

APPENDIX F – WETLANDS

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Wetland Determination Form

Project: 6854 Ocoee 2-Ocoee 3	Investigator: Rosensteel, McConnell	Normal Circumstances:	Sample ID: W1
County: Polk	Date: 5 May 2004	Atypical Situation:	Station or Structure Number(s): Between existing and new structures 4 and 5
State: TN		Problem Area:	Cowardin Code: PSS1E

Vegetation

Plant Species	Stratum	Indicator	Plant Species	Stratum	Indicator
1. <i>Liquidambar styraciflua</i>	Shrub	Fac+	9. <i>Eleocharis sp.</i>	Herb	Obl or Facw
2. <i>Acer rubrum</i>	Shrub	Fac	10. <i>Carex sp.</i>	Herb	Fac, Facw, or Obl
3. <i>Betula nigra</i>	Shrub	Facw	11.		
4. <i>Alnus serrulata</i>	Shrub	Facw+	12.		
5. <i>Itea virginica</i>	Shrub	Facw+	13.		
6. <i>Hypericum sp.</i>			14.		
7. <i>Solidago sp.</i>			15.		
8. <i>Juncus spp.</i>	Herb		16.		

Percent of Dominant Species That are OBL, FACW, or FAC: 70%

Hydrology

Field Observations:	Wetland Hydrology Indicators:	
Depth of Surface Water: _____ (in.)	Primary Indicators	Secondary Indicators
Depth to Free Water in Pit: _____ (in.)	_____ Inundated	_____ Drift Lines
Depth to Saturated Soil: _____ (in.)	_____ Saturated in Upper 12 in.	_____ Water Marks
	_____ Sediment Deposits	_____ Drainage Patterns
Remarks: The wetland is within the wetted width of the Ocoee River. Water elevation varies according to releases from the upstream Ocoee #3 dam. Stream gage and hydrologic records are available from TVA.		

Soils

Profile Description:				
Depth (Inches)	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance (%)	Texture
			%	
Hydric Soil Indicators:				
_____ Gleyed or Low Chroma Colors	_____ Histic Epipedon	_____ Aquic Moisture Regime		
_____ Sulfidic Odor	_____ High Organic Cont. Surf. Layer Sandy Soils	_____ Reducing Conditions		
_____ Concretions	_____ Organic Streaking in Sandy Soils	x _____ Other (Explain in Remarks)		
Remarks: Bedrock substrate. Vegetation rooted in interstitial sediment deposits and soil underlying rocks. Hydric soils inferred from hydrology and vegetation.				

Wetland Determination

Hydrophytic Vegetation Present?	Yes	<input checked="" type="checkbox"/>	No	_____	Is this Sampling Point Within a USACE Wetland?	Yes	<input checked="" type="checkbox"/>	No	_____
Wetland Hydrology Present?	Yes	<input checked="" type="checkbox"/>	No	_____	Does area only meet USFWS wetland definition?	Yes	_____	No	_____
Hydric Soils Present?	Yes	<input checked="" type="checkbox"/>	No	_____	Size: <1.0 acre				

Wetland Descriptors

Sample ID: 6854 – W1	Photo ID(s) (Sample ID-Photo #): 1.) 6854_Ocoee_2-3_W1_01 2.) 6854_Ocoee_2-3_W1_02 3.) 6854_Ocoee_2-3_W1_03																
Flagging Description: Wetland was not flagged as one boundary is at the river bank and the other is in the river channel.																	
Drawing																	
Please Include: North Arrow, Project Centerline, Survey Corridor Boundaries, Length of Wetland Feature, Distances from Centerline, Photo Locations																	
Obvious Connections to Waters of the US/State?	x	Yes		No	Waterbody/Watershed:												
Primary Water Source (If other, note in comments)		Cap. Fringe			Overbanking			Sheet Flow			Groundwater			Precipitation		x	Other
Wetland Quality (High, Moderate, Low)		H	Comments:														
Wetland Functional Quality (High, Moderate, Low)		H	Comments:														
Description of Wetland and Other Comments: (i.e. forest age class; habitat features; hydrologic regime; description of the wetland outside of or adjacent to ROW; erosion potential, existing disturbances, adjacent land use, wildlife observations, station numbers, lat-long, etc)																	
The wetland is within the wetted width of the Ocoee River channel. Primary water source is riverflow.																	
WETLAND QUALITY CRITERIA (includes, but is not limited to)																	
WETLAND QUALITY:																	
HIGH QUALITY WETLAND: no indication of stress or disturbance in wetland or adjacent area – diverse and/or mature vegetation community – hydrologic and soil indicators are characteristic of the specific community type – provides high-quality and/or rare/important habitat for wildlife (i.e., structural diversity; vernal pools; diverse, dense emergent vegetation). May be associated with high-quality, relatively undisturbed, perennial streams.																	
MODERATE QUALITY WETLAND: mild to moderate disturbances have caused alterations in wetland or immediately adjacent areas – slightly altered natural vegetation, hydrology and/or soil characteristics – provides suitable habitat for wildlife and vegetation diversity – associated perennial or intermittent streams are of relatively good quality and aren’t significantly disturbed																	
LOW QUALITY WETLAND: severe disturbances have caused significant changes to vegetation, soils, or hydrology – hydroperiod alterations, if present, have directly affected plant species – community composition has changed – noticeable stress or death of plant species – soil subsidence may have occurred in areas with decreased hydroperiod – mechanical alteration of plant species or soils – grazing from livestock – channelization of stream courses or ditching – little suitable habitat for wildlife and vegetation – associated perennial or intermittent streams significantly disturbed																	
WETLAND FUNCTIONAL QUALITY:																	
HIGH QUALITY: Because of wetland characteristics and/or landscape position, performs critical water quality, flood control, wildlife habitat, biodiversity, and/or landscape diversity functions																	
MODERATE QUALITY: Performs important water quality, flood control, wildlife habitat, biodiversity, and/or landscape diversity functions.																	
LOW QUALITY: Because of wetland characteristics, landscape position, or level of disturbance, wetland functions are minimal.																	

Wetland Determination Form

Project: 6854 Ocoee 2-Ocoee 3	Investigator: Rosensteel, McConnell	Normal Circumstances: <input checked="" type="checkbox"/>	Sample ID: 6854-W2
County: Polk	Date: 5 May 2004	Atypical Situation: <input type="checkbox"/>	Station or Structure Number(s): Between existing and new structures 21 and 22
State: TN		Problem Area: <input type="checkbox"/>	Cowardin Code: PEM1E

Vegetation

Plant Species	Stratum	Indicator	Plant Species	Stratum	Indicator
1. <i>Alnus serrulata</i>	Shrub	Facw+	9. <i>Dichanthelium boscii</i>	Herb	Not listed
2. <i>Liquidambar styraciflua</i>	Shrub	Fac+	10. <i>Eupatorium fistulosum</i>	Herb	Fac+
3. <i>Acer rubrum</i>	Herb	Fac	11.		
4. <i>Athyrium filix-femina</i>	Herb	Fac	12.		
5. <i>Carex seorsa</i>	Herb	Facw	13.		
6. <i>Carex</i> sp.	Herb		14.		
7. <i>Juncus coriaceous</i>	Herb	Facw	15.		
8. <i>Lobelia cardinalis</i>	Herb	Obl	16.		

Percent of Dominant Species That are OBL, FACW, or FAC: 80%

Hydrology

Field Observations:	Wetland Hydrology Indicators:		
Depth of Surface Water: 0-3 (in.)	Primary Indicators		Secondary Indicators
Depth to Free Water in Pit: (in.)	<input checked="" type="checkbox"/> Inundated	<input checked="" type="checkbox"/> Drift Lines	<input type="checkbox"/> Oxidized Root Channels
Depth to Saturated Soil: 0 (in.)	<input checked="" type="checkbox"/> Saturated in Upper 12 in.	<input type="checkbox"/> Water Marks	<input type="checkbox"/> Water Stained Leaves
	<input checked="" type="checkbox"/> Sediment Deposits	<input checked="" type="checkbox"/> Drainage Patterns	

Remarks: On low bench and within wetted width of Gassaway Creek.

Soils

Profile Description:				
Depth (Inches)	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance (%)	Texture
			%	

Hydric Soil Indicators:		
<input type="checkbox"/> Gleyed or Low Chroma Colors	<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> Aquic Moisture Regime
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> High Organic Cont. Surf. Layer Sandy Soils	<input type="checkbox"/> Reducing Conditions
<input type="checkbox"/> Concretions	<input type="checkbox"/> Organic Streaking in Sandy Soils	<input type="checkbox"/> Other (Explain in Remarks)

Remarks: Bedrock substrate. Vegetation is rooted in interstitial sediments and shallow soil layer over rock.

Wetland Determination

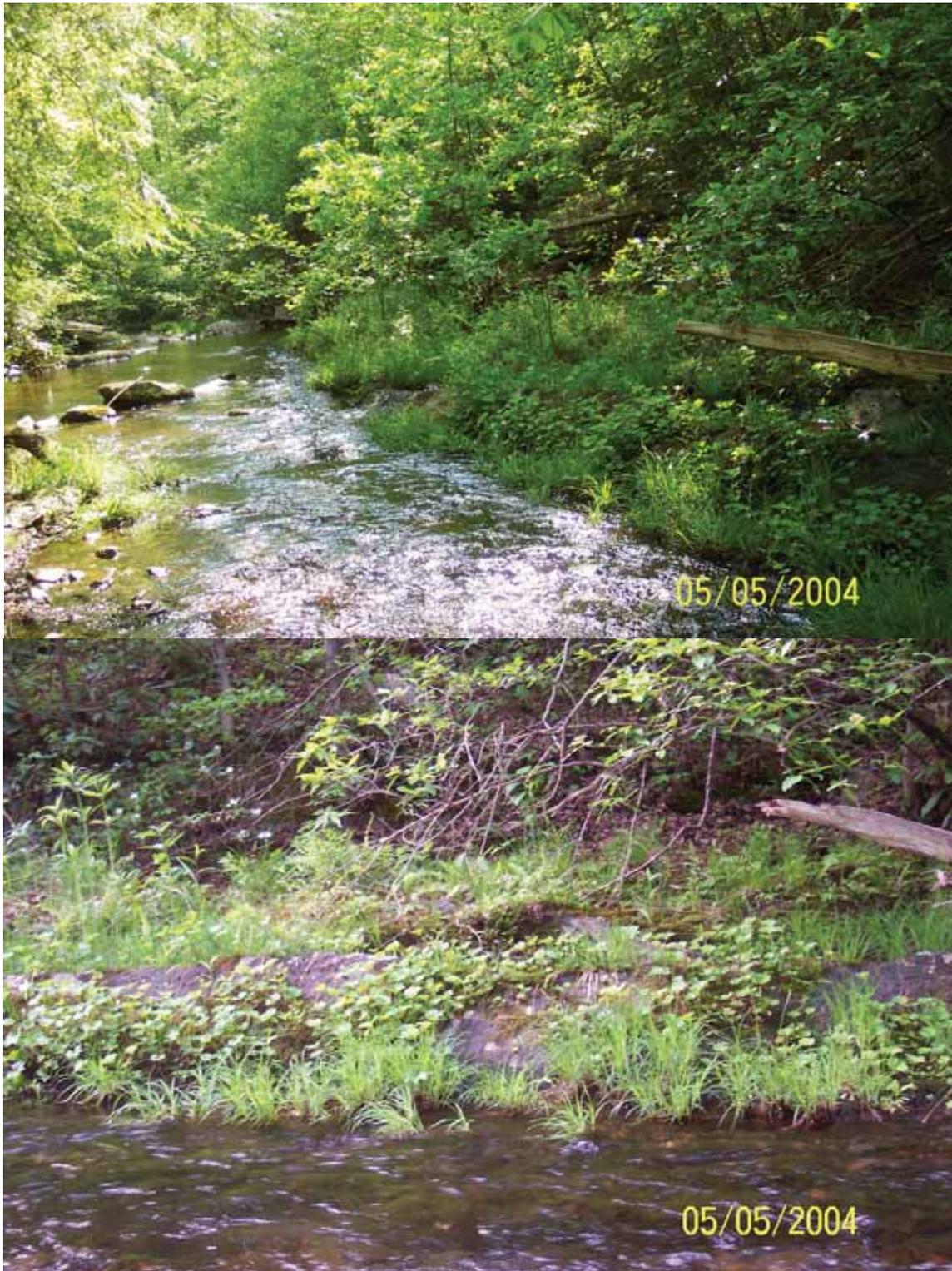
Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is this Sampling Point Within a USACE Wetland?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Does area only meet USFWS wetland definition?	Yes <input type="checkbox"/> No <input type="checkbox"/>
Hydric Soils Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Size: <0.10 ac	

Wetland Descriptors

Sample ID: 6854-W1	Photo ID(s) (Sample ID-Photo #): 1) 6854-W2-01 2) 6854-W2_02 3) 6854-W2-03										
Flagging Description: Wetland boundary was not flagged											
Drawing											
Please Include: North Arrow, Project Centerline, Survey Corridor Boundaries, Length of Wetland Feature, Distances from Centerline, Photo Locations											
Obvious Connections to Waters of the US/State?											
<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No	Waterbody/Watershed:							
Primary Water Source (If other, note in comments)											
<input type="checkbox"/>	Cap. Fringe	<input type="checkbox"/>	Overbanking	<input type="checkbox"/>	Sheet Flow	<input checked="" type="checkbox"/>	Groundwater	<input type="checkbox"/>	Precipitation	<input checked="" type="checkbox"/>	Other
Wetland Quality (High, Moderate, Low)											
	H	Comments: Undisturbed area. Galloway Creek supports a listed species (get details from Stephanie)									
Wetland Functional Quality (High, Moderate, Low)											
	M	Comments: Associated stream is rare species habitat (details from Stephanie). In Cherokee National Forest on stream that is tributary to the Ocoee River (stream designation?)									
Description of Wetland and Other Comments: (i.e. forest age class; habitat features; hydrologic regime; description of the wetland outside of or adjacent to ROW; erosion potential, existing disturbances, adjacent land use, wildlife observations, station numbers, lat-long, etc)											
Stream-associated emergent wetland on undisturbed Galloway Creek. Adjacent hemlock-hardwood forest on steep slopes. In Cherokee National Forest.											
WETLAND QUALITY CRITERIA (includes, but is not limited to)											
WETLAND QUALITY:											
HIGH QUALITY WETLAND: no indication of stress or disturbance in wetland or adjacent area – diverse and/or mature vegetation community – hydrologic and soil indicators are characteristic of the specific community type – provides high-quality and/or rare/important habitat for wildlife (i.e., structural diversity; vernal pools; diverse, dense emergent vegetation). May be associated with high-quality, relatively undisturbed, perennial streams.											
MODERATE QUALITY WETLAND: mild to moderate disturbances have caused alterations in wetland or immediately adjacent areas – slightly altered natural vegetation, hydrology and/or soil characteristics – provides suitable habitat for wildlife and vegetation diversity – associated perennial or intermittent streams are of relatively good quality and aren't significantly disturbed											
LOW QUALITY WETLAND: severe disturbances have caused significant changes to vegetation, soils, or hydrology – hydroperiod alterations, if present, have directly affected plant species – community composition has changed – noticeable stress or death of plant species – soil subsidence may have occurred in areas with decreased hydroperiod – mechanical alteration of plant species or soils – grazing from livestock – channelization of stream courses or ditching – little suitable habitat for wildlife and vegetation – associated perennial or intermittent streams significantly disturbed											
WETLAND FUNCTIONAL QUALITY:											
HIGH QUALITY: Because of wetland characteristics and/or landscape position, performs critical water quality, flood control, wildlife habitat, biodiversity, and/or landscape diversity functions											
MODERATE QUALITY: Performs important water quality, flood control, wildlife habitat, biodiversity, and/or landscape diversity functions.											
LOW QUALITY: Because of wetland characteristics, landscape position, or level of disturbance, wetland functions are minimal.											



Photographs of Wetland W1 shown in Figure 3



Photographs of Wetland W2 shown in Figure 4