

September 06, 2016

Mr. Tommy Cousins
Palustrine Group, LLC
PO Box 71795
North Charleston, SC 29415



**Subject: Present Conditions Report
Bass Drive Tract
Project Soter – Landscape Mitigation Plan
Orangeburg County, South Carolina
Amec Foster Wheeler Project No. 6250-15-0096.05**

Dear Mr. Cousins:

Amec Foster Wheeler Environment & Infrastructure, Inc. (Amec Foster Wheeler) is pleased to present this Present Conditions Report for the Bass Drive Tract, associated with the Project Soter – Landscape Mitigation Plan, located in Orangeburg County, South Carolina.

The Bass Drive Tract (Site) consists of a portion of one parcel of land designated as Orangeburg County Tax Map Number 0314-00-00-001.000 and is 87.62.14 acres in size. The Site is located along the northwest side of US Highway 15 (Bass Drive), approximately one mile southwest of the intersection of Bunch Ford Road (South Carolina Highway 314) and US Highway 15 (Bass Drive) in Orangeburg County, South Carolina. The site consists of undeveloped woodlands. The site was accessed from a gate along US 15, which is situated along the southeastern portion of the site. The site is bordered in each direction by undeveloped woodlands with agricultural cropland located further to the northeast of the Site.

Jurisdictional Waters of the U.S./Wetlands

Amec Foster Wheeler identified approximately 66.87 acres of jurisdictional waters of the US within the Site. The following table lists each water of the U.S./wetland feature within the Site and their corresponding size. All jurisdictional boundaries are subject to verification by the U.S. Army Corps of Engineers (USACE).

Table 1: Bass Drive Mitigation Parcel Wetland Areas

Cowardin Class	Map Name	Acreage
Upland	Upland	20.75 acres
Borrow Pit / Pond	Pond A	0.17 acres
Borrow Pit / Pond	Pond B	1.51 acres
Palustrine Forested Wetland	Wetland A	62.82 acres
Palustrine Forested Wetland	Wetland B	2.37 acres
Total Site Area:		87.62 acres

Wetlands within the property identified in August 2016 are all considered jurisdictional, associated with Four Hole Swamp and its floodplain. The approximate 66.87 acres of wetlands are all classified as palustrine forested wetlands, described as Bald Cypress / Tupelo gum swamp forest, pine flatwoods, gum depression, and borrow pits.

Existing Vegetation

The Natural Communities of South Carolina (Nelson 1986) was utilized to characterize the existing plant communities within the Bass Drive Site. Four predominant vegetative communities exist within the site: bald cypress-tupelo gum swamp, pine flatwoods, loblolly pine plantation, and gum depression.

Bald Cypress / Tupelo Gum Swamp

The Bald Cypress-Tupelo Gum Swamp community is located within the western half of the Bass Drive Parcel, and is associated with Four Hole Swamp. The community is dominated by an overstory of bald cypress (*Taxodium distichum*) and water tupelo (*Nyssa aquatica*), with scattered swamp chestnut oak (*Quercus michauxii*), sweet gum (*Liquidambar styraciflua*), red maple (*Acer rubrum*), green ash (*Fraxinus pennsylvanica*), swamp cottonwood (*Populus heterophylla*), and diamond leaf oak (*Quercus laurifolia*). The understory of this community is sparsely occupied by dwarf palmetto (*Sabal minor*) and saplings of overstory trees. An herbaceous layer is not present.

Pine Flatwoods

The terrace above Four Hole Swamp is dominated by a Pine flatwoods community that has a significant hardwood presence due to the lack of fire management. This community is a mosaic of wetlands and uplands with a greater pine presence in uplands, and more hardwood species in the wetlands. Dominant species observed within the overstory of this community include loblolly pine (*Pinus taeda*), sweetgum, diamond leaf oak (*Quercus laurifolia*), swamp chestnut oak, water oak (*Quercus nigra*), red maple, tulip poplar (*Liriodendron tulipifera*), black gum (*Nyssa sylvatica*). The understory includes young overstory trees, sweetbay magnolia (*Magnolia virginiana*), red bay (*Persea borbonia*), wax myrtle (*Morella cerifera*), American beautyberry (*Callicarpa americana*), buckeye (*Aesculus pavia*), spruce pine (*Pinus glabra*), ironwood (*Carpinus caroliniana*), American elm (*Ulmus americana*), winged elm (*Ulmus alata*), American holly (*Ilex opaca*), and fetterbush (*Lyonia lucida*). Herbaceous species include sedges (*Carex* sp.), lizard's tail (*Saururus cernuus*), false nettle (*Boehmeria cylindrica*), netted chain-fern (*Woodwardia areolata*), sensitive fern (*Onoclea sensibilis*), cinnamon fern (*Osmunda cinnamomea*), and various hydrophytic grasses

Loblolly Pine Plantation

A portion of the uplands in the eastern part of the Bass Drive Parcel has been planted in loblolly pine. This pine plantation contains even-aged planted loblolly pine. The loblolly pine plantation community overstory is dominated by established loblolly pine, however, occasional sweetgum individuals may also reach the canopy. The stand includes a mid-story, which is densely vegetated, and includes sweetgum, red maple, diamond-leaf oak, water oa), wax myrtle, blackberry (*Rubus* spp.), and sweetpepperbush (*Clethra alnifolia*). The herbaceous stratum is generally sparsely vegetated, but contains bracken fern (*Pteridium aquilinum*), partridge pea (*Chamaecrista fasciculata*), openflower rosette grass (*Dichanthelium laxiflorum*), Carolina elephantsfoot (*Elephantopus carolinianus*), and slender woodoats (*Chasmanthium laxum*). Typical vine species include muscadine (*Vitis*

rotundifolia), roundleaf greenbrier (*Smilax rotundifolia*), peppervine (*Ampelopsis arborea*), yellow jasmine (*Gelsemium sempervirens*), Virginia creeper (*Parthenocissus quinquefolia*), and trumpet creeper (*Campsis radicans*).

Gum Depression

A large gum depression is located in the eastern portion of the Bass Drive parcel. This community is dominated by an overstory of swamp tupelo (*Nyssa biflora*), swamp cottonwood, sweetgum, red maple, and diamond-leaf oak. The midstory includes younger hardwood species found in the overstory as well as wax myrtle, high bush blueberry (*Vaccinium corymbosum*), fetterbush, and sweet pepperbush. The herbaceous stratum is generally not well developed, but where present includes southern waxy sedge (*Carex glaucescens*) and cinnamon fern.

Existing Infrastructure

The Site is currently utilized for recreational activities. The Site was accessed from a gate along US 15, which is situated along the southeastern portion of the site. The site is bordered in each direction by undeveloped woodlands with agricultural cropland located further to the northeast of the Site. A network of unpaved forestry roads are located throughout the property. The main road within the Site has been washed out in several locations crossing portions of Four Hole Swamp. Corrugated stormwater culverts are located along this main road. In addition, two borrow pits/ponds, approximately 1.68 acres, were located around the main road. Tree-mounted hunting stands exist along the forestry roads as well.

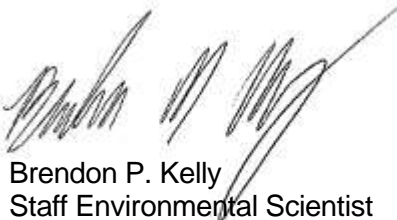
No additional infrastructure or impervious surfaces were identified within the proposed conservation easement.

CLOSING

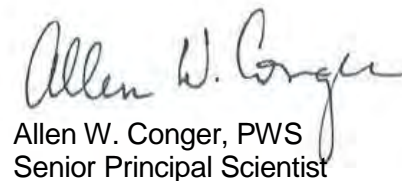
If you have any questions concerning this document, please contact Mr. Allen Conger at (803) 798-1200.

Sincerely,

AMEC FOSTER WHEELER ENVIRONMENT & INFRASTRUCTURE, INC.



Brendon P. Kelly
Staff Environmental Scientist



Allen W. Conger, PWS
Senior Principal Scientist

Attachments: Present Conditions Aerial Map
Photograph Appendix
Photograph Locations Map



Present Conditions Aerial Map

Bass Drive Tract
Orangeburg County,
South Carolina

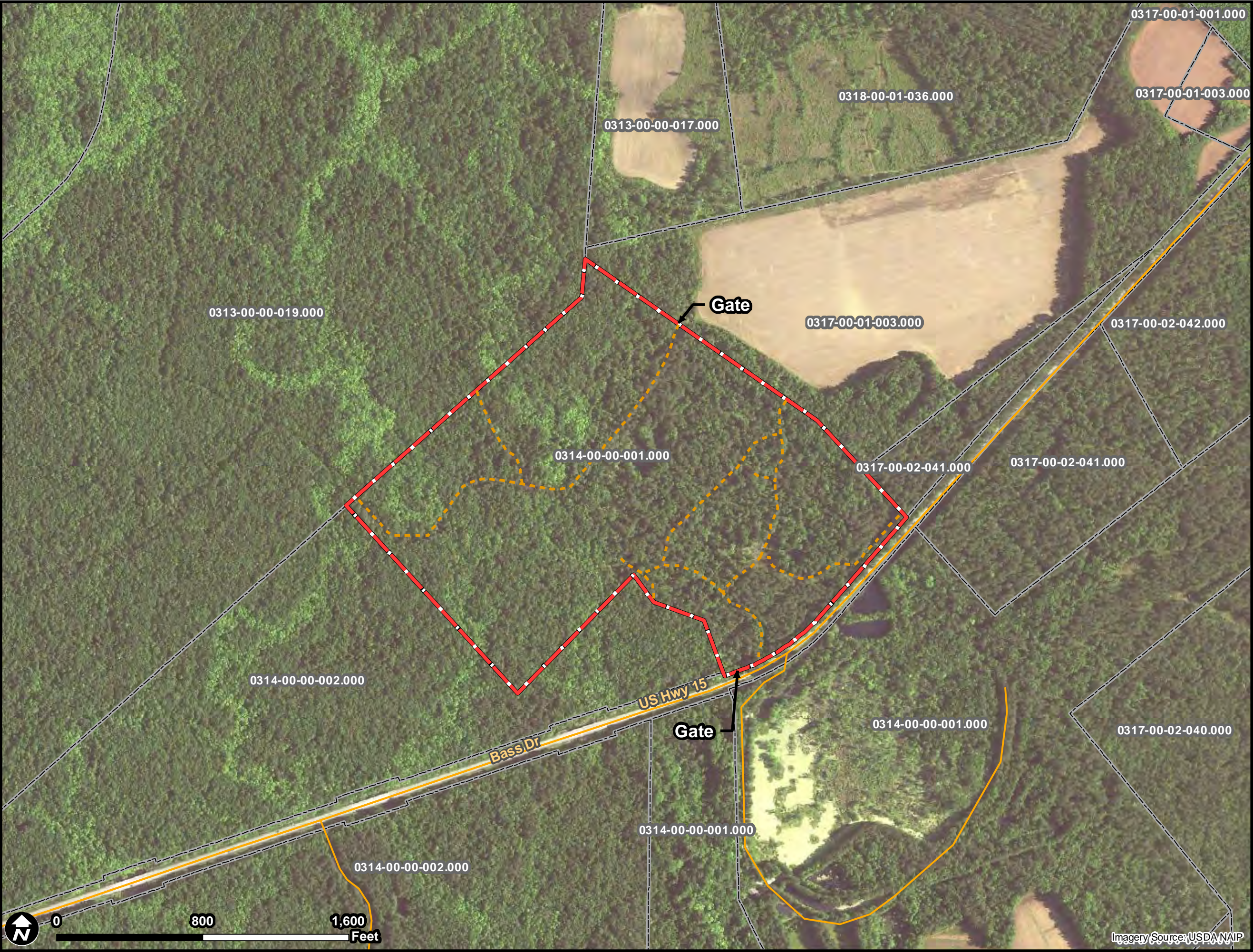
Legend

- Bass Drive Tract
- Roads
- Approximate Forestry Roads
- Parcels



Job No. 6250-15-0096.05
Drawn By: BWS
Reviewed By: BPK
Date: 9/7/2016

The map shown here has been created with all due and reasonable care and is strictly for use with Amec Foster Wheeler project number 6250150096.05. Amec Foster Wheeler assumes no liability, direct or indirect, whatsoever for any such third party or unintended use.




Bass Drive Tract Baseline Documentation Report
Orangeburg County, South Carolina
 Photographic Log


	PHOTOLOG SHEET
	Client: Berkeley County
	Site name: Bass Drive Tract
	Project: 6250150096.05
	Date: 9/2/2016
	Photo #: 1
	Photographer: Brett Sexton
	Description: Taken adjacent to borrow pit (Pond B). Taken from southeastern corner, facing west.
	Client: Berkeley County
	Site name: Bass Drive Tract
	Project: 6250150096.05
	Date: 9/2/2016
	Photo #: 2
	Photographer: Brett Sexton
	Description: Facing west near the forestry road running through the center of the site.

Bass Drive Tract Baseline Documentation Report
Orangeburg County, South Carolina
 Photographic Log

	PHOTOLOG SHEET
	Client: Berkeley County
	Site name: Bass Drive Tract
	Project: 6250150096.05
	Date: 9/2/2016
	Photo #: 3
	Photographer: Brett Sexton
	Description: Bald cypress-tupelo gum swamp located in the western portion of the tract. Taken facing southeast.
	Client: Berkeley County
	Site name: Bass Drive Tract
	Project: 6250150096.05
	Date: 9/2/2016
	Photo #: 4
	Photographer: Brett Sexton
	Description: Gum depression located in the eastern portion of the site. Taken from the edge of the depression, facing northwest.


Bass Drive Tract Baseline Documentation Report
Orangeburg County, South Carolina
 Photographic Log

	PHOTOLOG SHEET
	Client: Berkeley County
	Site name: Bass Drive Tract
	Project: 6250150096.05
	Date: 9/2/2016
	Photo #: 5
	Photographer: Brett Sexton
Description: Photo taken from Data Point #1, facing northeast into the uplands.	

	Client: Berkeley County
	Site name: Bass Drive Tract
	Project: 6250150096.05
	Date: 9/2/2016
	Photo #: 6
	Photographer: Brett Sexton
	Description: Photo taken from Data Point #1, facing southwest into the wetlands.

Bass Drive Tract Baseline Documentation Report
Orangeburg County, South Carolina
 Photographic Log

	PHOTOLOG SHEET
	Client: Berkeley County
	Site name: Bass Drive Tract
	Project: 6250150096.05
	Date: 9/2/2016
	Photo #: 7
	Photographer: Brett Sexton
Description: Facing southeast at pine flatwood uplands near the eastern portion of the site.	

	Client: Berkeley County
	Site name: Bass Drive Tract
	Project: 6250150096.05
	Date: 9/2/2016
	Photo #: 8
	Photographer: Brett Sexton
	Description: Facing southeast at pine flatwood uplands near the eastern portion of the site.

Bass Drive Tract Baseline Documentation Report
Orangeburg County, South Carolina
 Photographic Log



	PHOTOLOG SHEET
	Client: Berkeley County
	Site name: Bass Drive Tract
	Project: 6250150096.05
	Date: 9/2/2016
	Photo #: 9
	Photographer: Brett Sexton
	Description: Photo taken from Data Point #2, facing east towards the uplands.
	Client: Berkeley County
	Site name: Bass Drive Tract
	Project: 6250150096.05
	Date: 9/2/2016
	Photo #: 10
	Photographer: Brett Sexton
	Description: Photo taken from Data Point #2, facing west, into the wetlands.



Photo Location Map

**Bass Drive Tract
Orangeburg County,
South Carolina**

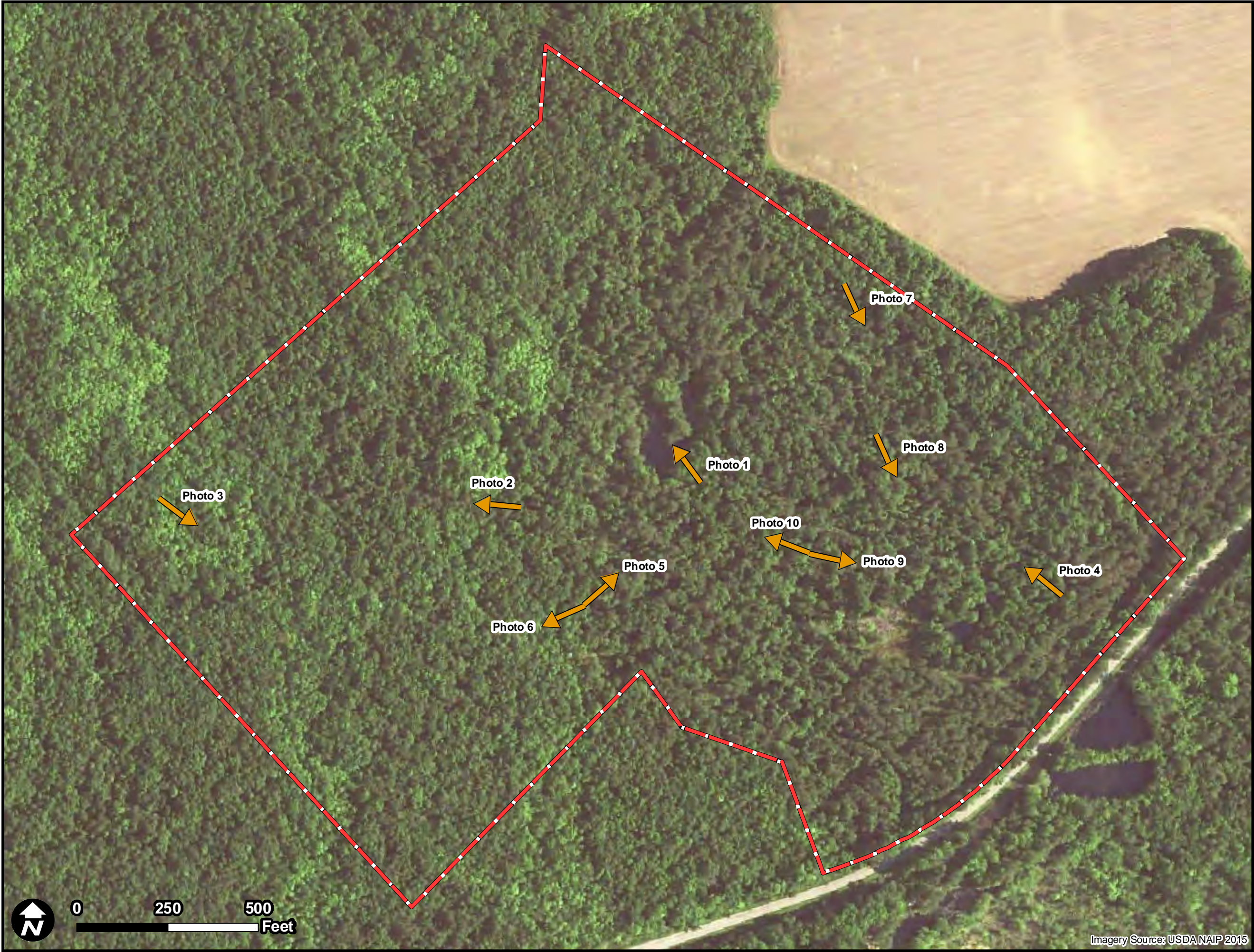
Legend

-  Bass Drive Tract
-  Photo Direction



Job No. 6250-15-0096.05
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Date: 9/7/2016

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Imagery Source: USDA NAIP 2015