

Exhibit EE. Colyell Business Park Wetlands Delineation Report and Wetland Mitigation Letter





Colyell Business Park Wetlands Delineation Report & Wetland Mitigation Letter

CSRS, Inc. 6767 Perkins Road, Suite 200 Baton Rouge, LA 70808

Attn: Taylor Gravois

Subject: ~420 Acre Weyerhaeuser Property - Livingston Parish, LA (see attached plat Exhibit "A")

Dear Mr. Gravois

Weyerhaeuser intends to mitigate and/or assist in attaining the wetland mitigation credits required for impacts related to access on Weyerhaeuser owned property currently being evaluated by CSRS, Inc. for the State of Louisiana Site Certification program.

Please let me know if you need additional information.

Thank you

Doug Hughes

Sr. Manager Mitigation/Development Weyerhaeuser Company 601 341 6054

WETLAND DETERMINATION DATA REPORT BATON ROUGE AREA CHAMBER – REGIONAL SITE DEVELOPMENT PROGRAM COLYELL BUSINESS PARK, 420-ACRE SITE LIVINGSTON PARISH, LOUISIANA

Project No.: 212161

March 2019

Prepared for:

Mr. Russell Richardson, Senior Vice President of Business Development Baton Rouge Area Chamber 451 Florida Street, Suite 1050 Baton Rouge, Louisiana 70801

Baton Rouge Area Chamber. Leading Economic Development in the Baton Rouge Area

Prepared by:



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Acronyms and Abbreviations_____

AOI	Area of Interest
BRAC	Baton Rouge Area Chamber
CFR	Code of Federal Regulations
GIS	Geographic Information Systems
GPS	Global Positioning System
HUC	Hydrologic Unit Code
LDWF	Louisiana Department of Wildlife and Fisheries
msl	Mean Sea Level
NWI	National Wetlands Inventory
NRCS	Natural Resource Conservation Service
PJD	Preliminary Jurisdictional Determination
RGL	Regulatory Guidance Letter
T&E	Threatened and Endangered
U.S.	United States
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WOTUS	Other Waters of the U.S.

1.0 Introduction

The Baton Rouge Area Chamber (BRAC) is proposing to obtain regulatory clearance for undeveloped wooded land along LA HWY 63 (South Frost Road) approximately 0.54 mile south of Interstate 12, near Livingston, Livingston Parish, Louisiana (**Figures 1 and 2**). The proposed project Area of Interest (AOI) is approximately 420 acres.

CSRS, Inc. (CSRS) scientists conducted a routine wetland delineation of the AOI, using methods which follow the procedures outlined in the U.S. Army Corps of Engineers Wetlands Delineation Manual, (USACE 1987), Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region (Version 2.0) (USACE 2010) and subsequent Regulatory Guidance Letters (RGLs).

The purpose of this report is to present data on the characteristics and extent of potential jurisdictional waters of the U.S. including wetlands, and Other Waters of the U.S. (WOTUS) as defined in the Code of Federal Regulations (CFR) 33, Section 328.3. However, only the U.S. Army Corps of Engineers (USACE), New Orleans District has the authority to make an official determination of jurisdictional wetlands or Other Waters of the U.S. within the AOI. BRAC intends to request a Preliminary Jurisdictional Determination (PJD) on wetlands and Other Waters of the U.S. that occur within the AOI.

2.1 Location

The proposed AOI for the project is located in Livingston, Louisiana, on the western side of LA HWY 63 (South Frost Road) approximately 0.54 mile south of Interstate-12 (**Figure 1**) in Sections 1 and 12, Township 7 South, Range 4 East. The AOI is bordered to the north, south, and west by undeveloped pine plantation, bottomland hardwoods, and fresh marsh habitat; and to the east by undeveloped land, LA HWY 63, and residential and commercial properties. The approximate center location for the proposed project site is represented by the coordinates in decimal degrees at Latitude 30.459453°, Longitude -90.758347°. The AOI, which is depicted in **Figures 1 and 2**, occupies approximately 420 acres.

2.2 Description

2.2.1 Hydrology

The U.S. Geologic Survey (USGS) elevation for the project area is nearly level with an approximate elevation ranging from 27 to 32 feet above mean sea level (msl) (USGS 2015). The AOI is drained by Little Colyell Creek, and a series of small artificial drains and roadside ditches (**Figure 2**) which convey water south toward Colyell Creek which ultimately drains into Lake Maurepas via the Amite River approximately 19 miles to the southeast of the AOI. The AOI is located entirely within Hydrologic Unit Code (HUC) 8-08070202 (USGS 2018).

2.2.2 Vegetation and Land Cover

The AOI occurs within the Mississippi Valley Loess Plains – Baton Rouge Terrace eco-region of Louisiana (Daigle et al. 2006). Currently, the AOI consists of existing maintained right-of-ways and roadside ditches, mature broad-leaf deciduous forest, hydric pine flatwoods, scrub shrub habitat, pine plantation, mixed pine and deciduous forests, fresh marsh, a lake, primitive roads, and natural and artificial drainages. The National Wetlands Inventory (NWI) database lists three distinct deep-water and/or wetland habitat types within the AOI; three excavated lakes classified by NWI as a Palustrine Unconsolidated Bottom Permanently Flooded Excavated water bodies (PUBHx); two near the center of the AOI and one at the northern-central boundary, a natural riverine feature (Little Colyell Creek) classified as Riverine Intermittent Streambed Seasonally Flooded (R4SBC) in the northwestern portion of the AOI, and a Palustrine Forested Broad-Leaved Deciduous Temporarily Flooded (PFO1A) habitat in the southeastern portion of the AOI (USFWS 2019) (Figure 4).

2.2.3 Soil

According to the Natural Resources Conservation Service (NRCS) and U.S. Department of Agriculture (USDA 2018) web soil survey, six soil units are located within the AOI and include:

(1) Colyell silt loam, 1 to 3 percent slopes, rarely flooded (Co), (2) Deerford-Verdun complex, 0 to 1 percent slopes (Dv), (3) Gilbert-Brimstone silt loams, occasionally flooded (Ge), (4) Natalbany silt clay loam, frequently flooded (Na), (5) Satsuma silt loam, 1 to 3 percent slopes (Sa), and (6) Springfield silt loam (Sp). Soil map units may represent a single soil or a combination of soils. Due to limitations imposed by the scale of the soil survey maps, it is not uncommon for hydric soils to exist within areas not mapped as hydric, and conversely, soils mapped as non-hydric may be hydric. Based on the NRCS Hydric Soils list (2015) for Livingston Parish, Louisiana, all of the soils mapped within the AOI are classified as hydric soils. Their distribution across the AOI can be seen in **Figure 3** and are briefly described below.

2.2.3.1 Colyell silt loam, 1 to 3 percent slopes (Co)

Colyell silt loam, 1 to 3 percent slopes soil is a gently sloping, and somewhat poorly drained soil typically found on broad, slightly convex ridges, and on side-slopes along drainage-ways on stream or marine terraces. The Colyell silt loam is subject to rare flooding, which occurs mainly in winter and spring, but is classified as a hydric soil by the NRCS. Typically, the surface layer is approximately three inches thick and characterized by a dark grayish-brown silt above a yellowish-brown, mottled silt to a depth of approximately 11 inches, followed by a four-inch thick yellowish-brown, mottled silt loam to a depth of approximately 30 inches. The water table is generally situated between 11 and 12 inches below the surface. The Colyell silt loam, 1 to 3 percent slopes soil comprises approximately 24 percent of the AOI (**Figure 3**).

2.2.3.2 Deerford-Verdun complex, 0 to 1 percent slopes (Dv)

The Deerford-Verdun complex, 0 to 1 percent slopes soil map unit is level, somewhat poorly drained, and has high levels of sodium in the subsoil. This soil is typically found on broad flats or marine terraces and may be subjected to rare flooding, especially after high-intensity rain events over unusually prolonged periods. The surface layer of the Deerford soils is characterized by a four-inch thick layer of grayish-brown silt loam above a six-inch layer of brown silt loam. The upper part of the subsoil is a brown to yellowish-brown, mottled silty clay loam. The water table generally occurs between six and eight inches below the surface. This soil type is listed by the NRCS as a hydric soil and comprises approximately 15 percent of the soil types occurring within the boundary of the AOI (**Figure 3**).

2.2.3.3 Gilbert-Brimstone silt loams, occasionally flooded (Ge)

Gilbert-Brimstone silt loam soils are level, poorly drained, and have high levels of sodium in the subsoil. They are typically found in broad depressional areas and along drainageways on stream or marine terraces. They are periodically flooded for brief to prolonged periods, mainly in winter and spring. The Gilbert-Brimstone soil is characterized by a grayish-brown silt loam surface layer approximately four inches thick above a light brownish-gray silt loam to a depth of

12 inches. The subsoil is a grayish-brown and light brownish-gray, mottled silty clay loam. The water table is typically located between the surface and 18 inches below the surface. This soil type is listed by the NRCS as a hydric soil and comprises approximately 11 percent of the soil types occurring within the boundary of the AOI (**Figure 3**).

2.2.3.4 Natalbany silty clay loam, frequently flooded (Na)

Natalbany silty clay loam soils are level and very poorly drained, and typically found on flood plains along streams near swamps. This soil is frequently flooded for long periods which can occur during any part of the year, but is most frequent during winter and spring. Typically, the surface layer is a dark grayish-brown silty clay loam to a depth of approximately five inches. The subsoil extends to a depth of 60 inches and is characterized by a dark gray, mottled silty clay in the upper part, a dark gray and grayish-brown, mottled clay in the middle part, and a grayish-brown, mottled silty clay in the deepest portions of the subsoil. Natalbany silty clay loam frequently flooded soil is classified as hydric by the NRCS, and the water table is situated between the soil surface and a depth of 12 inches. This soil type occupies approximately 21 percent of the AOI (**Figure 3**).

2.2.3.5 Satsuma silt loam, 1 to 3 percent slopes (Sa)

Satsuma silt loam soil is gently sloping, somewhat poorly drained, and situated on broad, slightly convex ridges and on side-slopes along drainageways on stream or marine terraces. It is rarely subjected to flooding, which can occur during any part of the year, but is most likely during the winter and spring. The surface layer is characterized by a four-inch thick layer of a dark grayish-brown silt loam above an eight-inch thick, light yellowish-brown, mottled silt loam. Between 12 and 18 inches, the soil is a yellowish-brown, mottled silty clay loam and a light-gray silt loam. The water table occurs at a depth of approximately 18 to 36 inches below the soil surface. The Satsuma silt loam, 1 to 3 percent slopes is classified as a hydric soil by the NRCS, and occupies approximately 21 percent of the AOI (**Figure 3**).

2.2.3.6 Springfield silt loam (Sp)

The Springfield silt loam soil is level and poorly drained, and is situated on broad ridges on stream or marine terraces. Typically, the surface layer is a grayish-brown, mottled silt loam to a depth of three inches above a mottled silt loam ranging from a light brownish-gray matrix that fades to a light gray silt loam to a depth of 13 inches. The subsoil is a yellowish-brown, mottled silty clay loam to a depth of 60 inches. The water table is typically situated between the surface and a depth of 24 inches. The NRCS classifies the Springfield silt loam as a hydric soil. This soil type occupies approximately three percent of the AOI (**Figure 3**).

The soil types listed above comprise approximately 96 percent of the AOI while the remaining four percent is occupied by water according to the NRCS.

3.0 Procedures

A routine wetland delineation was conducted using methods that follow the procedures outlined in the U.S. Army Corps of Engineers Wetlands Delineation Manual, (USACE 1987), Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region (Version 2.0) (USACE 2010) and subsequent RGLs. Field sample points (wetlands, uplands, and water features) were recorded according to landscape, plant community, and land use. Information pertaining to soil, vegetation, and hydrology was recorded at each sample point. Information pertaining to flow regime (i.e. ephemeral, intermittent, and perennial), bank characteristics, hydrology, substrate, and vegetation was recorded at each water feature. In addition to the wetland delineation, the field team concurrently surveyed the project site for the presence of protected species, including threatened and endangered (T&E) species and/or their associated habitat and signs of their presence, and documented those observations (if any) in field notes.

Sample points and wetland boundaries were mapped using a Trimble Geo7XTM global positioning system (GPS) capable of sub-meter accuracy, and each sample point was assigned a unique identifier. Wetland habitats where sample points were collected were classified according to Cowardin's *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin et al. 1979).

Wetland acreages and linear feet of Other Waters of the U.S. observed within the AOI were estimated using geographical information system (GIS) software by superimposing potential jurisdictional wetlands and Other Waters of the U.S. polygons over the proposed AOI. The wetland determination datasheets, and a photographic log are provided in **Appendix A and B**, respectively. The wetlands and Other Waters of the U.S. determination results and conclusions are discussed in Sections 4 and 5. A summary of the T & E species survey results are provided in Section 4.4 and a complete list of all threatened and endangered species listed for Livingston Parish is presented in **Table 2** of this report.

4.1 General

A field survey of the proposed project AOI was conducted by CSRS scientists on February 4, 5, 6, 11, 13, and 18, 2019. In total, 15 sample points (eight upland points, and seven wetland points), as well as two (2) excavated lakes, a natural water-course, and numerous roadside ditches and associated drains were identified, mapped, and recorded. The completed field data forms, photographs of soil profiles and general habitat overviews at each sample point, and photographs of the water features are provided in **Appendices A and B**, respectively. Locations and corresponding habitats where these sample points occur within the AOI are shown in **Figure 4** and listed in **Table 1**.

4.2 Wetlands

The total area of potential jurisdictional wetlands within the AOI is approximately 167.46 acres. The potential jurisdictional wetlands are comprised of six Cowardin types; (1) Palustrine Forested Broad-Leaved Deciduous (PFO1). (2) Palustrine Forested Broad-Leaved Deciduous/Needle-Leaved Evergreen (PFO1/4), (3) Palustrine Scrub/Shrub Broad-Leaved deciduous (PSS1), (4) Palustrine Unconsolidated Bottom Mud Permanently Flooded Excavated (PUB3Hx), (5) Palustrine Unconsolidated Bottom Mud Semi-Permanently Flooded Excavated (PUB3Fx), and (6) Riverine Intermittent Streambed Seasonally Flooded (R4SBC). In total, 35 vegetated wetland polygons were identified as PFO1, PFO1/4, or PSS1 totaling 167.46 acres. A natural water-course (Little Colyell Creek) (R4SBC), and numerous roadside ditches and associated drains (PUB3Fx) totaled approximately 31,874 linear feet. Additionally, two excavated lakes (PUB3Hx) totaling approximately 17.72 acres were observed within the AOI. These wetland polygons and Other Waters of the U.S. (WOTUS) features are depicted in Figure 4. A list of each wetland and upland sample point location and corresponding observed habitat type at each point is provided in **Table 1**.

4.2.1 PFO1 Wetlands

4.2.1.1 Hydrology

The PFO1 (Palustrine Forested Broad-Leaved Deciduous) wetlands are characterized by lowlying areas dominated by hydrophytic canopy, shrub, and herbaceous vegetation. The PFO1 wetlands had surface hydrology connections to other wetlands and drainages extending beyond the AOI. Primary indicators of wetland hydrology observed at sample points collected within PFO1 habitats included surface water (A1), high water table (A2), saturation (A3), water marks (B1), sediment deposits (B2), water-stained leaves (B9), and/or oxidized rhizospheres along living roots (C3). Secondary indicators of wetland hydrology observed within PFO1 habitats included crayfish burrows (C8), geomorphic position (D2), FAC-Neutral test (D5), and/or sphagnum moss (D8) (Appendix A).

4.2.1.2 Vegetation

The dominant vegetation observed in the canopy stratum of PFO1 wetland habitats consisted of water oak (*Quercus nigra*) and sweetbay (*Magnolia virginiana*), with minor constituents represented by black gum (*Nyssa sylvatica*) and red maple (*Acer rubrum*). The shrub stratum was dominated by dwarf palmetto (*Sabal minor*) and/or American holly (*Ilex opaca*). Non-dominant species in the shrub stratum included black gum, American holly, red maple, yaupon (*Ilex vomitoria*), and/or water oak. The herbaceous stratum was dominated by slender wood-oats (*Chasmanthium laxum*) and/or dwarf palmetto. Laurel greenbrier dominated the woody vine stratum. The vegetation within the PFO1 wetlands satisfied the wetland criterion for dominance of hydrophytic vegetation (**Appendix A**).

4.2.1.3 Soil

The PFO1 soil profiles were generally similar to that described by NRCS for the respective soil in which they were mapped (**Figure 4**). The soil matrix colors typically ranged from light brown to brownish-gray silt, with mottled features ranging from reddish-orange and brownish red. The observed soil profile exhibited depletion and redox features meeting the hydric soil criterion for depleted matrix (F3) (**Appendix A**).

4.2.2 PFO1/4 Wetlands

4.2.2.1 Hydrology

The PFO1/4 (Palustrine Forested Broad-Leaved Deciduous/Needle-Leaved Evergreen) wetlands were observed scattered throughout the AOI and generally situated in the transitional areas between pine-dominated and hardwood-dominated habitats. The PFO1/4 wetlands had surface hydrology connections to other wetlands and drainages extending beyond the AOI. Primary indicators of wetland hydrology observed at sample points collected within PFO1/4 habitats included surface water (A1), high water table (A2), saturation (A3), water marks (B1), sediment deposits (B2), water-stained leaves (B9), hydrogen sulfide odor (C1), and/or oxidized rhizospheres along living roots (C3). Secondary indicators of wetland hydrology observed within PFO1/4 habitats included crayfish burrows (C8), geomorphic position (D2), and/or FAC-Neutral test (D5) (**Appendix A**).

4.2.2.2 Vegetation

The dominant vegetation observed in the canopy stratum of PFO1/4 wetland habitats consisted of loblolly pine (*Pinus taeda*), sweetbay, Chinese tallowtree (*Triadica sebifera*), and/or sweetgum (*Liquidambar styraciflua*). Minor canopy representatives included water oak, and/or sweetgum. The shrub stratum was dominated by dwarf palmetto, yaupon, and/or wax myrtle

(Morella cerifera). Non-dominant species in the shrub stratum included loblolly pine, dwarf palmetto, Chinese privet (Ligustrum sinense), American holly, water oak, Chinese tallowtree, wax myrtle, and/or nuttall oak (Quercus texana). The herbaceous stratum was dominated by slender woodoats, wax myrtle, evening trumpetflower (Gelsemium sempervirens), common rush (Juncus effusus), woolgrass (Scirpus cyperinus), blunt spikerush (Eleocharis obtusa), alligatorweed (Alternanthera philoxeroides), and/or whitegrass (Leersia virginica). Nondominant species in the herbaceous stratum included sugarcane plumegrass (Saccharum giganteum), bushy bluestem (Andropogon glomeratus), slender woodoats, broad-leaf cattail (Typha latifolia), broad-leaf arrowhead (Sagittaria latifolia), Mexican primrose-willow (Ludwigia octovalvis), bog yellow-eyed grass (Xyris difformis), tapered rosette-grass (Dichanthelium accuminatum), grassleaf rush (Juncus marginatus), hopsedge (Carex lupulina), camphorweed (Pluchea foetida), dwarf palmetto, and yaupon. In one sample plot, SP1, the woody vine stratum was dominated by Japanese climbing fern (Lygodium japonicum), sawtooth blackberry (Rubus argutus), laurel greenbrier, roundleaf greenbrier (Smilax rotundifolia). Other sample points collected in PFO1/4 wetland habitats did not exhibit a woody vine stratum. The vegetation within the PFO1/4 wetland habitats satisfied the wetland criterion for dominance of hydrophytic vegetation (Appendix A).

4.2.2.3 Soil

The PFO1/4 soil profiles were generally similar to that described by NRCS for which they are mapped. The soils were a very light-grayish brown to a very light-gray silt which exhibited depletion and redox features throughout the soil profile meeting the hydric soil criterion for depleted matrix (**Appendix A**).

4.2.3 PSS1 Wetlands

4.2.3.1 Hydrology

The PSS1 wetland has a direct surface hydrology connection to the small creek bisecting portions of the southwest corner of the AOI. Two primary indicators of wetland hydrology observed included saturation (A3) and oxidized rhizospheres along living roots (C3). One secondary wetland hydrology indicator, the FAC-Neutral test (D5), was observed at the sample point in the PSS1 wetland (**Appendix A**).

4.2.3.2 Vegetation

The PSS1 (Palustrine Scrub/Shrub Broad-Leaved Deciduous) wetland was located in the southwestern portion of the AOI in an area which had been subjected to logging/timber harvest activities sometime after October 2016. The tree stratum was absent from the PSS1 wetland habitat during the time of sampling. The shrub stratum was dominated by yaupon and sweetgum, while dwarf palmetto, Chinese tallowtree, and St. Andrew's Cross (*Hypericum hypericoides*) were non-dominant constituents. The herbaceous stratum was dominated by

grassleaf rush and velvet panicum (*Dichanthelium scoparium*). Non-dominant species were represented by slender woodoats, common rush, slender goldentop (*Euthamia caroliniana*), broomsedge bluestem (*Andropogon virginicus*), dog fennel (*Eupatorium capillifolium*), woolgrass, broadleaf cattail, and bog yellow-eyed grass. The woody vine stratum was dominated by sawtooth blackberry and muscadine grape (*Vitis rotundifolia*). The vegetation within the PSS1 wetland habitat satisfied the wetland criterion for dominance of hydrophytic vegetation (**Appendix A**).

4.2.3.3 Soil

The PSS1 soil profile was generally similar to that described by NRCS for the Natalbany silty clay loam, frequently flooded and Deerford-Verdun complex, 0 to 1 percent slopes soils, which are the predominant mapped soil units within this wetland. The soils were very dark grayish brown to gray silty loam which contained depletion and redox features throughout the soil profile meeting the hydric soil criterion for depleted matrix (**Appendix A**).

4.2.4 Uplands

4.2.4.1 Hydrology

Wetland hydrology indicators were observed at five of the eight upland sample points (**Appendix A**). Sample points SP2, SP7, SP9, and SP11 exhibited a positive result for the FAC-Neutral test, a secondary indicator for wetland hydrology. One secondary indicator is not sufficient to satisfy the wetland hydrology criterion. However, sample point SP8 exhibited oxidized rhizospheres around living roots, a primary hydrology indicator yielding a positive result for wetland hydrology. Several small artificial ephemeral drainages conducted water from and/or through non-wetland areas to downslope drainages on site which ultimately convey water to wetlands, Little Colyell Creek to the west, or off-site (**Appendix A**).

4.2.4.2 Vegetation

The upland areas included pine and mixed pine/hardwood forested areas, and shrub-dominated habitats. In forested uplands, the dominant species in the tree stratum were comprised of loblolly pine, tuliptree (*Liriodendron tulipfera*), hophornbeam (*Ostrya virginiana*), and live oak (*Quercus virginiana*). The shrub stratum in upland habitats was dominated by dwarf palmetto, yaupon, common sweetleaf (*Symplocos tinctoria*), hophornbeam, Chinese tallowtree, sugarcane plumegrass, common St. John's wort (*Hypericum perforatum*), water oak, and wax myrtle. The herbaceous stratum was dominated by slender wood oats, loblolly pine, yaupon, dwarf palmetto, inland rush (*Juncus interior*), yellow nutsedge (*Cyperus esculentus*), needleleaf rosette grass (*Dichanthelium aciculare*), dog fennel, and sharpscale sedge (*Carex oxylepis*). The woody vine stratum was dominated by roundleaf greenbrier, Japanese climbingfern, sawtooth blackberry, southern dewberry (*Rubus trivialis*), muscadine grape, laurel greenbrier, and evening

trumpetflower. The vegetation at all sample points established in uplands, with the exception of sample point SP8, satisfied the criterion for hydrophytic vegetation (**Appendix A**).

4.2.4.3 Soil

Soil profiles observed at sample points established in upland habitats resulted in four sample points (SP8, SP9, SP11, and SP12) exhibiting a depleted matrix (F3), a positive result for a hydric soil, and four sample points (SP2, SP5, SP7, and SP15) lacking hydric soil indicators. The upland soil profiles were generally similar to the respective soil types described and mapped by the NRCS. Sample points meeting hydric soil criteria (SP8, SP9, SP11, and SP12) exhibited redox features and a depleted matrix, while non-hydric soils at sample points SP2, SP5, SP7, and SP15 generally lacked redox and depletion features.

4.3 Other Waters of the U.S.

In total, the three Other Waters of the U.S. (WOTUS) features were observed occupying approximately 31,847 linear feet (linear water features) and 17.72 acres (ponds/lakes) within the AOI. The identified WOTUS features are comprised of: one Riverine Intermittent Streambed Seasonally Flooded Excavated (R4SBC) Other Waters of the U.S. (Little Colyell Creek); two Palustrine Unconsolidated Bottom Mud Permanently Flooded Excavated (PUB3Hx) Other waters of the U.S. (pond/lake), and numerous artificial roadside ditches and associated drains classified as Palustrine Unconsolidated Bottom Mud Semi-permanently Flooded Excavated (PUB3Fx) Other Waters of the U.S. scattered throughout the AOI. The excavated/artificial ditches/drains (PUB3Hx and PUB3Fx) are watercourses exhibiting intermittent to ephemeral flow which have direct connection to offsite wetlands and named watercourses. The above water features are depicted in **Figure 4**.

4.3.1 R4SBC

The R4SBC water body (Little Colyell Creek) is a semi-natural, partially excavated water course in the northwestern portion of the AOI which serves to convey water from wetlands and nonwetlands north of and within the AOI offsite to Colyell Creek. At this time, it is unknown when excavation activities were performed on Little Colyell Creek, but the general orientation and drainage capabilities of the creek appear to be relatively unchanged from historic conditions. Surface water from properties to the north enters the AOI via Little Colyell Creek near the northwest corner of the AOI, and generally flows from northeast to south-southwest meeting Colyell Creek approximately 4.2 miles south of the AOI until the creek's confluence with the Amite River via Colyell Bay approximately 10 miles to the south-southwest.

4.3.2 PUB3Hx

The PUB3Hx (Palustrine Unconsolidated Bottom Mud Permanently Flooded) water features within the AOI consist of one excavated linear canal along the entire length of the eastern

boundary, a natural, unnamed water course which enters the AOI near the western-central boundary and exits the AOI near the southwest corner of the property, and two excavated lakes; one near the center of the AOI, and another near the northern-central boundary. These PUB3Hx features drain and store surface water from onsite and offsite uplands and wetlands and covey water to the Amite River approximately 10 miles to the south-southwest.

4.3.3 PUB3Fx

The PUB3Fx features observed within the AOI are located adjacent to access roads and scattered throughout pine-dominated habitats. Water within these features ultimately drain to the Amite River via direct connections to named and unnamed natural water-courses.

4.4 Threatened and Endangered Species

In addition to the wetland delineation, a T&E species survey was conducted concurrently within the AOI in accordance with the requirements of Section 7 of the Endangered Species Act, 16 U.S.C. § 1531. The survey was limited to the AOI and presence of preferred habitat and evidence of nests were investigated. According to the U.S. Fish and Wildlife Service (USFWS) and the Louisiana Department of Wildlife and Fisheries (LDWF), five species are listed as Endangered, Threatened, or a Candidate Species for Livingston Parish, Louisiana within the AOI (**Table 2**). These five species include the bald eagle (*Haliaeetus leucocephalus*), red-cockaded woodpecker (*Picoides borealis*), Atlantic (Gulf) sturgeon (*Acipenser oxyrinchus desotoi*), Alabama shad (*Alosa alabamae*), and the inflated heel-splitter (*Potamilus inflatus*). During the field survey no evidence of T&E species, other protected species, or their associated critical habitat were observed.

Based on the field survey results of the AOI, CSRS scientists have determined that this project is likely to have "no effect" on any federal or state listed species or designated critical habitat. CSRS, on behalf of the Baton Rouge Area Chamber, will request letters of concurrence of "no effect" from the USFWS and LDWF.

5.0 Conclusions

A total of approximately 167.46 acres of potential jurisdictional wetlands, 31,874 linear-feet of Other Waters of the U.S. (roadside ditches and associated drains), and 17.72 acres of Other Waters of the U.S. (central and northern lakes) were identified which may be subject to jurisdiction under Section 404 of the Clean Water Act and/or Section 10 of the Rivers and Harbors Act by the USACE New Orleans District. It is recognized that past determinations by the USACE New Orleans District, the permitting history of the AOI, if any, and other factors may be taken into consideration by the USACE while making a jurisdictional determination on features presented in this report. However, based on the information readily available to CSRS, a brief explanation and an opinion regarding the potential jurisdictional determination for identified features within the AOI is provided below.

The majority of wetland and water features within the AOI may be deemed jurisdictional by the USACE New Orleans District due to hydrologic surface connections to Little Colyell Creek and off-site connections to Colyell Creek, Colyell Bay, the Amite River, and Lake Maurepas.

The wetland habitats identified within the AOI include Palustrine Forested Broad-Leaf Deciduous (PFO1), Palustrine Forested Broad-Leaf Deciduous/Needle-Leaf Evergreen (PFO1/4), and Palustrine Scrub/Shrub Broad-Leaf Deciduous (PSS1). These wetland habitats met the criteria for wetland hydrology, hydric soils and a predominance of hydrophytic vegetation. The wetland habitats listed above comprise approximately 167.46 acres and may fall under USACE jurisdiction as outlined by Section 404 of the Clean Water Act.

The Waters of the U.S. observed within the AOI, including Palustrine Unconsolidated Bottom Mud Permanently Flooded Excavated (PUB3Hx), Palustrine Unconsolidated Bottom Mud Semi-Permanently Flooded Excavated (PUB3Fx), and Riverine Intermittent Streambed Seasonally Flooded (R4SBC) fall under potential USACE jurisdiction as outlined by Section 10 of the Rivers and Harbors Act and/or the Clean Water Rule: Definition of "Waters of the United States", 33CFR328 (DoD and USEPA 2015) due to downstream connections with major water courses and navigable waters including the Amite River and Lake Maurepas. Approximately 31,874 linear feet of Waters of the U.S. (unnamed drains and roadside ditches) and approximately 17.72 acres of Other Waters of the U.S. (northern and central lakes) were identified within the AOI.

Only the USACE, under the authority of Section 404 of Clean Water Act and Section 10 of the Rivers and Harbors Act, has the authority to make the final determination of the location and extent of jurisdictional wetlands and navigable waters within the project area. This report

represents the opinion of CSRS and should be considered preliminary until a PJD is issued by the USACE New Orleans District.

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TABLES

Sample Point	Coordinates	Habitat
1	30.456190°, -90.754981°	PFO1/4
2	30.454144°, -90.756664°	Upland
3	30.454408°, -90.758051°	PF01
4	30.454378°, -90.760551°	PSS1
5	30.453887°, -90.763182°	Upland
6	30.453358°, -90.763361°	PFO1/4
7	30.455485°, -90.763798°	Upland
8	30.456175°, -90.760420°	PSS1
9	30.453555°, -90.746284°	Upland
10	30.454042°, -90.753651°	PFO1/4
11	30.454206°, -90.753963°	Upland
12	30.465943°, -90.755610°	Upland
13	30.465873°, -90.756211°	PFO1
14	30.463850°, -90.757351°	PFO1/4
15	30.464017°, -90.756988°	Upland

Table 1. List of Sample Points, Coordinates, and Habitat Types Observed within the AOI.

PFO1 – Palustrine Forested Broad-Leaved Deciduous

 $PFO1/4-Palustrine\ Forested\ Broad-Laved\ Deciduous/Needle\ Leaved\ Evergreen$

PSS1 - Palustrine Scrub Shrub

Table 2. Federal and State List of Threatened, Endangered, and Rare Species in Livingston Parish, Louisiana.

Common Name	Scientific Name	Federal Status	State Status	Impacts from Project
Bald Eagle	Haliaeetus lecocephalus	Delisted	Endangered	Unlikely, no suitable nesting trees.
Atlantic (Gulf) Sturgeon	Acipenser oxyrinchus desotoi	Threatened	Threatened	Unlikely, no suitable habitat.
Red-Cockaded Woodpecker	Picoides borealis	Endangered	Endangered	Unlikely, no suitable cavity trees, canopy and sapling density is well above preferred levels.
Inflated Heelsplitter	Potamilus inflatus	Threatened	Threatened	Unlikely, no suitable habitat.
Alabama Shad	Alosa alabamae	N/A	Candidate	Unlikely, no suitable habitat.

FIGURES









APPENDIX A WETLAND DETERMINATION DATA FORMS

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site	Colyell 420-Acre Site		City/County:	Colyell/Livings	ston Sa	mpling Date:	2/4/20)19
Applicant/Owner:	Weyerhaeuser	NR Company	State	: Louisian	ia Sa	mpling Point:	SP1	1
Investigator(s):	Curt Schaeffer, C	al Fontenot	Sectio	on, Township, F	Range:	S12, ⁻	Г7S, R4E	
Landform (hillslope, te	errace, etc.): L	owland	Local relief	(concave, conv	/ex, none):	Convex	Slope (%):	>1
Subregion (LRR or MI	LRA): LRR-P	Lat:	30.456190°	Long:	(-) 90	.754981°	Datum:	NAD83
Soil Map Unit Name	Satsuma silt loa	am, 1 to 3 perc	cent slopes (Sa)	NWI	Classificatio	on:	N/A	
Are climatic/hydrologic	c conditions of the site t	ypical for this	time of the year	? Yes (l'	f no, explain	in remarks)		
Are vegetation	, soil , or	hydrology	significantly	disturbed?	Are "normal	circumstances	" present?	Yes
Are vegetation	, soil , or	hydrology	naturally pr	oblematic?	(If needed, o	explain any an	swers in rem	arks.)
SUMMARY OF FI	NDINGS Attach	site map sho	wing samplin	g point locati	ons, transe	ects, importa	nt features,	etc.
Hydrophytic veget	tation present?	Yes						
Hydric soil presen	t?	Yes	le fi			Wetlend 2	Vee	
Indicators of wetla	and hydrology present?	Yes	is tr	le Sampled Al	rea within a	a wetland?	res	
Remarks:			ł					
		Hydric pin	e flatwoods,	oine plantatio	n			
		, ,		·				
HYDROLOGY								
Wetland Hydrology I	ndicators:							
Primary Indicators (mi	inimum of one is require	ed; check all th	lat ap	Sec	condary Indic	cators (minimu	m of two requ	uired)
Surface Water (A1)	Aquatic F	auna (B13)		Surface	Soil Cracks (B6	3)	<u>,</u>
High Water Table (/ (A2)	Marl Dep	osits (B15) (LRR	U)	Sparsel	Vegetated Co	ncave Surface	e (B8)
X Saturation (A3))	 Hvdrogen	Sulfide Odor (C	, 1)	Drainag	e Patterns (B10)	- ()
Water Marks (B1)				·/	Drv-Sea	son Water Tabl	, e (C2)	
Sediment Deposits	(B2)	X Oxidized Roots (C:	Rhizospheres or	Living	Moss Tr	im Lines (B16)	0 (02)	
Drift Deposits (B3)		Presence	of Reduced Iror		X Cravfish	Burrows (C8)		
Algal Mat or Crust	(B4)			· (0 !)	Saturatio	on Visible on Ar	erial Imagery	(C.9)
Iron Deposits (B5)	(04)	Recent Ire Soils (C6)	on Reduction in	Tilled .	Geomor	nhic Position (Γ)2)	(00)
Inundation Visible	on Aerial Imagery (B7)	Thin Muc	/ k Surface (C7)	•	Shallow	Aquitard (D3)	,2)	
Water-Stained Lea		Other (Ex	rolain in Remark			utral Test (D5)		
	ves (D9)			•)		ummoss(D8)		
				•			Litter, 07	
Field Observations:								
Surface water process	t2 Vac		nth (inchas):					
Surface water present	Vec		ptn (inches).		1	Wetland	Vac	
water table present?	Yes			2	н	ydrology	162	
Saturation present?	res <u>^</u>	No De	pth (inches):	2	F	resent?		
	ge) 							
Describe recorded dat	ta (stream gauge, moni	toring well, ae	rial photos, prev	vious inspection	is), if availab	ole:		
Remarks:								
FAC-Neutral test	- 3:0							

VEGETATION -- Use scientific names of plants.

SP1

	Absolute	Dominan	Indicator	Dominance Test Worksheet
Tree Stratum (Plot size: 30)	% Cover	t Species	Staus	Number of Dominant
1 Pinus taeda	60	Y	FAC	Species that are OBL, $FACW$ or FAC^{2} 9 (A)
2 Liquidambar styraciflua	10	N	FAC	Total Number of Dominant
3	10		17.0	Species Across all Strata: 9 (B)
3				
+				Percent of Dominant Species
5				that are OBL, FACW, or
0				FAC: 100.00% (A/B)
/				
8				
	70	= Total Cove	r	
50% of total cover: 35	20% of to	otal cover:	14	Prevalence Index Worksheet
				Total % Cover of:
Sopling/Shrub Stratup (Plot size: 20				OPL species 0 x 1 = 0
<u>Sapiling/Shrub Stratun</u> (Plot size. <u>50</u>	20	V		$\frac{1}{2} = \frac{1}{2} = \frac{1}$
		<u> </u>		FAC w species $43 \times 2 = 90$
2 Ilex vomitoria	20	<u> </u>		FAC species $131 \times 3 = 393$
		<u> </u>		FACU species $0 \times 4 = 0$
		<u> </u>	FAC	$\frac{0}{100} = \frac{1}{100} = \frac{1}$
5 Ligustrum sinense	5	<u>N</u>	FAC	Column totals 176 (A) 483 (B)
6 Ilex opaca	2	<u>N</u>	FAC	D
7 Quercus nigra	2	N	FAC	Prevalence Index = $B/A = 2.74$
8 Quercus texana	2	N	FACW	
	79	= Total Cove	r	
50% of total cover: 39.5	20% of to	otal cover:	15.8	Hydrophytic Vegetation Indicators:
		-		Rapid test for hydrophytic vegetation
Horb stratum (Plot size: 20				X Dominance test is >50%
1 Chasmanthium Jayum	10	v	FACW	$\frac{1}{2} = \frac{1}{2} = \frac{1}$
		<u> </u>	FACIN	
	5	<u> </u>	FAC	Problematic hydrophytic
3 Ilex vomitoria	4	<u> </u>	FAC	vegetation" (explain)
4 Sabal minor	3	<u> </u>	FACW	*Indicators of hydric soil and wetland hydrology must
5				be present, unless disturbed or problematic
6				Definitions of Five Vegetation Strata
7				Tree- Woody plants, excluding woody vines,
8				approximately 20 ft (6m) or more in height and
9				less than 3 in. (7.6 cm) DBH.
10				
11				Sapling/Shrub - Woody plants, excluding vines,
12				less than 3 in. DBH and greater than 3.26 ft (1m)
	22	= Total Cove	r	tall
50% of total cover: 11	20% of to	otal cover:	4.4	Herb - All herbaceous (non-woody) plants
		_		including herbaceous vines, regardless of size
Woody vine stratum (Plot size: 30)			and woody plants, except woody vines, less than
1 Lvgodium iaponicum	5	Y	FAC	approximately 3 ft (1 m) in height.
2 Rubus argutus	4	Y	FAC	Woody vine - All woody vines, regardless of
3 Smilax laurifolia	4	Y	FACW	height.
4 Smilax rotundifolia	4	<u> </u>	FAC	
5	<u>т</u>	<u> </u>	1710	
č				Hydrophytic
	1/	= I otal Cove	r	Vegetation Yes
50% of total cover: 8.5	20% of to	otal cover:	3.4	Present?
Remarks: (If observed, list morphological a	adaptation	s below).		
		- 201011.		

SOIL Sampling Point: SP1 Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) <u>Matrix</u> **Redox Features** Depth (Inches) Color (moist) % Color (moist) Loc** % Type* Texture Remarks 0-4 10YR 6/1 10YR 7/1 silty loam 88 5 D Μ 10YR 4/6 2 С PL silty loam 10YR 5/8 5 С Μ silty loam D 4-16 10YR 7/1 70 10 Μ 10YR 5/1 silty loam 10 С PL 5YR 4/6 silty loam С 7.5YR 5/8 10 PL silty loam Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix **Hydric Soil Indicators:** Indicators for Problematic Hydric Soils: Histisol (A1) Polyvalue Below Surface (S8) (LRR S, T, U) 1 cm Muck (A9) (LRR O) Thin Dark Surface (S9) (LRR S, T, U) 2 cm Muck (A10) (LRR S) Histic Epipedon (A2) Reduced Vertic(F18) (outside MLRA 150A,B) Black Histic (A3) Loamy Mucky Mineral (F1) Piedmont Floodplain Soils (F19) (LRR P, S, T) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Stratified Layers (A5) X Depleted Matrix (F3) Anomolous Bright Loamy Soils (F20) (MLRA 153B) Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) 5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) Red Parent Material (TF2) Muck Presence (A8) (LRR U) Redox Depressions (F8) Very Shallow Dark Surface (TF12) 1 cm Muck (A9) (LRR P, T) Marl (F10) (LRR U) Other (explain in remarks) Depleted Ochric (F11) (MLRA 151) Depleted Below Dark Surface (A11) Iron-Manganese Masses (F12) (LRR O, P, T) Thick Dark Surface (A12) *Indicators of hydrophytic vegetation Coast Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U) and weltand hydrology must be present, unless disturbed or problematic Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) Reduced Vertic (F18) (MLRA 150A, 150B) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Stripped Matrix (S6) Anomolous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (if observed): **Hydric Soil** Type: Yes Present? Depth (inches): Remarks:

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region Colvell 420-Acre Site Project/Site City/County: Colyell/Livingston Sampling Date: 2/4/2019 Sampling Point: Applicant/Owner: Weyerhaeuser NR Company State: Louisiana SP2 Curt Schaeffer, Cal Fontenot Investigator(s): Section, Township, Range: S12, T7S, R4E Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): Concave >1 Terrace Slope (%): Subregion (LRR or MLRA): Lat: 30.454144° LRR-P Long: (-) 90.756664° Datum: NAD83 NWI Classification: Soil Map Unit Name Satsuma silt loam, 1 to 3 percent slopes (Sa) N/A Are climatic/hydrologic conditions of the site typical for this time of the year? (If no, explain in remarks) Yes Are vegetation , soil , or hydrology significantly disturbed? Are "normal circumstances" present? Yes , or hydrology naturally problematic? Are vegetation , soil (If needed, explain any answers in remarks.) SUMMARY OF FINDINGS -- Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic vegetation present? Yes Hydric soil present? No Is the Sampled Area within a Wetland? No Indicators of wetland hydrology present? No Remarks: Mixed pine/hardwoods HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that ap Secondary Indicators (minimum of two required) Surface Water (A1) Aquatic Fauna (B13) Surface Soil Cracks (B6) Marl Deposits (B15) (LRR U) Sparsely Vegetated Concave Surface (B8) High Water Table (A2) Saturation (A3) Hydrogen Sulfide Odor (C1) Drainage Patterns (B10) Water Marks (B1) Dry-Season Water Table (C2) Oxidized Rhizospheres on Living Sediment Deposits (B2) Moss Trim Lines (B16) Roots (C3) Drift Deposits (B3) Presence of Reduced Iron (C4) Crayfish Burrows (C8) Algal Mat or Crust (B4) Saturation Visible on Aerial Imagery (C9) Recent Iron Reduction in Tilled Iron Deposits (B5) Soils (C6) Geomorphic Position (D2) Inundation Visible on Aerial Imagery (B7) Thin Muck Surface (C7) Shallow Aquitard (D3) Other (Explain in Remarks) Water-Stained Leaves (B9) X FAC-Neutral Test (D5) Sphagnum moss (D8) (LRR T, U) Field Observations: Surface water present? No Х Depth (inches): Yes Wetland Х No Water table present? Depth (inches): Yes No Hydrology Saturation present? Yes No X Depth (inches): Present? (includes capillary fringe) Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: FAC-Neutral test - 2:0

VEGETATION -- Use scientific names of plants.

Sampling Point: SP2

	Absolute	Dominan	Indicator	Dominance Test Worksheet
Tree Stratum (Plot size: 30)	% Cover	t Species	Staus	Number of Dominant
1 Pinus taeda	60	Y	FAC	Species that are OBL, EACW or EAC: 5 (A)
2 Prunus serotina	8	N	FACU	Total Number of Dominant
3 Quercus falcata	5	N	FACU	Species Across all Strata: 5 (B)
4 Ouercus nigra	2	N	FAC	
5 Ouercus virginiana	2		FACU	Percent of Dominant Species
6 Liquidambar styraciflua	2		EAC	that are OBL, FACW, or EAC: 100,00% (A/B)
			170	
8				
٥				
	79	= Total Cover	-	
50% of total cover: 39.5	20% of to	otal cover:	15.8	Prevalence Index Worksheet
				Total % Cover of:
Sapling/Shrub Stratun (Plot size: 30)			OBL species 0 x 1 = 0
1 Sabal minor	, 15	Y	FACW	FACW species $23 \times 2 = 46$
2 Ilex vomitoria	10	Y	FAC	FAC species $82 \times 3 = 246$
3 Symplocos tinctoria	5	N	FAC	FACU species $15 \times 4 = 60$
4				UPL species $0 \times 5 = 0$
5				Column totals 120 (A) 352 (B)
6				
7				Prevalence Index = $B/A = 2.93$
8				
°	20	- Total Cave		
	30	= Total Cover		
50% of total cover: <u>15</u>	20% of to	otal cover:	6	Hydrophytic Vegetation Indicators:
				Rapid test for hydrophytic vegetation
Herb stratum (Plot size: 30)			X Dominance test is >50%
1 Sabal minor	8	Y	FACW	X Prevalence index is ≤3.0*
2 Ilex vomitoria	3	Y	FAC	Problematic hydrophytic
3				vegetation* (explain)
4				*Indicators of hydric soil and wetland hydrology must
5				be present, unless disturbed or problematic
6				Definitions of Five Vegetation Strata
7				Tree- Woody plants, excluding woody vines
8				approximately 20 ft (6m) or more in height and
9				less than 3 in. (7.6 cm) DBH.
10				
11				Sanling/Shrub - Woody plants, excluding vines
12				less than 3 in. DBH and greater than 3.26 ft (1m)
	11	= Total Cover		tall
50% of total cover: 5.5	20% of to	otal cover:	2.2	Herb - All herbaceous (non-woody) plants
				including herbaceous vines, regardless of size
Woody vine stratum (Plot size: 30)			and woody plants, except woody vines, less than
1				approximately 3 ft (1 m) in height.
2				Woody vine - All woody vines, regardless of
3				height.
4				
5				Hydrophytic
	0	= Total Cove		Vegetation Voc
50% of total action of	20% of to	tal cover	0	Present?
	20% 01 10		U	
Remarks: (If observed, list morphological	adaptation	s below).		

SOIL		:	Sampling Point:	SP2				
Profile Des	cription: (Describe	to the c	lepth needed to o	docume	ent the indic	ator or confirm t	the absence o	f indicators.)
Depth	Matrix		Redo					
(Inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	
0-5	10YR 4/2	50					silty loam	

(Inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks	
0-5	10YR 4/2	50						silty loam		
	10YR 5/2	50						silty loam		
5-10	10YR 5/2	60	10YF	r 5/6	2	С	М	silty loam		
	10YR 4/2	38						silty loam		
10-16	10YR 6/2	85	10YF	R 5/6	10	С	М	silty loam		
			10YF	R 5/8	5	С	М	silty loam		
*Type: C = C	Concentration, D = De	epletion,	, RM = Re	duced N	/latrix, M	S = Masked	Sand Grains.	**Location: P	L = Pore Lining, M = Matrix	
Hydric So						Indicators fo	r Problematic Hydric Soils:			
Histi	sol (A1)			Polyva	alue Belo	ow Surface (S	8) (LRR S, T, U)	1 cm Muck (A9) (LRR O)		
Histi	c Epipedon (A2)			Thin D	Dark Surf	ace (S9) (LR	R S, T, U)	2 cm Muck (A10) (LRR S)		
Blac	k Histic (A3)			Loam	y Mucky	/ Mineral (F1)	Reduced Vertic(F18) (outside MLRA 150A,B)		
Hydi	rogen Sulfide (A4)			Loam	y Gleye	d Matrix (F2)		Piedmont Floodplain Soils (F19) (LRR P, S, T)		
Strat	tified Layers (A5)			Depleted Matrix (F3)				Anomolous Bright Loamy Soils (F20) (MLRA		
Orga	anic Bodies (A6) (LRI	R P, T, I	J)	Redo	x Dark S	Surface (F6)		153B)		
5 cm	n Mucky Mineral (A7)	(LRR F	P, T, U)	Deple	ted Darl	k Surface (F	7)	Red Parent Material (TF2)		
Muc	k Presence (A8) (LRI	R U)		Redo	x Depres	ssions (F8)		Very Shallow Dark Surface (TF12)		
1 cm	n Muck (A9) (LRR P,	T)		Marl (F10) (LI	RR U)		Other (explain in remarks)		
Depl	leted Below Dark Sur	face (A ^r	11)	Depleted Ochric (F11) (MLRA 151)						
Thic	k Dark Surface (A12)			Iron-N	/langane	ese Masses (F12) (LRR O, P,	Г)	*Indicators of hydrophytic vegetation	
Coa	st Prairie Redox (A16) (MLR	A 150A)	Umbr	ic Surfac	ce (F13) (LR	R P, T, U)		and weltand hydrology must be present,	
San	O, S)	Delta	Ochric ((F17) (MLRA	151)		unless disturbed or problematic			
San	dy Gleyed Matrix (S4)		— Reduced Vertic (F18) (MLRA 150A, 150B)						
San	dy Redox (S5)			Piedmont Floodplain Soils (F19) (MLRA 149A)						
Strip	ped Matrix (S6)			Anomolous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)						
Dark	surface (S7) (LRR I	P, S, T,	U)							

Restrictive Layer (if observed):		
Туре:	Hydric Soil No	
Depth (inches):	Present? NO	
Remarks:		

SOIL

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site	Colyell 420-Acre Site		City/County: Colyell/Livingston		ngston S	Sampling Date: 2/4/2019		019	
Applicant/Owner:	Weyerhaeuser NR Company		State: Loui		ana Sampling Poin		SP3		
Investigator(s):	Sectio	n, Township	, Range:	S12,	T7S, R4E				
Landform (hillslope, te	rrace, etc.): B	ottomland	Local relief	(concave, co	onvex, none)	Convex	Slope (%):	1	
Subregion (LRR or ML	.RA): LRR-P	Lat:	30.454408°	Long:	(-) 9	90.758051°	Datum:	NAD83	
Soil Map Unit Name	Natalbany silty c	lay loam, frequ	ently flooded (N	a) N	WI Classifica	ation:	N/A		
Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)									
Are vegetation, soil, or hydrologysignificantly disturbed? Are "normal circumstances" present? Yes									
Are vegetation	, soil , o	r hydrology	naturally pro	oblematic?	(If needeo	l, explain any an	swers in rem	narks.)	
SUMMARY OF FIN	DINGS Attach	site map sho	wing samplin	g point loca	ations, tran	sects, importa	nt features	, etc.	
Hydrophytic veget	ation present?	Yes							
Hydric soil present? Yes			le th	is the Sampled Area within a Wetland? Voc					
Indicators of wetland hydrology present? Yes			is the Samplet Area within a Wettanti ? TeS						
Remarks:									
		Bot	tomland ward	lwoods					
HYDROLOGY									
Wetland Hydrology I	ndicators:								
Primary Indicators (minimum of one is required; check all that ap Secondary Indicators (minimum of two required)									
Surface Water (A1) Aquat			auna (B13)		Surfac	Surface Soil Cracks (B6)			
High Water Table (A	Marl Depo	Marl Deposits (B15) (LRR U)			Sparsely Vegetated Concave Surface (B8)				
X Saturation (A3) Hyd			Sulfide Odor (C	1)	Drainage Patterns (B10)				
X Water Marks (B1)			Rhizospheres or	Livina	Dry-Season Water Table (C2)				
X Sediment Deposits (B2)		Roots (C3)		Living	Moss Trim Lines (B16)				
Drift Deposits (B3)		Presence of Reduced Iron (C4)		(C4)	X Crayfish Burrows (C8)				
Algal Mat or Crust (B4)		Recent Irr	on Reduction in ⁻	ion in Tilled		Saturation Visible on Aerial Imagery (C9)			
Iron Deposits (B5)		Soils (C6)			X Geomorphic Position (D2)				
Inundation Visible on Aerial Imagery (B7)		Thin Muck Surface (C7)			Shallow Aquitard (D3)				
X Water-Stained Leaves (B9) O		Other (Ex	Other (Explain in Remarks)			X FAC-Neutral Test (D5)			
					Sphagnum moss (D8) (LRR T, U)				
Field Observations:									
Surface water present	urface water present? Yes No X Dep								
Water table present?	Yes	No X De	pth (inches):		Wetland Hydrology Yes				
Saturation present?	aturation present? Yes X No Depth			0	Present?				
(includes capillary fring	ge)								
Describe recorded dat	a (stream gauge, mon	itoring well, aer	rial photos, prev	ious inspecti	ions), if avail	able:			
Remarks:									
FAC-Neutral test	- 3:0								
	Absolute	Dominan	Indicator	Dominance Test Worksheet					
---	------------	---------------	-----------	---					
Tree Stratum (Plot size: 30)	% Cover	t Species	Staus	Number of Dominant					
1 Quercus nigra	20	Y	FAC	FACW or FAC: 4 (A)					
2 Magnolia virginiana	12	Y	FACW	Total Number of Dominant					
3 Nyssa sylvatica	8	N	FAC	Species Across all Strata: 4 (B)					
4 Acer rubrum	5	N	FAC	Percent of Dominant Species					
5				that are OBL, FACW, or					
6				FAC: <u>100.00%</u> (A/B)					
7									
8									
	45	= Total Cove	r						
50% of total cover: 22.5	20% of to	otal cover:	9	Prevalence Index Worksheet					
				Total % Cover of:					
Sapling/Shrub Stratun (Plot size: 30)			OBL species 0 x 1 = 0					
1 Sabal minor	70	Y	FACW	FACW species 85 x 2 = 170					
2 Ilex opaca	10	N	FAC	FAC species 71 x 3 = 213					
3 Nyssa sylvatica	10	<u>N</u>	FAC	FACU species $0 \times 4 = 0$					
4 Acer rubrum	8	<u>N</u>	FAC	UPL species $0 \times 5 = 0$					
	5	<u>N</u>	FAC	Column totals 156 (A) 383 (B)					
6 Quercus nigra	5	N	FAC	Prevalence Index = $B/A = -2.46$					
8									
S	108	- Total Cove							
E0% of total appears E4	200% of tr		01.6	Hudrophytic Vegetation Indicators					
	20% 01 10		21.0	Panid test for hydrophytic vegetation					
Dist start and 20	`								
Herb stratum (Plot size: 30)	V		X Dominance test is >50%					
2			FACW	\wedge Flevalence index is ≤ 3.0					
3				vegetation* (explain)					
4				*Indicators of hydric soil and wotland hydrology must					
5				be present, unless disturbed or problematic					
6				Definitions of Five Vegetation Strata					
7				Tree- Woody plants, excluding woody vines					
8				approximately 20 ft (6m) or more in height and					
9				less than 3 in. (7.6 cm) DBH.					
10									
11				Sapling/Shrub - Woody plants, excluding vines,					
12				less than 3 in. DBH and greater than 3.26 ft (1m)					
	3	= I otal Cove	r O C	tall					
	20% of to		0.6	Herb - All herbaceous (non-woody) plants,					
Woody vine stratum (Plot size: 30)			Including herbaceous vines, regardless of size,					
1)			approximately 3 ft (1 m) in height.					
2		·		Woody vine - All woody vines, regardless of					
3				height.					
4									
5				Hydrophytic					
	0	= Total Cove	r	Vegetation Yes					
50% of total cover: 0	20% of to	otal cover:	0	Present?					
Remarks: (If observed, list morphological	adaptation	s below)							
]					
L									

Desc	cription: (Describe	to the d	lepth needed to c	locume	nt the indica	ator or co
n	<u>Matrix</u>			<u>Redo</u>	<u>x Features</u>	
^)	Color (moint)	0/	Color (moint)	0/-	Tuno*	

Depth (Inches) Matrix Redox Features 0-6 10YR 5/2 98 10YR 4/6 2 C PL silty loam 6-16 10YR 6/1 85 10YR 6/6 10 C M silty loam 6-16 10YR 6/1 85 10YR 6/6 10 C M silty loam 6-16 10YR 6/1 85 10YR 6/6 10 C M silty loam 6-16 10YR 6/1 85 10YR 6/6 10 C M silty loam 6 10 10 C M silty loam Inchestice 10 10 10 10 10 Inchestice Inchestice 17/pe: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix Hydric Soil Indicators: Indicators for Problematic Hydric Soils: Indicators of Problematic Hydric Soils: Histiso (A1) Polyvalue Below Surface (S9) (LRR S, T, U) 1 cm Muck (A9) (LRR O) 2 cm Muck (A10) (LRR S) Black Histic (A3)	Profile Des	cription: (Describe	to the d	lepth ne	eded to d	docume	nt the indic	ator or confirm th	ne absence o	f indicators.)		
(Inches) Color (moist) % Color (moist) % Type* Loc** Texture Remarks 0-6 10YR 5/2 98 10YR 4/6 2 C PL silty loam 6-16 10YR 6/1 85 10YR 6/6 10 C M silty loam 6-16 10YR 6/1 85 10YR 6/6 10 C M silty loam 6-16 10YR 6/1 85 0.YR 6/6 10 C M silty loam 6-16 10YR 6/1 85 0.YR 6/6 10 C M silty loam 6-16 10YR 6/1 85 0.YR 6/6 10 C M silty loam 6-16 10YR 6/1 1	Depth	Matrix			Redox Features							
0-6 10YR 5/2 98 10YR 4/6 2 C PL silty loam 6-16 10YR 6/1 85 10YR 6/6 10 C M silty loam	(Inches)	Color (moist)	%	Color	(moist)	%	Type*	Loc**	Texture	Remarks		
6-16 10YR 6/1 85 10YR 6/6 10 C M silty loam Image: Construction in the image of th	0-6	10YR 5/2	98	10\	′R 4/6	2	С	PL	silty loam			
Image: Note of the second s	6-16	10YR 6/1	85	10\	′R 6/6	10	С	М	silty loam			
Image: Second structure Image: Second structure <td></td> <td></td> <td></td> <td>7.5</td> <td>YR 4/6</td> <td>5</td> <td>С</td> <td>PL</td> <td>silty loam</td> <td></td>				7.5	YR 4/6	5	С	PL	silty loam			
Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix Hydric Soil Indicators: Indicators for Problematic Hydric Soils: Histisc [A1) Polyvalue Below Surface (S9) (LRR S, T, U) 1 cm Muck (A9) (LRR Q) Black Histic (A3) Loamy Mucky Mineral (F1) Reduced Vertic(F18) (outside MLRA 150A,B) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) (LRR P, S, T) Stratified Layers (A5) X Depleted Matrix (F3) Anormolous Bright Loamy Soils (F20) (MLRA 153B) Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) Tis3B) Very Shallow Dark Surface (TF12) Muck / Presence (A8) (LRR P, T, U) Depleted Dark Surface (F7) Red Parent Material (TF2) Muck Presence (A8) (LRR P, T, U) Depleted Chric (F11) (MLRA 151) Very Shallow Dark Surface (TF12) 1 cm Muck (A9) (LRR P, T, U) Depleted Ochric (F11) (MLRA 151) *Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F13) (MLRA 150A, 150B) Sandy Medox (S6) Piedmont Floodplain Soils (F19) (MLRA 149A) Sandy Medox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Anormolous Bright Loamy Soils (F20) (MLRA 149A)												
Image: Construction in the image: Constructin the image: Constructing in the image: Constructing i												
Image: Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix Hydric Soil Indicators: Indicators for Problematic Hydric Soils: Histisol (A1) Polyvalue Below Surface (S8) (LRR S, T, U) 1 cm Muck (A9) (LRR O) Black Histic (A3) Loamy Mucky Mineral (F1) Reduced Vertic (F18) (outside MLRA 150A,B) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Priedmont Floodplain Soils (F19) (LRR P, S, T) Stratified Layers (A5) X Depleted Matrix (F3) Anomolous Bright Loamy Soils (F20) (MLRA 153B) 5 cm Mucky Mineral (A7) (LRR P, T, U) Redox Dark Surface (F6) Tistaffied Cayers (A8) (LRR U) Red Parent Material (TF2) Muck Presence (A8) (LRR U) Redox Depressions (F8) Very Shallow Dark Surface (TF12) other (explain in remarks) Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151) Trinck Dark Surface (A12) Inon-Manganese Masses (F12) (LRR O, P, T) *Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F13) (MLRA 150A, 150B) Piedmont Floodplain Soils (F19) (MLRA 149A) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Anomolous Bright Loamy Soils (F20) (MLRA 149A) Anomolous Bright Loamy Soils (F20) (MLRA 149A												
Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix Hydric Soil Indicators: Indicators for Problematic Hydric Soils: Histisol (A1) Polyvalue Below Surface (S8) (LRR S, T, U) 1 cm Muck (A9) (LRR O) Histic Epipedon (A2) Thin Dark Surface (S9) (LRR S, T, U) 2 cm Muck (A10) (LRR S) Black Histic (A3) Loamy Mucky Mineral (F1) Reduced Vertic(F18) (outside MLRA 150A,B) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) (LRR P, S, T) Stratified Layers (A5) X Depleted Matrix (F3) Anomolous Bright Loamy Soils (F20) (MLRA 153B) Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) 153B) Very Shallow Dark Surface (TF12) Muck Presence (A8) (LRR U) Redox Depressions (F8) Very Shallow Dark Surface (TF12) Other (explain in remarks) Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151) Thinck Dark Surface (A12) 'Inor-Manganese Masses (F12) (LRR O, P, T) *Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F13) (MLRA 150A, 150B) Network Wetlam Haterial (S6) Anomolous Bright Loamy Soils (F20) (MLRA 149A) Sandy Redox (S5)												
Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix Hydric Soil Indicators: Indicators for Problematic Hydric Soils: Histisol (A1) Polyvalue Below Surface (S8) (LRR S, T, U) 1 cm Muck (A9) (LRR O) Histic Epipedon (A2) Thin Dark Surface (S9) (LRR S, T, U) 2 cm Muck (A10) (LRR S) Black Histic (A3) Loamy Mucky Mineral (F1) Reduced Vertic(F18) (outside MLRA 150A,B) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) (LRR P, S, T) Stratified Layers (A5) X Depleted Matrix (F3) Anomolous Bright Loamy Soils (F20) (MLRA 153B) 5 cm Mucky Mineral (A7) (LRR P, T, U) Redox Depressions (F8) Very Shallow Dark Surface (TF12) Muck Presence (A8) (LRR U) Redox Depressions (F8) Very Shallow Dark Surface (TF12) 1 cm Muck (A9) (LRR P, T) Mari (F10) (LRR U) Other (explain in remarks) Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151) *Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F13) (MLRA 150A, 150B) and weltand hydrology must be present, unless disturbed or problematic Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A)												
Hydric Soil Indicators: Indicators for Problematic Hydric Soils: Histisol (A1) Polyvalue Below Surface (S8) (LRR S, T, U) 1 cm Muck (A9) (LRR O) Histic Epipedon (A2) Thin Dark Surface (S9) (LRR S, T, U) 2 cm Muck (A10) (LRR S) Black Histic (A3) Loamy Mucky Mineral (F1) Reduced Vertic(F18) (outside MLRA 150A,B) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) (LRR P, S, T) Stratified Layers (A5) X Depleted Matrix (F3) Anomolous Bright Loamy Soils (F20) (MLRA 153B) Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) 153B) Red Parent Material (TF2) Muck Presence (A8) (LRR U) Redox Depressions (F8) Very Shallow Dark Surface (TF12) Other (explain in remarks) Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151) Thino-Manganese Masses (F12) (LRR O, P, T) *Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 150A, 150B) and weltand hydrology must be present, unless disturbed or problematic Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Anomolous Bright Loamy Soils (F20) (MLRA 149A) Anomolous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR	*Type: C = (Concentration, D = De	epletion	, RM = F	Reduced N	/latrix, M	IS = Masked	Sand Grains.	**Location: P	PL = Pore Lining, M = Matrix		
Histisol (A1) Polyvalue Below Surface (S8) (LRR S, T, U) 1 cm Muck (A9) (LRR O) Histic Epipedon (A2) Thin Dark Surface (S9) (LRR S, T, U) 2 cm Muck (A10) (LRR S) Black Histic (A3) Loamy Mucky Mineral (F1) Reduced Vertic (F18) (outside MLRA 150A,B) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) (LRR P, S, T) Stratified Layers (A5) X Depleted Matrix (F3) Anomolous Bright Loamy Soils (F20) (MLRA 153B) Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) 153B) 5 cm Muck (A9) (LRR P, T, U) Depleted Dark Surface (F7) Red Parent Material (TF2) Muck (A9) (LRR P, T) Marl (F10) (LRR U) Other (explain in remarks) Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151) Inon-Manganese Masses (F12) (LRR O, P, T) *Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F13) (MLRA 150A, 150B) and weltand hydrology must be present, unless disturbed or problematic Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 149A) Anomolous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) Anomolous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)	Hydric So	oil Indicators:							Indicators fo	r Problematic Hydric Soils:		
Histic Epipedon (A2) Thin Dark Surface (S9) (LRR S, T, U) 2 cm Muck (A10) (LRR S) Black Histic (A3) Loamy Mucky Mineral (F1) Reduced Vertic(F18) (outside MLRA 150A,B) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) (LRR P, S, T) Stratified Layers (A5) X Depleted Matrix (F3) Anomolous Bright Loamy Soils (F20) (MLRA 150B) Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) 153B) Red Parent Material (TF2) Muck Presence (A8) (LRR U) Redox Depressions (F8) Very Shallow Dark Surface (TF12) 1 cm Muck (A9) (LRR P, T) Marl (F10) (LRR U) Other (explain in remarks) Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151) *Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F13) (MLRA 150A, 150B) and weltand hydrology must be present, unless disturbed or problematic Sandy Gleyed Matrix (S6) Piedmont Floodplain Soils (F20) (MLRA 149A) Anomolous Bright Loamy Soils (F20) (MLRA 149A) Stripped Matrix (S6) Anomolous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U)	Hist	isol (A1)			Polyva	alue Belo	ow Surface (S	68) (LRR S, T, U)	1 cm Muck (A9) (LRR O)			
Black Histic (A3) Loamy Mucky Mineral (F1) Reduced Vertic(F18) (outside MLRA 150A,B) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) (LRR P, S, T) Stratified Layers (A5) X Depleted Matrix (F3) Anomolous Bright Loamy Soils (F20) (MLRA Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) 153B) Red Parent Material (TF2) Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) Red Parent Material (TF2) Muck Presence (A8) (LRR U) Redox Depressions (F8) Very Shallow Dark Surface (TF12) 1 cm Muck (A9) (LRR P, T) Marl (F10) (LRR U) Other (explain in remarks) Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151) *Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F13) (MLRA 151) and weltand hydrology must be present, unless disturbed or problematic Sandy Redox (S5) Piedmont Floodplain Soils (F20) (MLRA 149A) Anomolous Bright Loamy Soils (F20) (MLRA 149A) Stripped Matrix (S6) Anomolous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U)	Hist	ic Epipedon (A2)			Thin E	Dark Surf	face (S9) (LR	R S, T, U)	2 cm Muck (A10) (LRR S)			
Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) (LRR P, S, T) Stratified Layers (A5) X Depleted Matrix (F3) Anomolous Bright Loamy Soils (F20) (MLRA Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) 153B) Red Parent Material (TF2) Muck Presence (A8) (LRR U) Redox Depressions (F8) Very Shallow Dark Surface (TF12) 1 cm Muck (A9) (LRR P, T) Marl (F10) (LRR U) Other (explain in remarks) Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151) Thick Dark Surface (A12) Iron-Manganese Masses (F12) (LRR O, P, T) *Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 150A, 150B) and weltan 149A) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) and weltan 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) Anomolous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)	Blac	k Histic (A3)			Loam	y Mucky	/ Mineral (F1)	Reduced Vertic(F18) (outside MLRA 150A,B)			
Stratified Layers (A5) X Depleted Matrix (F3) Anomolous Bright Loamy Soils (F20) (MLRA Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) 153B) 5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) Red Parent Material (TF2) Muck Presence (A8) (LRR U) Redox Depressions (F8) Very Shallow Dark Surface (TF12) 1 cm Muck (A9) (LRR P, T) Marl (F10) (LRR U) Other (explain in remarks) Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151) Thick Dark Surface (A12) Thick Dark Surface (A12) Iron-Manganese Masses (F12) (LRR O, P, T) *Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) and weltand hydrology must be present, unless disturbed or problematic Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) anomolous Bright Loamy Soils (F20) (MLRA 149A) Stripped Matrix (S6) Anomolous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) Anomolous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)	Hyd	rogen Sulfide (A4)			Loam	y Gleye	d Matrix (F2)		Piedmont Floodplain Soils (F19) (LRR P, S, T)			
Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) 153B) 5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) Red Parent Material (TF2) Muck Presence (A8) (LRR U) Redox Depressions (F8) Very Shallow Dark Surface (TF12) 1 cm Muck (A9) (LRR P, T) Marl (F10) (LRR U) Other (explain in remarks) Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151) Other (explain in remarks) Coast Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U) *Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) Reduced Vertic (F18) (MLRA 150A, 150B) unless disturbed or problematic Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Anomolous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) Anomolous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Isoch Sondy Soils (Stripped Matrix (S6)	Stra	tified Layers (A5)			X Deple	eted Mat	rix (F3)		Anomolous Bright Loamy Soils (F20) (MLRA			
5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) Red Parent Material (TF2) Muck Presence (A8) (LRR U) Redox Depressions (F8) Very Shallow Dark Surface (TF12) 1 cm Muck (A9) (LRR P, T) Marl (F10) (LRR U) Other (explain in remarks) Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151) Thick Dark Surface (A12) Iron-Manganese Masses (F12) (LRR O, P, T) *Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F18) (MLRA 150A, 150B) meduced Vertic (F18) (MLRA 150A, 150B) unless disturbed or problematic Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Anomolous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U)	Orga	anic Bodies (A6) (LR	R P, T, I	U) .	Redo	x Dark S	Surface (F6)		153B)			
Muck Presence (A8) (LRR U) Redox Depressions (F8) Very Shallow Dark Surface (TF12) 1 cm Muck (A9) (LRR P, T) Marl (F10) (LRR U) Other (explain in remarks) Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151) Iron-Manganese Masses (F12) (LRR O, P, T) *Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic Coast Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U) *Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) unless disturbed or problematic Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B) unless disturbed or problematic Stripped Matrix (S6) Piedmont Floodplain Soils (F19) (MLRA 149A) 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) Anomolous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) 153D	5 cn	n Mucky Mineral (A7)	(LRR I	P, T, U)	Deple	eted Dar	k Surface (F	7)	Red Parent Material (TF2)			
1 cm Muck (A9) (LRR P, T) Marl (F10) (LRR U) Other (explain in remarks) Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151) Iron-Manganese Masses (F12) (LRR O, P, T) *Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic Coast Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U) and weltand hydrology must be present, unless disturbed or problematic Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 150A) unless disturbed or problematic Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B) unless disturbed or problematic Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Total Anomolous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) Dark Surface (S7) (LRR P, S, T, U) External Complexity of the stress	Muc	k Presence (A8) (LR	R U)		Redo	x Depre	ssions (F8)		Very Sha	llow Dark Surface (TF12)		
Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151) Thick Dark Surface (A12) Iron-Manganese Masses (F12) (LRR O, P, T) Coast Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U) Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Stripped Matrix (S6) Anomolous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) Stripped Matrix (S6)	1 cn	n Muck (A9) (LRR P,	T)	-	Marl ((F10) (L l	RR U)		Other (ex	plain in remarks)		
Thick Dark Surface (A12) Iron-Manganese Masses (F12) (LRR O, P, T) *Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic Coast Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U) and weltand hydrology must be present, unless disturbed or problematic Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) unless disturbed or problematic Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B) unless disturbed or problematic Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) to any Soils (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) Dark Surface (S7) (LRR P, S, T, U) to any Soils (F20) (MLRA 149A, 153C, 153D)	Dep	leted Below Dark Su	rface (A	11)	Deple	ted Ochr	ric (F11) (MLI	RA 151)				
Coast Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U) and weltand hydrology must be present, unless disturbed or problematic Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) and weltand hydrology must be present, unless disturbed or problematic Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B) newnology must be present, unless disturbed or problematic Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Anomolous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) Dark Surface (S7) (LRR P, S, T, U) Anomolous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)	Thic	k Dark Surface (A12))		Iron-N	langane	ese Masses	(F12) (LRR O, P, 1	Г)	*Indicators of hydrophytic vegetation		
Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) unless disturbed or problematic Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Stripped Matrix (S6) Anomolous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) Stripped Matrix (S6)	Coa	st Prairie Redox (A16	6) (MLR	A 150A)	Umbr	ic Surfa	ce (F13) (LR	R P, T, U)		and weltand hydrology must be present,		
Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Stripped Matrix (S6) Anomolous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) Stripped Matrix (S6)	San	dy Mucky Mineral (S ²	1) (LRR	O, S)	Delta	Ochric ((F17) (MLRA	151)		unless disturbed or problematic		
Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Stripped Matrix (S6) Anomolous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) Anomolous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)	San	dy Gleyed Matrix (S4	·)	-	Redu	ced Verl	tic (F18) (ML	RA 150A, 150B)				
Stripped Matrix (S6) Anomolous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U)	San	dy Redox (S5)		-	Piedn	nont Flo	odplain Soils	(F19) (MLRA 149	DA)			
Dark Surface (S7) (LRR P, S, T, U)	Strip	oped Matrix (S6)			Anom	olous B	right Loamy	Soils (F20) (MLRA	A 149A, 153C	, 153D)		
	Darl	k Surface (S7) (LRR	P, S, T,	U)								

Sampling Point: SP3

Hydric Soil Vos	
Present?	
	Hydric Soil Yes Present? Yes

SOIL

Project/Site	Colyell 420-Acre Site		City/County:	Colyell/Livings	ton Sa	mpling Date:	2/4/20	019
Applicant/Owner:	Weyerhaeuser	NR Company	State	e: Louisiana	a Sa	mpling Point:	SP4	4
Investigator(s):	Curt Schaeffer, 0	Cal Fontenot	Secti	on, Township, R	ange:	S12,	T7S, R4E	
Landform (hillslope, t	errace, etc.):	Ferrace	Local relief	f (concave, conve	ex, none):	Convex	Slope (%):	>1
Subregion (LRR or M	ILRA): LRR-P	Lat:	30.454378°	Long:	(-) 90	.760551°	Datum:	NAD83
Soil Map Unit Name	Deerford-Verdun co	omplex, 0 to 1	percent slopes	(Dv) NWI	Classificatio	on:	N/A	
Are climatic/hydrolog	ic conditions of the site t	ypical for this t	ime of the yea	r? Yes (If	no, explain	in remarks)		
Are vegetation	, soil , or	hydrology	significantly	y disturbed?	Are "normal	circumstance	s" present?	No
Are vegetation	, soil , or	hydrology	naturally p	roblematic? ((If needed, o	explain any ar	nswers in rem	narks.)
SUMMARY OF FI	NDINGS Attach	site map sho	wing samplir	ng point locatio	ons, transe	ects, importa	ant features	, etc.
Hydrophytic vege	etation present?	Yes						
Hydric soil prese	nt?	Yes	1.5.4			Watland 2	Vee	
Indicators of wetl	and hydrology present?	Yes	15 נו	ne Sampled Ar	ea within a	a wettand?	res	
Remarks:								
Cut-over area,	harvested of timber,	soils disturb	ed, shrub ar	nd herbaceous	plant con	nmunity esta	ablished, ca	anopy
			stratum remo	oved				
HYDROLOGY								
Wetland Hydrology	Indicators:							
Primary Indicators (m	ninimum of one is require	ed; check all th	at ap	Seco	ondary Indic	<u>ators (minimu</u>	<u>im of two req</u>	uired)
Surface Water (A1	1)	Aquatic Fa	auna (B13)		Surface	Soil Cracks (B	6)	
High Water Table	(A2)	Marl Depo	osits (B15) (LRF	- R U)	Sparsely	Vegetated Co	oncave Surfac	e (B8)
X Saturation (A3)		Hydrogen	Sulfide Odor (C	-	Drainage Patterns (B10)			
Water Marks (B1)) Dhimannhanna a	, –	 Dry-Sea	son Water Tab	, ble (C2)	
Sediment Deposit	s (B2)	Roots (C3	Rnizospheres o 3)		 Moss Tr	im Lines (B16)		
Drift Deposits (B3))	Presence	of Reduced Iro	n (C4)	Cravfish	Burrows (C8)		
Algal Mat or Crust	, : (B4)				Saturatio	on Visible on A	erial Imagery	(C9)
Iron Deposits (B5))	Soils (C6)	on Reduction in		Geomor	phic Position (I	D2)	()
Inundation Visible	on Aerial Imagery (B7)	Thin Muck	(Surface (C7)	-	Shallow	Aquitard (D3)	,	
Water-Stained Lea	aves (B9)	Other (Ex	nlain in Remark		X FAC-Ne	utral Test (D5)		
				-	Sphagni	um moss (D8)	(LRR T. U)	
				-			(,,,	
Field Observations:								
Surface water preser	nt? Yes	No X De	nth (inches) [,]					
Water table present?	Yes		nth (inches):			Wetland	Yes	
Saturation present?	Ves X		nth (inches):	0	H	ydrology Present?	105	
(includes capillary frir	nae)					lesent:		
Nescribe recorded da	ta (stream daude, moni	toring well per	ial photos pre	vious inspections	s) if availab	le:		
Describe recorded da	ala (stream gauge, mom	toring well, aer	iai priotos, pre	vious inspections	s), ii avallau			
Damaarka								
	2.0							
FAC-Neutral test	I - 2:U							

VEGETATION Use scientific names of plan	nts.			Sampling Point: S	SP4
	Absolute	Dominan	Indicator	Dominance Test Worksheet	
<u>Tree Stratum</u> (Plot size: 30)	% Cover	t Species	Staus	Number of Dominant	
1				Species that are OBL,	(Δ)
2				Total Number of Dominant	(//)
3				Species Across all Strata: 6	(B)
4					_(2)
5				that are OBL_EACW_or	
6				FAC: 100.00%	(A/B)
7					_ ` `
8					
	0	= Total Cove	r		
50% of total cover: 0	20% of to	otal cover:	0	Prevalence Index Worksheet	
		-		Total % Cover of	
Sopling/Shrub Stratup (Plot size: 20	١			$OPL crossics = 14 \qquad \times 1 = -14$	
1 llex vomitoria)	V	FAC	EACW species 121 x 2 = 242	
2 Liquidambar styraciflua	5		FAC	FAC species $31 \times 3 = 93$	_
3 Sabal minor	3	 N	FACW	FACU species $2 \times 4 = 8$	
4 Triadica sebifera	3	N	FAC	UPL species $0 \times 5 = 0$	
5 Hypericum hypericoides	2	N	FAC	Column totals 168 (A) 357	(B)
6					_ ` `
7				Prevalence Index = B/A = 2.13	
8					
	19	= Total Cove	r		
50% of total cover: 9.5	20% of to	otal cover:	3.8	Hydrophytic Vegetation Indicators:	
		-		Rapid test for hydrophytic vegetation	n
Herb stratum (Plot size: 30)			X Dominance test is >50%	
1 Juncus marginatus	70	Y	FACW	X Prevalence index is ≤3.0*	
2 Dichanthelium scoparium	40	Y	FACW	Problematic hydrophytic	
3 Chasmanthium laxum	8	Ν	FACW	vegetation* (explain)	
4 Juncus effusus	8	Ν	OBL	*Indicators of hydric soil and wetland hydrology	must
5 Euthamia caroliniana	3	N	FAC	be present, unless disturbed or problematic	;
6 Andropogon virginicus	2	N	FAC	Definitions of Five Vegetation Strata	
7 Eupatorium capillifolium	2	N	FACU	Tree- Woody plants, excluding woody vi	ines,
8 Scirpus cyperinus	2	N	OBL	approximately 20 ft (6m) or more in heig	ht and
9 Typha latifolia	2	N	OBL	less than 3 in. (7.6 cm) DBH.	
10 Xyris difformis	2	N	OBL		
11				Sapling/Shrub - Woody plants, excludin	ng vines,
12	400	Tatal Origina		less than 3 in. DBH and greater than 3.2	26 ft (1m)
E0% of total cover; 60 E	139 20% of t	= I otal Cove	97 0	tan	
	20% 01 10		27.0	Herb - All herbaceous (non-woody) plan	nts,
Woody vine stratum (Plot size: 30)			and woody plants, except woody vines	OT SIZE, less than
1 Rubus argutus	, 10	Y	FAC	approximately 3 ft (1 m) in height.	1633 11811
2 Vitis rotundifolia	3	Y	FAC	Woody vine - All woody vines, regardles	ss of
3				height.	
4					
5				Hydrophytic	
	13	= Total Cove	er	Vegetation Yes	
50% of total cover: 6.5	20% of to	otal cover:	2.6	Present?	
Remarks: (If observed, list morphological	adantation	s helow)			
	adaptation	5 551010 /.			

SOIL Sampling Point: SP3 Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Matrix **Redox Features** Depth Color (moist) % Color (moist) Type* Loc** (Inches) % Texture Remarks 0-4 10YR 4/2 10YR 4/6 3 PL silty loam 97 С 4-16 10YR 6/2 80 5YR 4/6 2 С Μ silty loam 10YR 6/6 15 С Μ silty loam С 10YR 5/8 3 Μ silty loam Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix **Hydric Soil Indicators:** Indicators for Problematic Hydric Soils: Histisol (A1) Polyvalue Below Surface (S8) (LRR S, T, U) 1 cm Muck (A9) (LRR O) Thin Dark Surface (S9) (LRR S, T, U) 2 cm Muck (A10) (LRR S) Histic Epipedon (A2) Reduced Vertic(F18) (outside MLRA 150A,B) Black Histic (A3) Loamy Mucky Mineral (F1) Piedmont Floodplain Soils (F19) (LRR P, S, T) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Stratified Layers (A5) X Depleted Matrix (F3) Anomolous Bright Loamy Soils (F20) (MLRA 153B) Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) 5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) Red Parent Material (TF2) Muck Presence (A8) (LRR U) Redox Depressions (F8) Very Shallow Dark Surface (TF12) 1 cm Muck (A9) (LRR P, T) Marl (F10) (LRR U) Other (explain in remarks) Depleted Ochric (F11) (MLRA 151) Depleted Below Dark Surface (A11) Iron-Manganese Masses (F12) (LRR O, P, T) Thick Dark Surface (A12) *Indicators of hydrophytic vegetation Coast Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U) and weltand hydrology must be present, unless disturbed or problematic Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) Reduced Vertic (F18) (MLRA 150A, 150B) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Stripped Matrix (S6) Anomolous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (if observed): **Hydric Soil** Type: Yes Present? Depth (inches): Remarks:

Project/Site	Colyell 420-Acre Site	C	City/County:	Colyell/Livir	ngston	Sampling Date:	2/4/20	019	
Applicant/Owner:	Weyerhaeuser NR	Company	State	: Louis	iana s	Sampling Point:	SP	5	
Investigator(s):	Curt Schaeffer, Cal F	ontenot	Sectio	on, Township	o, Range:	S12,	T7S, R4E		
Landform (hillslope, ter	rrace, etc.): Terr	ace	Local relief	(concave, co	onvex, none)	: Concave	Slope (%):	>1	
Subregion (LRR or ML	RA): <u>LRR-P</u> Lat	: 3	30.453887°	Long	:(-)	90.763182°	Datum:	NAD83	
Soil Map Unit Name	Deerford-Verdun comp	lex, 0 to 1 p	ercent slopes	(Dv) N	NWI Classification: N/A				
Are climatic/hydrologic	conditions of the site typic	al for this tir	me of the year	? Yes	(If no, expla	ain in remarks)			
Are vegetation	, soil, or hyd	drology	significantly	disturbed?	Are "norm	nal circumstance	s" present?	Yes	
Are vegetation	, soil, or hyd	drology	naturally pro	oblematic?	(If needeo	d, explain any ar	nswers in rem	narks.)	
SUMMARY OF FIN	IDINGS Attach site	map show	ving samplin	g point loc	ations, tran	nsects, importa	int features	, etc.	
Hydrophytic vegeta	ation present? Ye	es							
Hydric soil present	? <u>N</u>	0	ls th	o Samoled	Area withi	n a Wotland?	No		
Indicators of wetla	nd hydrology present? N	0	13 11	e oampiea	Alca within		NU		
Remarks:									
		Mixe	ed pine/hard	woods					
HYDROLOGY									
Wetland Hydrology Ir	ndicators:								
Primary Indicators (mir	nimum of one is required; o	check all tha	<u>t ap</u>	5	Secondary In	dicators (minimu	im of two req	<u>uired)</u>	
Surface Water (A1)		Aquatic Fa	una (B13)		Surfa	ce Soil Cracks (B	6)		
High Water Table (A	A2)	Marl Depos	sits (B15) (LRR	U)	Sparsely Vegetated Concave Surface (B8)				
Saturation (A3)		Hydrogen S	Sulfide Odor (C	1)	Drainage Patterns (B10)				
Water Marks (B1)		- Oxidized R	hizospheres or	Livina	Dry-Season Water Table (C2)				
Sediment Deposits	(B2)	Roots (C3)		L	Moss	Trim Lines (B16)			
Drift Deposits (B3)		Presence o	of Reduced Iron	(C4)	Crayf	ish Burrows (C8)			
Algal Mat or Crust (B4)	- Recent Iror	Reduction in T	Filled	Satur	ation Visible on A	erial Imagery	(C9)	
Iron Deposits (B5)		Soils (C6)			Geom	norphic Position (I	D2)		
Inundation Visible o	n Aerial Imagery (B7)	Thin Muck	Surface (C7)		Shallo	ow Aquitard (D3)			
Water-Stained Leav	/es (B9)	Other (Expl	lain in Remarks	n in Remarks) FAC-Neutral Test (D5)					
 				,	Spha	gnum moss (D8)	(LRR T, U)		
Field Observations:									
Surface water present	? Yes No	X Dept	th (inches):			· · · · · · · · · · · · · · · · · · ·			
Water table present?	Yes No	X Dept	th (inches):			Wetland Hydrology	No		
Saturation present?	Yes No	X Dept	th (inches):			Present?			
(includes capillary fring	je)		· · ·						
Describe recorded data	a (stream gauge, monitorir	ng well, aeria	al photos, prev	ious inspect	ions), if avai	lable:			
Remarks:									

	Absolute	Dominan	Indicator	Dominance Test Worksheet
Tree Stratum (Plot size: 30)	% Cover	t Species	Staus	Number of Dominant
1 Liriodendron tulipifera	20	Y	FACU	FACW, or FAC: 5 (A)
2 Ostrya virginiana	10	Y	FACU	Total Number of Dominant
3 Fagus grandifolia	8	Ν	FACU	Species Across all Strata: 8 (B)
4 Magnolia grandiflora	5	Ν	FAC	Percent of Dominant Species
5 Pinus taeda	5	Ν	FAC	that are OBL, FACW, or
6 Pinus glabra	2	N	FACW	FAC: <u>62.50%</u> (A/B)
/				
8				
	50	= I otal Cove	r	
50% of total cover:25	20% of to	otal cover:	10	Prevalence Index Worksheet
				Total % Cover of:
Sapling/Shrub Stratun (Plot size: 30)				OBL species 0 x 1 = 0
1 Symplocos tinctoria	10	Y	FAC	FACW species 8 $x 2 = 16$
2 Ostrya virginiana	5	Y	FACU	FAC species $34 \times 3 = 102$
	4	<u> </u>	FAC	$\begin{array}{ccc} \text{FACU species} & 45 & x 4 = & 180 \\ \text{LIPL species} & 0 & x 5 = & 0 \\ \end{array}$
5			170	Column totals $\overrightarrow{87}$ (A) $\overrightarrow{298}$ (B)
6				
7				Prevalence Index = $B/A = 3.43$
8				
	22	= Total Cove	r	
50% of total cover: 11	20% of to	otal cover:	4.4	Hydrophytic Vegetation Indicators:
		-		Rapid test for hydrophytic vegetation
Herb stratum (Plot size: 30)				X Dominance test is >50%
1 Carex oxylepis	3	Y	FACW	Prevalence index is ≤3.0*
2 Sabal minor	3	Y	FACW	Problematic hydrophytic
3 Ilex vomitoria	2	Ν	FAC	vegetation* (explain)
4 Symplocos tinctoria	2	Ν	FAC	*Indicators of hydric soil and wetland hydrology must
5 Viola palmata	2	N	FACU	be present, unless disturbed or problematic
6				Definitions of Five Vegetation Strata
/				Tree- Woody plants, excluding woody vines,
8				approximately 20 ft (6m) or more in height and
9				less than 3 ln. (7.6 cm) DBH.
11				
12				Sapling/Snrub - woody plants, excluding vines,
	12	= Total Cove	 r	tall
50% of total cover: 6	20% of to	otal cover:	2.4	Herb - All herbaceous (non-woody) plants
		_		including herbaceous vines, regardless of size,
Woody vine stratum (Plot size: 30)			_	and woody plants, except woody vines, less than
1 Smilax rotundifolia	3	Y	FAC	approximately 3 ft (1 m) in height.
2 Lygodium japonicum	2	Y	FAC	height.
3				
~	5	= Total Cava		Hydrophytic
E00/ of total carrow 0.5	200/ -1+		1	Present?
	∠0% Of to	Juai Cover:	I	
Remarks: (It observed, list morphological a	daptation	s below).		

SOIL						S	Sampling Point:	SP5	
Profile Desc	cription: (Describe	to the c	lepth needed to	docume	ent the indic	ator or confirm t	he absence of	f indicators.)	
Depth	<u>Matrix</u>			<u>Redo</u>	<u>x Features</u>				
(Inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks	
0-7	10YR 3/2	80					silty loam		
	10YR 4/3	20					silty loam		
7-16	10YR 5/4	95	10YR 3/2	5	D	М	silt/clay/loar		
*Type: C = C	Concentration, D = D	epletion	, RM = Reduced	Matrix, N	IS = Masked	Sand Grains.	**Location: P	L = Pore Lining, M = Matrix	
Hydric So	il Indicators:						Indicators fo	r Problematic Hydric Soils:	
Histi	sol (A1)		Poly	value Belo	ow Surface (S	68) (LRR S, T, U)	1 cm Muc	ck (A9) (LRR O)	
Histi	c Epipedon (A2)		Thin	Dark Sur	face (S9) (LR	R S, T, U)	2 cm Muc	ck (A10) (LRR S)	
Blac	k Histic (A3)		Loar	ny Mucky	y Mineral (F1)	Reduced	Vertic(F18) (outside MLRA 150A,B)	
Hydr	rogen Sulfide (A4)		Loar	ny Gleye	d Matrix (F2)	Piedmont Floodplain Soils (F19) (LRR P, S, T)		
Strat	tified Layers (A5)		Dep	leted Mat	trix (F3)		Anomolous Bright Loamy Soils (F20) (MLRA		
Orga	anic Bodies (A6) (LR	R P, T, I	U) Red	ox Dark S	Surface (F6)		153B)		
5 cm	n Mucky Mineral (A7)) (LRR	P, T, U) Dep	leted Dar	k Surface (F	7)	Red Parent Material (TF2)		
Mucl	k Presence (A8) (LR	RU)	Red	ox Depre	ssions (F8)		Very Shallow Dark Surface (TF12)		
1 cm	n Muck (A9) (LRR P,	T)	Marl	(F10) (L	RR U)		Other (ex	plain in remarks)	
Depl	eted Below Dark Su	rface (A	11) Depl	eted Ochi	ric (F11) (ML	RA 151)			
Thic	k Dark Surface (A12)	Iron	Mangane	ese Masses	(F12) (LRR O, P, [•]	Т)	*Indicators of hydrophytic vegetation	
Coas	st Prairie Redox (A1	6) (MLR	A 150A) Umb	oric Surfa	ce (F13) (LR	R P, T, U)		and weltand hydrology must be present,	
Sand	dy Mucky Mineral (S	1) (LRR	O, S) Delt	a Ochric	(F17) (MLRA	A 151)		unless disturbed or problematic	
Sand	dy Gleyed Matrix (S4	•)	Red	uced Ver	tic (F18) (ML	RA 150A, 150B)			
Sand	dy Redox (S5)		Pied	mont Flo	odplain Soils	s (F19) (MLRA 14 9	9A)		
Strip	ped Matrix (S6)		Ano	molous B	Bright Loamy	Soils (F20) (MLR/	A 149A, 153C,	, 153D)	
Dark	Surface (S7) (LRR	P, S, T,	U)						
Restrictive	Layer (if observed)	:							
Туре:					_	Hydric Soil	No		
	Depth (inches)				-	Present?			
Remarks:									

Project/Site	Colyell 420-Acre Site		City/County:	Colyell/Livin	gston S	Sampling Date:	2/4/20)19
Applicant/Owner:	Weyerhaeuse	NR Company	State	e: Louisia	ana S	ampling Point:	SP	6
Investigator(s):	Curt Schaeffer, (Cal Fontenot	Secti	on, Township,	, Range:	S12, ⁻	T7S, R4E	
Landform (hillslope, te	rrace, etc.): D	epression	Local reliet	f (concave, co	nvex, none):	: Concave	Slope (%):	1
Subregion (LRR or ML	.RA): LRR-P	Lat:	30.453358°	Long:	(-) 9	90.763361°	Datum:	NAD83
Soil Map Unit Name	Natalbany silty c	ay loam, freque	ently flooded (I	Na) NV	VI Classifica	ation:	N/A	
Are climatic/hydrologic	conditions of the site	typical for this t	time of the yea	r? Yes	(If no, expla	in in remarks)		
Are vegetation	, soil , o	r hydrology	significantl	y disturbed?	Are "norm	al circumstances	s" present?	Yes
Are vegetation	, soil , o	r hydrology	naturally p	roblematic?	(If needed	l, explain any an	swers in rem	arks.)
SUMMARY OF FIN	DINGS Attach	site map sho	wing sampli	ng point loca	tions, tran	sects, importa	nt features,	etc.
Hydrophytic veget	ation present?	Yes						
Hydric soil presen	t?	Yes	le f	he Compled		a Watland?	Vaa	
Indicators of wetla	nd hydrology present?	Yes	15 1	ne Sampleu /			162	
Remarks:								
		Bot	ttomland har	dwoods				
HYDROLOGY								
Wetland Hydrology I	ndicators:							
Primary Indicators (mi	nimum of one is requir	ed; check all th	at ap	<u>Se</u>	econdary Ind	dicators <u>(</u> minimu	m of two req	uired)
Surface Water (A1))	Aquatic Fa	una (B13) Si			Surface Soil Cracks (B6)		
High Water Table (A2)	Marl Depo	osits (B15) (LRF	R U)	Spars	Sparsely Vegetated Concave Surface (B8)		
X Saturation (A3)		Hydrogen	Sulfide Odor (0	C1)	Draina	rainage Patterns (B10)		
X Water Marks (B1)			Rhizospheres o	n Livina	Dry-Se	eason Water Tab	le (C2)	
X Sediment Deposits	(B2)	Roots (C3	3)	ii Living	Moss	Trim Lines (B16)		
Drift Deposits (B3)		Presence	of Reduced Iro	n (C4)	X Crayfi	sh Burrows (C8)		
Algal Mat or Crust ((B4)	Recent Irr	on Reduction in	Tilled	Satura	ation Visible on A	erial Imagery	(C9)
Iron Deposits (B5)		Soils (C6)		i inou	X Geom	orphic Position (02)	
Inundation Visible of	on Aerial Imagery (B7)	Thin Muck	k Surface (C7)		Shallo	w Aquitard (D3)		
X Water-Stained Leav	ves (B9)	Other (Ex	plain in Remark	(s)	X FAC-N	Neutral Test (D5)		
					Sphag	gnum moss (D8) ((LRR T, U)	
Field Observations:								
Surface water present	? Yes	No X De	pth (inches):					
Water table present?	Yes X	No De	pth (inches):	4		Wetland Hydrology	Yes	
Saturation present?	Yes X	No De	pth (inches):	0		Present?		
(includes capillary fring	ge)		· · · / <u>-</u>					
Describe recorded dat	a (stream gauge, mon	itoring well, aer	ial photos, pre	vious inspection	ons), if availa	able:		
				· · ·				
Remarks:								
FAC-Neutral test	- 3:0							
	-							

SP6

	Absolute	Dominan	Indicator	Dominance Test Worksheet
Tree Stratum (Plot size: 30)	% Cover	t Species	Staus	Number of Dominant
1 Quercus niara	30	Y	FAC	Species that are OBL, EACW or EAC: 5 (A)
2 Magnolia virginiana	15		FACW	Tatel Number of Dominant
3 Pinus taeda	10	N	FAC	Species Across all Strata: 5 (B)
4				
5	·			that are ORL EACW or
6				FAC: 100.00% (A/B)
7	·			、
8				
	55	= Total Cove	r	
50% of total cover: 27.5	20% of to	tal cover:	. 11	Prevalence Index Worksheet
	2070 01 1			
				Total % Cover of:
Sapling/Shrub Stratun (Plot size: 30)			OBL species $0 \times 1 = 0$
1 Sabal minor	65	Y	FACW	FACW species $85 \times 2 = 170$
2 liex opaca	8	<u>N</u>	FAC	FAU species $61 \times 3 = 183$
	5			$\begin{array}{c c} FACU \text{ species} & U & X \ 4 = & U \\ UPL \text{ species} & 0 & x \ 5 = & 0 \\ \end{array}$
	3	IN	PAG	Column totals 146 (A) 252 (P)
5				
7	·	·		Prevalence index = $R/\Delta = -2.12$
8	·			
0				
	81	= I otal Cove	r	
50% of total cover: 40.5	20% of to	otal cover:	16.2	Hydrophytic Vegetation Indicators:
				Rapid test for hydrophytic vegetation
Herb stratum (Plot size: 30)			X Dominance test is >50%
1 Chasmanthium laxum	5	Y	FACW	X Prevalence index is ≤3.0*
2 Gelsemium sempervirens	5	Y	FAC	Problematic hydrophytic
3				vegetation* (explain)
4				*Indicators of hydric soil and wetland hydrology must
5				be present, unless disturbed or problematic
6				Definitions of Five Vegetation Strata
7				Tree- Woody plants, excluding woody vines,
8				approximately 20 ft (6m) or more in height and
9				less than 3 in. (7.6 cm) DBH.
10				
11				Sapling/Shrub - Woody plants, excluding vines,
12		Table		less than 3 in. DBH and greater than 3.26 ft (1m)
	10	= I OTAI COVE	۱ م	lan
50% of total cover: 5	20% of to	Dial cover:	2	Herb - All herbaceous (non-woody) plants,
Weedy vine strature (Dist size)	`			including herbaceous vines, regardless of size,
<u>vvoouv vine stratum</u> (Plot size: 30)			and woody plants, except woody vines, less than
2				Woody vine - All woody vines regardless of
2	·	·		height.
۵		·		
5	·			
~		- Total Car		Hydrophytic
	0		1	vegetation Tes Present?
50% of total cover: 0	20% of to	otal cover:	0	
Remarks: (If observed, list morphological	adaptation	s below).		

SOIL						S	ampling Point:	SP6		
Profile Des	cription: (Describe	to the c	depth needed to	docume	ent the indica	ator or confirm th	ne absence of	indicators.)		
Depth	<u>Matrix</u>			Redo	ox Features					
(Inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks		
0-16	10YR 6/2	95	10YR 6/6	5	С	М	silt caly loar			
*Type: C = (Concentration, D = D	epletion	, RM = Reduced I	Matrix, N	/IS = Masked	Sand Grains.	**Location: P	L = Pore Lining, M = Matrix		
Hydric Sc	oil Indicators:						Indicators for	r Problematic Hydric Soils:		
Hist	tisol (A1)		Polyv	alue Bel	ow Surface (S	8) (LRR S, T, U)	1 cm Muc	k (A9) (LRR O)		
Hist	tic Epipedon (A2)		Thin f	Dark Sur	rface (S9) (LR	R S, T, U)	2 cm Muc	k (A10) (LRR S)		
Blac	ck Histic (A3)		Loam	ny Muck	y Mineral (F1)	Reduced Vertic(F18) (outside MLRA 150A,B)			
Hyd	Irogen Sulfide (A4)		Loam	ıy Gleye	ed Matrix (F2)	ι .	Piedmont Floodplain Soils (F19) (LRR P, S, T)			
Stra	atified Layers (A5)		X Deple	eted Ma	trix (F3)		Anomolou	us Bright Loamy Soils (F20) (MLRA		
Org	anic Bodies (A6) (LR	R P, T, I	U) Redo)x Dark \$	Surface (F6)		153B)			
5 cn	n Mucky Mineral (A7)) (LRR I	P, T, U) Deple	eted Dar	rk Surface (F	7)	Red Pare	nt Material (TF2)		
Muc	ck Presence (A8) (LR	RU)	Redo	x Depre	essions (F8)		Very Shal	llow Dark Surface (TF12)		
1 cn	n Muck (A9) (LRR P,	T)	Marl /	(F10) (L	.RR U)		Other (ex	plain in remarks)		
Dep	leted Below Dark Su	rface (A	.11) Deple	eted Och	ric (F11) (MLF	₹A 151)				
Thic	ck Dark Surface (A12))	Iron-N	Mangan	ese Masses ((F12) (LRR O, P, T	T) *Indicators of hydrophytic vegetation			
Coa	ast Prairie Redox (A16	3) (MLR	A 150A) Umbr	ric Surfa	ice (F13) (LR	R P, T, U)		and weltand hydrology must be present,		
San	ndy Mucky Mineral (S	1) (LRR	O, S) Delta	Ochric	(F17) (MLRA	. 151)	unless disturbed of problematic			
San	dy Gleyed Matrix (S4	+)	Redu	iced Ver	tic (F18) (ML	RA 150A, 150B)				
San	ıdy Redox (S5)		Piedr	nont Flo	odplain Soils	(F19) (MLRA 149	JA)			
Strip	pped Matrix (S6)		Anom	Anomolous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)						
Darl	k Surface (S7) (LRR	P, S, T,	U)							
Restrictive	Layer (if observed):									
Туре:				-	Hydric Soil	Yes				
	Depth (inches):				-	Present?				
Domorkov						l				
Remarks:										

Project/Site	Colyell 420-Acre Site		City/County:	: Colyell/Livingston		Sampling Date:	2/4/2019		
Applicant/Owner:	Weyerhaeuser	NR Company	State	: Louisi	iana S	Sampling Point:	SP	7	
Investigator(s):	Curt Schaeffer, (Cal Fontenot	Sectio	on, Township	, Range:	S12.	T7S, R4E		
Landform (hillslope, ter	rrace, etc.):	nillslope	Local relief	(concave, co	onvex, none)	: Concave	Slope (%):	4	
Subregion (LRR or ML	RA): LRR-P	Lat:	30.455485°	Long:	: (-) !	90.763798°	Datum:	NAD83	
Soil Map Unit Name	Deerford-Verdun c	omplex, 0 to 1 p	percent slopes	(Dv) N	WI Classifica	ation:	N/A		
Are climatic/hydrologic	conditions of the site	typical for this ti	ime of the year	? Yes	(If no, expla	ain in remarks)			
Are vegetation X	, soil X , oi	r hydrology X	significantly	disturbed?	Are "norm	al circumstance	es" present?	No	
Are vegetation	, soil , oi	hydrology	naturally pr	oblematic?	(If needeo	d, explain any ai	nswers in rem	narks.)	
SUMMARY OF FIN	DINGS Attach	site map sho	wing samplin	g point loca	ations, tran	sects, importa	ant features	, etc.	
Hydrophytic vegeta	ation present?	Yes		<u> </u>	<u> </u>	•			
Hydric soil present	?	No		.			NI -		
Indicators of wetla	Is th	e Sampled	Area withii	n a Wetland?	NO				
	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,								
Remarks:									
C	ut over/Harvested a	area disturba	d vegetation	and soils	nossihla al	tered bydrolo	av		
		area, uistuibe	u vegetation	anu 50115,	possible al	itered flydroio	gy.		
Wetland Hydrology Ir	ndicators:								
Primary Indicators (mir	nimum of one is require	ed: check all th	at an	q	Secondary In	dicators (minim	um of two rea	uuired)	
Surface Water (A1)			(B12)	<u>0</u>	Surface			<u>ulleu)</u>	
			auna (B13)	10	Surrac				
High Water Table (A	42)						oncave Sunace (B8)		
Saturation (A3)		Hydrogen	Sulfide Odor (C	C1) Drainage Patterns (B			0)		
Water Marks (B1)		χ Oxidized F	Rhizospheres or	cospheres on LivingDry-S			-Season Water Table (C2)		
Sediment Deposits	(B2)	Roots (C3)	Moss			ss Trim Lines (B16)		
Drift Deposits (B3)		Presence	of Reduced Iron	n (C4)	Crayfi	Crayfish Burrows (C8)			
Algal Mat or Crust (B4)	Recent Iro	n Reduction in	Tilled	Saturation Visible on Aerial Imagery (C9)				
Iron Deposits (B5)		Soils (C6)			Geomorphic Position (D2)				
Inundation Visible o	n Aerial Imagery (B7)	Thin Muck	Surface (C7)		Shallow Aquitard (D3)				
Water-Stained Leav	ves (B9)	Other (Exp	olain in Remarks	nin in Remarks) X FAC-Neutral Test (D5)					
					Spha	gnum moss (D8)	(LRR T, U)		
Field Observations:									
Surface water present	? Yes	No X Dep	oth (inches):						
Water table present?	Yes	No X Dep	oth (inches):			Wetland Hydrology	Yes		
Saturation present?	Yes	No X Dep	oth (inches):			Present?			
(includes capillary fring	je)		· · · <u> </u>						
Describe recorded data	a (stream gauge, moni	toring well, aeri	ial photos, prev	vious inspecti	ions), if avail	able:			
					,.				
Remarks:									
FAC-Neutral test -	. 2:1								
	- ·-								
6									

VEGETATION Use scientific names of plan	ts.			Sampling Point: SP7
	Absolute	Dominan	Indicator	Dominance Test Worksheet
<u>Tree Stratum</u> (Plot size: 30)	% Cover	t Species	Staus	Number of Dominant
1				Species that are OBL, FACW or FAC : 7 (A)
2				Tatel Number of Dominant
3				Species Across all Strata: 8 (B)
4				
5				that are OBL_EACW_or
6				FAC: 87.50% (A/B)
7				、 ,
8				
	0	= Total Cove		
50% of total cover: 0	20% of to	otal cover:	0	Prevalence Index Worksheet
	2070 01 10	-		Total % Cover of
Sapling/Shrub Stratun (Plot size: 30	0	V	F A0	OBL species $0 \times 1 = 0$
1 liex vomitoria	<u> </u>	Y		FAC vv species $47 \times 2 = 94$
2 Thadica Sebilera	5	<u> </u>		FAC species $80 \times 3 = 240$
4 Sabal minor	2	N	FACW	1 ACO species 50 x 4 = 120
5 Morella cerifera	1	N	FAC	Column totals 157 (A) 454 (B)
6	<u> </u>		1710	
7				Prevalence Index = $B/A = 2.89$
8				
	24	= Total Cove		
50% of total cover: 12	20% of to		1 9	Hydrophytic Vegetation Indicators
	20% 01 10		4.0	Papid test for hydrophytic vegetation
Herb stratum (Plot size: 30	50	V	FAO	X Dominance test is >50%
Dichanthelium commutatum	50	Y		X Prevalence index is $\leq 3.0^{\circ}$
	30		FACIU	Problematic hydrophytic
Luncus marginatus	10		FACU	
5 Silene nivea	3	N	FAC	*Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic
6 Andropogon virginicus			FAC	Definitions of Five Vegetation Strata
7				
8				Tree - Woody plants, excluding woody vines,
a				less than 3 in (7.6 cm) DBH
10				
11				Senling/Shrub Weedy plants evaluating vince
12				less than 3 in DBH and greater than 3 26 ft (1m)
	123	= Total Cove		tall
50% of total cover: 61.5	20% of to	otal cover:	24.6	Herb - All herbaceous (non-woody) plants
		_		including herbaceous vines, regardless of size.
Woody vine stratum (Plot size: 30)			and woody plants, except woody vines, less than
1 Lygodium japonicum	10	Y	FAC	approximately 3 ft (1 m) in height.
2 Rubus argutus	10	Y	FAC	Woody vine - All woody vines, regardless of
3				height.
4				
5				Hydrophytic
	20	= Total Cover	-	Vegetation Yes
50% of total cover: 10	20% of to	otal cover:	4	Present?
Remarks: (If observed, list morphological	adaptation	s helow)		
	adaptation	s below).		
L				

scr	iption:	(Describe to the d	lepth needed t	to document th	ne indi
_					

SOIL

Profile Des	cription: (Describe	e to the c	lepth need	led to d	docume	ent the indic	ator or confirm t	he absence o	f indicators.)		
Depth	Matrix				Redo	x Features					
(Inches)	Color (moist)	%	Color (n	noist)	%	Type*	Loc**	Texture	Remarks		
0-4	10YR 4/2	98	10YR	5/2	2	D	М	silty loam			
4-16	10YR 5/6	95	10YR	6/2	2	D	М	silty loam			
			5YR 4	1/6	3	С	PL	silty loam			
*Type: C = 0	Concentration, D = D	Depletion	, RM = Rec	luced N	Aatrix, N	1S = Masked	Sand Grains.	**Location: F	PL = Pore Lining, M = Matrix		
Hydric So	oil Indicators:							Indicators for	r Problematic Hydric Soils:		
Hist	isol (A1)			Polyv	alue Belo	ow Surface (S	68) (LRR S, T, U)	1 cm Mu	ck (A9) (LRR O)		
Hist	ic Epipedon (A2)			Thin [Dark Sur	face (S9) (LR	R S, T, U)	2 cm Mu	ck (A10) (LRR S)		
Blac	ck Histic (A3)			Loam	y Mucky	/ Mineral (F1)	Reduced	Vertic(F18) (outside MLRA 150A,B)		
Hyd	rogen Sulfide (A4)			Loam	ıy Gleye	d Matrix (F2))	Piedmon	t Floodplain Soils (F19) (LRR P, S, T)		
Stra	tified Layers (A5)			Deple	eted Mat	rix (F3)		Anomolo	us Bright Loamy Soils (F20) (MLRA		
Orga	anic Bodies (A6) (LF	RR P, T,	U)	Redo	x Dark S	Surface (F6)		153B)			
5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface					eted Dar	k Surface (F	7)	Red Pare	ent Material (TF2)		
Muck Presence (A8) (LRR U)			Redo	x Depre	ssions (F8)		Very Sha	llow Dark Surface (TF12)			
1 cn	1 cm Muck (A9) (LRR P, T)				(F10) (L	RR U)		Other (ex	kplain in remarks)		
Dep	leted Below Dark Su	urface (A	11)	Deple	ted Och	ric (F11) (ML I	RA 151)				
Thic	k Dark Surface (A12	2)		Iron-N	Mangane	ese Masses	(F12) (LRR O, P,	Т)	*Indicators of hydrophytic vegetation		
Coa	ist Prairie Redox (A1	6) (MLR	A 150A)	_Umbric Surface (F13) (LRR P, T, U)					and weltand hydrology must be present,		
San	dy Mucky Mineral (S	51) (LRR	O, S)	Delta	Ochric	(F17) (MLRA	ILRA 151)				
San	dy Gleyed Matrix (S	4)		Redu	ced Ver	tic (F18) (ML) (MLRA 150A, 150B)				
San	dy Redox (S5)			Piedr	nont Flo	odplain Soils	in Soils (F19) (MLRA 149A)				
Strip	oped Matrix (S6)			Anom	nolous B	right Loamy	Soils (F20) (MLR/	A 149A, 153C	, 153D)		
Dark	k Surface (S7) (LRR	P, S, T,	U)								
Restrictive	Laver (if observed)):									
Type:							Hydric Soil				
	Depth (inches):						Present?	No			
Remarks:											

Project/Site	Colyell 420-Acre Site	(City/County:	Colyell/Living	gston S	Sampling Date:	2/5/2019		
Applicant/Owner:	Weyerhaeuser N	NR Company	State	: Louisia	ina S	ampling Point:	SP	8	
Investigator(s):	Curt Schaeffer, Ca	al Fontenot	Sectio	on, Township,	Range:	S12,	T7S, R4E		
Landform (hillslope, ter	race, etc.): To	errace	Local relief	(concave, con	nvex, none):	Convex	Slope (%):	>1	
Subregion (LRR or MLI	RA): LRR-P l	_at:	30.456175°	Long:	(-) 9	0.760420°	Datum:	NAD83	
Soil Map Unit Name	Natalbany silty cla	y loam, freque	ently flooded (N	la) NW	VI Classifica	tion:	N/A		
Are climatic/hydrologic	conditions of the site ty	pical for this ti	me of the year	? Yes	(lf no, explai	in in remarks)			
Are vegetation X	, soil X , or l	nydrology X	significantly	disturbed?	Are "norma	al circumstance	s" present?	No	
Are vegetation	, soil , or l	nydrology	naturally pr	oblematic?	(If needed	, explain any ar	nswers in rem	narks.)	
SUMMARY OF FIN	DINGS Attach s	ite map show	wing samplin	g point locat	tions, trans	sects, importa	Int features	, etc.	
Hydrophytic vegeta	ation present?	No							
Hydric soil present	?	Yes	le th	o Samplod /	Aroa within	a Wotland?	No		
Indicators of wetland hydrology present? Yes			15 U	ie Sampieu P			NU		
	-								
Remarks:									
Cu	ut-over/Harvested ar	ea, disturbe	d vegetation	and soils, p	ossible alt	ered hydrolo	qy.		
			-			-			
HYDROLOGY									
Wetland Hydrology In	dicators:								
Primary Indicators (min	imum of one is required	d; check all that	at ap	Se	econdary Ind	licators (minimu	im of two req	uired)	
Surface Water (A1)		Aquatic Fa	auna (B13)		Surfac	urface Soil Cracks (B6)			
High Water Table (A	-2)	Marl Depo	sits (B15) (LRR	U)	Sparse	parsely Vegetated Concave Surface (B8)			
Saturation (A3)	· ·	Hydrogen	Sulfide Odor (C	:1)	Draina	ainage Patterns (B10)			
Water Marks (B1)	-		hizophorop o	Dry-Seasor			son Water Table (C2)		
Sediment Deposits ((B2)	Roots (C3))	LIVING	Moss	loss Trim Lines (B16)			
Drift Deposits (B3)	· · ·	Presence	of Reduced Iror	n (C4)	Crayfis	Crayfish Burrows (C8)			
Algal Mat or Crust (I	- 34)	Bocont Iro	n Poduction in	Tillod	Saturation Visible on Aerial Imagery (C9)				
Iron Deposits (B5)		Soils (C6)		Thicu	Geomorphic Position (D2)				
Inundation Visible or	n Aerial Imagery (B7)	Thin Muck	Surface (C7)		Shallov	Shallow Aquitard (D3)			
Water-Stained Leav	es (B9)	Other (Exp	blain in Remark	ain in Remarks) FAC-Neutral Test (D5)					
<u> </u>	· · · ·			,	Sphag	num moss (D8)	moss (D8) (LRR T, U)		
Field Observations:									
Surface water present?	Yes I	No X Dep	oth (inches):						
Water table present?	Yes	No X Dep	oth (inches):			Wetland Hydrology	Yes		
Saturation present?	Yes	No X Dep	oth (inches):			Present?			
(includes capillary fring	e)	·	· · · <u> </u>						
Describe recorded data	a (stream gauge, monito	oring well, aeri	al photos, prev	vious inspectio	ons), if availa	able:			
					,.				
Remarks:									

/EGETATION Use scientific names of pla	ints.			Sampling Point: SP8
	Absolute	Dominan	Indicator	Dominance Test Worksheet
Tree Stratum (Plot size: 30)	% Cover	t Species	Staus	Number of Dominant
	-			Species that are OBL,
1				FACW, or FAC: 4 (A)
2				Total Number of Dominant
3				Species Across all Strata. 8 (B)
4				Percent of Dominant Species
5				that are OBL, FACW, or
7				FAC. <u>50.00%</u> (A/B)
7				
٥				
	0	= Total Cove	er	
50% of total cover: 0	20% of to	otal cover:	0	Prevalence Index Worksheet
				Total % Cover of:
Sapling/Shrub Stratun (Plot size: 30)			OBL species $0 \times 1 = 0$
1 llex vomitoria	_′	Y	FAC	EACW species $4 \times 2 = 8$
2 Hypericum perforatum	5	Y	FACU	FAC species $49 \times 3 = 147$
3 Quercus nigra		N	FAC	FACU species $105 \times 4 = 420$
4 Liquidambar stvraciflua		N	FAC	UPL species $0 \times 5 = 0$
5 Pinus serotina		N	FACW	Column totals 158 (A) 575 (B)
6			17,011	
7				Prevalence Index = $B/A = -3.64$
8				
	23	= I otal Cove	er	
50% of total cover: 11.5	_ 20% of to	otal cover:	4.6	Hydrophytic Vegetation Indicators:
				Rapid test for hydrophytic vegetation
Herb stratum (Plot size: 30)			Dominance test is >50%
1 Juncus interior	55	Y	FACU	Prevalence index is ≤3.0*
2 Cyperus esculentus	25	Y	FAC	Problematic hydrophytic
3 Dichanthelium aciculare	25	Y	FACU	vegetation* (explain)
4 Eragrostis spectabilis	12	N	FACU	*Indicators of hydric soil and wetland hydrology must
5 Eupatorium capillifolium	8	Ν	FACU	be present, unless disturbed or problematic
6 Sabal minor	3	N	FACW	Definitions of Five Vegetation Strata
7 Andropogon virginicus	2	N	FAC	Tree Weedy plants evaluating weedy vince
8				approximately 20 ft (6m) or more in height and
9				less than 3 in (7.6 cm) DBH
10				
11				
12				Sapling/Shrub - Woody plants, excluding vines,
	130	= Total Cove		
50% of total cover: 65	20% of to	- Total Cove	26	
	20% 0110		20	Herb - All herbaceous (non-woody) plants,
Weady vina stratum (Plat size: 20	`			including herbaceous vines, regardless of size,
1 Public arguitus	_/ _	V	EAC	and woody plants, except woody vines, less than approximately 3 ft (1 m) in height
1 Rubus arguius		ř		Woody vine - All woody vines regardless of
2 RUDUS (IIVIAIIS	- 5	ř V		height.
	5	ř	FAU	
4				
ວ				Hydrophytic
	15	= Total Cove	r	Vegetation NO
50% of total cover: 7.5	20% of to	otal cover:	3	Present?
Remarks: (If observed list morphological	adaptation	s helow)		-
	าลนสมเสแบก	s below).		

SOIL Sampling Point: SP8 Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Matrix **Redox Features** Depth (Inches) Color (moist) % Color (moist) Loc** % Type* Texture Remarks 0-8 10YR 6/2 10YR 7/2 10 silt loam 88 D Μ 10YR 5/6 2 С Μ silt loam 8-14 10YR 6/2 90 10YR 4/1 3 D Μ silt loam С 5 Μ 10YR 6/6 silt loam 10YR 5/8 2 С PL silt loam 14-16 10YR 6/1 80 10YR 6/6 10 С Μ silt loam 10YR 5/8 10 С silt loam Μ Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix **Hydric Soil Indicators:** Indicators for Problematic Hydric Soils: Histisol (A1) Polyvalue Below Surface (S8) (LRR S, T, U) 1 cm Muck (A9) (LRR O) Thin Dark Surface (S9) (LRR S, T, U) 2 cm Muck (A10) (LRR S) Histic Epipedon (A2) Reduced Vertic(F18) (outside MLRA 150A,B) Black Histic (A3) Loamy Mucky Mineral (F1) Piedmont Floodplain Soils (F19) (LRR P, S, T) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Stratified Layers (A5) X Depleted Matrix (F3) Anomolous Bright Loamy Soils (F20) (MLRA 153B) Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) 5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) Red Parent Material (TF2) Muck Presence (A8) (LRR U) Redox Depressions (F8) Very Shallow Dark Surface (TF12) 1 cm Muck (A9) (LRR P, T) Marl (F10) (LRR U) Other (explain in remarks) Depleted Ochric (F11) (MLRA 151) Depleted Below Dark Surface (A11) Iron-Manganese Masses (F12) (LRR O, P, T) Thick Dark Surface (A12) *Indicators of hydrophytic vegetation Coast Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U) and weltand hydrology must be present, unless disturbed or problematic Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) Reduced Vertic (F18) (MLRA 150A, 150B) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Stripped Matrix (S6) Anomolous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (if observed): **Hydric Soil** Type: Yes Present? Depth (inches): Remarks:

Project/Site	Colyell 420-Acre Site		City/County:	nty: Colyell/Livingston		Sampling Date:	2/6/20	019	
Applicant/Owner:	Weyerhaeuse	NR Company	State	e: Louis	siana S	Sampling Point: SP9		9	
Investigator(s):	Curt Schaeffer,	Cal Fontenot	Secti	on, Townshi	p, Range:	S12,	T7S, R4E		
Landform (hillslope, ter	rrace, etc.): Terrac	e/Hardwoods	Local relief	(concave, c	onvex, none):	Concave	Slope (%):	2	
Subregion (LRR or ML	RA): LRR-P	Lat:	30.453555°	Long	j:(-) §	90.746284°	Datum:	NAD83	
Soil Map Unit Name	Deerford-Verdun c	omplex, 0 to 1	percent slopes	(Dv) N	WI Classifica	ition:	N/A		
Are climatic/hydrologic	conditions of the site	typical for this t	time of the yea	r? Yes	(If no, expla	in in remarks)			
Are vegetation	_, soil, o	r hydrology	significantl	y disturbed?	Are "norm	al circumstance	es" present?	Yes	
Are vegetation	, soil, o	r hydrology	naturally pr	oblematic?	(If needed	l, explain any ar	nswers in rem	narks.)	
SUMMARY OF FIN	IDINGS Attach	site map sho	wing samplin	ng point loc	ations, tran	sects, importa	ant features	, etc.	
Hydrophytic vegeta	ation present?	Yes							
Hydric soil present	?	Yes	ls ti	ne Sampled	l Δrea withir	n a Wetland?	No		
Indicators of wetland hydrology present? <u>No</u>			15 (1	le oumpiee			NO		
Remarks:									
		Mixed	pine/hardwo	ods habitat	t				
HYDROLOGY									
Wetland Hydrology Ir	ndicators:								
Primary Indicators (min	nimum of one is requir	ed; check all th	at ap	<u>×</u>	Secondary Ind	<u>dicators (minimu</u>	um of two req	<u>uired)</u>	
Surface Water (A1)		Aquatic F	auna (B13)		Surfac	ce Soil Cracks (B	6)		
High Water Table (A	42)	Marl Depo	osits (B15) (LRF	R U)	Spars	ely Vegetated Co	oncave Surfac	e (B8)	
Saturation (A3)		Hydrogen	Sulfide Odor (C	e Odor (C1) Drainage F			je Patterns (B10)		
Water Marks (B1)		Oxidized	Rhizospheres o	cospheres on Living Dry-S			-Season Water Table (C2)		
Sediment Deposits	(B2)	Roots (C3	3)	5	Moss	Moss Trim Lines (B16)			
Drift Deposits (B3)		Presence	of Reduced Iron	Reduced Iron (C4) Cray			rayfish Burrows (C8)		
Algal Mat or Crust (B4)	Recent Ire	on Reduction in	Tilled	Satura	Saturation Visible on Aerial Imagery (C9)			
Iron Deposits (B5)		Soils (C6))	Geomorphic Position (D2)					
Inundation Visible o	n Aerial Imagery (B7)	Thin Mucl	k Surface (C7)	urface (C7) Shallow Aquitard (D3)					
Water-Stained Leav	/es (B9)	Other (Ex	plain in Remark	in in Remarks) X FAC-Neutral Test (D5)					
					Sphag	jnum moss (D8)	(LRR T, U)		
Field Observations:									
Surface water present	? Yes	No X De	pth (inches):			Matland			
Water table present?	Yes	No X De	pth (inches):			Wetland Hydrology	No		
Saturation present?	Yes	No X De	pth (inches):			Present?			
(includes capillary fring	je)		_						
Describe recorded data	a (stream gauge, mon	itoring well, aer	rial photos, prev	vious inspec	tions), if availa	able:			
Remarks:									
FAC-Neutral test -	- 4:0								

Sampling	Point:
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SP9

	Absolute	Dominan	Indicator	Dominance Test Worksheet
Tree Stratum (Plot size: 30)	% Cover	t Species	Staus	Number of Dominant
1 Pinus taeda	35	Y	FAC	Species that are OBL, EACW or EAC: 7 (A)
	8		FAC	
2			17.0	Species Across all Strata: 7 (B)
3				
4				Percent of Dominant Species
5				that are OBL, FACW, or
6				FAC: <u>100.00%</u> (A/B)
7				
8				
	43	= Total Cove	r	
50% of total cover: 21.5	20% of to	otal cover:	8.6	Prevalence Index Worksheet
		-		Total % Cover of
Sapling/Shrub Stratun (Plot size: 30)				OBL species $0 \times 1 = 0$
1 Sabal minor	40	Y	FACW	FACW species 59 x 2 = 118
2 Quercus nigra	20	Y	FAC	FAC species 98 x 3 = 294
3 Triadica sebifera	15	<u>N</u>	FAC	FACU species $5 \times 4 = 20$
4 Ilex vomitoria	10	N	FAC	UPL species 0 x 5 = 0
5 Liquidambar styraciflua	5	Ν	FAC	Column totals 162 (A) 432 (B)
6 Morella cerifera	5	N	FAC	
7 Ulmus alata	5	N	FACU	Prevalence Index = B/A = 2.67
8				
	100	= Total Cove	r	
E0% of total action E0				Lludron hutio Manatation Indiantary
50% of total cover: 50	20% 01 10		20	Hydrophytic Vegetation indicators:
				Rapid test for hydrophytic vegetation
Herb stratum (Plot size: 30)	1			X Dominance test is >50%
1 Sabal minor	10	Y	FACW	X Prevalence index is ≤3.0*
2 Chasmanthium laxum	4	Y	FACW	Problematic hydrophytic
3				vegetation* (explain)
4				*Indicators of hydric soil and wetland hydrology must
5				be present, unless disturbed or problematic
6				Definitions of Five Vegetation Strata
7				Trop Woody plants, excluding woody vines
8				approximately 20 ft (6m) or more in height and
9				less than 3 in (7.6 cm) DBH
10				
11				
12				Saping/Shrub - woody plants, excluding vines,
	14	= Total Cove		tall
50% of total cover: 7	20% of to	tal cover:	, 28	
	2070 01 1	-	2.0	Herb - All herbaceous (non-woody) plants,
Woody vine stratum (Plot size: 30)				and woody plants, except woody vince, loss than
1 Smilay laurifolia	F	v	EACIN	and woody plants, except woody vines, less than approximately 3 ft (1 m) in height
	0			Woody vine - All woody vines regardless of
	۷	T	PAG	height.
3				
+				
5				Hydrophytic
	7	= Total Cove	r	Vegetation Yes
50% of total cover: 3.5	20% of to	otal cover:	1.4	Present?
Remarks: (If observed, list morphological a	adaptation	s below)		
]

SOIL							Sampling Point:	SP9		
Profile Des	cription: (Describe	to the c	lepth needec	to docum	ent the indic	ator or confirm	the absence o	f indicators.)		
Depth	Depth <u>Matrix</u>			Red	ox Features					
(Inches)	Color (moist)	%	Color (moi	st) %	Type*	Loc**	Texture	Remarks		
0-6	10YR 4/2	49	10YR 6/8	3 2	С	М	silt loam			
	10YR 4/6	49					silt loam			
6-16	10YR 6/1	88	10YR 5/6	6 12	D	М	silt loam			
*Type: C = (Concentration, D = D	epletion	, RM = Reduc	ed Matrix, I	MS = Maskeo	d Sand Grains.	**Location: F	PL = Pore Lining, M = Matrix		
Hydric So	oil Indicators:						Indicators for	or Problematic Hydric Soils:		
Hist	isol (A1)		F	olyvalue Be	low Surface (S8) (LRR S, T, U)	1 cm Mu	ck (A9) (LRR O)		
Hist	ic Epipedon (A2)		т	hin Dark Su	ırface (S9) (LF	RR S, T, U)	2 cm Mu	2 cm Muck (A10) (LRR S)		
Blac	k Histic (A3)		L	oamy Muck	ky Mineral (F	1)	Reduced	Reduced Vertic(F18) (outside MLRA 150A,B)		
Hyd	rogen Sulfide (A4)		L	oamy Gley	ed Matrix (F2)	Piedmon	Piedmont Floodplain Soils (F19) (LRR P, S, T)		
Stra	tified Layers (A5)		<u> </u>	epleted Ma	atrix (F3)		Anomolo	Anomolous Bright Loamy Soils (F20) (MLRA		
Orga	anic Bodies (A6) (LR	R P, T, I	U)F	Redox Dark	Surface (F6)		153B)			
5 cn	n Mucky Mineral (A7) (LRR I	P, T, U) [epleted Da	ark Surface (F	7)	Red Pare	ent Material (TF2)		
Muc	k Presence (A8) (LR	RU)	F	Redox Depre	essions (F8)		Very Sha	Very Shallow Dark Surface (TF12)		
1 cn	n Muck (A9) (LRR P,	T)	N	1arl (F10) (I	LRR U)		Other (e>	kplain in remarks)		
Dep	leted Below Dark Su	rface (A	11) <u> </u>	epleted Och	hric (F11) (ML	RA 151)				
Thic	k Dark Surface (A12)	lı	on-Mangar	nese Masses	(F12) (LRR O, P	, T)	*Indicators of hydrophytic vegetation		
Coast Prairie Redox (A16) (MLRA 150A)				Imbric Surfa	ace (F13) (LF	RR P, T, U)		and weltand hydrology must be present,		
San	dy Mucky Mineral (S	1) (LRR	O, S)	elta Ochric	; (F17) (MLR/	A 151)		unless disturbed or problematic		
San	dy Gleyed Matrix (S4	4)	F	Reduced Ve	ertic (F18) (MI	LRA 150A, 150B)			
San	dy Redox (S5)		F	liedmont Fle	oodplain Soil	s (F19) (MLRA 1	49A)			
Strip	oped Matrix (S6)		A	nomolous I	Bright Loamy	Soils (F20) (MLI	RA 149A, 153C	, 153D)		
Darl	(Surface (S7) (LRR	P. S. T.	U)							

Restrictive Layer (if observed):	
Туре:	Hydric Soil Yes
Depth (inches):	Present?
Remarks:	

Project/Site	Colyell 420-Acre Site	(City/County:	Colyell/Livingston	Sampling Date:	2/18/20	19	
Applicant/Owner:	Weyerhaeuser	NR Company	State	: Louisiana	Sampling Point:	SP10		
Investigator(s):	Curt Schaeffer, C	al Fontenot	Sectio	on, Township, Ran	ge: S12, T	T7S, R4E		
Landform (hillslope, te	errace, etc.):	owland	Local relief	(concave, convex,	none): Concave	Slope (%):	<1	
Subregion (LRR or ML	_RA): LRR-P	Lat:	30.454206°	Long:	(-) 90.753963°	_Datum:	NAD83	
Soil Map Unit Name	Satsuma silt loa	m, 1 to 3 perce	ent slopes (Sa)	NWI Cla	assification:	N/A		
Are climatic/hydrologic	c conditions of the site ty	/pical for this ti	ime of the year	? Yes (If no	o, explain in remarks)			
Are vegetation	_, soil, or	hydrology	significantly	disturbed? Are	normal circumstances	s" present?	′es	
Are vegetation	, soil , or	hydrology	naturally pr	oblematic? (If r	needed, explain any an	swers in rema	ırks.)	
SUMMARY OF FI	NDINGS Attach s	site map sho	wing samplin	g point locations	s, transects, importa	nt features, o	etc.	
Hydrophytic veget	tation present?	Yes						
Hydric soil presen	.t?	Yes	ls th	o Sampled Area	within a Wotland?	Vac		
Indicators of wetla	and hydrology present?	Yes	15 11	le Sampleu Alea		162		
Remarks:			•					
	ndicatore							
Primary Indicators (mi	inimum of one is require	d: check all th:	et en	Second	lan Indicators (minimu	∽ of two requi	irad)	
Curfe an Mator (A1)			<u>al ap</u>	<u>360010</u>		<u>M OI two requi</u>	<u>lfeu)</u>	
Surface Water (AT))		auna (B13)		Surrace Soll Cracks (B6)			
X High Water Table (A2)	Mari Depo	sits (B15) (LKK	U)	Sparsely Vegetated Co	parsely Vegetated Concave Surface (B8)		
X Saturation (A3)		X Hydrogen	Sulfide Odor (C	1)	Drainage Patterns (B10	ırainage Patterns (B10)		
X Water Marks (B1)		X Oxidized F	Rhizospheres or	Living)ry-Season Water Table (C2)			
X Sediment Deposits	(B2)	Roots (C3))		Moss Trim Lines (B16)	Moss Trim Lines (B16)		
Drift Deposits (B3)		Presence	of Reduced Iror	x (C4) X	Crayfish Burrows (C8)			
Algal Mat or Crust	(B4)	Recent Iro	on Reduction in	Reduction in TilledSaturation Visible on Aerial Imagery (C9)				
Iron Deposits (B5)		Soils (C6)		X Geomorphic Position (D2)				
Inundation Visible of	on Aerial Imagery (B7)	Thin Muck	Surface (C7)	urface (C7) Shallow Aquitard (D3)				
X Water-Stained Leav	ves (B9)	Other (Exp	olain in Remarks	in in Remarks) X FAC-Neutral Test (D5)				
					Sphagnum moss (D8) (LRR T, U)		
Field Observations:								
Surface water present	? Yes	No X Dep	oth (inches):		Watland			
Water table present?	Yes X	No Dep	oth (inches):	10	Hvdrology	Yes		
Saturation present?	Yes X	No Der	oth (inches):	0	Present?			
(includes capillary fring	ge)		·					
Describe recorded dat	ta (stream gauge, monit	oring well, aeri	ial photos, prev	vious inspections),	if available:			
Remarks:							1	
FAC-Neutral test	- 4.0							

	Absolute	Dominan	Indicator	Dominance Test Worksheet
Tree Stratum (Plot size: 30)	% Cover	t Species	Staus	Number of Dominant
1 Pinus taeda	10	Y	FAC	Species that are OBL, EACW or EAC: 7 (A)
2 Triadica sebifera	10	<u> </u>	FAC	
3	10	<u> </u>	17.0	Species Across all Strata: 7 (B)
3				
4				Percent of Dominant Species
5				that are OBL, FACW, or
0				FAC. 100.00% (A/B)
/				
8				
	20	= I otal Cove	r	
50% of total cover: 10	20% of to	otal cover:	4	Prevalence Index Worksheet
				Total % Cover of:
Sapling/Shrub Stratun (Plot size: 30)			OBL species 59 x 1 = 59
1 Sabal minor	, 8	Y	FACW	FACW species 54 x 2 = 108
2 Morella cerifera	3	Y	FAC	FAC species $23 \times 3 = 69$
3				FACU species $0 \times 4 = 0$
4				UPL species $0 \times 5 = 0$
5				Column totals 136 (A) 236 (B)
6				()
7				Prevalence Index = B/A = 1.74
8				
	11	- Total Cove		
	000/ -64-			lluduen hutie Menetatien Indiaetane.
50% of total cover: 5.5	20% of to		2.2	Hydrophytic vegetation indicators:
				Rapid test for hydrophytic vegetation
Herb stratum (Plot size: 30)			X Dominance test is >50%
1 Juncus effusus	30	Y	OBL	X Prevalence index is ≤3.0*
2 Leersia virginica	20	Y	FACW	Problematic hydrophytic
3 Scirpus cyperinus	12	Y	OBL	vegetation* (explain)
4 Saccharum giganteum	10	<u>N</u>	FACW	*Indicators of hydric soil and wetland hydrology must
5 Andropogon glomeratus	8	<u>N</u>	FACW	be present, unless disturbed or problematic
6 Chasmanthium laxum	8	<u>N</u>	FACW	Definitions of Five Vegetation Strata
7 Typha latifolia	7	N	OBL	Tree- Woody plants, excluding woody vines,
8 Sagittaria latifolia	4	N	OBL	approximately 20 ft (6m) or more in height and
9 Ludwigia octovalvis	3	N	OBL	less than 3 in. (7.6 cm) DBH.
10 Xyris difformis	3	N	OBL	
11				Sapling/Shrub - Woody plants, excluding vines,
12				less than 3 in. DBH and greater than 3.26 ft (1m)
	105	= Total Cove	r	tall
50% of total cover: 52.5	20% of to	otal cover:	21	Herb - All herbaceous (non-woody) plants,
				including herbaceous vines, regardless of size,
Woody vine stratum (Plot size: 30)			and woody plants, except woody vines, less than
1				approximately 3 ft (1 m) in height.
2				woody vine - All woody vines, regardless of
3				neight.
4				
5				Hydrophytic
	0	= Total Cove	r	Vegetation Yes
50% of total cover: 0	20% of to	otal cover:	0	Present?
Remarks: (If observed, list morphological	adaptation	s helow)		•
	adaptation	5 5510WJ.		

SOIL

Sampling Point: SP10 Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Matrix **Redox Features** Depth Color (moist) % Color (moist) Loc** (Inches) % Type* Texture Remarks 0-4 10YR 4/1 10YR 3/6 10 PL silty clay 90 С 4-11 10YR 6/1 80 5YR 4/6 20 С PL clay loam 11-16 2.5Y 5/1 98 2.5Y 5/6 2 D Μ clay Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix **Hydric Soil Indicators:** Indicators for Problematic Hydric Soils: Histisol (A1) Polyvalue Below Surface (S8) (LRR S, T, U) 1 cm Muck (A9) (LRR O) Thin Dark Surface (S9) (LRR S, T, U) 2 cm Muck (A10) (LRR S) Histic Epipedon (A2) Reduced Vertic(F18) (outside MLRA 150A,B) Black Histic (A3) Loamy Mucky Mineral (F1) Piedmont Floodplain Soils (F19) (LRR P, S, T) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Stratified Layers (A5) Depleted Matrix (F3) Anomolous Bright Loamy Soils (F20) (MLRA 153B) Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) 5 cm Mucky Mineral (A7) (LRR P, T, U) X Depleted Dark Surface (F7) Red Parent Material (TF2) Muck Presence (A8) (LRR U) Redox Depressions (F8) Very Shallow Dark Surface (TF12) 1 cm Muck (A9) (LRR P, T) Marl (F10) (LRR U) Other (explain in remarks) Depleted Ochric (F11) (MLRA 151) Depleted Below Dark Surface (A11) Iron-Manganese Masses (F12) (LRR O, P, T) Thick Dark Surface (A12) *Indicators of hydrophytic vegetation Coast Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U) and weltand hydrology must be present, unless disturbed or problematic Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) Reduced Vertic (F18) (MLRA 150A, 150B) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Stripped Matrix (S6) Anomolous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (if observed): **Hydric Soil** Type: Yes Present? Depth (inches): Remarks:

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region Colvell 420-Acre Site Project/Site City/County: Colyell/Livingston Sampling Date: 2/18/2019 Sampling Point: Applicant/Owner: Weyerhaeuser NR Company State: Louisiana **SP11** Curt Schaeffer, Cal Fontenot Investigator(s): Section, Township, Range: S12, T7S, R4E Local relief (concave, convex, none): Concave 2 Landform (hillslope, terrace, etc.): Terrace Slope (%): Subregion (LRR or MLRA): Lat: 30.454206° LRR-P Long: (-) 90.753963° Datum: NAD83 NWI Classification: Soil Map Unit Name Satsuma silt loam, 1 to 3 percent slopes N/A Are climatic/hydrologic conditions of the site typical for this time of the year? (If no, explain in remarks) Yes , or hydrology significantly disturbed? Are vegetation , soil Are "normal circumstances" present? Yes , or hydrology naturally problematic? Are vegetation , soil (If needed, explain any answers in remarks.) SUMMARY OF FINDINGS -- Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic vegetation present? Yes Hydric soil present? Yes Is the Sampled Area within a Wetland? No Indicators of wetland hydrology present? No Remarks: Pine plantation, upland HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that ap Secondary Indicators (minimum of two required) Surface Water (A1) Aquatic Fauna (B13) Surface Soil Cracks (B6) Marl Deposits (B15) (LRR U) Sparsely Vegetated Concave Surface (B8) High Water Table (A2) Saturation (A3) Hydrogen Sulfide Odor (C1) Drainage Patterns (B10) Water Marks (B1) Dry-Season Water Table (C2) Oxidized Rhizospheres on Living Sediment Deposits (B2) Moss Trim Lines (B16) Roots (C3) Drift Deposits (B3) Presence of Reduced Iron (C4) Crayfish Burrows (C8) Algal Mat or Crust (B4) Saturation Visible on Aerial Imagery (C9) Recent Iron Reduction in Tilled Iron Deposits (B5) Soils (C6) Geomorphic Position (D2) Inundation Visible on Aerial Imagery (B7) Thin Muck Surface (C7) Shallow Aquitard (D3) Other (Explain in Remarks) Water-Stained Leaves (B9) X FAC-Neutral Test (D5) Sphagnum moss (D8) (LRR T, U) Field Observations: Surface water present? No Х Depth (inches): Yes Wetland Х No Water table present? Depth (inches): Yes No Hydrology Saturation present? Yes No X Depth (inches): Present? (includes capillary fringe) Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: FAC-Neutral test - 3:1

	Absolute	Dominan	Indicator	Dominance Test Worksheet
Tree Stratum (Plot size: 30)	% Cover	t Species	Staus	Number of Dominant
1 Pinus taeda	70	Y	FAC	FACW, or FAC: 7 (A)
2				Total Number of Dominant
3				Species Across all Strata: 8 (B)
4				Percent of Dominant Species
5				that are OBL. FACW. or
6				FAC: 87.50% (A/B)
7				
8				
	70	= Total Cove	r	
50% of total cover: 35	20% of to	otal cover:	14	Prevalence Index Worksheet
		-		Total % Cover of
	\			
Sapling/Shrub Stratun (Plot size: 30)	V		$\begin{array}{c c} OBL \text{ species} & 0 & x \ 1 = & 0 \\ \hline A OW \text{ species} & 29 & x \ 2 = & \overline{76} \\ \hline \end{array}$
	20	Y		FAC w species $38 \times 2 = 76$
2 lieu vollillolla 3 Lieu idambar styraciflua	20	t	FAC	FACU species 121 x 3 - 303
4 Ouercus nigra	5	N	FAC	$\frac{112}{12} \text{ species } 0 speci$
5 Morella cerifera	3	N	FAC	Column totals 159 (A) 439 (B)
6 Vaccinium elliottii	3	N	FACW	
7				Prevalence Index = $B/A = 2.76$
8				<u> </u>
	64	= Total Cove		
50% of total approximation 22	200% of to		10.0	Illudrankutia Vagatatian Indiaatara.
	20% 01 10		12.8	Agarophytic vegetation indicators:
				Rapid lest for hydrophytic vegetation
Herb stratum (Plot size: 30)			X Dominance test is >50%
1 Chasmanthium laxum	10	Y	FACW	X Prevalence index is ≤3.0*
2 Ilex vomitoria	5	<u> </u>	FAC	Problematic hydrophytic
3 Gelsemium sempervirens	3	<u> </u>	FAC	vegetation* (explain)
4				*Indicators of hydric soil and wetland hydrology must
5				Definitions of Five Vegetation Strata
7				Deminions of the vegetation Strata
/				Tree- Woody plants, excluding woody vines,
8				approximately 20 ft (6m) or more in height and
9				less than 3 ln. (7.6 cm) DBH.
10				
12				Sapling/Shrub - Woody plants, excluding vines,
	18	= Total Cove		tall
50% of total cover: 9	20% of to	otal cover:	. 3.6	
		-		Herb - All herbaceous (non-woody) plants, including berbaceous vines, regardless of size
Woody vine stratum (Plot size: 30)			and woody plants. except woodv vines. less than
1 Gelsemium sempervirens	7	Y	FAC	approximately 3 ft (1 m) in height.
2 Smilax laurifolia	5	Y	FACW	Woody vine - All woody vines, regardless of
3 Rubus trivialis	3	Y	FACU	height.
4				
5				Hydrophytic
	15	= Total Cove		Vegetation Yes
50% of total cover: 7.5	20% of to	otal cover:	3	Present?
Pomarka: (If changed list marphalarise)	adaptation			1
	auaptation	s below).		

SOIL						S	Sampling Point:	SP11
Profile Des	scription: (Describe	to the c	lepth needed to	docume	ent the indic	ator or confirm tl	he absence of	f indicators.)
Depth	epth <u>Matrix Redox Features</u>							
(Inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	Remarks
0-5	10YR 6/3	95	10YR 5/6	5	С	М	silt	
5-13	10YR 4/2	90	10YR 6/3	5	D	М	silt/clay/loar	
			10YR 5/6	5	С	М	silt/clay/loar	
13-16	10YR 6/1	85	10YR 6/8	10	D	М	silt/clay/loar	
			5YR 5/6	5	С	М	silt/clay/loar	
*Type: C =	Concentration, D = D	epletion	, RM = Reduced I	Matrix, N	IS = Masked	Sand Grains.	**Location: P	L = Pore Lining, M = Matrix
Hydric S	oil Indicators:						Indicators fo	r Problematic Hydric Soils:
His	tisol (A1)		Polyv	alue Bel	ow Surface (S	58) (LRR S, T, U)	1 cm Muc	ck (A9) (LRR O)
His	tic Epipedon (A2)		Thin	Dark Sur	face (S9) (LR	(R S, T, U)	2 cm Muc	ck (A10) (LRR S)
Bla	ck Histic (A3)		Loan	ny Mucky	y Mineral (F1)	Reduced	Vertic(F18) (outside MLRA 150A,B)
Hyd	drogen Sulfide (A4)		Loan	ny Gleye	d Matrix (F2)	Piedmont	Floodplain Soils (F19) (LRR P, S, T)
Stra	atified Layers (A5)			eted Mai	(F3)		Anomolou 153B)	us Bright Loamy Soils (F20) (MLRA
Org	janic Bodies (A6) (LR			ox Dark :	Surface (F6)	7)	Ded Dare	at Matarial (TEQ)
			P, I, U) Depi	eted Dar	K Surface (F	7)		
INU	m Musk (AO) (LBB D	(R U) T)	Redd				very Sna	
T C	ni Muck (A9) (LKK P,	, 1) urfaco (A		(F 10) (L	ric (E11) (MI	RA 151)		plain in temarks)
	ok Dark Surface (A12	mace (A	Iron-	Mangan			т)	
	ck Dark Surface (A12 ast Prairie Redox (A1	-) 6) (MI R	A 150A) Umb	ric Surfa	co (E13) /I P		• /	*Indicators of hydrophytic vegetation
	adv Mucky Mineral (S				(E17) (MI D/	(K F, I, U) (151)		unless disturbed or problematic
	ndy Mucky Milleral (S	4)	0, 3) Deita		(i i /) (i i i i i i i /) (i i i i i i i i i i i i i i i i i i	DA 150A 150B)		
	ndy Bedox (S5)	+)	Nedu	nont Flo	uc (1 10) (ML	(F10) (MI RA 1/0		
0ai	inned Matrix (S6)		Pieur		Bright Loamy	Soils (F20) (MI P	A 1/9A 153C	153D)
0	rk Surface (S7) (LRR	P. S. T.	<u> </u>		ngni Loaniy		- 1 4 3A, 1330,	, 1550)
		., ., .,	-,					
Restrictive	e Layer (if observed)):						
Type:	Danth (inchas)		Hydric Soll Present?	Yes				
	Depth (inches)				-	110001111		
Remarks:								

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region Colvell 420-Acre Site Project/Site City/County: Colyell/Livingston Sampling Date: 2/18/2019 Sampling Point: Applicant/Owner: Weyerhaeuser NR Company State: Louisiana SP12 Curt Schaeffer, Cal Fontenot Investigator(s): Section, Township, Range: S1, T7S, R4E Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): 0 Terrace None Slope (%): Subregion (LRR or MLRA): Lat: 30.465943° LRR-P (-) 90.755610° Datum: NAD83 Long: Soil Map Unit Name Colyell silt loam, 1 to 3 percent slopes, rarely flooded NWI Classification: N/A Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks) Are vegetation , soil , or hydrology significantly disturbed? Are "normal circumstances" present? Yes , or hydrology naturally problematic? (If needed, explain any answers in remarks.) Are vegetation , soil SUMMARY OF FINDINGS -- Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic vegetation present? Yes Hydric soil present? Yes Is the Sampled Area within a Wetland? No Indicators of wetland hydrology present? No Remarks: Pine/Hardwoods upland HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that ap Secondary Indicators (minimum of two required) Surface Water (A1) Aquatic Fauna (B13) Surface Soil Cracks (B6) Marl Deposits (B15) (LRR U) Sparsely Vegetated Concave Surface (B8) High Water Table (A2) Saturation (A3) Hydrogen Sulfide Odor (C1) Drainage Patterns (B10) Water Marks (B1) Dry-Season Water Table (C2) Oxidized Rhizospheres on Living Sediment Deposits (B2) Moss Trim Lines (B16) Roots (C3) Drift Deposits (B3) Presence of Reduced Iron (C4) Crayfish Burrows (C8) Algal Mat or Crust (B4) Saturation Visible on Aerial Imagery (C9) Recent Iron Reduction in Tilled Iron Deposits (B5) Soils (C6) Geomorphic Position (D2) Inundation Visible on Aerial Imagery (B7) Thin Muck Surface (C7) Shallow Aquitard (D3) Other (Explain in Remarks) Water-Stained Leaves (B9) FAC-Neutral Test (D5) Sphagnum moss (D8) (LRR T, U) Field Observations: Surface water present? No Х Depth (inches): Yes Wetland Х No Water table present? Depth (inches): Yes No Hydrology Saturation present? Yes No X Depth (inches): Present? (includes capillary fringe) Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: FAC-Neutral test - 2:2

	Absolute	Dominan	Indicator	Dominance Test Worksheet
<u>Tree Stratum</u> (Plot size: 30)	% Cover	t Species	Staus	Number of Dominant
1 Pinus taeda	15	v	FAC	Species that are OBL, EACW or EAC : 3 (A)
2 Quercus virginiana	5			FACW, OF FAC. <u>5</u> (A)
			1,400	I otal Number of Dominant Species Across all Strata: 5 (B)
4				
4				Percent of Dominant Species
5				that are OBL, FACW, or
<u> </u>				FAC: <u>60.00%</u> (A/B)
/				
8				
	20	= Total Cove	r	
50% of total cover: 10	20% of to	otal cover:	4	Prevalence Index Worksheet
				Total % Cover of:
Sanling/Shrub Stratun (Plot size: 30)			OBI species 0 x 1 = 0
1 Sabal minor	, 55	v	FACW	EACW species $105 \times 2 = 210$
2 Morella cerifera	20	N	FAC	$FAC \text{ species } \overline{72} \text{ x } 3 = -216$
3 Ilex vomitoria	15	N	FAC	$FACU \text{ species} \frac{72}{28} \text{ x } 4 = 112$
4 Liquidambar styraciflua	8	N	FAC	$\frac{17100}{110} \text{ species} \frac{12}{12} \text{ x} 5 = -60$
	8	N	FAC	Column totals 217 (A) 598 (B)
6 Dinus toodo				
	3	IN	FAC	Provolonoo Indox = P/A = -2.76
7				Prevalence index – D/A – 2.70
8				
	109	= Total Cove	r	
50% of total cover: 54.5	20% of to	otal cover:	21.8	Hydrophytic Vegetation Indicators:
		_		Rapid test for hydrophytic vegetation
Herb stratum (Plot size: 30)			X Dominance test is >50%
1 Chasmanthium laxum	, 40	Y	FACW	X Prevalence index is ≤3.0*
2 Juncus interior	15	N	FACU	Problematic bydrophytic
3 Symphyotrichum laeve	12	N	UPI	vegetation* (explain)
4 Sabal minor	10	N	FACW	
5 Andropogon virginicus	3	N	FAC	be present, unless disturbed or problematic
6				Definitions of Five Vegetation Strata
7				
°				Tree- Woody plants, excluding woody vines,
0 				approximately 20 ft (6m) or more in height and
9				
				Sapling/Shrub - Woody plants, excluding vines,
12		Table		less than 3 in. DBH and greater than 3.26 ft (1m)
	00	= I otal Cove	1	lan
50% of total cover: 40	∠u% of to	nai cover:	10	Herb - All herbaceous (non-woody) plants,
	`			including herbaceous vines, regardless of size,
vvoody vine stratum (Plot size: 30)	N/		and woody plants, except woody vines, less than
1 Kubus trivialis	8	Y	FACU	approximately 3 ft (1 m) in height.
2				beight
3				noight.
4				
5				Hydrophytic
	8	= Total Cove	r	Vegetation Yes
50% of total cover: 4	20% of to	otal cover:	1.6	Present?
Remarks: (If observed, list morphological	adaptation	s helow)		•
	auaptation	s below).		

SOIL Sampling Point: SP12 Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Matrix **Redox Features** Depth Color (moist) % Color (moist) Loc** (Inches) % Type* Texture Remarks 0-5 10YR 3/2 10YR 6/2 95 5 D Μ loam 5-16 10YR 6/2 70 10YR 5/6 15 С Μ loam 10YR 4/6 10 С Μ loam 10YR 3/1 5 D Μ loam Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix **Hydric Soil Indicators:** Indicators for Problematic Hydric Soils: Histisol (A1) Polyvalue Below Surface (S8) (LRR S, T, U) 1 cm Muck (A9) (LRR O) Thin Dark Surface (S9) (LRR S, T, U) 2 cm Muck (A10) (LRR S) Histic Epipedon (A2) Reduced Vertic(F18) (outside MLRA 150A,B) Black Histic (A3) Loamy Mucky Mineral (F1) Piedmont Floodplain Soils (F19) (LRR P, S, T) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Stratified Layers (A5) X Depleted Matrix (F3) Anomolous Bright Loamy Soils (F20) (MLRA 153B) Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) 5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) Red Parent Material (TF2) Muck Presence (A8) (LRR U) Redox Depressions (F8) Very Shallow Dark Surface (TF12) 1 cm Muck (A9) (LRR P, T) Marl (F10) (LRR U) Other (explain in remarks) Depleted Ochric (F11) (MLRA 151) Depleted Below Dark Surface (A11) Iron-Manganese Masses (F12) (LRR O, P, T) Thick Dark Surface (A12) *Indicators of hydrophytic vegetation Coast Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U) and weltand hydrology must be present, unless disturbed or problematic Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) Reduced Vertic (F18) (MLRA 150A, 150B) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Stripped Matrix (S6) Anomolous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (if observed): **Hydric Soil** Type: Yes Present? Depth (inches): Remarks:

Project/Site	Colyell 420-Acre Site		City/County:	Colyell/Livir	ngston S	Sampling Date:	2/18/2	019
Applicant/Owner:	Weyerhaeuse	NR Company	State	: Louisi	ana S	Sampling Point:	SP1	3
Investigator(s):	Curt Schaeffer,	Cal Fontenot	Sectio	on, Township	, Range:	S1, T	7S, R4E	
Landform (hillslope, te	rrace, etc.): Bo	ottomland	Local relief	(concave, co	onvex, none)	Concave	Slope (%):	0
Subregion (LRR or ML	RA): LRR-P	Lat:	30.465873°	Long:	(-) 9	90.756211°	Datum:	NAD83
Soil Map Unit Name	Gilbert-Brimstone	e silt loams, oc	casionally flood	ed N	WI Classifica	ation:	N/A	
Are climatic/hydrologic	conditions of the site	typical for this t	time of the year	? Yes	(If no, expla	in in remarks)		
Are vegetation	_, soil, o	r hydrology	significantly	disturbed?	Are "norm	al circumstances	s" present?	Yes
Are vegetation	, soil , o	r hydrology	naturally pro	oblematic?	(If needec	l, explain any an	swers in rem	narks.)
SUMMARY OF FIN	IDINGS Attach	site map sho	wing samplin	g point loca	ations, tran	sects, importa	nt features,	, etc.
Hydrophytic vegeta	ation present?	Yes						
Hydric soil present	?	Yes	ls th	e Sampled	Area withir	n a Wetland?	Vos	
Indicators of wetla	nd hydrology present?	Yes	15 11	e oumpieu	Alca within		163	
Remarks:								
		Bottom	nland hardwoo	ods habitat				
HYDROLOGY								
Wetland Hydrology In	ndicators:							
Primary Indicators (min	nimum of one is requir	ed; check all th	at ap	<u>S</u>	econdary Ind	<u>dicators (minimu</u>	m of two req	<u>uired)</u>
X Surface Water (A1)		Aquatic F	auna (B13)		Surfac	ce Soil Cracks (B6	3)	
X High Water Table (A	42)	Marl Depo	osits (B15) (LRR	U)	Spars	sely Vegetated Concave Surface (B8)		
X Saturation (A3)		Hydrogen	Sulfide Odor (C	1)	Draina	age Patterns (B10	atterns (B10)	
X Water Marks (B1)		v Oxidized	Rhizospheres or	Livina	X Dry-Se	ry-Season Water Table (C2)		
X Sediment Deposits	(B2)	Roots (C3	3)	Ū	Moss	Moss Trim Lines (B16)		
Drift Deposits (B3)		Presence	of Reduced Iron	(C4)	X Crayfish Burrows (C8)			
Algal Mat or Crust (B4)	Recent Ire	on Reduction in ⁻	Filled	Satura	ation Visible on Ae	erial Imagery	(C9)
Iron Deposits (B5)		Soils (C6))		X Geomorphic Position (D2)			
Inundation Visible o	n Aerial Imagery (B7)	Thin Mucl	k Surface (C7)		Shallow Aquitard (D3)			
X Water-Stained Leav	/es (B9)	Other (Ex	plain in Remarks	in in Remarks) X FAC-Neutral Test (D5)				
					χ Sphag	gnum moss (D8) (LRR T, U)	
Field Observations:								
Surface water present	? Yes X	No De	pth (inches):	0		Wotland		
Water table present?	Yes X	No De	pth (inches):	3		Hvdrology	Yes	
Saturation present?	Yes X	No De	pth (inches):	0		Present?		
(includes capillary fring	je)							
Describe recorded dat	a (stream gauge, mon	itoring well, aeı	rial photos, prev	ious inspecti	ions), if avail	able:		
Remarks:								
FAC-Neutral test	- 5:0							

	Absolute	Dominan	Indicator	Dominance Test Worksheet
Tree Stratum (Plot size: 30)	% Cover	t Species	Staus	Number of Dominant
1 Quercus nigra	30	Y	FAC	FACW, or FAC: 7 (A)
2 Magnolia virginiana	12	Y	FACW	Total Number of Dominant
3 Acer rubrum	8	N	FAC	Species Across all Strata: 7 (B)
4 Nyssa sylvatica	8	Ν	FAC	Percent of Dominant Species
5				that are OBL, FACW, or
6				FAC: 100.00% (A/B)
7				
8				
	58	= Total Cove	r	
50% of total cover: 29	20% of to	otal cover:	11.6	Prevalence Index Worksheet
				Total % Cover of:
Sapling/Shrub Stratun (Plot size: 30)			OBL species 0 x 1 = 0
1 Sabal minor	45	Y	FACW	FACW species 77 x 2 = 154
2 Ilex opaca	15	<u>Y</u>	FAC	FAC species $66 \times 3 = 198$
3 Nyssa sylvatica	5	<u> </u>	FAC	FACU species $0 \times 4 = 0$
4		. <u> </u>		$\begin{array}{c} \text{OPL species} & 0 & \text{X} \text{ 5} = & 0 \\ \text{Column totals} & 142 & (\text{A}) & -352 & (\text{P}) \end{array}$
5		·		$\begin{array}{c} \text{Column totals} \underline{143} (A) \underline{332} (B) \\ \end{array}$
7				Prevalence Index = $B/A = 2.46$
8				<u> </u>
	65	= Total Cove		
50% of total cover: 32.5	20% of to	tal cover:	13	Hydrophytic Vegetation Indicators:
	2070 01 10	-	10	Rapid test for hydrophytic vegetation
Herb stratum (Plot size: 30	`			X Dominance tect is >50%
1 Sabal minor) 10	Y	FACW	X Prevalence index is <3.0*
2 Chasmanthium laxum	5	Y	FACW	Problematic hydrophytic
3				vegetation* (explain)
4				*Indicators of hydric soil and wetland hydrology must
5				be present, unless disturbed or problematic
6				Definitions of Five Vegetation Strata
7				Tree - Woody plants, excluding woody vines,
8				approximately 20 ft (6m) or more in height and
9				less than 3 in. (7.6 cm) DBH.
10				
11				Sapling/Shrub - Woody plants, excluding vines,
12	15	= Total Covo		liess than 3 in. DBH and greater than 3.26 ft (1m) tall
50% of total cover: 7.5	20% of to	otal cover	3	
	_0,0 01 k		~	nerb - All nerbaceous (non-woody) plants,
Woody vine stratum (Plot size: 30)			and woody plants, except woody vines, less than
1 Smilax laurifolia	5	Y	FACW	approximately 3 ft (1 m) in height.
2				Woody vine - All woody vines, regardless of
3				height.
4				
5				Hydrophytic
	5	= Total Cove	r	Vegetation Yes
50% of total cover: 2.5	20% of to	otal cover:	1	Present?
Remarks: (If observed, list morphological a	adaptation	s below).		
	-	,		

SOIL							:	Sampling Point:	SP13		
Profile Des	cription: (Describe	to the c	lepth ne	eded to d	docume	nt the indica	ator or confirm t	he absence o	f indicators.)		
Depth	Matrix				Redox	x Features					
(Inches)	Color (moist)	%	Color	(moist)	%	Type*	Loc**	Texture	Remarks		
0-5	10YR 4/2	98	10Y	R 4/6	2	С	PL	silty loam			
5-16	10YR 6/2	90	10Y	R 5/6	10	С	PL	silty loam			
*Type: C = 0	Concentration, D = D	epletion	, RM = R	educed N	/latrix, M	S = Masked	Sand Grains.	**Location: P	PL = Pore Lining, M = Matrix		
Hydric So	oil Indicators:							Indicators fo	r Problematic Hydric Soils:		
Hist	isol (A1)			Polyva	alue Belo	w Surface (S	8) (LRR S, T, U)	1 cm Muc	ck (A9) (LRR O)		
Hist	ic Epipedon (A2)			Thin [Dark Surf	ace (S9) (LR	R S, T, U)	2 cm Muc	ck (A10) (LRR S)		
Blac	ck Histic (A3)			Loam	y Mucky	Mineral (F1)	Reduced	Vertic(F18) (outside MLRA 150A,B)		
Hyd	rogen Sulfide (A4)			Loam	y Gleyeo	d Matrix (F2)		Piedmont	t Floodplain Soils (F19) (LRR P, S, T)		
Stra	tified Layers (A5)			X Deple	eted Mat	rix (F3)		Anomolo	us Bright Loamy Soils (F20) (MLRA		
Org	anic Bodies (A6) (LR	R P, T, I	U) _	Redo	x Dark S	Surface (F6)		153B)			
5 cn	n Mucky Mineral (A7)) (LRR I	P, T, U)	Deple	eted Dark	k Surface (F	7)	Red Parent Material (TF2)			
Muc	ck Presence (A8) (LR	RU)	_	Redo	x Depres	ssions (F8)		Very Shallow Dark Surface (TF12)			
1 cn	n Muck (A9) (LRR P,	T)	_	Marl ((F10) (LF	RR U)		Other (ex	plain in remarks)		
Dep	leted Below Dark Su	rface (A	11)	Deple	ted Ochr	ic (F11) (MLF	RA 151)				
Thic	k Dark Surface (A12)	_	Iron-N	langane	ese Masses ((F12) (LRR O, P,	Т)	*Indicators of hydrophytic vegetation		
Coa	st Prairie Redox (A1	6) (MLR	A 150A)	Umbr	ic Surfac	ce (F13) (LR	(LRR P, T, U) and weltand hydrology must be prese				
San	dy Mucky Mineral (S	1) (LRR	O, S)	Delta	F17) (MLRA	151)		unless disturbed or problematic			
Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B)											
San	dy Redox (S5)		_	Piedn	nont Floo	odplain Soils	(F19) (MLRA 14	9A)			
Strip	oped Matrix (S6)		_	Anom	iolous Bi	right Loamy	Soils (F20) (MLR	A 149A, 153C,	, 153D)		
Darl	k Surface (S7) (LRR	P, S, T,	U)								
Postriotivo	Lavor (if cheaned)						[
	Layer (ii observeu)	•					Hydric Soi				
туре. <u> </u>	Depth (inches)	:					Present?	Yes			

Remarks:

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region Colvell 420-Acre Site Project/Site City/County: Colyell/Livingston Sampling Date: 2/18/2019 Sampling Point: Applicant/Owner: Weyerhaeuser NR Company State: Louisiana SP14 Curt Schaeffer, Cal Fontenot Investigator(s): Section, Township, Range: S1, T7S, R4E Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): Bottom Slope (%): none none Subregion (LRR or MLRA): 30.463850° LRR-P Lat: (-) 90.757351° Datum: NAD83 Long: Soil Map Unit Name Colyell silt loam, 1 to 3 percent slope, rarely flooded NWI Classification: N/A Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks) Are vegetation , soil , or hydrology significantly disturbed? Are "normal circumstances" present? Yes , or hydrology naturally problematic? (If needed, explain any answers in remarks.) Are vegetation , soil SUMMARY OF FINDINGS -- Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic vegetation present? Yes Hydric soil present? Yes Is the Sampled Area within a Wetland? Yes Indicators of wetland hydrology present? Yes Remarks: Mixed pine hardwoods HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that ap Secondary Indicators (minimum of two required) X Surface Water (A1) Aquatic Fauna (B13) Surface Soil Cracks (B6) Marl Deposits (B15) (LRR U) High Water Table (A2) Sparsely Vegetated Concave Surface (B8) X Saturation (A3) Hydrogen Sulfide Odor (C1) Drainage Patterns (B10) X Water Marks (B1) Dry-Season Water Table (C2) X Oxidized Rhizospheres on Living Sediment Deposits (B2) Roots (C3) Moss Trim Lines (B16) Drift Deposits (B3) Presence of Reduced Iron (C4) Crayfish Burrows (C8) Algal Mat or Crust (B4) Saturation Visible on Aerial Imagery (C9) Recent Iron Reduction in Tilled Iron Deposits (B5) Soils (C6) Geomorphic Position (D2) Inundation Visible on Aerial Imagery (B7) Thin Muck Surface (C7) Shallow Aquitard (D3) Other (Explain in Remarks) Water-Stained Leaves (B9) X FAC-Neutral Test (D5) Sphagnum moss (D8) (LRR T, U) Field Observations: Surface water present? Yes No Depth (inches): 0 Wetland Х 0 Yes Water table present? Yes No Depth (inches): Hydrology 0 Saturation present? Yes Х No Depth (inches): Present? (includes capillary fringe) Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: FAC-Neutral test - 2:0

	Absolute	Dominan	Indicator	Dominance Test Worksheet
Tree Stratum (Plot size: 30)	% Cover	t Species	Staus	Number of Dominant
1 Triadica sebifera	15	Y	FAC	FACW. or FAC: 6 (A)
2 Liquidambar styraciflua	8	Y	FAC	Total Number of Dominant
3 Pinus taeda	8	Y	FAC	Species Across all Strata: 6 (B)
4 Quercus nigra	5	N	FAC	Percent of Dominant Species
5				that are OBL, FACW, or
6				FAC: 100.00% (A/B)
7				
8				
	36	= Total Cove	r	
50% of total cover: 18	20% of to	otal cover:	7.2	Prevalence Index Worksheet
		-		Total % Cover of
Sapling/Shrub Stratun (Plot size: 30	\			OBI species 65 x 1 = 65
<u>Saping/Sindo Stratun</u> (Flot size. <u>50</u>) 20	v	FAC	$CBL species 0.5 \times 1 = 0.5$
2 Sabal minor	5		FACW	FAC species 74 x 3 = 222
3 Ligustrum sinense	3	<u></u> N	FAC	FACU species $0 \times 4 = 0$
4 Pinus taeda	3	N	FAC	UPL species $0 \times 5 = 0$
5				Column totals 159 (A) 327 (B)
6				
7				Prevalence Index = $B/A = 2.06$
8				
	31	= Total Cove	r	
50% of total cover: 15.5	20% of to	tal cover:	62	Hydrophytic Vegetation Indicators:
	2070 01 10		0.2	Ranid test for hydrophytic vegetation
	`			
Herb stratum (Plot size: 30) 10	V		X Dominance test is >50%
Eleocharis obtusa	40	Y		\times Prevalence index is ≤ 3.0
2 Alternanthera philoxeroides	10	T		Problematic hydrophytic
Juncus marginatus	12	N	FAC	
5 Carex lunulina	7	N		*Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic
6 Chasmanthium layum	5	N	FACW	Definitions of Five Vegetation Strata
7 Pluchea foetida	3	N		
8				Tree - Woody plants, excluding woody vines,
۵				less than 3 in (7.6 cm) DBH
10				
11				Continer(Charte Mission Jack and a state
12				Sapility/Sillub - Woody plants, excluding villes, less than 3 in DBH and greater than 3 26 ft (1m)
	92	= Total Cove	r	tall
50% of total cover: 46	20% of to	tal cover:	18.4	Herb - All berbaceous (non-woody) plants
		-		including herbaceous vines, regardless of size.
Woody vine stratum (Plot size: 30)			and woody plants, except woody vines, less than
1				approximately 3 ft (1 m) in height.
2				Woody vine - All woody vines, regardless of
3				height.
4				
5				Hydrophytic
	0	= Total Cove	r	Vegetation Yes
50% of total cover: 0	20% of to	otal cover:	0	Present?
Remarks: (If observed, list morphological	adaptation	s below)		
	aaptation	5 5510WJ.]
L				

s	cription: (Describe to the c	depth needed to document the indicator o
	Matrix	Redox Features

Depth	Matrix				Redo:	<u>x Features</u>				
(Inches)	Color (moist)	%	Color (r	Color (moist) % Type* Loc**					Remarks	
0-6	10YR 4/2	93	10YR	6/2	5	D	М	silt loam		
			10YR	4/6	2	С	PL	silt loam		
6-16	10YR 6/2	90	10YR	5/6	10	С	PL	silt loam		
Type: C = C	concentration, D = D	epletion	RM = Re	duced N	/latrix, M	IS = Masked	Sand Grains.	**Location: F	PL = Pore Lining, M = Matrix	
Hydric So	il Indicators:							Indicators for	or Problematic Hydric Soils:	
Histi	sol (A1)			Polyva	alue Belo	ow Surface (S	68) (LRR S, T, U)	1 cm Mu	ck (A9) (LRR O)	
Histic	c Epipedon (A2)			Thin [Dark Surf	face (S9) (LR	R S, T, U)	2 cm Muck (A10) (LRR S)		
Black	k Histic (A3)			Loam	y Mucky	/ Mineral (F1)	Reduced	Vertic(F18) (outside MLRA 150A,B)	
Hydr	ogen Sulfide (A4)			Loam	y Gleye	d Matrix (F2)		Piedmon	t Floodplain Soils (F19) (LRR P, S, T)	
Strat	ified Layers (A5)		X	Deple	eted Mat	rix (F3)		Anomolo	us Bright Loamy Soils (F20) (MLRA	
Orga	inic Bodies (A6) (LR	R P, T, I	J)	Redo	x Dark S	Surface (F6)		153B)		
5 cm	Mucky Mineral (A7)) (LRR I	P, T, U)	Deple	eted Dar	k Surface (F	7)	Red Pare	ent Material (TF2)	
Mucł	k Presence (A8) (LR	RU)		Redo	x Depre	ssions (F8)		Very Shallow Dark Surface (TF12)		
1 cm	Muck (A9) (LRR P,	T)		Marl ((F10) (L l	RR U)		Other (ex	xplain in remarks)	
Depl	eted Below Dark Su	rface (A	11)	Deple	ted Ochr	ric (F11) (MLF	RA 151)			
Thick	k Dark Surface (A12)		Iron-N	/langane	ese Masses ((F12) (LRR O, P,	T)	*Indicators of hydrophytic vegetation	
Coas	st Prairie Redox (A1	6) (MLR	A 150A)	Umbr	ic Surfa	ce (F13) (LR	R P, T, U)		and weltand hydrology must be present	
Sand	ly Mucky Mineral (S	1) (LRR	O, S)	Delta	Ochric ((F17) (MLRA	151)		unless disturbed or problematic	
Sand	ly Gleyed Matrix (S4	4)		Redu	ced Verl	tic (F18) (ML	RA 150A, 150B)			
Sand	ly Redox (S5)			Piedn	nont Flo	odplain Soils	(F19) (MLRA 1 4	I9A)		
Stripped Matrix (S6)					Anomolous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)					

Sampling Point: SP14

Restrictive Layer (if observed): Type: Depth (inches):	Hydric Soil Present?	Yes
Remarks:		

SOIL

Project/Site	Colyell 420-Acre Site		City/County: Colyell/Liv		ngston S	on Sampling Date:		2/18/2019	
Applicant/Owner:	Weyerhaeuser NR Company		State: Louis		ana Sampling Point:		SP15		
Investigator(s):	Curt Schaeffer, (Section	Section, Township, Range: S1, T7S, R4E						
Landform (hillslope, ter	race, etc.):	terrace	Local relief	(concave, co	onvex, none):	Convex	Slope (%):	2	
Subregion (LRR or ML	RA): LRR-P	Lat:	30.464017°	Long:	(-) 9	90.756988°	Datum:	NAD83	
Soil Map Unit Name Colyell silt loam, 1 to 3 percent slope			opes, rarely floo	oded N	WI Classifica	ation:	N/A		
Are climatic/hydrologic conditions of the site typical for this time of the year? Yes (If no, explain in remarks)									
Are vegetation, soil, or hydrologysignificantly disturbed? Are "normal circumstances" present? Yes									
Are vegetation	_, soil, o	r hydrology	naturally pr	oblematic?	(If needed	l, explain any an	swers in rem	narks.)	
SUMMARY OF FIN	DINGS Attach	site map sho	wing samplin	g point loca	ations, tran	sects, importa	nt features	, etc.	
Hydrophytic vegeta	ation present?	Yes							
Hydric soil present?		Yes	ls th	is the Sampled Area within a Wetland? No					
Indicators of wetland hydrology present?		No							
Remarks:									
		Mixed	l pine/hardwo	ods edge					
HYDROLOGY									
Wetland Hydrology In	dicators:								
Primary Indicators (min	imum of one is requir	ed; check all th	at ap	<u>s</u>	econdary Ind	dicators (minimu	<u>m of two req</u>	uired)	
Surface Water (A1)		Aquatic Fa	auna (B13)	a (B13)		Surface Soil Cracks (B6)			
High Water Table (A2)		Marl Depo	osits (B15) (LRR	ts (B15) (LRR U)		Sparsely Vegetated Concave Surface (B8)			
Saturation (A3)		Hydrogen Sulfide Odor (C1)		:1)	Draina	Drainage Patterns (B10)			
Water Marks (B1)		Oxidized Rhizospheres o		n Livina	Dry-Season Water Table (C2)				
Sediment Deposits (B2)		Roots (C3	3)			Vloss Trim Lines (B16)			
Drift Deposits (B3)		Presence of Reduced Iron (C4		n (C4)	Crayfish Burrows (C8)				
Algal Mat or Crust (B4)		Recent Irc	n Reduction in	Tilled	Saturation Visible on Aerial Imagery (C9)				
Iron Deposits (B5)		Soils (C6))	Thea	Geomorphic Position (D2)				
Inundation Visible on Aerial Imagery (B7)		Thin Muck	k Surface (C7)	face (C7)		w Aquitard (D3)			
Water-Stained Leaves (B9)		Other (Explain in Remarks)		s)	FAC-Neutral Test (D5)				
				,	Sphag	Sphagnum moss (D8) (LRR T, U)			
Field Observations:									
Surface water present?	Yes	No X Depth (inches):				Wotland			
Water table present?	Yes	No X De	pth (inches):		Hydrology No Present?				
Saturation present? (includes capillary fring	Yes	No X De	pth (inches):						
Describe recorded data	a (stream gauge, mon	itoring well, aer	rial photos, prev	ious inspecti	ions), if availa	able:			
	r (oli ourri gaugo, morr	tioning tron, doi	nai priotoo, pro-		ionoj, ir araid				
Remarks:]	
FAC-Neutral test -	. 1.1								
	±.±								
VEGETATION -- Use scientific names of plants.

Sampling Point: SP15

	Absolute	Dominan	Indicator	Dominance Test Worksheet					
Tree Stratum (Plot size: 30)	% Cover	t Species	Staus	Number of Dominant					
1 Pinus taeda	15	Y	FAC	FACW or FAC: 6 (A)					
2 Quercus virginiana	8	Y	FACU	Total Number of Dominant					
3 Liquidambar styraciflua	5	N	FAC	Species Across all Strata: 7 (B)					
4 Quercus nigra	5	N	FAC	Bereant of Dominant Species					
5				that are OBL_EACW_or					
6				FAC: 85.71% (A/B)					
7				、 ,					
8									
	33 = Total Cover								
50% of total cover: 16.5	20% of total cover: 6.6		6.6	Prevalence Index Worksheet					
			0.0	Total % Cover of:					
				lotal % Cover of:					
Sapling/Shrub Stratun (Plot size: 30)			OBL species $0 \times 1 = 0$					
1 Triadica sebifera	20	Y	FAC	FACW species $20 \times 2 = 40$					
2 Morella cerifera	15	Y	FAC	FAC species $116 \times 3 = 348$					
3 Ilex Vomitoria		<u> </u>	FAC	FACU species $8 \times 4 = 32$					
4 Liquidambar styracifiua		<u> </u>	FAC	$\begin{array}{c} \text{OPL species} & 0 & \text{X 5} = & 0 \\ \text{Oplume tatals} & \hline 111 & \hline 120 & $					
5 Pinus taeda	<u> </u>	<u> </u>	FAC	Column totals 144 (A) 420 (B)					
6 Quercus higra	5	<u> </u>		Drevelence index = $D/A = -2.02$					
	5	N	FACW	Prevalence index = $B/A = 2.92$					
8									
	69	= Total Cove	r						
50% of total cover: 34.5	20% of to	otal cover:	13.8	Hydrophytic Vegetation Indicators:					
				Rapid test for hydrophytic vegetation					
Herb stratum (Plot size: 30)			X Dominance test is >50%					
1 Chasmanthium laxum	15	Y	FACW	X Prevalence index is ≤3.0*					
2 Pinus taeda	5	Y	FAC	Problematic hydrophytic					
3 Andropogon virginicus	2	Ν	FAC	vegetation* (explain)					
4				*Indicators of hydric soil and wetland hydrology must					
5				be present, unless disturbed or problematic					
6				Definitions of Five Vegetation Strata					
7				Tree- Woody plants, excluding woody vines,					
8				approximately 20 ft (6m) or more in height and					
9				less than 3 in. (7.6 cm) DBH.					
10									
11				Sapling/Shrub - Woody plants, excluding vines,					
12				less than 3 in. DBH and greater than 3.26 ft (1m)					
	22	= Total Cove	r	tall					
50% of total cover: 11	20% of to	otal cover:	4.4	Herb - All herbaceous (non-woody) plants,					
				including herbaceous vines, regardless of size,					
Woody vine stratum (Plot size: 30)			and woody plants, except woody vines, less than					
1 Rubus argutus	20	Y	FAC	approximately 3 ft (1 m) in height.					
2 Smilax lauritolia	5	<u>N</u>	FACW	height					
3 Lygodium japonicum	3	<u>N</u>	FAC	noight.					
4									
J				Hydrophytic					
	28	= Total Cove	r	Vegetation Yes					
50% of total cover: 14	20% of total cover: 5.6			Present?					
Remarks: (If observed, list morphological adaptations below).									
		/							

SOIL						S	Sampling Point:	SP15
Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth	Matrix		Redox Features					
(Inches)	Color (moist)	%	Color (moist)	%	Type*	Loc**	Texture	
0.10	10VP 4/2	08	10VP 6/2	2	р	M	cilt loom	

(Inch Texture Remarks silt loam 0-10 10-16 10YR 6/2 88 10YR 5/6 10 С Μ silt loam 10YR 4/2 2 D Μ silt loam Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. **Location: PL = Pore Lining, M = Matrix **Hydric Soil Indicators:** Indicators for Problematic Hydric Soils: Histisol (A1) 1 cm Muck (A9) (LRR O) Polyvalue Below Surface (S8) (LRR S, T, U) Thin Dark Surface (S9) (LRR S, T, U) 2 cm Muck (A10) (LRR S) Histic Epipedon (A2) Reduced Vertic(F18) (outside MLRA 150A,B) Black Histic (A3) Loamy Mucky Mineral (F1) Hydrogen Sulfide (A4) Piedmont Floodplain Soils (F19) (LRR P, S, T) Loamy Gleyed Matrix (F2) X Depleted Matrix (F3) Stratified Layers (A5) Anomolous Bright Loamy Soils (F20) (MLRA 153B) Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) 5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) Red Parent Material (TF2) Muck Presence (A8) (LRR U) Redox Depressions (F8) Very Shallow Dark Surface (TF12) 1 cm Muck (A9) (LRR P, T) Marl (F10) (LRR U) Other (explain in remarks) Depleted Ochric (F11) (MLRA 151) Depleted Below Dark Surface (A11) Iron-Manganese Masses (F12) (LRR O, P, T) Thick Dark Surface (A12) *Indicators of hydrophytic vegetation Coast Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U) and weltand hydrology must be present, unless disturbed or problematic Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) Reduced Vertic (F18) (MLRA 150A, 150B) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Stripped Matrix (S6) Anomolous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U)

Restrictive Layer (if observed): Type:	Hydric Soil Yos
Depth (inches):	Present?
Remarks:	

SOIL

APPENDIX B PHOTOGRAPHIC LOG



Photograph 1: SP1 soil profile.



Photograph 2: SP1 overview looking north.



Photograph 3: SP1 overview looking east.



Photograph 4: SP1 overview looking south.



Photograph 5: SP1 overview looking west.



Photograph 6: SP2 soil profile.



Photograph 7: SP2 overview looking north.



Photograph 8: SP2 overview looking east.



Photograph 9: SP2 overview looking south.



Photograph 10: SP2 overview looking west.



Photograph 11: SP3 soil profile.



Photograph 12: SP3 overview looking north.



Photograph 13: SP3 overview looking east.



Photograph 14: SP3 overview looking south.



Photograph 15: SP3 overview looking west.



Photograph 16: SP4 soil profile.



Photograph 17: SP4 overview looking north.



Photograph 18: SP4 overview looking south.



Photograph 19: SP4 overview looking west.



Photograph 20: SP5 soil profile.



Photograph 21: SP5 overview looking north.



Photograph 22: SP5 overview looking east.



Photograph 23: SP5 overview looking south.



Photograph 24: SP5 overview looking west.



Photograph 25: SP6 soil profile.



Photograph 26: Overview looking north







Photograph 29: SP6 overview looking west.



Photograph 30: SP7 soil profile.



Photograph 31: SP7 overview looking north.



Photograph 32: SP7 overview looking east.



Photograph 33: SP7 overview looking south.



Photograph 34: SP7 overview looking west.



Photograph 35: SP8 soil profile.



Photograph 36: SP8 overview looking north.



Photograph 37: SP8 overview looking east.



Photograph 38: SP8 overview looking south.



Photograph 39: SP8 overview looking west.



Photograph 40: SP9 soil profile.



Photograph 41: SP9 overview looking north.



Photograph 42: SP9 overview looking east.



Photograph 43: SP9 overview looking south.



Photograph 44: SP9 overview looking west.



Photograph 45: SP10 soil profile.



Photograph 46: SP10 overview looking north.



Photograph 47: SP10 overview looking east.



Photograph 48: SP10 overview looking south.



Photograph 49: SP10 overview looking west.



Photograph 50: SP11 soil profile.



Photograph 51: SP11 overview looking north.



Photograph 52: SP11 overview looking east.



Photograph 53: SP11 overview looking south.



Photograph 54: SP11 overview looking west.



Photograph 55: SP12 soil profile.



Photograph 56: SP12 overview looking north.



Photograph 57: SP12 overview looking east.



Photograph 58: SP12 overview looking south.



Photograph 59: SP12 overview looking west.



Photograph 60: SP13 soil profile.



Photograph 61: SP13 overview looking north.



Photograph 62: SP13 overview looking east.



Photograph 63: SP13 overview looking south.



Photograph 64: SP13 overview looking west.



Photograph 65: SP14 soil profile.



Photograph 66: SP14 overview looking north.


Photograph 67: SP14 overview looking east.



Photograph 68: SP14 overview looking south.



Photograph 69: SP14 overview looking west.



Photograph 70: SP15 soil profile.



Photograph 71: SP15 overview looking north.



Photograph 72: SP15 overview looking east.



Photograph 73: SP15 overview looking south.



Photograph 74: SP15 overview looking west.



Photograph 75: Little Colyell Creek (R4SBC) looking northeast.



Photograph 76: Little Colyell Creek (R4SBC) looking southwest.



Photograph 77: Little Colyell (R4SBC) Creek looking southwest.



Photograph 78: Little Colyell Creek (R4SBC) looking southwest.



Photograph 79: Central lake (PUB3Hx) looking north.



Photograph 80: Central lake (PUB3Hx) looking east.



Photograph 81: Central lake (PUB3Hx) looking south.



Photograph 82: Northern lake (PUB3Hx) looking northeast.



Photograph 83: Northern lake (PUB3Hx) looking north.



Photograph 84: Northern lake (PUB3Hx) looking northwest.



Photograph 85: PUB3Fx drain to Little Colyell Creek looking south.



Photograph 86: PUB3Fx drain to Little Colyell Creek looking south.



Photograph 87: Drain (PUB3Fx) in southwest corner of AOI.



Photograph 88: Drain (PUB3Fx) in southwest corner of AOI.



Photograph 89: Drain (PUB3Fx) in southwest corner of AOI.



Photograph 90: Drain (PUB3Fx) in southwest corner of AOI.



Photograph 91: Linear canal (PUB3Hx) along eastern boundary AOI.



Photograph 92: Linear canal (PUB3Hx) along eastern boundary AOI.



Photograph 93: Linear canal (PUB3Hx) along eastern boundary AOI.



Photograph 94: Linear canal (PUB3Hx) along eastern boundary AOI.



Photograph 95: Six 24-inch culverts from lake to east and canal along eastern boundary.



Photograph 96: Linear canal (PUB3Hx) in northeast corner of AOI.



Photograph 97: Linear canal (PUB3Hx) in northeast corner of AOI.



Photograph 98: Drain from linear canal (PUB3Fx) to eastern canal in northeast corner of AOI.