quality of growing stock.
4. Salvage any merchantable timber that is damaged due to storms, insects and disease outbreaks, and fire.
5. Protect and enhance threatened and/or endangered species of wildlife and their habitat.
6. Wisely manage water and soil resources, aesthetics, and recreation interests.
7. Generate revenue by harvesting timber, and to reforest cutover areas by natural or artificial means.
8. Coordinate all timber management activities with Southern Nuclear Management and Environmental Affairs personnel.
9. Enhance wildlife conservation practices on Plant Vogtle through the Forestry for Wildlife Partnership (FWP).
10. Provide the interested public, upon request, with information regarding land management of Plant Vogtle.

## THINNING AND HARVESTING OPERATIONS

Thinning will be used as a sound silvicultural method of improving stand quality and increasing light penetration in the pine and pine-hardwood stands. As previously stated, the longleaf pine stands will be un-even aged managed. This type of management allows for periodic selective harvests allowing the stand to regenerate itself rather than the conventional method of a total harvest and planting growing stock. Factors affecting the timing and intensity of this operation will include stand age and condition, timber market prices for the various wood



*Longleaf Pine Uneven-Aged Management*



products, availability of loggers which are skilled at thinning operations, wildlife habitat needs, and aesthetics in sensitive areas.

All timber harvesting on Plant Vogtle will be done in accordance with the Recommended Best Management Practices for Forestry in Georgia and the Best Management Practices for Forested Wetlands in Georgia where applicable. All areas to be harvested will be examined by GPC's environmental experts to ensure compliance of all environmental issues such as wetland and endangered species regulation.

### **PRESCRIBED BURNING**

Prescribed burns will be used in the pine stands on Plant Vogtle to reduce forest floor litter and herbaceous competition, decrease risk of wildfire, insect, and disease problems, facilitate access of management personnel, and to stimulate the growth of the pine stand. Winter burning will be used in these pine stands on an annual to five year cycle as deemed appropriate by Georgia Power foresters. Hardwood stands will be protected from fire damage either by firebreak installation or by timing the burn when leaf-litter moisture in hardwood areas is adequate to prevent fire damage to susceptible species.

## WILDLIFE CONSIDERATIONS

Wildlife management and preservation is of the utmost importance. All timber management regimes are structured to not only preserve wildlife populations on the property, but to promote and enhance these populations for generations to come.

The most common wildlife species are Whitetail Deer, Eastern Wild Turkey, Fox Squirrel, various species of ducks and other waterfowl, and the Gopher Tortoise.

Georgia Power Company's uncompromised commitment to the environment is not only evident in the timber management regimes enacted on this tract but is also readily apparent in the management of game and non-game species on the property.



*Eastern Wild Turkeys Using One of the Many Wildlife Food Plots*



## **PROPERTY LINE MAINTENANCE**

The property lines will be maintained and painted on a five year rotation unless conditions dictate that they be maintained on a shorter rotation. This will be of great benefit to GPC personnel in the management and protection of this property.

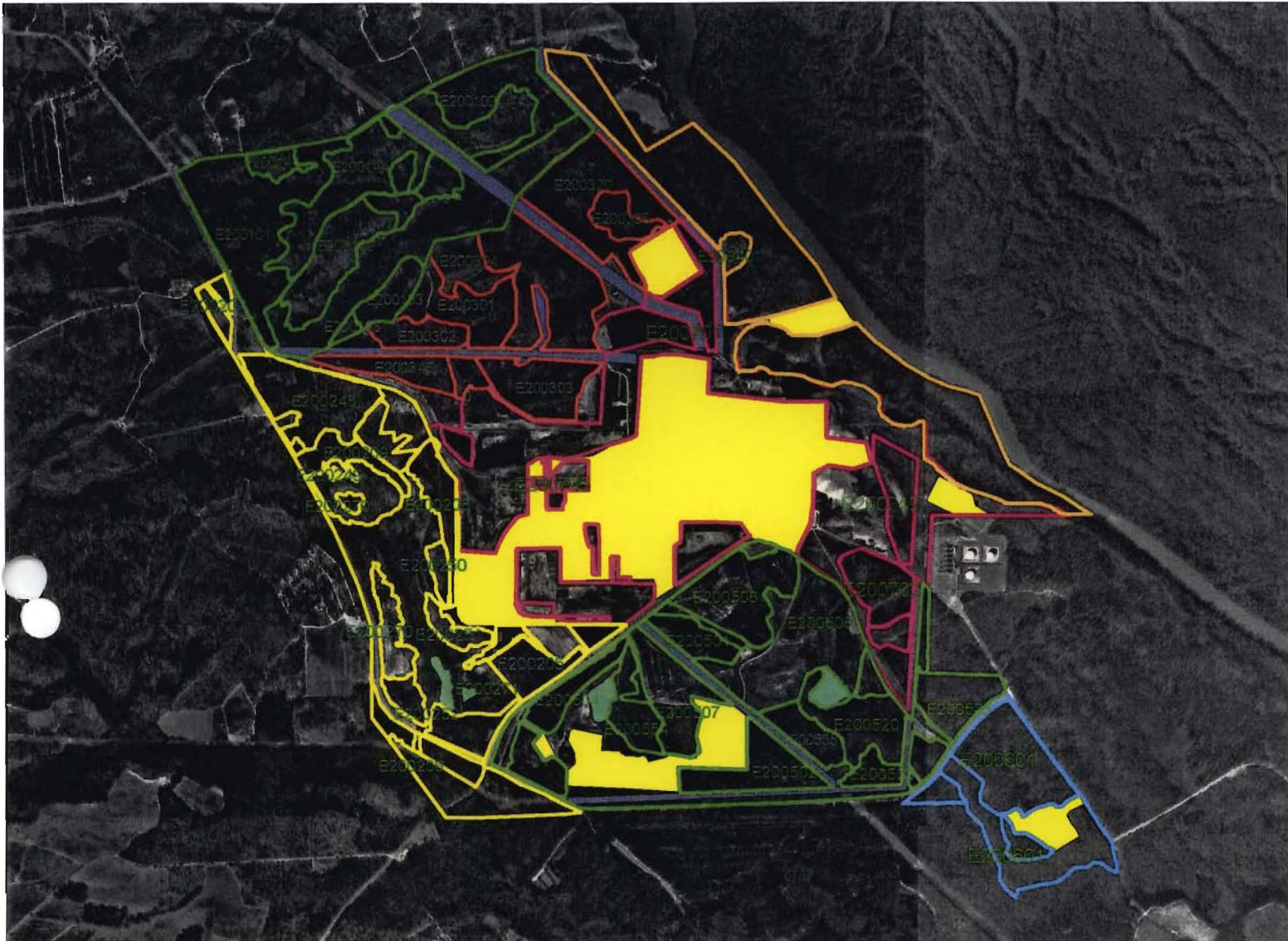
## CONCLUSION









Plant Vogtle is an excellent example of Georgia Power Company's uncompromised commitment to the environment. With careful planning and proper management, this property will continue to be an ideal wildlife habitat, a renewable source for forest products, and an example of environmental stewardship for generations to come. Questions or comments regarding this document or any land management activity on Plant Vogtle may be directed to:

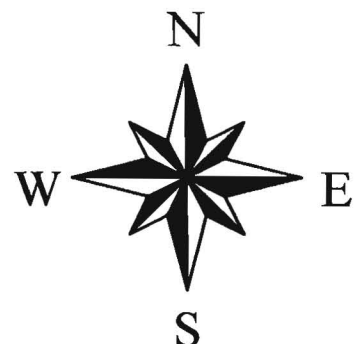
Georgia Power Company  
Vogtle Land Management Office  
P.O. Box 1600  
Waynesboro, Georgia 30830  
Attn: Land Maintenance Coordinator



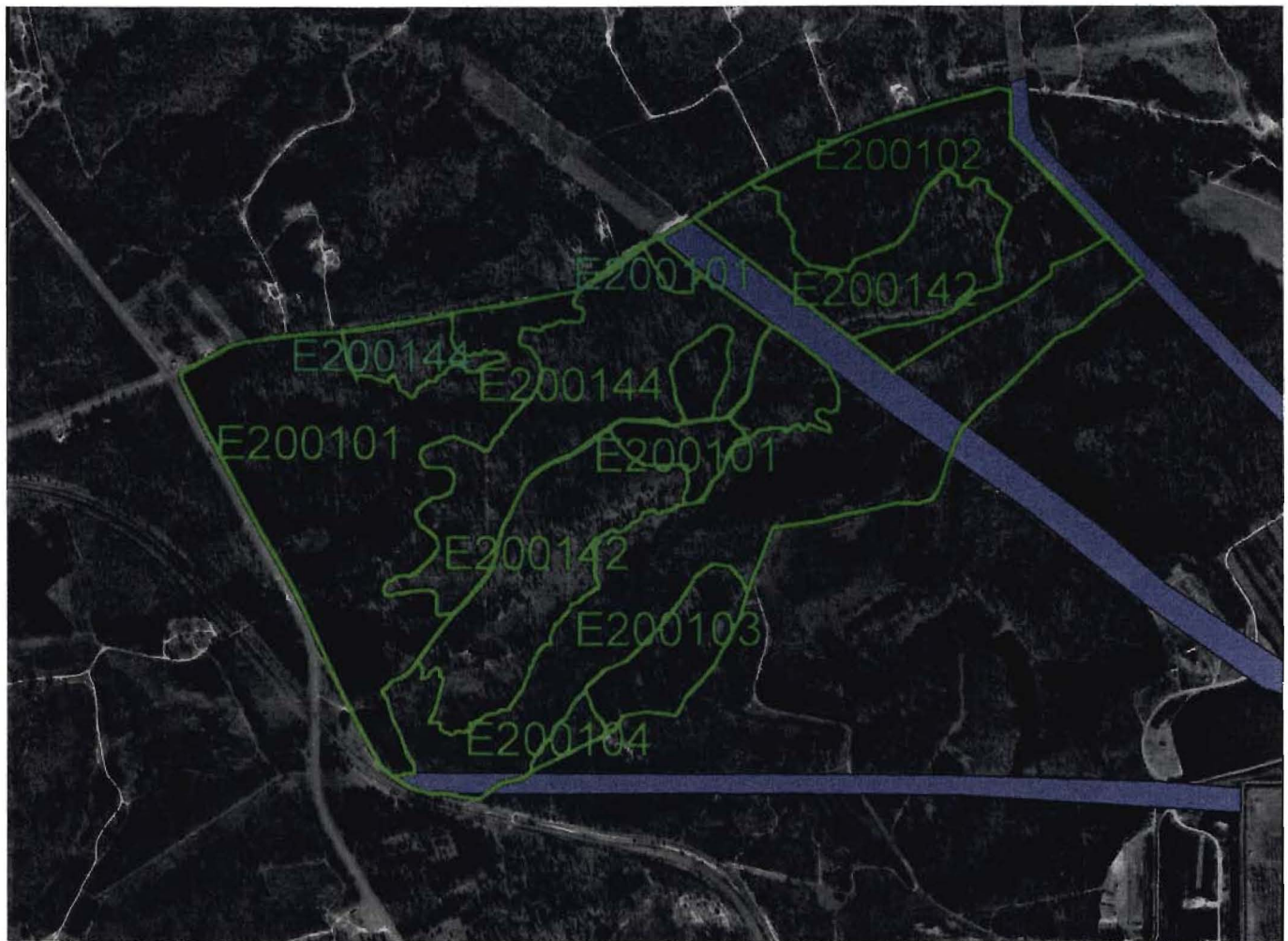
# Plant Vogtle



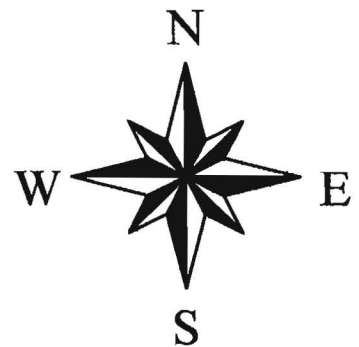
-  Compartment One
-  Compartment Two
-  Compartment Three
-  Compartment Four
-  Compartment Five
-  Compartment Six
-  Compartment Seven
-  Vogtle Facilities



# Compartment One

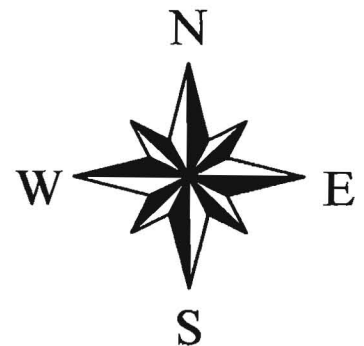
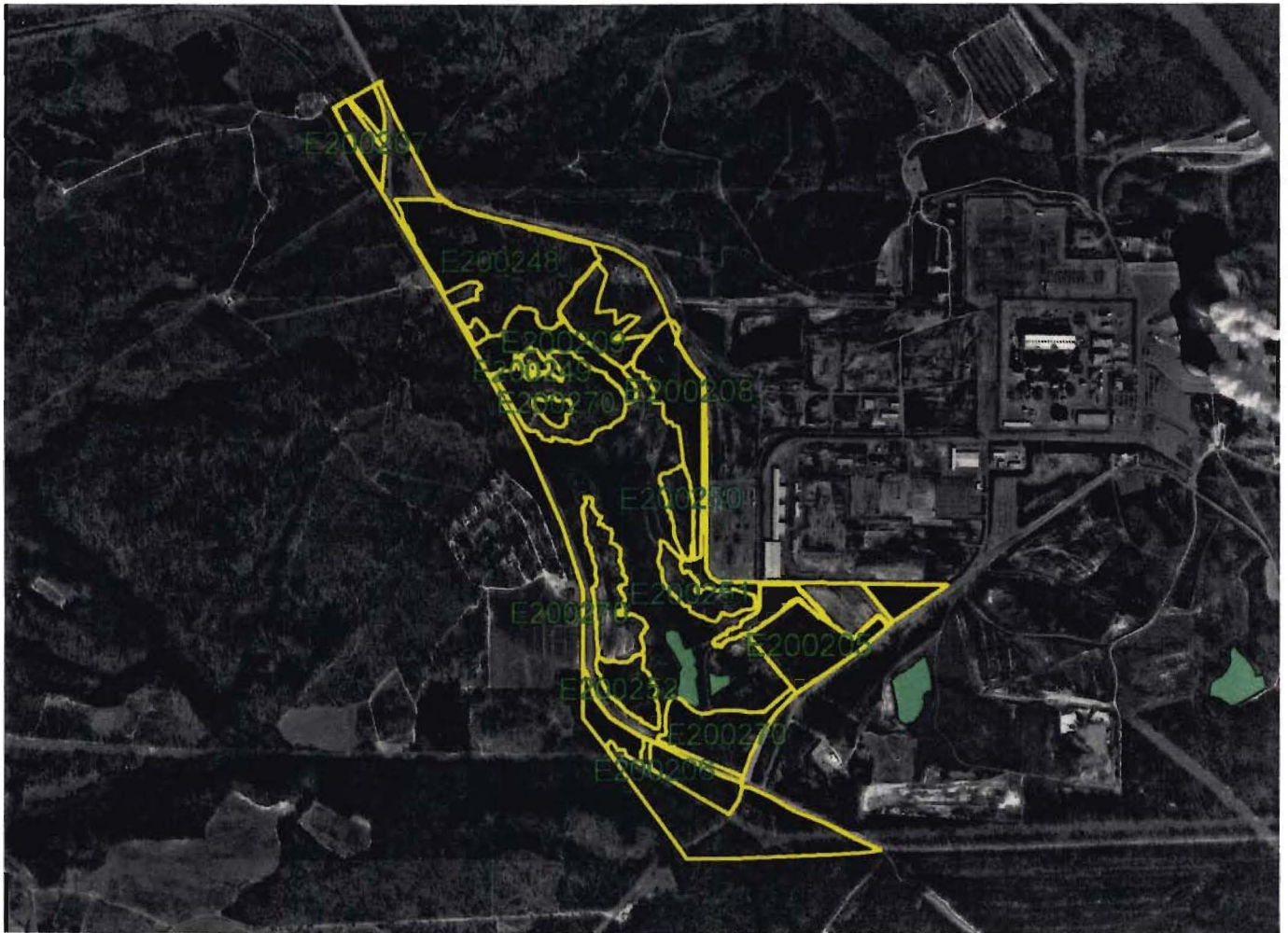


0.4 0 0.4 0.8 Miles

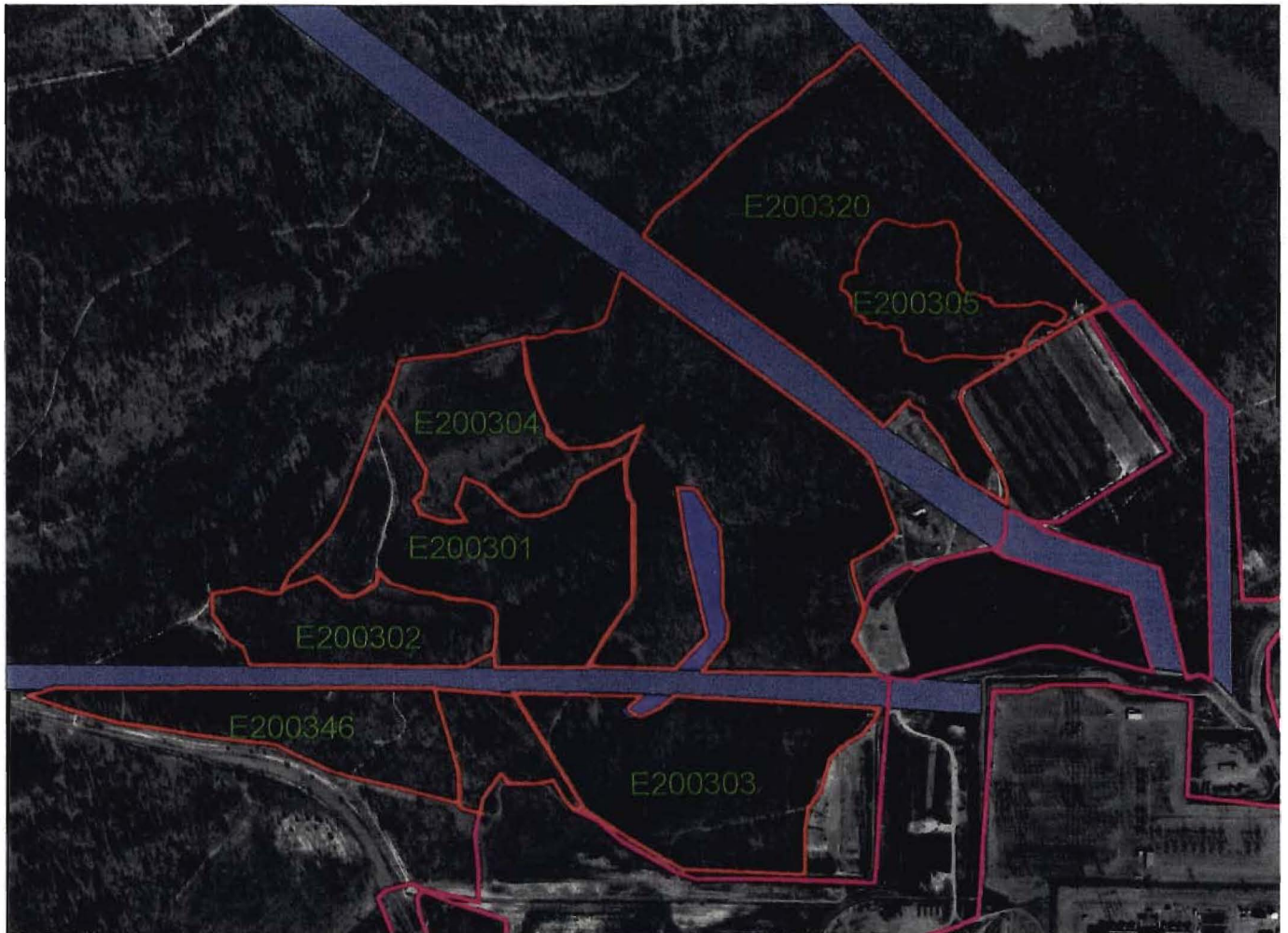




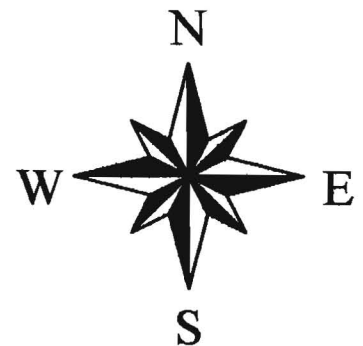
# Compartment Two



# Compartment Three

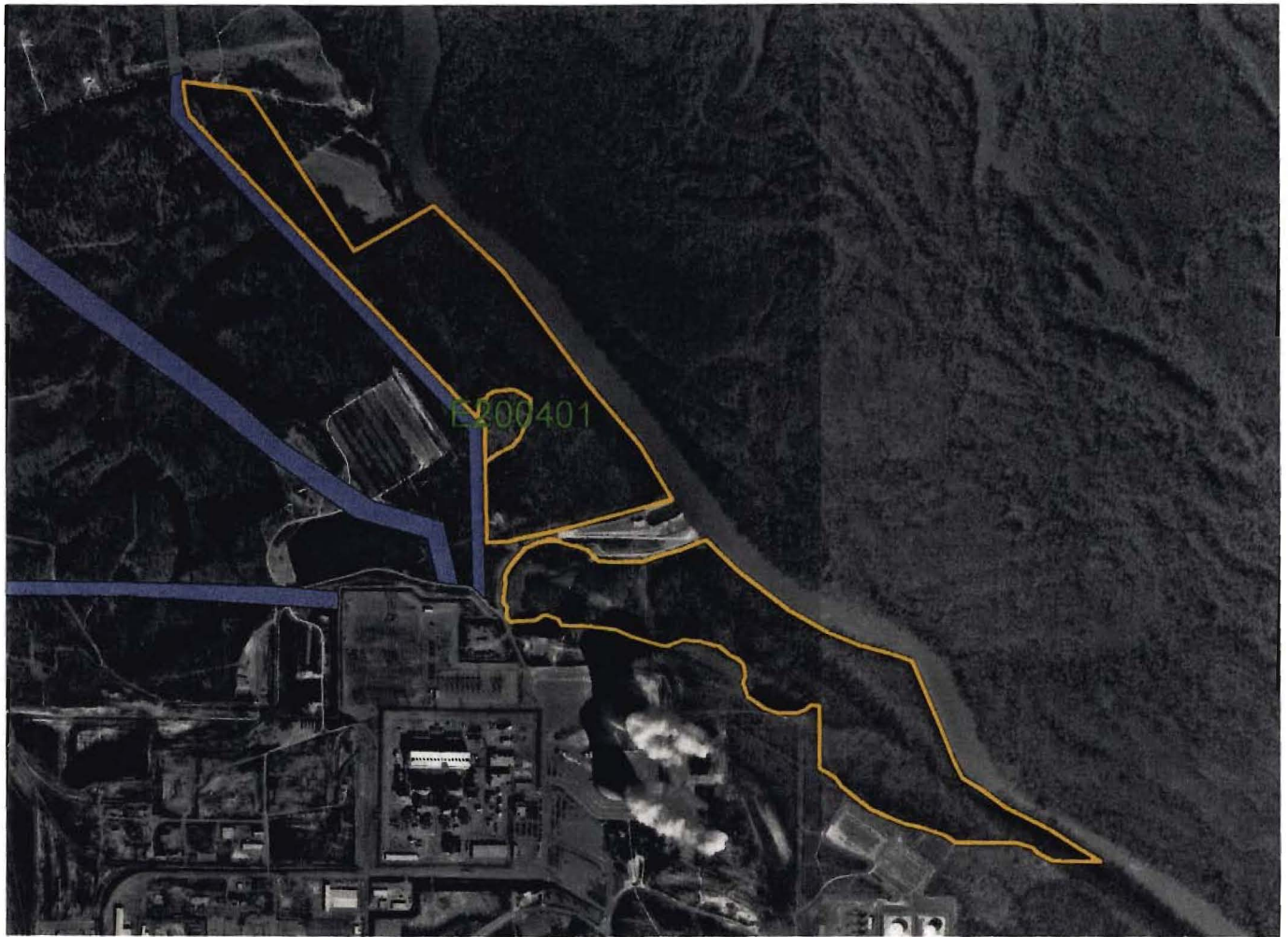


0.3 0 0.3 0.6 Miles

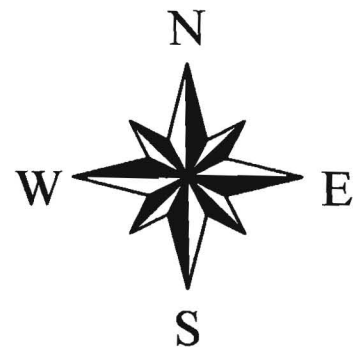




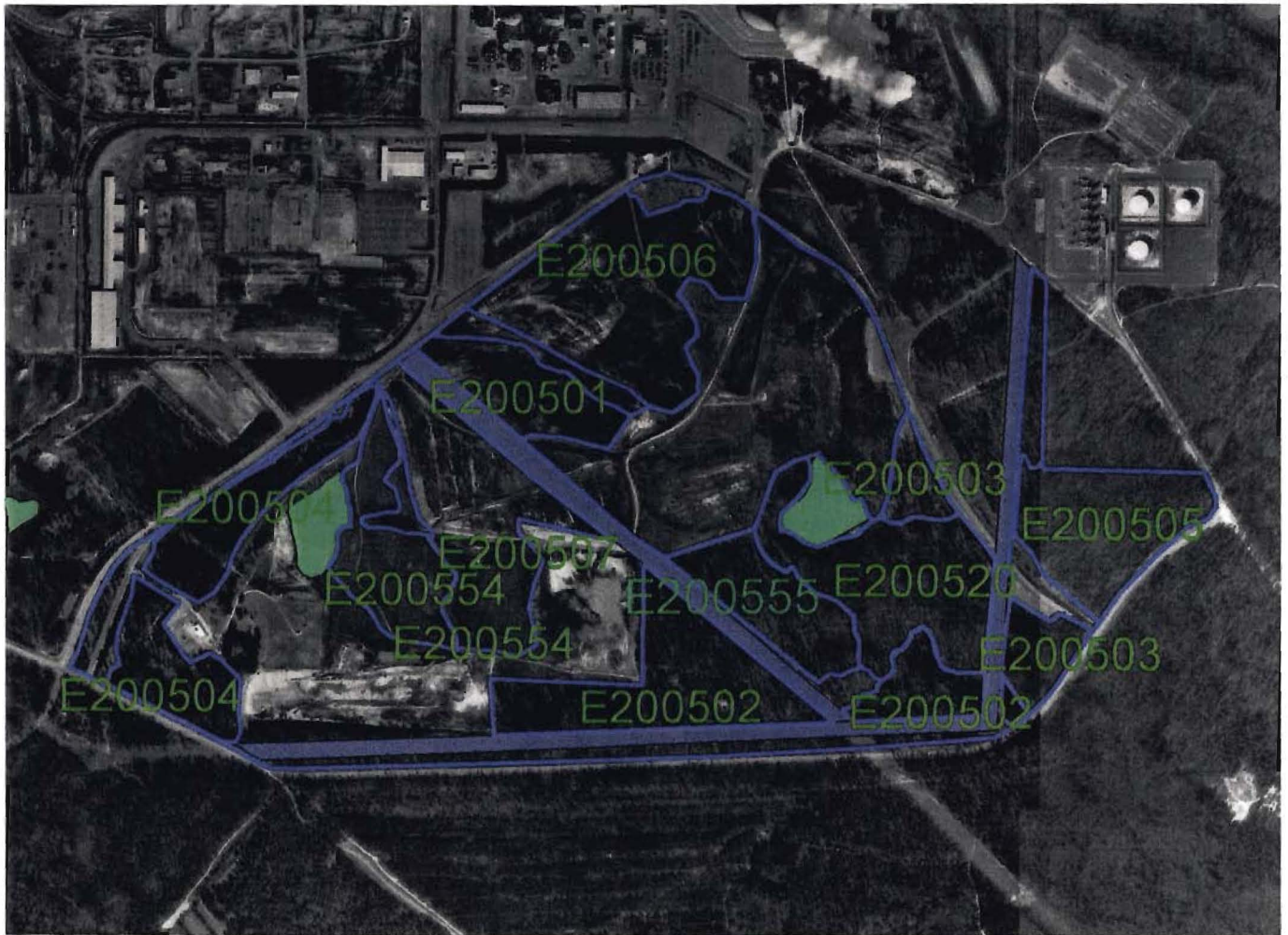
# Compartment Four



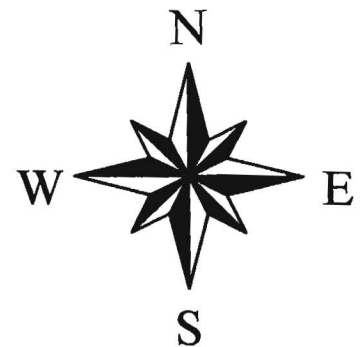
0.5 0 0.5 1 Miles



# Compartment Five

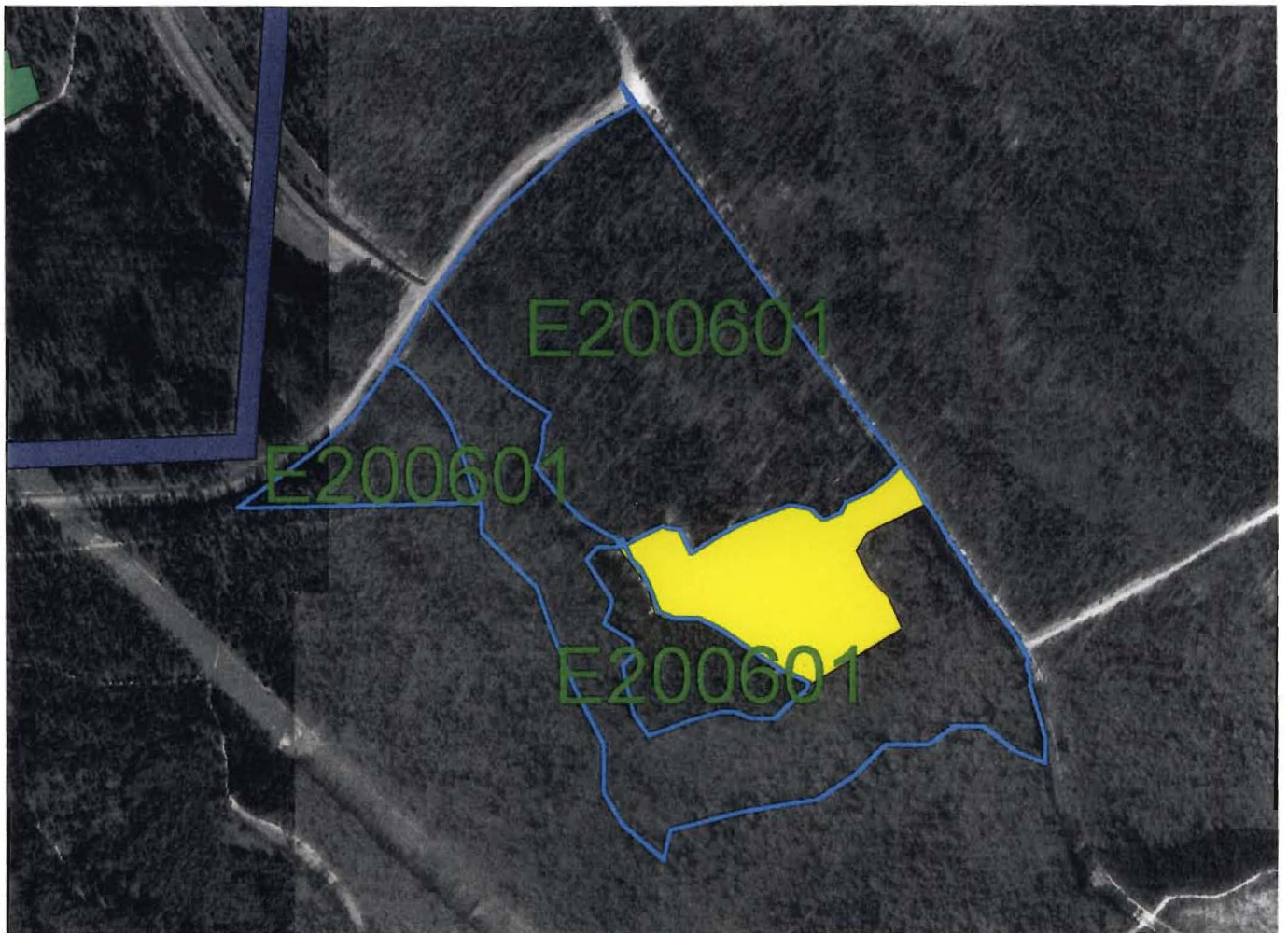


0.4 0 0.4 0.8 Miles

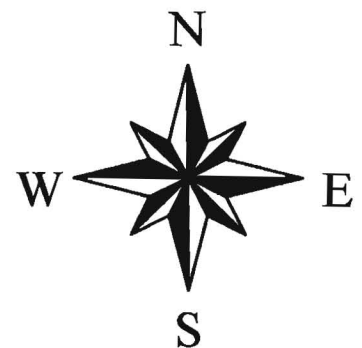




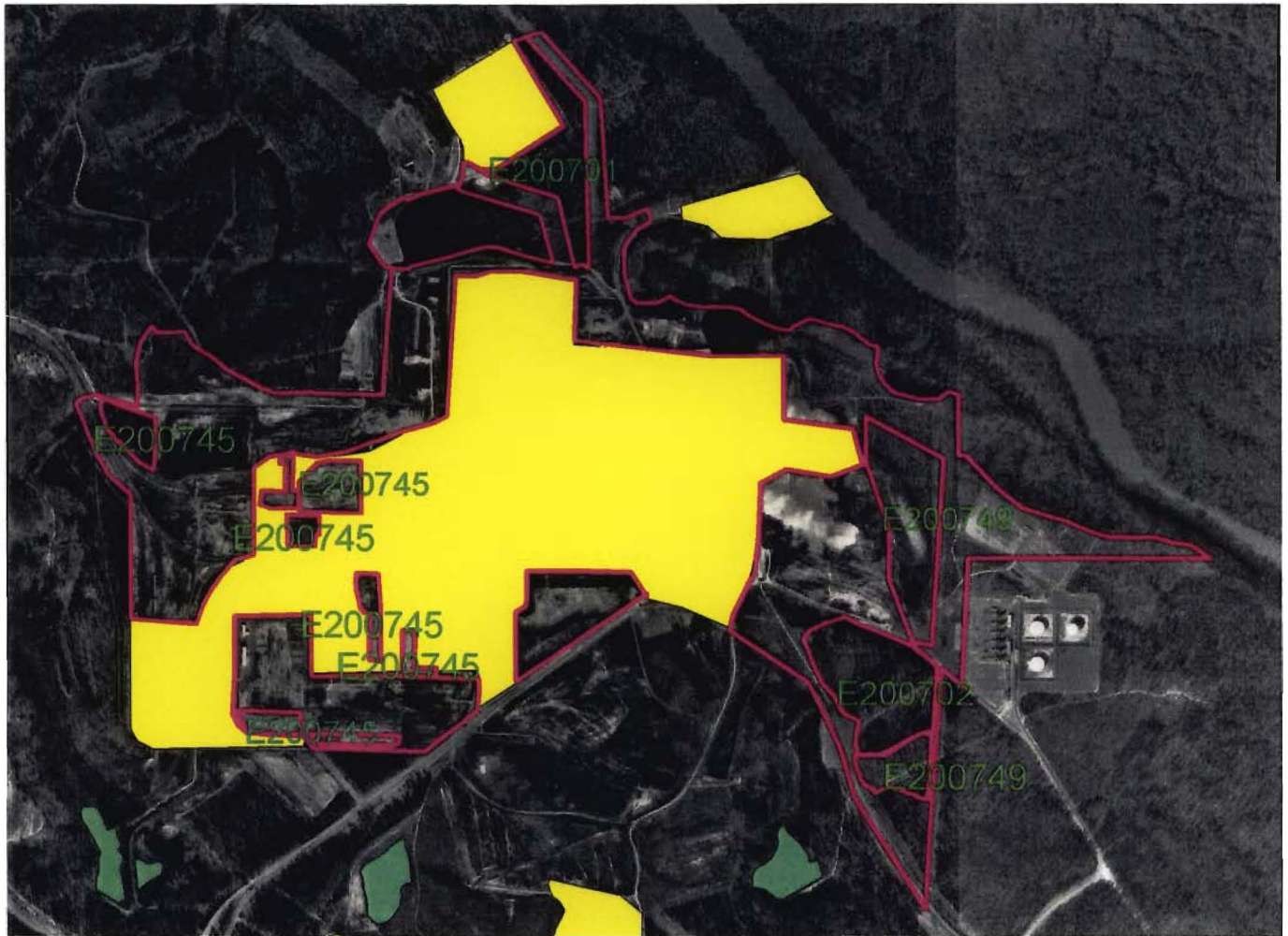
# Compartment Six



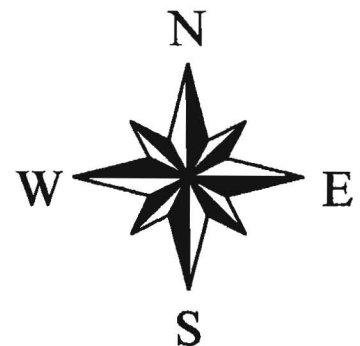
0.2 0 0.2 0.4 Miles

A horizontal scale bar with alternating black and white segments. The segments are labeled with the values 0.2, 0, 0.2, and 0.4 Miles from left to right.

# Compartment Seven

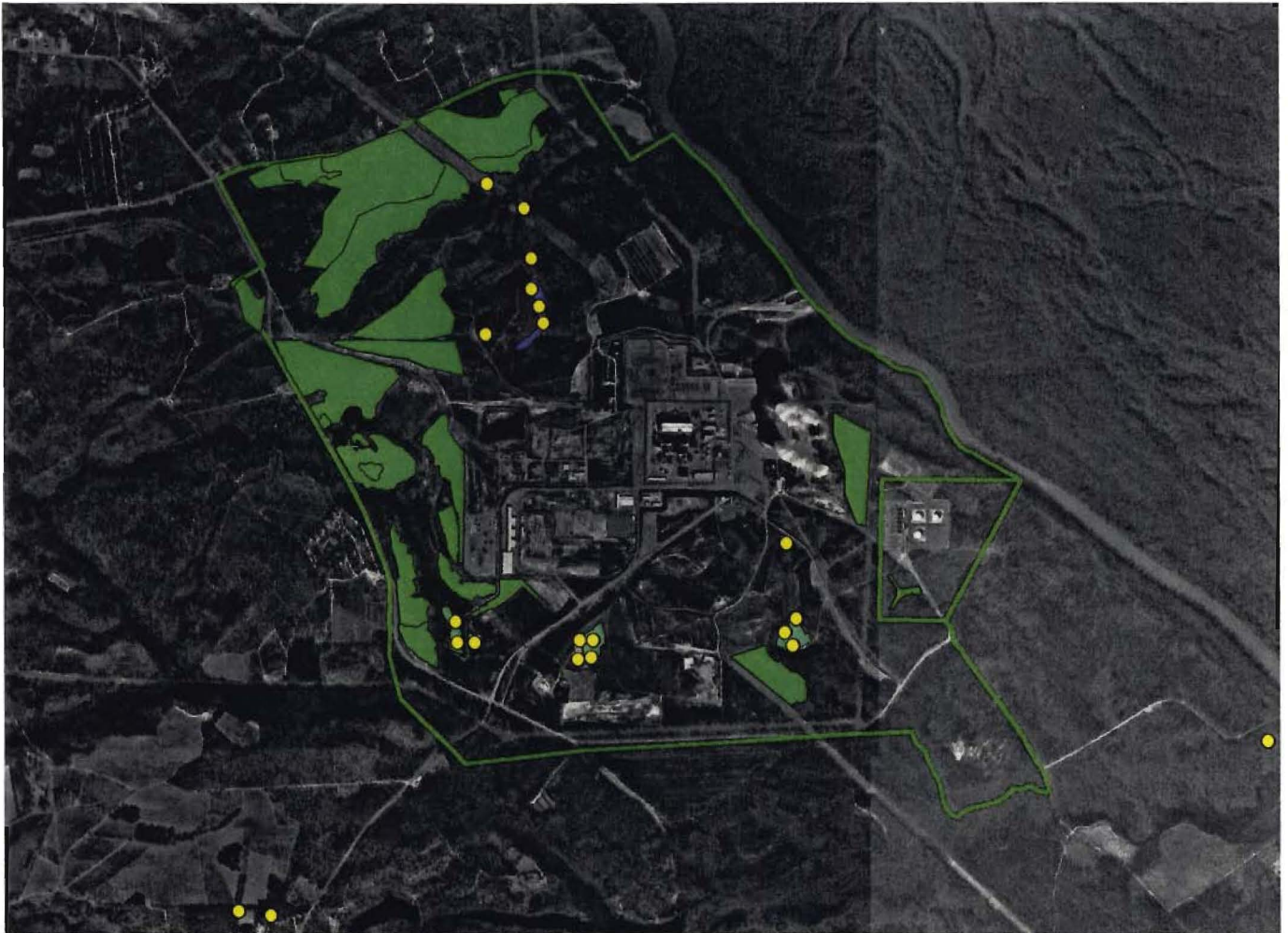


0.4 0 0.4 0.8 Miles

A horizontal scale bar with alternating black and white segments, corresponding to the 0.4, 0, 0.4, and 0.8 mile markings.

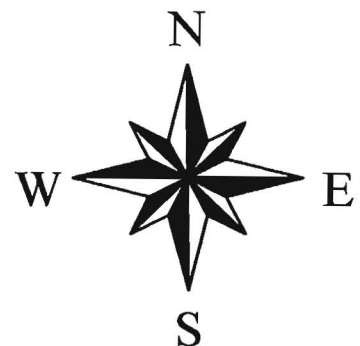


# Plant Vogtle Forestry and Wildlife Enhancements



1 0 1 2 Miles

-  **Wood Duck Nesting Boxes**
-  **Longleaf Pine Plantations**
-  **Ponds**
-  **Vogtle Boundary**
-  **Mallard's Pond**



# VOGTLE ELECTRIC GENERATING PLANT

## 20 YEAR TIMBER HARVEST SCHEDULE

2004		2005		2006		2007		2008	
STAND	ACRES	STAND	ACRES	STAND	ACRES	STAND	ACRES	STAND	ACRES
E200206	15	E200503	24	E200506	27	E200502	43		
E200102	48	E200504	32	E200303	36				
E200601	71	E200507	36	E200501	16				
				E200304	20				
<b>TOTAL</b>	<b>134</b>	<b>TOTAL</b>	<b>92</b>	<b>TOTAL</b>	<b>99</b>	<b>TOTAL</b>	<b>43</b>	<b>TOTAL</b>	<b>0</b>

2009		2010		2011		2012		2013	
STAND	ACRES	STAND	ACRES	STAND	ACRES	STAND	ACRES	STAND	ACRES
E200702	25	E200101	116	E200554	20	E200142	88		
		E200207	5	E200743	63	E200270	59		
						E200745	25		
<b>TOTAL</b>	<b>25</b>	<b>TOTAL</b>	<b>121</b>	<b>TOTAL</b>	<b>83</b>	<b>TOTAL</b>	<b>172</b>	<b>TOTAL</b>	

2014		2015		2016		2017		2018	
STAND	ACRES	STAND	ACRES	STAND	ACRES	STAND	ACRES	STAND	ACRES
E200144	62	E200346	21	E200749	49	E200248	50		
						E200249	13		
						E200250	7		
						E200251	9		
						E200252	9		
						E200253	7		
<b>TOTAL</b>	<b>62</b>	<b>TOTAL</b>	<b>21</b>	<b>TOTAL</b>	<b>49</b>	<b>TOTAL</b>	<b>95</b>	<b>TOTAL</b>	<b>0</b>

2019		2020		2021		2022		2023	
STAND	ACRES	STAND	ACRES	STAND	ACRES	STAND	ACRES	STAND	ACRES
E200106	3	E200555	18			E200305	14		
E200205	6					E200401	6		
E200302	17								
<b>TOTAL</b>	<b>26</b>	<b>TOTAL</b>	<b>18</b>	<b>TOTAL</b>	<b>0</b>	<b>TOTAL</b>	<b>20</b>	<b>TOTAL</b>	<b>0</b>



# VOGTLE ELECTRIC GENERATING PLANT

## 20 YEAR TIMBER HARVEST SCHEDULE

2002		2003		2004		2005		2006	
STAND	ACRES	STAND	ACRES	STAND	ACRES	STAND	ACRES	STAND	ACRES
E200103	16	E200102	48	E200206	15	E200503	24	E200506	27
E200208	21	E200601	71	E200304	20	E200504	32	E200303	36
E200301	36			E200501	16	E200507	36		
E200506	48			E200502	43				
<b>TOTAL</b>	<b>121</b>	<b>TOTAL</b>	<b>119</b>	<b>TOTAL</b>	<b>94</b>	<b>TOTAL</b>	<b>92</b>	<b>TOTAL</b>	<b>63</b>

2007		2008		2009		2010		2011	
STAND	ACRES	STAND	ACRES	STAND	ACRES	STAND	ACRES	STAND	ACRES
				E200702	25	E200101	116	E200554	20
						E200207	5	E200743	63
<b>TOTAL</b>		<b>TOTAL</b>		<b>TOTAL</b>	<b>25</b>	<b>TOTAL</b>	<b>121</b>	<b>TOTAL</b>	<b>83</b>

2012		2013		2014		2015		2016	
STAND	ACRES	STAND	ACRES	STAND	ACRES	STAND	ACRES	STAND	ACRES
E200142	88			E200144	62	E200346	21	E200749	49
E200270	59								
E200745	25								
<b>TOTAL</b>	<b>172</b>	<b>TOTAL</b>		<b>TOTAL</b>	<b>62</b>	<b>TOTAL</b>	<b>21</b>	<b>TOTAL</b>	<b>49</b>

2017		2018		2019		2020		2021	
STAND	ACRES	STAND	ACRES	STAND	ACRES	STAND	ACRES	STAND	ACRES
E200248	50			E200106	3	E200555	18		
E200249	13			E200205	6				
E200250	7			E200302	17				
E200251	9								
E200252	9								
E200253	7								
<b>TOTAL</b>	<b>95</b>	<b>TOTAL</b>		<b>TOTAL</b>	<b>26</b>	<b>TOTAL</b>	<b>18</b>	<b>TOTAL</b>	

## Stand\_Data

Stand ID	Acres	Year Est.	Species	BA_PPulp	BA_PSaw	Regen_Pr	Thin Year	Seedtrees	Growth	Total HT	Harvest Year	Harvest Age	2050 Age	Comments
E200101	116	1968	LONGLEAF	20	42		2010		SLOW	67				
E200102	48	1959	LONGLEAF	20	58		2003		FAIR	66				
E200103	16	1962	SLASH	16	55				SLOW	75	2002			
E200106	3	1999	LONGLEAF				2019							PLANTED
E200142	88	1992	LONGLEAF				2012							PLANTED
E200144	62	1994	LONGLEAF				2014							PLANTED
E200205	6	1999	LOBLOLLY				2019							PLANTED
E200206	15	1967	LONGLEAF	30	100					68	2004			
E200207	5	1990	LONGLEAF				2010							
E200208	21	1987	LOBLOLLY	120			2002							
E200209	17	1953	LONGLEAF	15	95									
E200248	50	1997	LONGLEAF				2017							PLANTED
E200249	13	1997	LONGLEAF				2017							PLANTED
E200250	7	1997	LONGLEAF				2017							PLANTED
E200251	9	1997	LONGLEAF				2017							PLANTED
E200252	9	1997	LONGLEAF				2017							PLANTED
E200253	7	1997	LONGLEAF				2017							PLANTED
E200270	59	1992	LONGLEAF				2012							PLANTED
E200301	36	1988	LOBLOLLY	110			2002							
E200302	17	1999	LONGLEAF				2019							PLANTED
E200303	36	1988	LOBLOLLY	110			2006							
E200304	20	1990	LOBLOLLY	70			2004							
E200305	14	2002	LONGLEAF				2022							
E200320	76		HARDWOOD											
E200346	21	1995	LONGLEAF				2015							PLANTED
E200401	6	2002	LONGLEAF				2022							
E200501	16	1990	LOBLOLLY	70			2004							PLANTED
E200502	43	1956	LONGLEAF	11	48		2004		MEDIUM	62				
E200503	24	1963	LONGLEAF	15	43		2005		MEDIUM	67				
E200504	32	1951	LONGLEAF	16	75		2005		SLOW	71				
E200505	27	1960	SLASH	15	46				GOOD	85	2006			
E200506	48	1987	LOBLOLLY	120			2002							PLANTED
E200507	36	1990	LOBLOLLY	75			2005							PLANTED
E200520	34		HARDWOOD											
E200554	20	1996	LOBLOLLY				2011							PLANTED
E200555	18	2000	LONGLEAF				2020							PLANTED
E200601	71	1961	LONGLEAF	12	46				SLOW	85	2003			
E200743	63	1991	LONGLEAF				2011							PLANTED
E200745	25	1992	LONGLEAF				2012							PLANTED
E200749	49	1996	LONGLEAF				2016							PLANTED
E200702	25	1960	LONGLEAF	15	46		2009		GOOD	85				
FACILITIES	427													
POWERLINES	124													
												#REF!		
	1859											#REF!		
												#REF!		

# STANDS DATA

One: New stand    Update existing stand    GIS map revision needed? Yes    No

Number \_\_\_\_\_ Acres \_\_\_\_\_

Number \_\_\_\_\_ Species \_\_\_\_\_

Established \_\_\_\_\_ Inventory Year \_\_\_\_\_

1 Acres \_\_\_\_\_ Region \_\_\_\_\_ (P or C)

\_\_\_\_\_ (N, P, D, O) Year Thinned \_\_\_\_\_

Burned \_\_\_\_\_ Year Herb. Applied \_\_\_\_\_

to Thin \_\_\_\_\_ Year to Harvest \_\_\_\_\_

BA/Acre \_\_\_\_\_ **Hardwood:** BA/Acre \_\_\_\_\_

Stems/Acre \_\_\_\_\_ Stems/Acre \_\_\_\_\_

Tot. Dom. Ht. \_\_\_\_\_

Site Index, \_\_\_\_\_

Pulp Tons \_\_\_\_\_ Pulp Tons \_\_\_\_\_

CNS Tons \_\_\_\_\_ CNS Tons \_\_\_\_\_

Saw. Tons \_\_\_\_\_ Saw. Tons \_\_\_\_\_

Saw. MBF \_\_\_\_\_ Saw. MBF \_\_\_\_\_

pleted by \_\_\_\_\_

Date \_\_\_\_\_

GROWTH RATE F M S

GENERATION PRIORITY H M L