

FIRST ANNUAL MONITORING REPORT – 2005 GROWING SEASON

**Contentnea Creek/Little Contentnea Creek Riparian Buffer Restoration – Phase 3
(EEP Contract: 005020)**

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INTRODUCTION AND BACKGROUND

On 27 June 2005 the NC Ecosystem Enhancement Program awarded Greene Environmental Services a contract to restore 54.16 acres of riparian buffer along Little Contentnea Creek and its unnamed tributaries in southeastern Greene County, NC (Figure 1) (Phase 3). The project was a continuation of the successful Phase 1 and Phase 2 projects that restored a total of 87.1 acres of riparian buffers along unnamed tributaries to Little Contentnea Creek and Contentnea Creek. The Little Contentnea Creek Riparian Buffer Restoration Plan Phase 3 was implemented in 2005 with site preparation, the planting of 28,000 saplings of 11 species, and the establishment of 60 monitoring quadrats in 17 sampling units, as specified in the project's Mitigation Plan (GES, 2005) (Figure 2).

Woody stem density, cross-sectional area, and height monitoring was conducted in October and November 2005 within each 100 square meter quadrat, as detailed in the Mitigation Plan. The monitoring results, management activities to date, and planned management activities are presented below.

RESULTS

During the fall 2005 monitoring 503 woody stems were recorded within the 60 10x10 meter quadrats (Figure 2). Of these, 452 (89.86 percent) were planted during early 2005. Stem density of all woody stems within the monitoring quadrats averaged 339 stems per acre. Density of Planted individuals averaged 305 stems per acre. Additionally, a total of 333 volunteers (284 *Acer rubra* (85 percent) and 49 *Liquidambar styraciflua* (14 percent)) with heights less than 0.1 meter and diameters less than 0.2 centimeters were recorded. These stems were not included in the calculations presented below. If included, the total number of stems observed is 836 (564 per acre).

Monitoring data indicate that *Fraxinus pennsylvanica* is the most abundant tree species (40.36 percent relative density among planted species and 44.91 percent relative density among all tree species recorded). *Platanus occidentalis* had the highest cross-sectional area (15.96 percent relative to planted species and 14.41 percent relative to all tree species). The average of relative cross sectional area and relative density was calculated for planted species and all species and is presented here as the importance value. Based on this calculation, *F. pennsylvanica* was the most important species in the project area with a value of 27.27 (planted) and 25.42 (all). The species with the greatest average height was *Platanus occidentalis*, which averaged 1.15 meters (3.78 feet). *P. occidentalis*' importance value was the second-highest among planted trees (17.16) and among all trees (15.46) (Table 1).

Taxodium distichum was the third-most important planted tree (10.04) and the fourth-most important among all trees (9.05). *L.r styraciflua* was the third-most important tree among all trees (9.93). Other important species included *Liriodendron tulipifera* (9.9 planted and 8.92 all), *Quercus phellos* (6.49 planted and 6.25 all). Considered collectively, the oaks were second in importance (29.15 planted and 21.77 all).

Tree height averaged 0.65 meters (2.15 feet) for planted species and 0.69 meters (2.26 feet) for all species. Diameter averaged 0.65 centimeters for planted species and 0.66 for all species.

MAINTENANCE (COMPLETED AND PLANNED) AND ANECDOTAL OBSERVATIONS

Application of herbicide (Roundup) was done around individual trees in May 2005 throughout the Phase 3 restoration area. In areas where weedy vegetation was too robust to respond to the herbicide application, selective manual weed removal was done using machetes and gasoline-powered string trimmers.

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Herbicide application was performed by contractors and resulted in significant mortality among planted species. Prior to monitoring, the entire project was qualitatively evaluated in September 2005 by the designer (Robert J. Goldstein and Associates, Inc.). A number of areas of significant death resulting from herbicide application were mapped. Additionally, several erosion prone areas immediately outside the restoration area were identified. **A new contractor was hired during October to do replanting and install erosion control devices where appropriate.**

A total of approximately 5,000 containerized stock were planted during October and early November 2005 in the most seriously impacted areas. Up to 10,000 bare root saplings will be available in January to supplement the fall planting. A re-evaluation will be conducted in early January 2006 to evaluate the fall 2005 planting and to determine where the winter bare root plantings should be concentrated.

The site will be reevaluated in the early 2006 growing season to identify areas with serious weed encroachment. Weedy areas will be evaluated individually for the appropriate treatment. Most treatment will involve manual removal using machetes and string trimmers. **If any areas are determined to need herbicide application, the application crews will be closely observed and managed by the designer.**

Browsing evidence was observed in all monitoring units. Deer prints were observed in the soil near many trees with obvious branch tip browsing. While damage to branch tips may have affected overall height, it did not seem to result in any mortality. Rodent browsing at the base of the trees' main stems poses a more serious threat to survival. While no individuals observed were completely girdled, removal of vascular cambium around 50 to 60 percent of stem circumference was observed on many trees. Based on anecdotal observation, the relative number of trees impacted was small. Because of this and the woody stem density above the success threshold, the situation will be monitored, but no remedial action is planned.

Table 1. Importance Values - Little Contentnea Creek Riparian Buffer Restoration - Phase 3 - Greene County, NC

Species	Importance Value All	Importance Value Planted	Average Diameter (cm)	Relative Diameter All(%)	Relative Diameter Planted (%)	Relative Density All (%)	Relative Density Planted (%)	Average Height (m)	Average Height (feet)	Total Living Individuals	Total Dead
<i>Fraxinus americana</i>	5.17	5.73	0.80	10.15	11.24	0.20	0.22	0.34	1.12	1	0
<i>Fraxinus pensylvanica</i>	25.42	28.27	0.83	10.49	11.62	40.36	44.91	0.72	2.35	203	49
<i>Fraxinus pensylvanica*</i>	4.27	4.74	0.39	4.96	5.50	3.58	3.98	0.31	1.00	18	0
<i>Liquidambar</i>	9.93		0.77	9.73		10.14		1.08	3.54	51	0
<i>Liriodendron tulipifera</i>	8.92	9.90	0.70	8.89	9.84	8.95	9.96	0.54	1.76	45	21
<i>Platanus occidentalis</i>	15.46	17.16	1.14	14.41	15.96	16.50	18.36	1.15	3.78	83	7
<i>Quercus nigra</i>	3.87	4.29	0.52	6.56	7.26	1.19	1.33	0.61	2.01	6	0
<i>Quercus pagoda</i>	4.63	5.14	0.46	5.89	6.52	3.38	3.76	0.38	1.25	17	0
<i>Quercus phellos</i>	6.25	6.94	0.50	6.34	7.02	6.16	6.86	0.67	2.19	31	1
<i>Quercus rubra</i>	2.10	2.33	0.30	3.81	4.22	0.40	0.44	0.43	1.41	2	0
<i>Quercus spp.</i>	4.91	5.45	0.49	6.24	6.91	3.58	3.98	0.76	2.50	18	5
<i>Taxodium distichum</i>	9.05	10.04	0.99	12.54	13.89	5.57	6.19	1.29	4.24	28	4
Total	100.00	100.00		100.00	100.00	100.00	100.00			503.00	87.00

**= containerized stock planted in October 2005

** Volunteer (not planted)

	All	----- Planted ----- All	Early 2005
Average per acre	339	305	293

Table 2. Plot 1-1. 2005 Monitoring Data - Little Conetnenta Creek Riparian Buffer Restoration - Phase 3 - Greene County, NC.

Species	Average Diameter (cm)	Average Height (m)	Total Observed	Total Dead	D	H	D	H	D	H	D	H	D	H	D	H
<i>Fraxinus americana</i>																
<i>Fraxinus pensylvanica</i>																
<i>Fraxinus pensylvanica</i> *																
<i>Liquidambar styraciflua</i> **																
<i>Liriodendron tulipifera</i>																
<i>Platanus occidentalis</i>																
<i>Quercus nigra</i>																
<i>Quercus pagoda</i>																
<i>Quercus phellos</i>																
<i>Quercus rubra</i>																
<i>Quercus spp.</i>	0.40	0.59	2		0.4	0.68	0.4	0.49								
<i>Taxodium distichum</i>	1.10	0.84	5	1	1.3	1.22	d	d	0.99	0.91	0.9	0.88	1.5	0.4	0.8	0.77
Total/Average	0.75	0.71	7	1												

*containerized stock planted in October 2005

**volunteer (not planted)

D=diameter

H=height (meters)

Table 3. Plot 1-2. 2005 Monitoring Data - Little Conetnenta Creek Riparian Buffer Restoration - Phase 3 - Greene County, NC.

Species	Average Diameter (cm)	Average Height (m)	Total Observed	Total Dead	D		H		D		H		D		H		D		H	
					D	H	D	H	D	H	D	H	D	H	D	H	D	H		
<i>Fraxinus americana</i>																				
<i>Fraxinus pennsylvanica</i>	0.63	0.53	7		0.6	0.47	0.5	0.48	0.8	0.58	0.5	0.52	0.6	0.5	0.6	0.5	0.8	0.64		
<i>Fraxinus pennsylvanica</i> *																				
<i>Liquidambar styraciflua</i> **																				
<i>Liriodendron tulipifera</i>																				
<i>Platanus occidentalis</i>																				
<i>Quercus nigra</i>	0.30	0.20	1		0.3	0.2														
<i>Quercus pagoda</i>																				
<i>Quercus phellos</i>	0.25	0.28	1		0.25	0.28														
<i>Quercus rubra</i>																				
<i>Quercus spp.</i>	0.70	0.31	1		0.7	0.31														
<i>Taxodium distichum</i>	1.15	0.85	2		0.7	0.94	1.6	0.75												
Total/Average	0.61	0.43	12	0																

*containerized stock planted in October 2005

**volunteer (not planted)

D=diameter

H=height (meters)

Table 4. Plot 1-3. 2005 Monitoring Data - Little Conetnenta Creek Riparian Buffer Restoration - Phase 3 - Greene County, NC.

Species	Average Diameter (cm)	Average Height (m)	Total Observed	Total Dead	D		H		D		H		D		H	
					D	H	D	H	D	H	D	H	D	H		
<i>Fraxinus americana</i>																
<i>Fraxinus pensylvanica</i>	0.53	0.52	3		0.6	0.54	0.6	0.54	0.4	0.47						
<i>Fraxinus pensylvanica</i> *																
<i>Liquidambar styraciflua</i> **																
<i>Liriodendron tulipifera</i>																
<i>Platanus occidentalis</i>																
<i>Quercus nigra</i>																
<i>Quercus pagoda</i>																
<i>Quercus phellos</i>																
<i>Quercus rubra</i>																
<i>Quercus spp.</i>	0.49	0.40	5	1	0.9	0.47	d	d	0.46	0.4	0.4	0.64	0.4	0.32	0.3	0.18
<i>Taxodium distichum</i>																
Total/Average	0.51	0.46	8	1												

*containerized stock planted in October 2005

**volunteer (not planted)

D=diameter

H=height (meters)

Table 5. Plot 2-1. 2005 Monitoring Data - Little Conetnenta Creek Riparian Buffer Restoration - Phase 3 - Greene County, NC.

Species	Average Diameter (cm)	Average Height (m)	Total Observed	Total Dead	D		H		D		H		D		H	
					D	H	D	H	D	H	D	H	D	H		
<i>Fraxinus americana</i>																
<i>Fraxinus pennsylvanica</i>	0.63	0.56	3		0.8	0.62	0.4	0.43	0.7	0.62						
<i>Fraxinus pennsylvanica</i> *																
<i>Liquidambar styraciflua</i> **																
<i>Liriodendron tulipifera</i>																
<i>Platanus occidentalis</i>																
<i>Quercus nigra</i>																
<i>Quercus pagoda</i>																
<i>Quercus phellos</i>	0.20	0.80	1		0.2	0.8										
<i>Quercus rubra</i>																
<i>Quercus spp.</i>	0.30	0.38	2		0.3	0.4	0.3	0.35								
<i>Taxodium distichum</i>	1.03	0.57	3	2	0.7	0.48	1.8	0.89	0.6	0.35	d	d	d	d		
Total/Average	0.54	0.58	9	2												

*containerized stock planted in October 2005

**volunteer (not planted)

D=diameter

H=height (meters)

Table 6. Plot 2-2. 2005 Monitoring Data - Little Conetnenta Creek Riparian Buffer Restoration - Phase 3 - Greene County, NC.

Species	Average Diameter (cm)	Average Height (m)	Total Observed	Total Dead	D		D		D		D		D		D		D	
					D	H	D	H	D	H	D	H	D	H	D	H	D	H
<i>Fraxinus americana</i>																		
<i>Fraxinus pennsylvanica</i>	0.54	0.44	7		0.6	0.5	0.4	0.41	0.8	0.53	0.7	0.55	0.5	0.5	0.4	0.34	0.4	0.25
<i>Fraxinus pennsylvanica</i> *																		
<i>Liquidambar styraciflua</i> **	0.74	0.75	27		0.9	0.85	0.95	1.02	0.8	0.86	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
<i>Liriodendron tulipifera</i>																		
<i>Platanus occidentalis</i>	1.60	0.89	2		1.89	0.8	1.3	0.98										
<i>Quercus nigra</i>																		
<i>Quercus pagoda</i>																		
<i>Quercus phellos</i>																		
<i>Quercus rubra</i>	0.30	0.28	1		0.3	0.28												
<i>Quercus spp.</i>																		
<i>Taxodium distichum</i>	0.50	0.66	2	1	d	d	0.6	0.86	0.4	0.45								
Total/Average	0.74	0.60	39	1														

*containerized stock planted in October 2005

**volunteer (not planted)

D=diameter

H=height (meters)

Table 6. Plot 2-2. 2005 Mo

Species	D	H	D	H	D	H	D	H	D	H	D	H	D	H	D	H	D	H		
<i>Fraxinus americana</i>																				
<i>Fraxinus pennsylvanica</i>																				
<i>Fraxinus pennsylvanica</i> *																				
<i>Liquidambar styraciflua</i> **	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.81	0.8	1.01	0.9	0.92	1.4	1.32	0.9	0.85
<i>Liriodendron tulipifera</i>																				
<i>Platanus occidentalis</i>																				
<i>Quercus nigra</i>																				
<i>Quercus pagoda</i>																				
<i>Quercus phellos</i>																				
<i>Quercus rubra</i>																				
<i>Quercus spp.</i>																				
<i>Taxodium distichum</i>																				

Total/Average

*containerized stock planted

Table 6. Plot 2-2. 2005 Mo

Species	D	H	D	H	D	H	D	H	D	H	D	H	D	H	D	H	D	H
<i>Fraxinus americana</i>																		
<i>Fraxinus pensylvanica</i>																		
<i>Fraxinus pensylvanica</i> *																		
<i>Liquidambar styraciflua</i> **	0.7	0.85	0.6	0.55	0.6	0.55	0.6	0.55	0.6	0.55	0.6	0.55	1	0.79	0.5	0.6	0.5	0.6
<i>Liriodendron tulipifera</i>																		
<i>Platanus occidentalis</i>																		
<i>Quercus nigra</i>																		
<i>Quercus pagoda</i>																		
<i>Quercus phellos</i>																		
<i>Quercus rubra</i>																		
<i>Quercus spp.</i>																		
<i>Taxodium distichum</i>																		

Total/Average

*containerized stock planted

Table 7. Plot 2-3. 2005 Monitoring Data - Little Conetnenta Creek Riparian Buffer Restoration - Phase 3 - Greene County, NC.

Species	Average Diameter (cm)	Average Height (m)	Total Observed	Total Dead	D		H		D		H		D		H		D		H	
					D	H	D	H	D	H	D	H	D	H	D	H	D	H		
<i>Fraxinus americana</i>																				
<i>Fraxinus pensylvanica</i>	0.63	0.56	7		0.5	0.5	0.6	0.55	0.6	0.6	0.6	0.6	0.8	0.55	0.6	0.52	0.7	0.58		
<i>Fraxinus pensylvanica</i> *																				
<i>Liquidambar styraciflua</i> **																				
<i>Liriodendron tulipifera</i>																				
<i>Platanus occidentalis</i>																				
<i>Quercus nigra</i>	0.63	0.41	3		0.4	0.27	0.8	0.55	0.7	0.4										
<i>Quercus pagoda</i>																				
<i>Quercus phellos</i>	0.70	0.64	1		0.7	0.64														
<i>Quercus rubra</i>																				
<i>Quercus spp.</i>	0.55	0.48	2		0.5	0.31	0.6	0.65												
<i>Taxodium distichum</i>																				
Total/Average	0.63	0.52	13	0																

*containerized stock planted in October 2005

**volunteer (not planted)

D=diameter

H=height (meters)

Table 8. Plot 2-4. 2005 Monitoring Data - Little Conetnenta Creek Riparian Buffer Restoration - Phase 3 - Greene County, NC.

Species	Average Diameter (cm)	Average Height (m)	Total Observed	Total Dead	D		H		D		H		D		H	
					D	H	D	H	D	H	D	H	D	H		
<i>Fraxinus americana</i>																
<i>Fraxinus pensylvanica</i>	0.70	0.61	2	2	d	d	d	d	0.7	0.6	0.7	0.61				
<i>Fraxinus pensylvanica</i> *																
<i>Liquidambar styraciflua</i> **																
<i>Liriodendron tulipifera</i>																
<i>Platanus occidentalis</i>	2.30	1.67	1		2.3	1.67										
<i>Quercus nigra</i>																
<i>Quercus pagoda</i>																
<i>Quercus phellos</i>	0.50	0.45	1		0.5	0.45										
<i>Quercus rubra</i>																
<i>Quercus spp.</i>																
<i>Taxodium distichum</i>	0.86	0.85	5		0.7	0.7	0.5	0.66	0.8	0.8	1.3	1.14	1	0.94		
Total/Average	1.09	0.89	9	2												

*containerized stock planted in October 2005

**volunteer (not planted)

D=diameter

H=height (meters)

Table 9. Plot 3-1. 2005 Monitoring Data - Little Conetnenta Creek Riparian Buffer Restoration - Phase 3 - Greene County, NC.

Species	Average Diameter (cm)	Average Height (m)	Total Observed	Total Dead	D		H		D		H		D		H		D	
					D	H	D	H	D	H	D	H	D	H	D	H		
<i>Fraxinus americana</i>																		
<i>Fraxinus pennsylvanica</i>	0.70	0.75	1		0.7	0.75												
<i>Fraxinus pennsylvanica</i> *																		
<i>Liquidambar styraciflua</i> **	1.80	1.50	1		1.8	1.5												
<i>Liriodendron tulipifera</i>																		
<i>Platanus occidentalis</i>	1.30	2.20	3		2.2	1.9	0.5	2.5	1.2	2.2								
<i>Quercus nigra</i>																		
<i>Quercus pagoda</i>																		
<i>Quercus phellos</i>																		
<i>Quercus rubra</i>																		
<i>Quercus spp.</i>																		
<i>Taxodium distichum</i>	1.00	0.74	2		1.4	1.1	0.6	0.38										
Total/Average	1.20	1.30	7	0														

*containerized stock planted in October 2005

**volunteer (not planted)

D=diameter

H=height (meters)

Table 10. Plot 3-2. 2005 Monitoring Data - Little Conetnenta Creek Riparian Buffer Restoration - Phase 3 - Greene County, NC.

Species	Average Diameter (cm)	Average Height (m)	Total Observed	Total Dead	D		H		D		H		D		H		D		H	
					D	H	D	H	D	H	D	H	D	H	D	H	D	H		
<i>Fraxinus americana</i>																				
<i>Fraxinus pennsylvanica</i>	0.65	0.62	2		0.6	0.63		0.7	0.6											
<i>Fraxinus pennsylvanica</i> *																				
<i>Liquidambar styraciflua</i> **																				
<i>Liriodendron tulipifera</i>																				
<i>Platanus occidentalis</i>																				
<i>Quercus nigra</i>																				
<i>Quercus pagoda</i>	0.60	0.58	3		0.5	0.42		0.7	0.78		0.6	0.55								
<i>Quercus phellos</i>																				
<i>Quercus rubra</i>																				
<i>Quercus spp.</i>																				
<i>Taxodium distichum</i>																				
Total/Average	0.63	0.60	5	0																

*containerized stock planted in October 2005

**volunteer (not planted)

D=diameter

H=height (meters)

Table 11. Plot 3-3. 2005 Monitoring Data - Little Conetnenta Creek Riparian Buffer Restoration - Phase 3 - Greene County, NC.

Species	Average Diameter (cm)	Average Height (m)	Total Observed	Total Dead	D		H		D		H		D		H		D		H	
					D	H	D	H	D	H	D	H	D	H	D	H	D	H		
<i>Fraxinus americana</i>																				
<i>Fraxinus pennsylvanica</i>	0.70	0.68	9		0.7	0.75	0.9	0.77	0.8	0.68	0.5	0.6	0.6	0.68	0.6	0.64	0.6	0.6		
<i>Fraxinus pennsylvanica</i> *																				
<i>Liquidambar styraciflua</i> **																				
<i>Liriodendron tulipifera</i>																				
<i>Platanus occidentalis</i>																				
<i>Quercus nigra</i>																				
<i>Quercus pagoda</i>																				
<i>Quercus phellos</i>																				
<i>Quercus rubra</i>																				
<i>Quercus spp.</i>																				
<i>Taxodium distichum</i>	0.87	0.86	3		0.7	0.76	0.5	0.77	1.4	1.05										
Total/Average	0.78	0.77	12	0																

*containerized stock planted in October 2005

**volunteer (not planted)

D=diameter

H=height (meters)

Table 11. Plot 3-3. 2005 M

Species	D	H	D	H
<i>Fraxinus americana</i>				
<i>Fraxinus pensylvanica</i>	0.7	0.67	0.9	0.77
<i>Fraxinus pensylvanica</i> *				
<i>Liquidambar styraciflua</i> **				
<i>Liriodendron tulipifera</i>				
<i>Platanus occidentalis</i>				
<i>Quercus nigra</i>				
<i>Quercus pagoda</i>				
<i>Quercus phellos</i>				
<i>Quercus rubra</i>				
<i>Quercus spp.</i>				
<i>Taxodium distichum</i>				

Total/Average

*containerized stock planted

Table 12. Plot 4-1. 2005 Monitoring Data - Little Conetnenta Creek Riparian Buffer Restoration - Phase 3 - Greene County, NC.

Species	Average Diameter (cm)	Average Height (m)	Total Observed	Total Dead	D		H		D		H		D		H		D		H	
					D	H	D	H	D	H	D	H	D	H	D	H	D	H		
<i>Fraxinus americana</i>																				
<i>Fraxinus pennsylvanica</i>	0.85	0.49	4	1	1.44	0.9	0.55	0.24	0.55	0.24	d	d	0.85	0.57						
<i>Fraxinus pennsylvanica</i> *																				
<i>Liquidambar styraciflua</i> **	0.80	0.60	14		1.19	0.65	0.9	0.4	0.67	0.58	0.9	0.6	1.6	0.97	0.5	0.57	0.33	0.33		
<i>Liriodendron tulipifera</i>																				
<i>Platanus occidentalis</i>	1.19	0.94	4		1	0.95	0.63	0.39	1.43	0.97	1.7	1.44								
<i>Quercus nigra</i>																				
<i>Quercus pagoda</i>																				
<i>Quercus phellos</i>																				
<i>Quercus rubra</i>																				
<i>Quercus spp.</i>																				
<i>Taxodium distichum</i>	1.19	1.00	4		1.5	1	0.8	0.74	1.05	1.12	1.41	1.13								
Total/Average	1.01	0.76	26	1																

*containerized stock planted in October 2005

**volunteer (not planted)

D=diameter

H=height (meters)

Table 12. Plot 4-1. 2005 M

Species	D	H	D	H	D	H	D	H	D	H	D	H	D	H
<i>Fraxinus americana</i>														
<i>Fraxinus pennsylvanica</i>														
<i>Fraxinus pennsylvanica</i> *														
<i>Liquidambar styraciflua</i> **	1.04	0.79	1.06	0.8	0.3	0.43	0.8	0.6	0.83	0.64	0.3	0.51	0.75	0.54
<i>Liriodendron tulipifera</i>														
<i>Platanus occidentalis</i>														
<i>Quercus nigra</i>														
<i>Quercus pagoda</i>														
<i>Quercus phellos</i>														
<i>Quercus rubra</i>														
<i>Quercus spp.</i>														
<i>Taxodium distichum</i>														

Total/Average

*containerized stock planted

Table 13. Plot 4-2. 2005 Monitoring Data - Little Conetnenta Creek Riparian Buffer Restoration - Phase 3 - Greene County, NC.

Species	Average Diameter (cm)	Average Height (m)	Total Observed	Total Dead	D		H		D		H		D		H		D		H	
					D	H	D	H	D	H	D	H	D	H	D	H	D	H		
<i>Fraxinus americana</i>																				
<i>Fraxinus pennsylvanica</i>	1.23	0.82	1	3	d	d	d	d	d	d	1.23	0.82								
<i>Fraxinus pennsylvanica</i> *																				
<i>Liquidambar styraciflua</i> **																				
<i>Liriodendron tulipifera</i>																				
<i>Platanus occidentalis</i>	1.45	1.31	6	1	1.64	1.42	1.75	1.8	1.7	1.53	1.4	1.39	1.2	1.1	d	d	1	0.64		
<i>Quercus nigra</i>																				
<i>Quercus pagoda</i>																				
<i>Quercus phellos</i>																				
<i>Quercus rubra</i>																				
<i>Quercus spp.</i>																				
<i>Taxodium distichum</i>																				
Total/Average	1.34	1.07	7	4																

*containerized stock planted in October 2005

**volunteer (not planted)

D=diameter

H=height (meters)

Table 14. Plot 4-3. 2005 Monitoring Data - Little Conetnenta Creek Riparian Buffer Restoration - Phase 3 - Greene County, NC.

Species	Average Diameter (cm)	Average Height (m)	Total Observed	Total Dead	D		H		D		H		D		H		D		H	
					D	H	D	H	D	H	D	H	D	H	D	H	D	H		
<i>Fraxinus americana</i>																				
<i>Fraxinus pennsylvanica</i>	1.50	0.73	1	4	1.5	0.73	d	d	d	d	d	d	d	d						
<i>Fraxinus pennsylvanica</i> *																				
<i>Liquidambar styraciflua</i> **																				
<i>Liriodendron tulipifera</i>																				
<i>Platanus occidentalis</i>	1.01	0.74	9	1	1.15	1.3	0.81	0.73	0.2	0.25	d	d	0.5	0.39	1.6	0.7	0.6	0.43		
<i>Quercus nigra</i>																				
<i>Quercus pagoda</i>																				
<i>Quercus phellos</i>																				
<i>Quercus rubra</i>																				
<i>Quercus spp.</i>																				
<i>Taxodium distichum</i>																				
Total/Average	1.26	0.73	10	5																

*containerized stock planted in October 2005

**volunteer (not planted)

D=diameter

H=height (meters)

Table 14. Plot 4-3. 2005 M

Species	D	H	D	H	D	H
<i>Fraxinus americana</i>						
<i>Fraxinus pennsylvanica</i>						
<i>Fraxinus pennsylvanica</i> *						
<i>Liquidambar styraciflua</i> **						
<i>Liriodendron tulipifera</i>						
<i>Platanus occidentalis</i>	0.9	0.9	1.5	1.4	1.85	0.52
<i>Quercus nigra</i>						
<i>Quercus pagoda</i>						
<i>Quercus phellos</i>						
<i>Quercus rubra</i>						
<i>Quercus spp.</i>						
<i>Taxodium distichum</i>						

Total/Average

*containerized stock planted

Table 15. Plot 5-1. 2005 Monitoring Data - Little Conetnenta Creek Riparian Buffer Restoration - Phase 3 - Greene County, NC.

Species	Average Diameter (cm)	Average Height (m)	Total Observed	Total Dead	D		H		D		H		D		H	
					D	H	D	H	D	H	D	H	D	H		
<i>Fraxinus americana</i>																
<i>Fraxinus pennsylvanica</i>	0.77	0.59	3		0.7	0.57	0.6	0.65	1	0.55						
<i>Fraxinus pennsylvanica</i> *																
<i>Liquidambar styraciflua</i> **	0.87	0.62	6		0.5	0.45	0.5	0.45	0.82	0.83	1.8	0.8	0.8	0.6	0.8	0.6
<i>Liriodendron tulipifera</i>																
<i>Platanus occidentalis</i>																
<i>Quercus nigra</i>																
<i>Quercus pagoda</i>	0.65	0.60	4		0.7	0.38										
<i>Quercus phellos</i>	0.65	0.60	4		0.6	0.69	0.7	0.45	0.5	0.38	0.8	0.87				
<i>Quercus rubra</i>																
<i>Quercus spp.</i>																
<i>Taxodium distichum</i>																
Total/Average	0.73	0.60	17	0												

*containerized stock planted in October 2005

**volunteer (not planted)

D=diameter

H=height (meters)

Table 16. Plot 5-2. 2005 Monitoring Data - Little Conetnenta Creek Riparian Buffer Restoration - Phase 3 - Greene County, NC.

Species	Average Diameter (cm)	Average Height (m)	Total Observed	Total Dead	WSX\X									
					D	H	D	H	D	H	D	H		
<i>Fraxinus americana</i>														
<i>Fraxinus pennsylvanica</i>	0.67	1.83	4		0.5	0.5	0.5	0.58	0.8	0.63	0.7	5.6		
<i>Fraxinus pennsylvanica</i> *														
<i>Liquidambar styraciflua</i> **	0.65	0.60	2		0.5	0.38	0.8	0.82						
<i>Liriodendron tulipifera</i>														
<i>Platanus occidentalis</i>	0.86	0.67	3		1	1.26	1.3	0.25	0.27	0.51				
<i>Quercus nigra</i>														
<i>Quercus pagoda</i>	0.40	0.48	2		0.5	0.53	0.3	0.43						
<i>Quercus phellos</i>	0.90	0.45	1		0.9	0.45								
<i>Quercus rubra</i>														
<i>Quercus spp.</i>														
<i>Taxodium distichum</i>														
Total/Average	0.69	0.81	12	0										

*containerized stock planted in October 2005

**volunteer (not planted)

D=diameter

H=height (meters)

Table 17. Plot 5-3. 2005 Monitoring Data - Little Conetnenta Creek Riparian Buffer Restoration - Phase 3 - Greene County, NC.

Species	Average Diameter (cm)	Average Height (m)	Total Observed	Total Dead	D		H		D		H		D		H	
					D	H	D	H	D	H	D	H	D	H		
<i>Fraxinus americana</i>																
<i>Fraxinus pensylvanica</i>	1.03	0.63	4		1.6	0.76	0.9	0.62	0.9	0.63	0.7	0.5				
<i>Fraxinus pensylvanica</i> *																
<i>Liquidambar styraciflua</i> **																
<i>Liriodendron tulipifera</i>																
<i>Platanus occidentalis</i>	0.76	0.73	5	1	d	d	0.7	1	0.7	0.5	1	0.5	1	1.2	0.4	0.47
<i>Quercus nigra</i>																
<i>Quercus pagoda</i>																
<i>Quercus phellos</i>																
<i>Quercus rubra</i>																
<i>Quercus spp.</i>																
<i>Taxodium distichum</i>																
Total/Average	0.89	0.68	9	1												

*containerized stock planted in October 2005

**volunteer (not planted)

D=diameter

H=height (meters)

Table 18. Plot 6-1. 2005 Monitoring Data - Little Conetnenta Creek Riparian Buffer Restoration - Phase 3 - Greene County, NC.

Species	Average Diameter (cm)	Average Height (m)	Total Observed	Total Dead	D		H		D		H		D		H	
					D	H	D	H	D	H	D	H	D	H		
<i>Fraxinus americana</i>																
<i>Fraxinus pensylvanica</i>	0.44	0.46	1	1	d	d	0.44	0.46								
<i>Fraxinus pensylvanica</i> *																
<i>Liquidambar styraciflua</i> **																
<i>Liriodendron tulipifera</i>																
<i>Platanus occidentalis</i>	1.39	1.18	3		0.87	0.75	1.93	1.6	1.37	1.18						
<i>Quercus nigra</i>																
<i>Quercus pagoda</i>	0.59	0.45	3		0.84	0.3	0.46	0.49	0.46	0.56						
<i>Quercus phellos</i>	0.42	0.40	1		0.42	0.4										
<i>Quercus rubra</i>																
<i>Quercus spp.</i>																
<i>Taxodium distichum</i>																
Total/Average	0.71	0.62	8	1												

*containerized stock planted in October 2005

**volunteer (not planted)

D=diameter

H=height (meters)

Table 19. Plot 6-2. 2005 Monitoring Data - Little Conetnenta Creek Riparian Buffer Restoration - Phase 3 - Greene County, NC.

Species	Average Diameter (cm)	Average Height (m)	Total Observed	Total Dead	D		H		D		H		D		H		D		H	
					D	H	D	H	D	H	D	H	D	H	D	H	D	H		
<i>Fraxinus americana</i>																				
<i>Fraxinus pennsylvanica</i>	0.64	0.56	6	1	0.45	0.46	0.65	0.5	d	d	0.74	0.55	0.65	0.61	0.54	0.61	0.79	0.62		
<i>Fraxinus pennsylvanica</i> *																				
<i>Liquidambar styraciflua</i> **																				
<i>Liriodendron tulipifera</i>																				
<i>Platanus occidentalis</i>	1.34	1.44	3		1.38	1.43	1.4	1.41	1.23	1.49										
<i>Quercus nigra</i>																				
<i>Quercus pagoda</i>	0.68	0.36	1		0.68	0.36														
<i>Quercus phellos</i>																				
<i>Quercus rubra</i>																				
<i>Quercus spp.</i>																				
<i>Taxodium distichum</i>																				
Total/Average	0.88	0.79	10	1																

*containerized stock planted in October 2005

**volunteer (not planted)

D=diameter

H=height (meters)

Table 20. Plot 6-3. 2005 Monitoring Data - Little Conetnenta Creek Riparian Buffer Restoration - Phase 3 - Greene County, NC.

Species	Average Diameter (cm)	Average Height (m)	Total Observed	Total Dead	D		H		D		H		D		H	
					D	H	D	H	D	H	D	H	D	H		
<i>Fraxinus americana</i>																
<i>Fraxinus pennsylvanica</i>	0.63	0.52	6		0.8	0.62	0.52	0.49	0.3	0.41	0.6	0.57	0.87	0.51	0.7	0.52
<i>Fraxinus pennsylvanica</i> *																
<i>Liquidambar styraciflua</i> **																
<i>Liriodendron tulipifera</i>																
<i>Platanus occidentalis</i>																
<i>Quercus nigra</i>																
<i>Quercus pagoda</i>	0.55	0.40	3		0.98	0.46	0.3	0.33	0.37	0.4						
<i>Quercus phellos</i>	0.60	0.52	1		0.6	0.52										
<i>Quercus rubra</i>																
<i>Quercus spp.</i>																
<i>Taxodium distichum</i>	1.07	0.92	2		1.13	0.94	1	0.9								
Total/Average	0.71	0.59	12	0												

*containerized stock planted in October 2005

**volunteer (not planted)

D=diameter

H=height (meters)

Table 21. Plot 6-4. 2005 Monitoring Data - Little Conetnenta Creek Riparian Buffer Restoration - Phase 3 - Greene County, NC.

Species	Average Diameter (cm)	Average Height (m)	Total Observed	Total Dead	D		H		D		H		D		H		D		H	
					D	H	D	H	D	H	D	H	D	H	D	H	D	H		
<i>Fraxinus americana</i>																				
<i>Fraxinus pensylvanica</i>	0.55	0.57	6	1	0.5	0.53	0.5	0.6	0.5	0.61	0.5	0.54	0.6	0.54	0.7	0.62	d	d		
<i>Fraxinus pensylvanica</i> *																				
<i>Liquidambar styraciflua</i> **																				
<i>Liriodendron tulipifera</i>																				
<i>Platanus occidentalis</i>	0.93	1.16	3		0.6	1.75	0.9	0.76	1.3	0.96										
<i>Quercus nigra</i>																				
<i>Quercus pagoda</i>																				
<i>Quercus phellos</i>	0.30	0.33	2		0.3	0.25	0.3	0.4												
<i>Quercus rubra</i>																				
<i>Quercus spp.</i>																				
<i>Taxodium distichum</i>																				
Total/Average	0.59	0.69	11	1																

*containerized stock planted in October 2005

**volunteer (not planted)

D=diameter

H=height (meters)

Table 22. Plot 7-1. 2005 Monitoring Data - Little Conetnenta Creek Riparian Buffer Restoration - Phase 3 - Greene County, NC.

Species	Average Diameter (cm)	Average Height (m)	Total Observed	Total Dead	D		H		D		H		D		H		D		H	
					D	H	D	H	D	H	D	H	D	H	D	H	D	H		
<i>Fraxinus americana</i>																				
<i>Fraxinus pensylvanica</i>	0.93	0.50	6		1.4	0.59	0.9	0.32	0.8	0.33	0.8	0.59	0.8	0.54	0.9	0.65				
<i>Fraxinus pensylvanica</i> *																				
<i>Liquidambar styraciflua</i> **																				
<i>Liriodendron tulipifera</i>	0.65	0.48	4	3	0.7	0.39	d	d	0.6	0.47	0.5	0.59	0.8	0.49	d	d	d	d		
<i>Platanus occidentalis</i>																				
<i>Quercus nigra</i>																				
<i>Quercus pagoda</i>																				
<i>Quercus phellos</i>																				
<i>Quercus rubra</i>																				
<i>Quercus spp.</i>																				
<i>Taxodium distichum</i>																				
Total/Average	0.79	0.49	10	3																

*containerized stock planted in October 2005

**volunteer (not planted)

D=diameter

H=height (meters)

Table 23. Plot 7-2. 2005 Monitoring Data - Little Conetnenta Creek Riparian Buffer Restoration - Phase 3 - Greene County, NC.

Species	Average Diameter (cm)	Average Height (m)	Total Observed	Total Dead	D		H		D		H		D		H		D		H	
					D	H	D	H	D	H	D	H	D	H	D	H	D	H		
<i>Fraxinus americana</i>																				
<i>Fraxinus pensylvanica</i>				1	d	d														
<i>Fraxinus pensylvanica</i> *																				
<i>Liquidambar styraciflua</i> **																				
<i>Liriodendron tulipifera</i>																				
<i>Platanus occidentalis</i>	0.92	1.20	7		1.6	2.5	0.6	1.68	0.9	0.7	1.1	1.37	0.8	0.74	0.75	0.72	0.7	0.7		
<i>Quercus nigra</i>																				
<i>Quercus pagoda</i>																				
<i>Quercus phellos</i>																				
<i>Quercus rubra</i>																				
<i>Quercus spp.</i>																				
<i>Taxodium distichum</i>																				
Total/Average	0.92	1.20	7	1																

*containerized stock planted in October 2005

**volunteer (not planted)

D=diameter

H=height (meters)

Table 24. Plot 7-3. 2005 Monitoring Data - Little Conetnenta Creek Riparian Buffer Restoration - Phase 3 - Greene County, NC.

Species	Average Diameter (cm)	Average Height (m)	Total Observed	Total Dead	D		H		D		H		D		H		D		H	
					D	H	D	H	D	H	D	H	D	H	D	H	D	H		
<i>Fraxinus americana</i>																				
<i>Fraxinus pensylvanica</i>	0.83	0.49	5		0.5	0.33	0.7	0.43	0.77	0.43	1.3	0.58	0.9	0.67						
<i>Fraxinus pensylvanica</i> *																				
<i>Liquidambar styraciflua</i> **																				
<i>Liriodendron tulipifera</i>																				
<i>Platanus occidentalis</i>	1.19	1.20	7		1	0.52	1.1	1.43	1.7	1.15	0.9	1.8	1.2	1.39	0.9	1.09	1.5	1.03		
<i>Quercus nigra</i>																				
<i>Quercus pagoda</i>																				
<i>Quercus phellos</i>																				
<i>Quercus rubra</i>																				
<i>Quercus spp.</i>																				
<i>Taxodium distichum</i>																				
Total/Average	1.01	0.84	12	0																

*containerized stock planted in October 2005

**volunteer (not planted)

D=diameter

H=height (meters)

Table 25. Plot 8-1. 2005 Monitoring Data - Little Conetnenta Creek Riparian Buffer Restoration - Phase 3 - Greene County, NC.

Species	Average Diameter (cm)	Average Height (m)	Total Observed	Total Dead	D	H	D	H	D	H	D	H	D	H	D	H	D	H	D	H
<i>Fraxinus americana</i>																				
<i>Fraxinus pensylvanica</i>	0.75	0.46	2	2	d	d	d	d	0.9	0.65	0.6	0.26								
<i>Fraxinus pensylvanica*</i>																				
<i>Liquidambar styraciflua**</i>																				
<i>Liriodendron tulipifera</i>																				
<i>Platanus occidentalis</i>	1.17	1.22	8		0.9	0.98	0.87	0.95	1.37	0.96	0.9	1.07	1.3	1.38	1.5	1.45	1.6	1.1	0.9	1.83
<i>Quercus nigra</i>																				
<i>Quercus pagoda</i>																				
<i>Quercus phellos</i>																				
<i>Quercus rubra</i>																				
<i>Quercus spp.</i>																				
<i>Taxodium distichum</i>																				

Total/Average

0.96

0.84

10

2

*containerized stock planted in October 2005

**volunteer (not planted)

D=diameter

H=height (meters)

Table 26. Plot 8-2. 2005 Monitoring Data - Little Conetnenta Creek Riparian Buffer Restoration - Phase 3 - Greene County, NC.

Species	Average Diameter (cm)	Average Height (m)	Total Observed	Total Dead	D		H		D		H		D		H		D		H	
					D	H	D	H	D	H	D	H	D	H	D	H	D	H		
<i>Fraxinus americana</i>																				
<i>Fraxinus pennsylvanica</i>	0.88	0.58	4	3	1.1	0.65	d	d	0.8	0.52	d	d	0.9	0.63	d	d	0.7	0.52		
<i>Fraxinus pennsylvanica</i> *																				
<i>Liquidambar styraciflua</i> **																				
<i>Liriodendron tulipifera</i>																				
<i>Platanus occidentalis</i>	1.10	0.76	1		1.1	0.76														
<i>Quercus nigra</i>																				
<i>Quercus pagoda</i>																				
<i>Quercus phellos</i>																				
<i>Quercus rubra</i>	0.30	0.30	1		0.3	0.3														
<i>Quercus spp.</i>																				
<i>Taxodium distichum</i>																				

Total/Average

0.76

0.55

6

3

*containerized stock planted in October 2005

**volunteer (not planted)

D=diameter

H=height (meters)

Table 27. Plot 8-3. 2005 Monitoring Data - Little Conetnenta Creek Riparian Buffer Restoration - Phase 3 - Greene County, NC.

Species	Average Diameter (cm)	Average Height (m)	Total Observed	Total Dead	D		H		D		H		D		H	
					D	H	D	H	D	H	D	H	D	H		
<i>Fraxinus americana</i>																
<i>Fraxinus pensylvanica</i>	0.95	0.56	3	1	1.17	0.6	0.8	0.5	0.87	0.57	d	d				
<i>Fraxinus pensylvanica</i> *																
<i>Liquidambar styraciflua</i> **																
<i>Liriodendron tulipifera</i>	0.70	0.40	1	1	0.7	0.4	d	d								
<i>Platanus occidentalis</i>	1.10	0.73	2	1	d	d	1	0.65	1.19	0.8						
<i>Quercus nigra</i>																
<i>Quercus pagoda</i>																
<i>Quercus phellos</i>																
<i>Quercus rubra</i>																
<i>Quercus spp.</i>																
<i>Taxodium distichum</i>																
Total/Average	0.91	0.56	6	3												

*containerized stock planted in October 2005

**volunteer (not planted)

D=diameter

H=height (meters)

Table 28. Plot 8-4. 2005 Monitoring Data - Little Conetnenta Creek Riparian Buffer Restoration - Phase 3 - Greene County, NC.

Species	Average Diameter (cm)	Average Height (m)	Total Observed	Total Dead	D		H		D		H		D		H	
					D	H	D	H	D	H	D	H	D	H		
<i>Fraxinus americana</i>																
<i>Fraxinus pensylvanica</i>	0.70	0.41	3	1	0.7	0.36	0.7	0.3	0.7	0.58	d	d				
<i>Fraxinus pensylvanica</i> *																
<i>Liquidambar styraciflua</i> **																
<i>Liriodendron tulipifera</i>																
<i>Platanus occidentalis</i>	1.08	1.10	4		1.1	1.32	1.5	1.35	0.6	0.4	1.1	1.33				
<i>Quercus nigra</i>																
<i>Quercus pagoda</i>																
<i>Quercus phellos</i>																
<i>Quercus rubra</i>																
<i>Quercus spp.</i>																
<i>Taxodium distichum</i>																
Total/Average	0.89	0.76	7	1												

*containerized stock planted in October 2005

**volunteer (not planted)

D=diameter

H=height (meters)

Table 29. Plot 9-1. 2005 Monitoring Data - Little Conetnenta Creek Riparian Buffer Restoration - Phase 3 - Greene County, NC.

Species	Average Diameter (cm)	Average Height (m)	Total Observed	Total Dead	D		H		D		H		D		H	
					D	H	D	H	D	H	D	H	D	H		
<i>Fraxinus americana</i>																
<i>Fraxinus pensylvanica</i>																
<i>Fraxinus pensylvanica</i> *																
<i>Liquidambar styraciflua</i> **																
<i>Liriodendron tulipifera</i>																
<i>Platanus occidentalis</i>	0.40	0.50	1	2	0.4	0.5	d	d	d	d						
<i>Quercus nigra</i>																
<i>Quercus pagoda</i>																
<i>Quercus phellos</i>	0.43	0.34	4	1	0.4	0.31	d	d	0.3	0.34	0.3	0.4	0.7	0.31		
<i>Quercus rubra</i>																
<i>Quercus spp.</i>																
<i>Taxodium distichum</i>																
Total/Average	0.41	0.42	5	3												

*containerized stock planted in October 2005

**volunteer (not planted)

D=diameter

H=height (meters)

Table 30. Plot 9-2. 2005 Monitoring Data - Little Conetnenta Creek Riparian Buffer Restoration - Phase 3 - Greene County, NC.

Species	Average Diameter (cm)	Average Height (m)	Total Observed	Total Dead	D		H		D		H		D		H	
					D	H	D	H	D	H	D	H	D	H		
<i>Fraxinus americana</i>	0.80	0.34	1		0.8	0.34										
<i>Fraxinus pensylvanica</i>																
<i>Fraxinus pensylvanica</i> *																
<i>Liquidambar styraciflua</i> **																
<i>Liriodendron tulipifera</i>	0.78	0.52	4		1.2	0.7	0.5	0.49	0.6	0.57	0.8	0.32				
<i>Platanus occidentalis</i>	1.13	1.49	4		2.4	1.49	1.2	1.27	0.5	1.64	0.4	1.55				
<i>Quercus nigra</i>																
<i>Quercus pagoda</i>																
<i>Quercus phellos</i>																
<i>Quercus rubra</i>																
<i>Quercus spp.</i>																
<i>Taxodium distichum</i>																
Total/Average	0.90	0.78	9	0												

*containerized stock planted in October 2005

**volunteer (not planted)

D=diameter

H=height (meters)

Table 31. Plot 9-3. 2005 Monitoring Data - Little Conetnenta Creek Riparian Buffer Restoration - Phase 3 - Greene County, NC.

Species	Average Diameter (cm)	Average Height (m)	Total Observed	Total Dead	D		H		D		H		D		H	
					D	H	D	H	D	H	D	H	D	H		
<i>Fraxinus americana</i>																
<i>Fraxinus pensylvanica</i>	0.98	0.55	4	2	d	d	d	d	1.1	0.45	0.9	0.57	0.8	0.6	1.1	0.58
<i>Fraxinus pensylvanica</i> *																
<i>Liquidambar styraciflua</i> **																
<i>Liriodendron tulipifera</i>																
<i>Platanus occidentalis</i>																
<i>Quercus nigra</i>																
<i>Quercus pagoda</i>																
<i>Quercus phellos</i>	0.47	0.43	2		0.6	0.54	0.33	0.32								
<i>Quercus rubra</i>																
<i>Quercus spp.</i>	0.70	0.69	1		0.7	0.69										
<i>Taxodium distichum</i>																
Total/Average	0.71	0.55	7	2												

*containerized stock planted in October 2005

**volunteer (not planted)

D=diameter

H=height (meters)

Table 32. Plot 9-4. 2005 Monitoring Data - Little Conetnenta Creek Riparian Buffer Restoration - Phase 3 - Greene County, NC.

Species	Average Diameter (cm)	Average Height (m)	Total Observed	Total Dead	D		H		D		H		D		H	
					D	H	D	H	D	H	D	H	D	H		
<i>Fraxinus americana</i>																
<i>Fraxinus pennsylvanica</i>	0.86	0.51	5		1.2	0.37	0.8	0.54	1	0.62	0.7	0.56	0.6	0.45		
<i>Fraxinus pennsylvanica</i> *																
<i>Liquidambar styraciflua</i> **																
<i>Liriodendron tulipifera</i>																
<i>Platanus occidentalis</i>	1.25	1.15	2		1	0.95	1.5	1.35								
<i>Quercus nigra</i>																
<i>Quercus pagoda</i>																
<i>Quercus phellos</i>																
<i>Quercus rubra</i>																
<i>Quercus spp.</i>																
<i>Taxodium distichum</i>																
Total/Average	1.06	0.83	7	0												

*containerized stock planted in October 2005

**volunteer (not planted)

D=diameter

H=height (meters)

Table 33. Plot 10-1. 2005 Monitoring Data - Little Conetnenta Creek Riparian Buffer Restoration - Phase 3 - Greene County, NC.

Species	Average Diameter (cm)	Average Height (m)	Total Observed	Total Dead	D		H		D		H		D		H	
					D	H	D	H	D	H	D	H	D	H		
<i>Fraxinus americana</i>																
<i>Fraxinus pensylvanica</i>	0.84	1.58	5	1	d	d	1.2	0.46	1	5.6	0.6	0.6	0.6	0.56	0.8	0.67
<i>Fraxinus pensylvanica</i> *																
<i>Liquidambar styraciflua</i> **																
<i>Liriodendron tulipifera</i>																
<i>Platanus occidentalis</i>																
<i>Quercus nigra</i>																
<i>Quercus pagoda</i>																
<i>Quercus phellos</i>																
<i>Quercus rubra</i>																
<i>Quercus spp.</i>																
<i>Taxodium distichum</i>																
Total/Average	0.84	1.58	5	1												

*containerized stock planted in October 2005

**volunteer (not planted)

D=diameter

H=height (meters)

Table 34. Plot 10-3. 2005 Monitoring Data - Little Conetnenta Creek Riparian Buffer Restoration - Phase 3 - Greene County, NC.

Species	Average Diameter (cm)	Average Height (m)	Total Observed	Total Dead	D		D		D		D		D		D		D		D			
					H	H	H	H	H	H	H	H	H	H	H	H						
<i>Fraxinus americana</i>																						
<i>Fraxinus pensylvanica</i>	0.63	1.73	8	1	0.5	0.37	0.7	0.6	0.5	0.7	0.7	0.38	d	d	0.7	3.7	0.6	0.63	0.7	6.8	0.6	0.64
<i>Fraxinus pensylvanica</i> *																						
<i>Liquidambar styraciflua</i> **																						
<i>Liriodendron tulipifera</i>																						
<i>Platanus occidentalis</i>																						
<i>Quercus nigra</i>																						
<i>Quercus pagoda</i>																						
<i>Quercus phellos</i>																						
<i>Quercus rubra</i>																						
<i>Quercus spp.</i>																						
<i>Taxodium distichum</i>																						

Total/Average

0.63

1.73

8

1

*containerized stock planted in October 2005

**volunteer (not planted)

D=diameter

H=height (meters)

Table 35. Plot 10-3. 2005 Monitoring Data - Little Conetnenta Creek Riparian Buffer Restoration - Phase 3 - Greene County, NC.

Species	Average Diameter (cm)	Average Height (m)	Total Observed	Total Dead	D		H		D		H		D		H		D		H	
					D	H	D	H	D	H	D	H	D	H	D	H	D	H		
<i>Fraxinus americana</i>																				
<i>Fraxinus pensylvanica</i>	0.90	0.61	5	2	d	d	1.1	0.6	0.8	0.58	d	d	0.7	0.55	0.9	0.55	1	0.75		
<i>Fraxinus pensylvanica</i> *																				
<i>Liquidambar styraciflua</i> **																				
<i>Liriodendron tulipifera</i>																				
<i>Platanus occidentalis</i>																				
<i>Quercus nigra</i>																				
<i>Quercus pagoda</i>																				
<i>Quercus phellos</i>																				
<i>Quercus rubra</i>																				
<i>Quercus spp.</i>																				
<i>Taxodium distichum</i>																				
Total/Average	0.90	0.61	5	2																

*containerized stock planted in October 2005

**volunteer (not planted)

D=diameter

H=height (meters)

Table 36. Plot 11-1. 2005 Monitoring Data - Little Conetnenta Creek Riparian Buffer Restoration - Phase 3 - Greene County, NC.

Species	Average Diameter (cm)	Average Height (m)	Total Observed	Total Dead	D		H		D		H		D		H	
					D	H	D	H	D	H	D	H	D	H		
<i>Fraxinus americana</i>																
<i>Fraxinus pensylvanica</i>	0.80	0.41	1	2	0.8	0.41	d	d	d	d						
<i>Fraxinus pensylvanica</i> *																
<i>Liquidambar styraciflua</i> **																
<i>Liriodendron tulipifera</i>																
<i>Platanus occidentalis</i>																
<i>Quercus nigra</i>																
<i>Quercus pagoda</i>																
<i>Quercus phellos</i>																
<i>Quercus rubra</i>																
<i>Quercus spp.</i>																
<i>Taxodium distichum</i>																
Total/Average	0.80	0.41	1	2												

*containerized stock planted in October 2005

**volunteer (not planted)

D=diameter

H=height (meters)

Table 37. Plot 11-2. 2005 Monitoring Data - Little Conetnenta Creek Riparian Buffer Restoration - Phase 3 - Greene County, NC.

Species	Average Diameter (cm)	Average Height (m)	Total Observed	Total Dead	D		H		D		H		D		H	
					D	H	D	H	D	H	D	H	D	H		
<i>Fraxinus americana</i>																
<i>Fraxinus pensylvanica</i>	1.20	0.49	3	1	1.2	0.55	d	d	1.1	0.45	1.3	0.47				
<i>Fraxinus pensylvanica</i> *																
<i>Liquidambar styraciflua</i> **	0.20	0.15	1		0.2	0.15										
<i>Liriodendron tulipifera</i>	0.70	0.52	2	1	0.8	0.59	0.6	0.45	d	d						
<i>Platanus occidentalis</i>																
<i>Quercus nigra</i>																
<i>Quercus pagoda</i>																
<i>Quercus phellos</i>																
<i>Quercus rubra</i>																
<i>Quercus spp.</i>																
<i>Taxodium distichum</i>																
Total/Average	0.70	0.39	6	2												

*containerized stock planted in October 2005

**volunteer (not planted)

D=diameter

H=height (meters)

Table 38. Plot 11-3. 2005 Monitoring Data - Little Conetnenta Creek Riparian Buffer Restoration - Phase 3 - Greene County, NC.

Species	Average Diameter (cm)	Average Height (m)	Total Observed	Total Dead	D		H		D		H		D		H		D		H	
					D	H	D	H	D	H	D	H	D	H	D	H	D	H		
<i>Fraxinus americana</i>																				
<i>Fraxinus pensylvanica</i>	0.92	0.57	5	2	1.1	0.76	0.9	0.5	1.1	0.65	0.8	0.55	0.7	0.4	d	d	d	d		
<i>Fraxinus pensylvanica</i> *																				
<i>Liquidambar styraciflua</i> **																				
<i>Liriodendron tulipifera</i>																				
<i>Platanus occidentalis</i>	1.35	0.97	2	1	d	d	2.1	1.28	0.6	0.65										
<i>Quercus nigra</i>																				
<i>Quercus pagoda</i>																				
<i>Quercus phellos</i>																				
<i>Quercus rubra</i>																				
<i>Quercus spp.</i>																				
<i>Taxodium distichum</i>																				
Total/Average	1.14	0.77	7	3																

*containerized stock planted in October 2005

**volunteer (not planted)

D=diameter

H=height (meters)

Table 39. Plot 11-4. 2005 Monitoring Data - Little Conetnenta Creek Riparian Buffer Restoration - Phase 3 - Greene County, NC.

Species	Average Diameter (cm)	Average Height (m)	Total Observed	Total Dead	D		H		D		H		D		H	
					D	H	D	H	D	H	D	H	D	H		
<i>Fraxinus americana</i>																
<i>Fraxinus pensylvanica</i>	1.15	0.58	2	1	1.4	0.72	d	d	0.9	0.44						
<i>Fraxinus pensylvanica</i> *	0.39	0.29	5		0.44	0.3	0.4	0.31	0.3	0.22	0.5	0.3	0.3	0.3		
<i>Liquidambar styraciflua</i> **																
<i>Liriodendron tulipifera</i>																
<i>Platanus occidentalis</i>	1.07	1.02	3		0.5	0.55	1.2	1.3	1.5	1.22						
<i>Quercus nigra</i>																
<i>Quercus pagoda</i>																
<i>Quercus phellos</i>																
<i>Quercus rubra</i>																
<i>Quercus spp.</i>																
<i>Taxodium distichum</i>																
Total/Average	0.87	0.63	10	1												

*containerized stock planted in October 2005

**volunteer (not planted)

D=diameter

H=height (meters)

Table 40. Plot 12-1. 2005 Monitoring Data - Little Conetnenta Creek Riparian Buffer Restoration - Phase 3 - Greene County, NC.

Species	Average Diameter (cm)	Average Height (m)	Total Observed	Total Dead	D		H		D		H		D		H	
					D	H	D	H	D	H	D	H	D	H		
<i>Fraxinus americana</i>																
<i>Fraxinus pensylvanica</i>	1.30	0.49	1		1.3	0.49										
<i>Fraxinus pensylvanica</i> *																
<i>Liquidambar styraciflua</i> **																
<i>Liriodendron tulipifera</i>																
<i>Platanus occidentalis</i>																
<i>Quercus nigra</i>																
<i>Quercus pagoda</i>																
<i>Quercus phellos</i>																
<i>Quercus rubra</i>																
<i>Quercus spp.</i>																
<i>Taxodium distichum</i>																
Total/Average	1.30	0.49	1	0												

*containerized stock planted in October 2005

**volunteer (not planted)

D=diameter

H=height (meters)

Table 41. Plot 12-2. 2005 Monitoring Data - Little Conetnenta Creek Riparian Buffer Restoration - Phase 3 - Greene County, NC.

Species	Average Diameter (cm)	Average Height (m)	Total Observed	Total Dead	no live											
					D	H	D	H	D	H	D	H	D	H		
<i>Fraxinus americana</i>																
<i>Fraxinus pensylvanica</i>																
<i>Fraxinus pensylvanica</i> *																
<i>Liquidambar styraciflua</i> **																
<i>Liriodendron tulipifera</i>																
<i>Platanus occidentalis</i>																
<i>Quercus nigra</i>																
<i>Quercus pagoda</i>																
<i>Quercus phellos</i>																
<i>Quercus rubra</i>																
<i>Quercus spp.</i>																
<i>Taxodium distichum</i>																

Total/Average

0

0

*containerized stock planted in October 2005

**volunteer (not planted)

D=diameter

H=height (meters)

Table 42. Plot 12-3. 2005 Monitoring Data - Little Conetnenta Creek Riparian Buffer Restoration - Phase 3 - Greene County, NC.

Species	Average Diameter (cm)	Average Height (m)	Total Observed	Total Dead	D		H		D		H		D		H		D		H	
					D	H	D	H	D	H	D	H	D	H	D	H	D	H		
<i>Fraxinus americana</i>																				
<i>Fraxinus pensylvanica</i>	1.30	4.80	1		1.3	4.8														
<i>Fraxinus pensylvanica</i> *																				
<i>Liquidambar styraciflua</i> **																				
<i>Liriodendron tulipifera</i>	1.10	0.59	5		1.6	0.69	1.2	0.55	1.1	0.6	d	d	0.8	0.56	0.8	0.57	d	d		
<i>Platanus occidentalis</i>																				
<i>Quercus nigra</i>																				
<i>Quercus pagoda</i>																				
<i>Quercus phellos</i>	0.70	0.70	2		0.59	0.9	0.8	0.5												
<i>Quercus rubra</i>																				
<i>Quercus spp.</i>																				
<i>Taxodium distichum</i>																				

Total/Average

1.03

2.03

8

0

*containerized stock planted in October 2005

**volunteer (not planted)

D=diameter

H=height (meters)

Table 43. Plot 12-4. 2005 Monitoring Data - Little Conetnenta Creek Riparian Buffer Restoration - Phase 3 - Greene County, NC.

Species	Average Diameter (cm)	Average Height (m)	Total Observed	Total Dead	D		H		D		H		D		H		D		H	
					D	H	D	H	D	H	D	H	D	H	D	H	D	H		
<i>Fraxinus americana</i>																				
<i>Fraxinus pensylvanica</i>				3	d	d	d	d	d	d										
<i>Fraxinus pensylvanica</i> *	0.39	0.31	13	0	0.5	0.32	0.4	0.38	0.3	0.22	0.3	0.24	0.4	0.31	0.4	0.34	0.4	0.37		
<i>Liquidambar styraciflua</i> **																				
<i>Liriodendron tulipifera</i>																				
<i>Platanus occidentalis</i>																				
<i>Quercus nigra</i>																				
<i>Quercus pagoda</i>																				
<i>Quercus phellos</i>																				
<i>Quercus rubra</i>																				
<i>Quercus spp.</i>																				
<i>Taxodium distichum</i>																				
Total/Average	0.39	0.31	13	3																

*containerized stock planted in October 2005

**volunteer (not planted)

D=diameter

H=height (meters)

Table 43. Plot 12-4. 2005 N

Species	D	H	D	H	D	H	D	H	D	H	D	H
<i>Fraxinus americana</i>												
<i>Fraxinus pensylvanica</i>												
<i>Fraxinus pensylvanica</i> *	0.4	0.33	0.4	0.41	0.4	0.2	0.6	0.26	0.3	0.3	0.3	0.39
<i>Liquidambar styraciflua</i> **												
<i>Liriodendron tulipifera</i>												
<i>Platanus occidentalis</i>												
<i>Quercus nigra</i>												
<i>Quercus pagoda</i>												
<i>Quercus phellos</i>												
<i>Quercus rubra</i>												
<i>Quercus spp.</i>												
<i>Taxodium distichum</i>												

Total/Average

*containerized stock planted

Table 44. Plot 13-1. 2005 Monitoring Data - Little Conetnenta Creek Riparian Buffer Restoration - Phase 3 - Greene County, NC.

Species	Average Diameter (cm)	Average Height (m)	Total Observed	Total Dead	D		H		D		H		D		H	
					D	H	D	H	D	H	D	H	D	H		
<i>Fraxinus americana</i>																
<i>Fraxinus pensylvanica</i>	1.10	0.57	3	1	0.7	0.36	1.5	0.75	1.1	0.61	d	d				
<i>Fraxinus pensylvanica</i> *																
<i>Liquidambar styraciflua</i> **																
<i>Liriodendron tulipifera</i>																
<i>Platanus occidentalis</i>																
<i>Quercus nigra</i>																
<i>Quercus pagoda</i>																
<i>Quercus phellos</i>																
<i>Quercus rubra</i>																
<i>Quercus spp.</i>																
<i>Taxodium distichum</i>																
Total/Average	1.10	0.57	3	1												

*containerized stock planted in October 2005

**volunteer (not planted)

D=diameter

H=height (meters)

Table 45. Plot 13-2. 2005 Monitoring Data - Little Conetnenta Creek Riparian Buffer Restoration - Phase 3 - Greene County, NC.

Species	Average Diameter (cm)	Average Height (m)	Total Observed	Total Dead	D		H		D		H		D		H		D		H	
					D	H	D	H	D	H	D	H	D	H	D	H	D	H		
<i>Fraxinus americana</i>																				
<i>Fraxinus pensylvanica</i>	0.70	0.41	4		0.7	0.45	0.6	0.38	0.7	0.34	0.8	0.49								
<i>Fraxinus pensylvanica</i> *																				
<i>Liquidambar styraciflua</i> **																				
<i>Liriodendron tulipifera</i>	0.40	0.50	3	4	d	d	0.3	0.57	0.4	0.48	d	d	d	d	0.5	0.45	d	d		
<i>Platanus occidentalis</i>																				
<i>Quercus nigra</i>																				
<i>Quercus pagoda</i>																				
<i>Quercus phellos</i>	0.80	0.57	1		0.8	0.57														
<i>Quercus rubra</i>																				
<i>Quercus spp.</i>																				
<i>Taxodium distichum</i>																				
Total/Average	0.63	0.49	8	4																

*containerized stock planted in October 2005

**volunteer (not planted)

D=diameter

H=height (meters)

Table 46. Plot 13-3. 2005 Monitoring Data - Little Conetnenta Creek Riparian Buffer Restoration - Phase 3 - Greene County, NC.

	Average Diameter (cm)	Average Height (m)	Total Observed	Total Dead	D		H		D		H		D		H	
					D	H	D	H	D	H	D	H	D	H		
<i>Fraxinus americana</i>																
<i>Fraxinus pensylvanica</i>																
<i>Fraxinus pensylvanica</i> *																
<i>Liquidambar styraciflua</i> **																
<i>Liriodendron tulipifera</i>	0.60	0.50	1		0.6	0.5										
<i>Platanus occidentalis</i>																
<i>Quercus nigra</i>																
<i>Quercus pagoda</i>	0.50	0.50	1		0.5	0.5										
<i>Quercus phellos</i>	0.40	0.36	1		0.4	0.36										
<i>Quercus rubra</i>																
<i>Quercus spp.</i>				2	d	d	d	d								
<i>Taxodium distichum</i>																

Total/Average

0.50

0.45

3

2

*containerized stock planted in October 2005

**volunteer (not planted)

D=diameter

H=height (meters)

Table 47. Plot 13-4. 2005 Monitoring Data - Little Conetnenta Creek Riparian Buffer Restoration - Phase 3 - Greene County, NC.

Species	Average Diameter (cm)	Average Height (m)	Total Observed	Total Dead	D		H		D		H		D		H		D		H	
					D	H	D	H	D	H	D	H	D	H	D	H				
<i>Fraxinus americana</i>																				
<i>Fraxinus pensylvanica</i>	0.90	0.56	1	7	d	d	d	d	d	d	d	d	d	d	d	d	d	d	0.9	0.56
<i>Fraxinus pensylvanica</i> *																				
<i>Liquidambar styraciflua</i> **																				
<i>Liriodendron tulipifera</i>																				
<i>Platanus occidentalis</i>																				
<i>Quercus nigra</i>																				
<i>Quercus pagoda</i>																				
<i>Quercus phellos</i>																				
<i>Quercus rubra</i>																				
<i>Quercus spp.</i>																				
<i>Taxodium distichum</i>																				

Total/Average

0.90

0.56

1

7

*containerized stock planted in October 2005

**volunteer (not planted)

D=diameter

H=height (meters)

Table 48. Plot 14-1. 2005 Monitoring Data - Little Conetnenta Creek Riparian Buffer Restoration - Phase 3 - Greene County, NC.

Species	Average Diameter (cm)	Average Height (m)	Total Observed	Total Dead	D		H		D		H		D		H	
					D	H	D	H	D	H	D	H	D	H		
<i>Fraxinus americana</i>																
<i>Fraxinus pensylvanica</i>	0.66	0.38	5		0.8	0.48	0.7	0.41	0.7	0.32	0.5	0.23	0.6	0.44		
<i>Fraxinus pensylvanica</i> *																
<i>Liquidambar styraciflua</i> **																
<i>Liriodendron tulipifera</i>																
<i>Platanus occidentalis</i>																
<i>Quercus nigra</i>																
<i>Quercus pagoda</i>																
<i>Quercus phellos</i>																
<i>Quercus rubra</i>																
<i>Quercus spp.</i>																
<i>Taxodium distichum</i>																
Total/Average	0.66	0.38	5	0												

*containerized stock planted in October 2005

**volunteer (not planted)

D=diameter

H=height (meters)

Table 49. Plot 14-2. 2005 Monitoring Data - Little Conetnenta Creek Riparian Buffer Restoration - Phase 3 - Greene County, NC.

Species	Average Diameter (cm)	Average Height (m)	Total Observed	Total Dead	D		D		D		D		D		D		D	
					D	H	D	H	D	H	D	H	D	H	D	H	D	H
<i>Fraxinus americana</i>																		
<i>Fraxinus pensylvanica</i>	0.90	0.48	7		0.5	0.33	0.9	0.54	0.9	0.51	0.6	0.36	0.9	0.58	1.1	0.45	1.4	0.59
<i>Fraxinus pensylvanica</i> *																		
<i>Liquidambar styraciflua</i> **																		
<i>Liriodendron tulipifera</i>																		
<i>Platanus occidentalis</i>																		
<i>Quercus nigra</i>																		
<i>Quercus pagoda</i>																		
<i>Quercus phellos</i>																		
<i>Quercus rubra</i>																		
<i>Quercus spp.</i>																		
<i>Taxodium distichum</i>																		

Total/Average

0.90

0.48

7

0

*containerized stock planted in October 2005

**volunteer (not planted)

D=diameter

H=height (meters)

Table 50. Plot 14-3. 2005 Monitoring Data - Little Conetnenta Creek Riparian Buffer Restoration - Phase 3 - Greene County, NC.

Species	Average Diameter (cm)	Average Height (m)	Total Observed	Total Dead	D		H		D		H		D		H		D		H	
					D	H	D	H	D	H	D	H	D	H	D	H	D	H		
<i>Fraxinus americana</i>																				
<i>Fraxinus pensylvanica</i>	0.40	0.52	1	1	d	d	0.4	0.52												
<i>Fraxinus pensylvanica</i> *																				
<i>Liquidambar styraciflua</i> **																				
<i>Liriodendron tulipifera</i>	0.73	0.57	4		0.8	0.63	0.6	0.49	0.7	0.58	0.8	0.58								
<i>Platanus occidentalis</i>																				
<i>Quercus nigra</i>																				
<i>Quercus pagoda</i>																				
<i>Quercus phellos</i>	0.40	1.77	3		0.4	0.47	0.3	4.4	0.5	0.43										
<i>Quercus rubra</i>																				
<i>Quercus spp.</i>																				
<i>Taxodium distichum</i>																				

Total/Average

0.51

0.95

8

1

*containerized stock planted in October 2005

**volunteer (not planted)

D=diameter

H=height (meters)

Table 51. Plot 14-4. 2005 Monitoring Data - Little Conetnenta Creek Riparian Buffer Restoration - Phase 3 - Greene County, NC.

Species	Average Diameter (cm)	Average Height (m)	Total Observed	Total Dead	D		H		D		H		D		H	
					D	H	D	H	D	H	D	H	D	H		
<i>Fraxinus americana</i>																
<i>Fraxinus pensylvanica</i>	0.96	0.36	5		1.1	0.36	1.9	0.65	0.6	0.26	0.6	0.3	0.6	0.25		
<i>Fraxinus pensylvanica</i> *																
<i>Liquidambar styraciflua</i> **																
<i>Liriodendron tulipifera</i>	0.60	0.52	2		0.7	0.54	0.5	0.5								
<i>Platanus occidentalis</i>																
<i>Quercus nigra</i>																
<i>Quercus pagoda</i>																
<i>Quercus phellos</i>	0.45	0.41	4		0.6	0.56	0.4	0.37	0.4	0.4	0.4	0.32				
<i>Quercus rubra</i>																
<i>Quercus spp.</i>																
<i>Taxodium distichum</i>																
Total/Average	0.67	0.43	11	0												

*containerized stock planted in October 2005

**volunteer (not planted)

D=diameter

H=height (meters)

Table 52. Plot 15-1. 2005 Monitoring Data - Little Conetnenta Creek Riparian Buffer Restoration - Phase 3 - Greene County, NC.

Species	Average Diameter (cm)	Average Height (m)	Total Observed	Total Dead	D		H		D		H		D		H	
					D	H	D	H	D	H	D	H	D	H		
<i>Fraxinus americana</i>																
<i>Fraxinus pensylvanica</i>																
<i>Fraxinus pensylvanica</i> *																
<i>Liquidambar styraciflua</i> **																
<i>Liriodendron tulipifera</i>																
<i>Platanus occidentalis</i>																
<i>Quercus nigra</i>	0.45	0.43	2		0.5	0.43	0.4	0.42								
<i>Quercus pagoda</i>																
<i>Quercus phellos</i>	0.50	0.43	1		0.5	0.43										
<i>Quercus rubra</i>																
<i>Quercus spp.</i>	0.40	0.39	2	1	0.4	0.6	d	d	0.4	0.18						
<i>Taxodium distichum</i>																
Total/Average	0.45	0.41	5	1												

*containerized stock planted in October 2005

**volunteer (not planted)

D=diameter

H=height (meters)

Table 53. Plot 15-2. 2005 Monitoring Data - Little Conetnenta Creek Riparian Buffer Restoration - Phase 3 - Greene County, NC.

Species	Average Diameter (cm)	Average Height (m)	Total Observed	Total Dead	D		H		D		H		D		H	
					D	H	D	H	D	H	D	H	D	H		
<i>Fraxinus americana</i>																
<i>Fraxinus pensylvanica</i>																
<i>Fraxinus pensylvanica</i> *																
<i>Liquidambar styraciflua</i> **																
<i>Liriodendron tulipifera</i>																
<i>Platanus occidentalis</i>																
<i>Quercus nigra</i>																
<i>Quercus pagoda</i>																
<i>Quercus phellos</i>																
<i>Quercus rubra</i>																
<i>Quercus spp.</i>	0.60	0.73	2	1	d	d	0.7	0.89	0.5	0.58						
<i>Taxodium distichum</i>																

Total/Average

0.60

0.73

2

1

*containerized stock planted in October 2005

**volunteer (not planted)

D=diameter

H=height (meters)

Table 54. Plot 15-3. 2005 Monitoring Data - Little Conetnenta Creek Riparian Buffer Restoration - Phase 3 - Greene County, NC.

Species	Average Diameter (cm)	Average Height (m)	Total Observed	Total Dead	D		H		D		H		D		H		D		H	
					D	H	D	H	D	H	D	H	D	H	D	H	D	H		
<i>Fraxinus americana</i>																				
<i>Fraxinus pensylvanica</i>	1.01	0.65	4		1.44	0.85	1	0.62	0.7	0.51	0.9	0.62								
<i>Fraxinus pensylvanica</i> *																				
<i>Liquidambar styraciflua</i> **																				
<i>Liriodendron tulipifera</i>	0.53	0.41	4	3	0.6	0.38	0.7	0.62	d	d	0.5	0.38	d	d	0.3	0.28	d	d		
<i>Platanus occidentalis</i>																				
<i>Quercus nigra</i>																				
<i>Quercus pagoda</i>																				
<i>Quercus phellos</i>																				
<i>Quercus rubra</i>																				
<i>Quercus spp.</i>																				
<i>Taxodium distichum</i>																				
Total/Average	0.77	0.53	8	3																

*containerized stock planted in October 2005

**volunteer (not planted)

D=diameter

H=height (meters)

Table 55. Plot 15-4. 2005 Monitoring Data - Little Conetnenta Creek Riparian Buffer Restoration - Phase 3 - Greene County, NC.

Species	Average Diameter (cm)	Average Height (m)	Total Observed	Total Dead	D		H		D		H		D		H		D		H	
					D	H	D	H	D	H	D	H	D	H	D	H	D	H		
<i>Fraxinus americana</i>																				
<i>Fraxinus pensylvanica</i>	1.04	0.64	10		0.9	0.52	1.4	0.76	1.1	0.65	1	0.73	0.9	0.7	1.1	0.37	1	0.6		
<i>Fraxinus pensylvanica</i> *																				
<i>Liquidambar styraciflua</i> **																				
<i>Liriodendron tulipifera</i>	0.40	0.42	1		0.4	0.42														
<i>Platanus occidentalis</i>																				
<i>Quercus nigra</i>																				
<i>Quercus pagoda</i>																				
<i>Quercus phellos</i>																				
<i>Quercus rubra</i>																				
<i>Quercus spp.</i>																				
<i>Taxodium distichum</i>																				
Total/Average	0.72	0.53	11	0																

*containerized stock planted in October 2005

**volunteer (not planted)

D=diameter

H=height (meters)

Table 55. Plot 15-4. 2005 N

Species	D	H	D	H	D	H
<i>Fraxinus americana</i>						
<i>Fraxinus pensylvanica</i>	1.2	0.8	0.7	0.65	1.1	0.64
<i>Fraxinus pensylvanica</i> *						
<i>Liquidambar styraciflua</i> **						
<i>Liriodendron tulipifera</i>						
<i>Platanus occidentalis</i>						
<i>Quercus nigra</i>						
<i>Quercus pagoda</i>						
<i>Quercus phellos</i>						
<i>Quercus rubra</i>						
<i>Quercus</i> spp.						
<i>Taxodium distichum</i>						

Total/Average

*containerized stock planted

Table 56. Plot 16-1. 2005 Monitoring Data - Little Conetnenta Creek Riparian Buffer Restoration - Phase 3 - Greene County, NC.

Species	Average Diameter (cm)	Average Height (m)	Total Observed	Total Dead	D		H		D		H		D		H	
					D	H	D	H	D	H	D	H	D	H		
<i>Fraxinus americana</i>																
<i>Fraxinus pennsylvanica</i>	0.74	0.41	5		0.9	0.65	0.8	0.43	0.6	0.34	0.5	0.2	0.9	0.43		
<i>Fraxinus pennsylvanica</i> *																
<i>Liquidambar styraciflua</i> **																
<i>Liriodendron tulipifera</i>	0.68	0.60	4		0.8	0.72	0.6	0.56	0.7	0.64	0.6	0.5				
<i>Platanus occidentalis</i>																
<i>Quercus nigra</i>																
<i>Quercus pagoda</i>																
<i>Quercus phellos</i>																
<i>Quercus rubra</i>																
<i>Quercus spp.</i>	0.50	0.42	1		0.5	0.42										
<i>Taxodium distichum</i>																
Total/Average	0.64	0.48	10	0												

*containerized stock planted in October 2005

**volunteer (not planted)

D=diameter

H=height (meters)

Table 57. Plot 16-2. 2005 Monitoring Data - Little Conetnenta Creek Riparian Buffer Restoration - Phase 3 - Greene County, NC.

Species	Average Diameter (cm)	Average Height (m)	Total Observed	Total Dead	D		H		D		H		D		H		D		H	
					D	H	D	H	D	H	D	H	D	H	D	H	D	H		
<i>Fraxinus americana</i>																				
<i>Fraxinus pensylvanica</i>	0.72	0.37	6	2	1	0.44	d	d	0.3	0.31	0.5	0.34	0.8	0.48	0.8	0.29	0.9	0.36		
<i>Fraxinus pensylvanica</i> *																				
<i>Liquidambar styraciflua</i> **																				
<i>Liriodendron tulipifera</i>				1	d	d														
<i>Platanus occidentalis</i>																				
<i>Quercus nigra</i>																				
<i>Quercus pagoda</i>																				
<i>Quercus phellos</i>																				
<i>Quercus rubra</i>																				
<i>Quercus spp.</i>																				
<i>Taxodium distichum</i>																				

Total/Average

0.72

0.37

6

3

*containerized stock planted in October 2005

**volunteer (not planted)

D=diameter

H=height (meters)

Table 58. Plot 16-3. 2005 Monitoring Data - Little Conetnenta Creek Riparian Buffer Restoration - Phase 3 - Greene County, NC.

Species	Average Diameter (cm)	Average Height (m)	Total Observed	Total Dead	D		H		D		H		D		H	
					D	H	D	H	D	H	D	H	D	H		
<i>Fraxinus americana</i>																
<i>Fraxinus pensylvanica</i>	0.60	0.37	4		0.6	0.29	0.7	0.47	0.6	0.38	0.5	0.36				
<i>Fraxinus pensylvanica</i> *																
<i>Liquidambar styraciflua</i> **																
<i>Liriodendron tulipifera</i>																
<i>Platanus occidentalis</i>																
<i>Quercus nigra</i>																
<i>Quercus pagoda</i>																
<i>Quercus phellos</i>																
<i>Quercus rubra</i>																
<i>Quercus spp.</i>																
<i>Taxodium distichum</i>																
Total/Average	0.60	0.37	4	0												

*containerized stock planted in October 2005

**volunteer (not planted)

D=diameter

H=height (meters)

Table 59. Plot 17-1. 2005 Monitoring Data - Little Conetnenta Creek Riparian Buffer Restoration - Phase 3 - Greene County, NC.

Species	Average Diameter (cm)	Average Height (m)	Total Observed	Total Dead	D		H		D		H		D		H	
					D	H	D	H	D	H	D	H	D	H		
<i>Fraxinus americana</i>																
<i>Fraxinus pensylvanica</i>	2.68	0.33	4		1	0.41	0.7	0.17	1	0.34	8	0.38				
<i>Fraxinus pensylvanica</i> *																
<i>Liquidambar styraciflua</i> **																
<i>Liriodendron tulipifera</i>	0.83	0.62	4		0.6	0.56	1	0.61	1.1	0.72	0.6	0.59				
<i>Platanus occidentalis</i>																
<i>Quercus nigra</i>																
<i>Quercus pagoda</i>																
<i>Quercus phellos</i>																
<i>Quercus rubra</i>																
<i>Quercus spp.</i>																
<i>Taxodium distichum</i>																
Total/Average	1.75	0.47	8	0												

*containerized stock planted in October 2005

**volunteer (not planted)

D=diameter

H=height (meters)

Table 60. Plot 17-2. 2005 Monitoring Data - Little Conetnenta Creek Riparian Buffer Restoration - Phase 3 - Greene County, NC.

Species	Average Diameter (cm)	Average Height (m)	Total Observed	Total Dead	1		2		3		4		5		6		7		8	
					D	H	D	H	D	H	D	H	D	H	D	H	D	H	D	H
<i>Fraxinus americana</i>																				
<i>Fraxinus pensylvanica</i>																				
<i>Fraxinus pensylvanica*</i>																				
<i>Liquidambar styraciflua**</i>																				
<i>Liriodendron tulipifera</i>	0.64	0.57	5	3	0.7	0.62	0.8	0.6	d	d	d	d	1	0.6	0.5	0.41	0.22	0.6	d	d
<i>Platanus occidentalis</i>																				
<i>Quercus nigra</i>																				
<i>Quercus pagoda</i>																				
<i>Quercus phellos</i>																				
<i>Quercus rubra</i>																				
<i>Quercus spp.</i>																				
<i>Taxodium distichum</i>																				

Total/Average

0.64

0.57

5

3

*containerized stock planted in October 2005

**volunteer (not planted)

D=diameter

H=height (meters)

Table 61. Plot 17-3. 2005 Monitoring Data - Little Conetnenta Creek Riparian Buffer Restoration - Phase 3 - Greene County, NC.

Species	Average Diameter (cm)	Average Height (m)	Total Observed	Total Dead	D		H		D		H		D		H	
					D	H	D	H	D	H	D	H	D	H		
<i>Fraxinus americana</i>																
<i>Fraxinus pensylvanica</i>	0.70	0.43	4	2	d	d	0.5	0.51	0.9	0.4	0.5	0.22	0.9	0.58	d	d
<i>Fraxinus pensylvanica</i> *																
<i>Liquidambar styraciflua</i> **																
<i>Liriodendron tulipifera</i>	0.60	0.58	1	5	d	d	d	d	d	d	d	d	d	d	0.6	0.58
<i>Platanus occidentalis</i>																
<i>Quercus nigra</i>																
<i>Quercus pagoda</i>																
<i>Quercus phellos</i>																
<i>Quercus rubra</i>																
<i>Quercus spp.</i>																
<i>Taxodium distichum</i>																
Total/Average	0.65	0.50	5	7												

*containerized stock planted in October 2005

**volunteer (not planted)

D=diameter

H=height (meters)

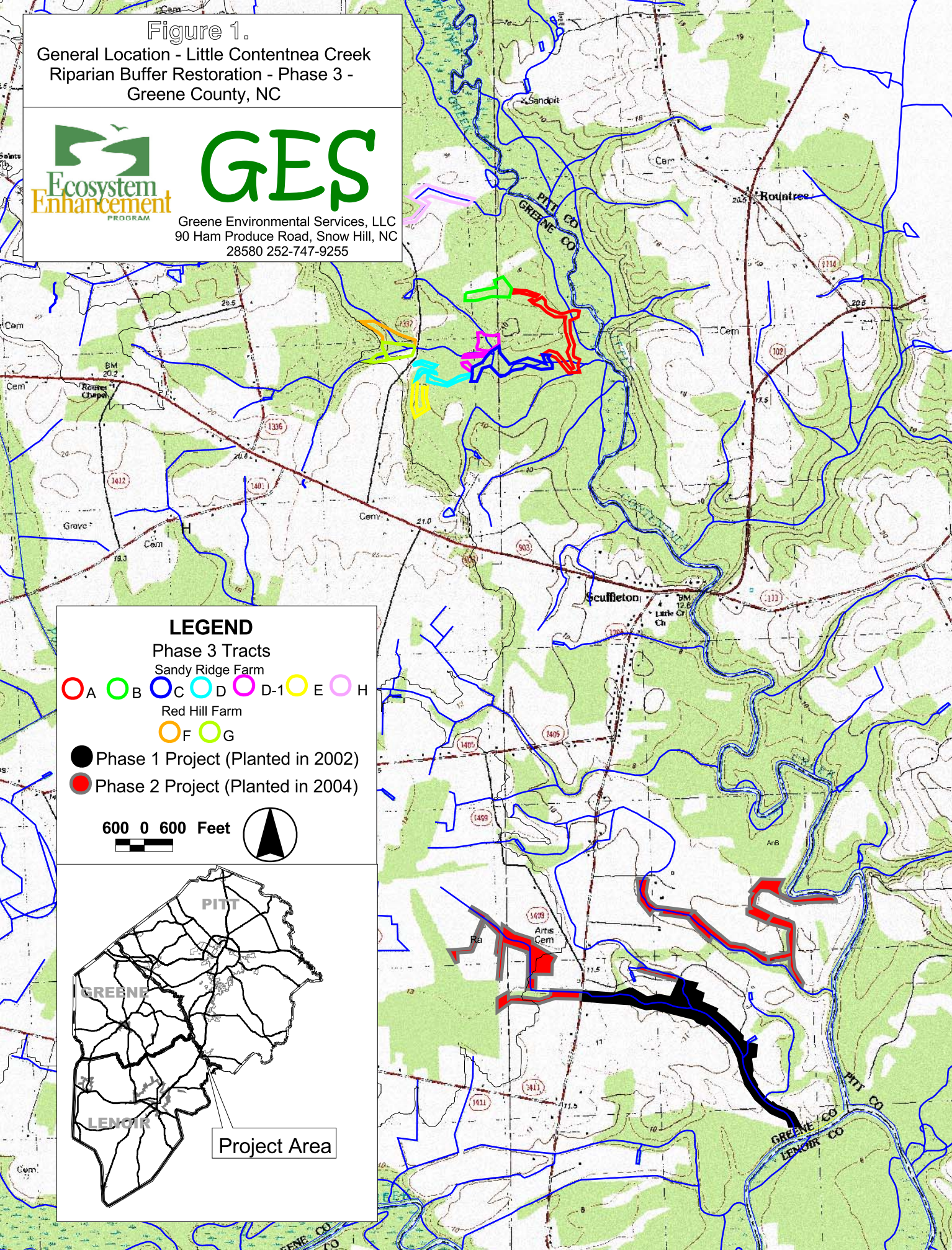
Figure 1.

General Location - Little Contentnea Creek
Riparian Buffer Restoration - Phase 3 -
Greene County, NC



GES

Greene Environmental Services, LLC
90 Ham Produce Road, Snow Hill, NC
28580 252-747-9255



LEGEND

Phase 3 Tracts
Sandy Ridge Farm

A B C D D-1 E H

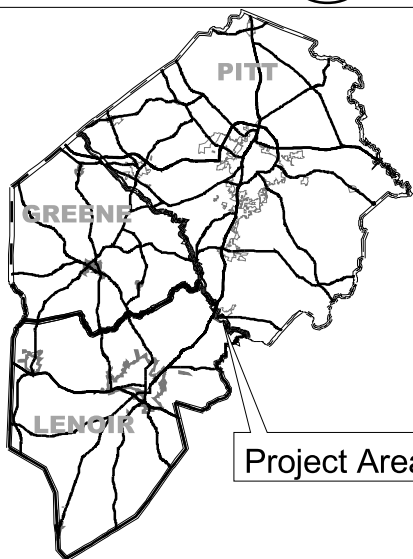
Red Hill Farm

F G

● Phase 1 Project (Planted in 2002)

● Phase 2 Project (Planted in 2004)

600 0 600 Feet



Project Area



Figure 2.
 Monitoring Plots and Remedial Planting -
 Little Contentnea Creek
 Riparian Buffer Restoration Phase 3-
 Greene County, NC

Greene Environmental Services, LLC
 90 Ham Produce Road, Snow Hill, NC
 28580 252-747-9255

LEGEND

Monitoring	Remedial Planting Areas
○ Tracts	● Mesic
● Quadrats	● Hydic

300 0 300 Feet

Permanent Quadrat Photographs - 2005 - Contentnea Creek / Little Contentnea Creek Riparian Buffer Restoration - Phase 3



Quadrat 1-1



Quadrat 1-2



Quadrat 1-3



Quadrat 2-1

Permanent Quadrat Photographs - 2005 - Contentnea Creek / Little Contentnea Creek Riparian Buffer Restoration - Phase 3



Quadrat 2-2



Quadrat 2-3

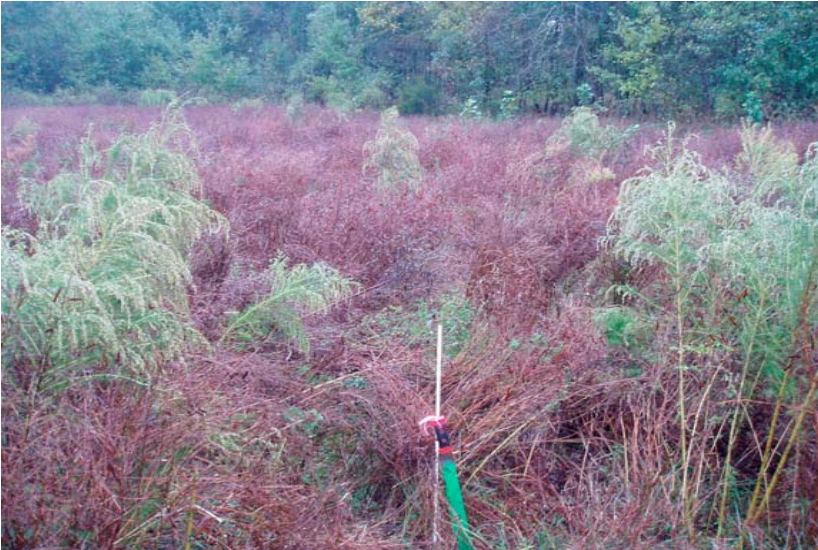


Quadrat 2-4



Quadrat 3-1

Permanent Quadrat Photographs - 2005 - Contentnea Creek / Little Contentnea Creek Riparian Buffer Restoration - Phase 3



Quadrat 3-2



Quadrat 3-3



Quadrat 4-1



Quadrat 4-2

Permanent Quadrat Photographs - 2005 - Contentnea Creek / Little Contentnea Creek Riparian Buffer Restoration - Phase 3



Quadrat 4-3



Quadrat 5-1



Quadrat 5-2



Quadrat 5-3

Permanent Quadrat Photographs - 2005 - Contentnea Creek / Little Contentnea Creek Riparian Buffer Restoration - Phase 3



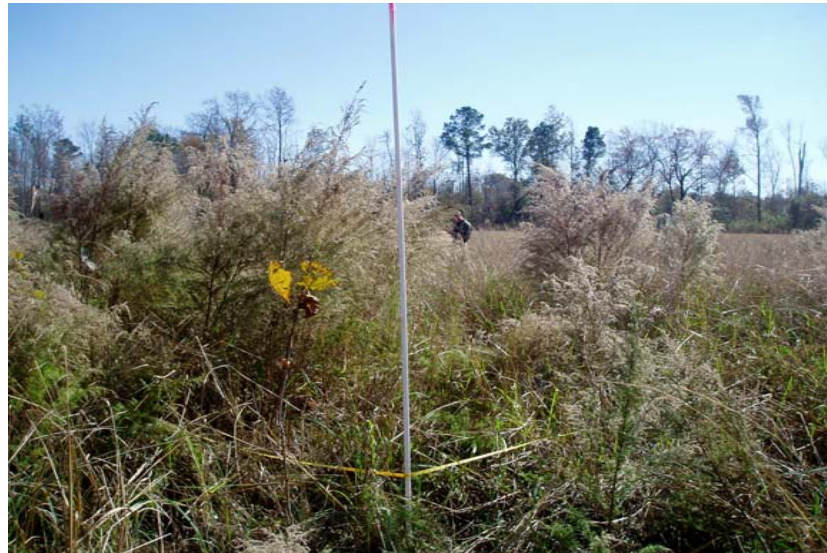
Quadrat 6-1



Quadrat 6-2



Quadrat 6-3



Quadrat 6-4

Permanent Quadrat Photographs - 2005 - Contentnea Creek / Little Contentnea Creek Riparian Buffer Restoration - Phase 3



Quadrat 7-1



Quadrat 7-2



Quadrat 7-3



Quadrat 8-1

Permanent Quadrat Photographs - 2005 - Contentnea Creek / Little Contentnea Creek Riparian Buffer Restoration - Phase 3



Quadrat 8-2



Quadrat 8-3



Quadrat 8-4



Quadrat 9-1

Permanent Quadrat Photographs - 2005 - Contentnea Creek / Little Contentnea Creek Riparian Buffer Restoration - Phase 3



Quadrat 9-2



Quadrat 9-3



Quadrat 9-4



Quadrat 10-1

Permanent Quadrat Photographs - 2005 - Contentnea Creek / Little Contentnea Creek Riparian Buffer Restoration - Phase 3



Quadrat 10-2



Quadrat 10-3



Quadrat 11-1



Quadrat 11-2

Permanent Quadrat Photographs - 2005 - Contentnea Creek / Little Contentnea Creek Riparian Buffer Restoration - Phase 3



Quadrat 11-3



Quadrat 11-4



Quadrat 12-1



Quadrat 12-2

Permanent Quadrat Photographs - 2005 - Contentnea Creek / Little Contentnea Creek Riparian Buffer Restoration - Phase 3



Quadrat 12-3



Quadrat 12-4



Quadrat 13-1



Quadrat 13-2

Permanent Quadrat Photographs - 2005 - Contentnea Creek / Little Contentnea Creek Riparian Buffer Restoration - Phase 3



Quadrat 13-3



Quadrat 13-4



Quadrat 14-1



Quadrat 14-2

Permanent Quadrat Photographs - 2005 - Contentnea Creek / Little Contentnea Creek Riparian Buffer Restoration - Phase 3



Quadrat 14-3



Quadrat 14-4



Quadrat 15-1



Quadrat 15-2

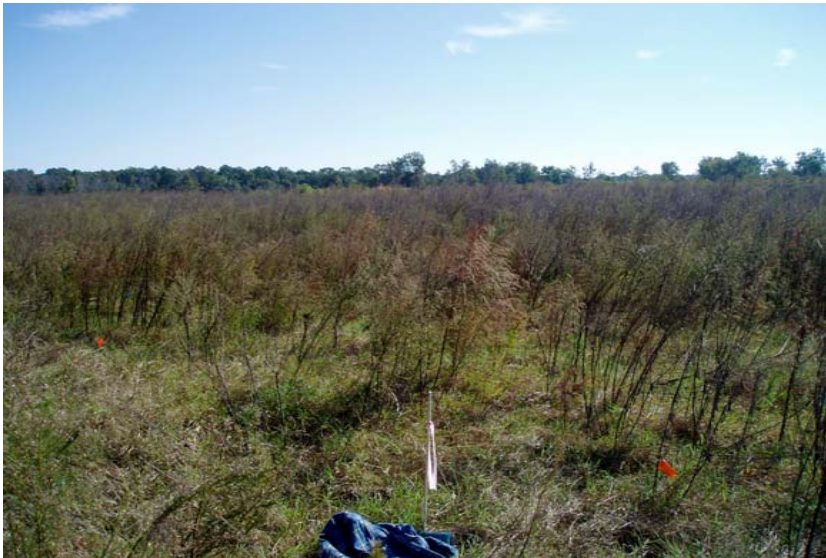
Permanent Quadrat Photographs - 2005 - Contentnea Creek / Little Contentnea Creek Riparian Buffer Restoration - Phase 3



Quadrat 15-3



Quadrat 15-4



Quadrat 16-1



Quadrat 16-2

Permanent Quadrat Photographs - 2005 - Contentnea Creek / Little Contentnea Creek Riparian Buffer Restoration - Phase 3



Quadrat 16-3



Quadrat 17-1



Quadrat 17-2



Quadrat 17-3