

## **Appendix C**

Wetland Report

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**WETLAND EVALUATION  
COVE LANE/NELSON ROAD INTERCHANGE  
LAKE CHARLES, LOUISIANA**

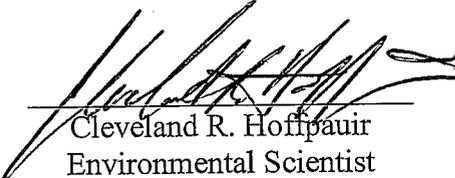
Prepared for:

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**September 11, 2012**



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## 1.0 SUMMARY

Ameristar Casino, in cooperation with the Louisiana Department of Transportation and Development is proposing possible modifications to Interstate 210, West Prien Lake Road, Nelson Road, and/or Cove Lane. The purpose of these modifications is to establish access to the future Ameristar Casino Resort.

A wetland evaluation was performed by Arabie Environmental Solutions, Inc. (Arabie Environmental) on August 21<sup>st</sup>, 22<sup>nd</sup>, and 27<sup>th</sup> 2012. The wetland evaluation was performed on all optional access routes for the future Ameristar Casino Resort. The majority of the project area has been impacted through the construction of Interstate 210, Nelson Road, West Prien Lake Road, and commercial development. Wetlands were identified on portions of the property where previous development did not occur.

The wetland evaluation performed by Arabie Environmental was based on the technical guidelines and methods for wetland delineations set forth by the U.S. Department of the Army Corps of Engineers (COE) in the 1987 Manual for Wetland Delineations. These technical guidelines and methods utilize a multi-parameter approach to identify and delineate wetlands for the purpose of Section 404 of the Clean Water Act.

According to the COE 1987 Manual for Wetland Delineations, a site must have hydrophytic vegetation, hydric soils, and wetland hydrology in order for it to be classified as a wetland.

The following definitions are from the COE 1987 Manual for Wetland Determinations:

**Hydrophytic vegetation** – the sum total of macrophytic plant life growing in water or on a substrate that is at least periodically deficient in oxygen as a result of excessive water content. When hydrophytic vegetation comprises a community where indicators of hydric soils and wetland hydrology also occur, the area has wetland vegetation.

**Wetland soils** – a soil that is saturated, flooded, ponded long enough during the growing season to develop anaerobic conditions that favor the growth and regeneration of hydrophytic vegetation (US Department of Agriculture – Soil Conservation Service 1985). Hydric soils that occur in areas having positive indicators of hydrophytic vegetation and wetland hydrology are wetland soils.

**Wetland hydrology** – the sum total of wetness characteristics in areas that are inundated or have saturated soils for sufficient duration to support hydrophytic vegetation.

## 2.0 FINDINGS

### 2.1 ALTERNATE 2

During the site inspection, thirteen sample plots were performed. At these sample locations, the soil, hydrology, and vegetation were inspected. The data collected was recorded on Wetland Data Forms. The Data Forms are included with this evaluation. In addition to sample plots, a transect was traversed in the area mapped as Mowata-Vidrine located north and east of the Weingarten Development property. Along the transect, the wetlands and non-wetlands were measured and the percentage of wetlands on this portion of the property was determined from the results. The Transect Form is included with this evaluation. In addition to the transect, a Global Positioning System (GPS) was utilized to map wetland/non-wetland areas. Once GPS mapping was completed, geospatial data was imported into Arc View GIS for graphical display and land cover analysis.

Photographs of the project area were taken and are also included with this evaluation. The findings of the site inspection are described in the following sections.

#### Vegetation

The typical dominant plant species that were encountered at the site include the following:

##### Facultative upland

*Cynodon dactylon* (Bermuda Grass)

*Carya illinoensis* (Pecan)

*Solidago altissima* (Tall Goldenrod)

*Callicarpa americana* (American Beautyberry)

*Quercus alba* (White Oak)

*Prunus serotina* (Black Cherry)

*Juniperus virginiana* (Eastern Red Cedar)

*Paspalum notatum* (Bahia Grass)

*Quercus falcate* (Southern Red Oak)

*Sassafras albidum* (Sassafras)

*Digitaria ciliaris* (Southern Crabgrass)

*Ambrosia artemisiifolia* (Annual Ragweed)

Facultative

*Quercus nigra* (Water Oak)  
*Smilax glauca* (Cat Greenbrier)  
*Ilex vomitoria* (Yaupon)  
*Lonicera japonica* (Japanese Honeysuckle)  
*Setaria verticillata* (Bristlegrass)  
*Triadica sebifera* (Chinese Tallow)  
*Liquidambar styraciflua* (Sweetgum)  
*Ligustrum sinense* (Chinese Privet)  
*Gelsemium sempervirens* (Yellow Jessamine)  
*Nyssa sylvatica* (Blackgum)  
*Toxicodendron radicans* (Poison Ivy)  
*Baccharis halimifolia* (Eastern Baccharis)  
*Vitis rotundifolia* (Muscadine)  
*Stenotaphrum secundatum* (St. Augustine Grass)  
*Pinus taeda* (Loblolly Pine)

Facultative Wet

*Axonopus fissifolius* (Carpet Grass)  
*Iva frutescens* (Jesuit's Bark)  
*Solidago sempervirens* (Seaside Goldenrod)

Obligate Wetland

*Taxodium distichum* (Bald Cypress)  
*Pluchea foetida* (Stinky Camphorweed)  
*Alternanthera philoxeroides* (Alligatorweed)

Soils

The review of the Soil Survey indicated that Alternate 2 is located on four soil types: Mowata-Vidrine silt loams (Mt), Crowley-Vidrine silt loams (Cr), Basile and Guyton silt loams, frequently flooded (BB), and Acadia silt loam, 1 to 3

percent slopes (Ac). Basile and Guyton silt loams and Mowata-Vidrine silt loams are listed as hydric soils in Calcasieu Parish.

Mowata-Vidrine silt loams are level and poorly drained and somewhat poorly drained. They are on broad flats on the Gulf Coast Prairies. The landscape consists of broad flats that have many small convex mounds. In many areas, the mounds have been smoothed. The mounds are circular and range from 50 to 150 feet in diameter and 1 to 6 feet in height before leveling. The Mowata soil is located in the intermound areas and comprises approximately 60% of the complex. The Vidrine soil is located on the mounds and comprises approximately 30% of the complex. According to the soil survey, areas are irregular in shape and range from 40 to 2,000 acres.

Crowley-Vidrine silt loams are level and somewhat poorly drained. They are on broad convex ridges on the Gulf Coast Prairies. This complex consist of small areas of Crowley and Vidrine soils that are so intermingled that they cannot be mapped separately at the scale selected. Areas are irregular in shape and range from 20 to 1,000 acres. The landscape consists of broad, convex ridges that contain many small convex mounds or mound areas that have been smoothed. The mounds are circular and range from 50 to 150 feet in diameter and 1 foot to 6 feet in height before leveling. Most areas have been leveled and have a slope of 0 to 1 percent.

Basile and Guyton silt loams, frequently flooded are level and poorly drained. They are on the flood plains of narrow streams that drain the terrace uplands. Areas are long and narrow and range from 30 to over 2500 acres. Most mapped areas contain both soils in varying proportions, but some areas contain only one of the soils. In areas that contain both soils the Guyton soil is in slightly higher positions than the Basile soil. Floodwater frequently covers these soils to a depth of 1 foot to 6 feet for periods up to 10 days, mostly in winter and spring. The mapped areas contain 55 percent Basile soil and about 25 percent Guyton soil.

Acadia silt loam, 1 to 3 percent slopes are very gently sloping and somewhat poorly drained. The soil is on side slopes on the terrace uplands. The areas are irregular in shape and range from 40 to 350 acres.

### Hydrology

General observations were performed to evaluate for wetland hydrology. Potential primary indicators include saturation, oxidized rhizospheres, and water-stained leaves. During the investigation several primary indicators including oxidized rhizospheres were observed at sample plots 11, 20 and 22. When one of

the primary indicators or two secondary indicators were present, wetland hydrology was noted at that location.

### Conclusion

Several areas of Alternate 2 were identified to contain potential wetlands due to the presence of hydric soils, hydrophytic vegetation, and wetland hydrology. The potential wetland areas identified during this evaluation, which may impact forested wetlands, are of low to moderate quality. The construction of Alternate 2 would impact approximately 8.53 acres of wetlands.

As part of the wetland permitting process, mitigation will be initiated for the wetlands being impacted by construction activities for this project. The impacts to wetland areas will be minimized per DOTD's Standard Specifications. In addition, mitigation will be provided for unavoidable wetland habitat loss. This mitigation will be coordinated with the Corps of Engineers.

None of the habitat that would be impacted by the proposed project is unique or critical to the survival of any know wildlife species. The proposed Alternate 2 should not adversely affect any known endangered/threatened species or their critical habitat.

Although the loss of habitat will be permanent in some areas, the area surrounding the project area should provide adequate habitat for the displaced species. The US Army Corps of Engineers has the final responsibility to determine whether or not his site is actually jurisdictional.

## 2.2 ALTERNATE 4

During the site inspection, seven sample plots were performed. At these sample locations, the soil, hydrology, and vegetation were inspected. None of the sample locations exhibited wetland characteristics. The data collected was recorded on Wetland Data Forms. The Data Forms are included with this evaluation.

Photographs of the project area were taken and are also included with this evaluation. The findings of the site inspection are described in the following sections.

### Vegetation

The typical dominant plant species that were encountered at the site include the following:

Facultative Upland

*Cynodon dactylon* (Bermuda Grass)  
*Carya illinoensis* (Pecan)  
*Solidago altissima* (Tall Goldenrod)  
*Callicarpa americana* (American Beautyberry)  
*Quercus alba* (White Oak)  
*Prunus serotina* (Black Cherry)  
*Juniperus virginiana* (Eastern Red Cedar)  
*Paspalum notatum* (Bahia Grass)  
*Ambrosia artemisiifolia* (Annual Ragweed)

Facultative

*Quercus nigra* (Water Oak)  
*Ilex vomitoria* (Yaupon)  
*Lonicera japonica* (Japanese Honeysuckle)  
*Triadica sebifera* (Chinese Tallow)  
*Liquidambar styraciflua* (Sweetgum)  
*Ligustrum sinense* (Chinese Privet)  
*Gelsemium sempervirens* (Yellow Jessamine)  
*Toxicodendron radicans* (Poison Ivy)  
*Baccharis halimifolia* (Eastern Baccharis)  
*Vitis rotundifolia* (Muscadine)  
*Stenotaphrum secundatum* (St. Augustine Grass)  
*Pinus taeda* (Loblolly Pine)

## Facultative Wet

### *Axonopus fissifolius* (Carpet Grass)

#### Soils

The review of the Soil Survey indicated that Alternate 4 is located on four soil types: Mowata-Vidrine silt loams (Mt), Crowley-Vidrine silt loams (Cr), Basile and Guyton silt loams, frequently flooded (BB), and Acadia silt loam, 1 to 3 percent slopes (Ac). Basile and Guyton silt loams and Mowata-Vidrine silt loams are listed as hydric soils in Calcasieu Parish.

Mowata-Vidrine silt loams are level and poorly drained and somewhat poorly drained. They are on broad flats on the Gulf Coast Prairies. The landscape consists of broad flats that have many small convex mounds. In many areas, the mounds have been smoothed. The mounds are circular and range from 50 to 150 feet in diameter and 1 to 6 feet in height before leveling. The Mowata soil is located in the intermound areas and comprises approximately 60% of the complex. The Vidrine soil is located on the mounds and comprises approximately 30% of the complex. According to the soil survey, areas are irregular in shape and range from 40 to 2,000 acres.

Crowley-Vidrine silt loams are level and somewhat poorly drained. They are on broad convex ridges on the Gulf Coast Prairies. This complex consist of small areas of Crowley and Vidrine soils that are so intermingled that they cannot be mapped separately at the scale selected. Areas are irregular in shape and range from 20 to 1,000 acres. The landscape consists of broad, convex ridges that contain many small convex mounds or mound areas that have been smoothed. The mounds are circular and range from 50 to 150 feet in diameter and 1 foot to 6 feet in height before leveling. Most areas have been leveled and have a slope of 0 to 1 percent.

Basile and Guyton silt loams, frequently flooded are level and poorly drained. They are on the flood plains of narrow streams that drain the terrace uplands. Areas are long and narrow and range from 30 to over 2500 acres. Most mapped areas contain both soils in varying proportions, but some areas contain only one of the soils. In areas that contain both soils the Guyton soil is in slightly higher positions than the Basile soil. Floodwater frequently covers these soils to a depth of 1 foot to 6 feet for periods up to 10 days, mostly in winter and spring. The mapped areas contain 55 percent Basile soil and about 25 percent Guyton soil.

Acadia silt loam, 1 to 3 percent slopes are very gently sloping and somewhat poorly drained. The soil is on side slopes on the terrace uplands. The areas are irregular in shape and range from 40 to 350 acres.

### Hydrology

General observations were performed to evaluate for wetland hydrology. Potential primary indicators include saturation, oxidized rhizospheres, and water-stained leaves. During the investigation none of the sample plots in Alternate 4 exhibit wetland hydrology.

### Conclusion

None of the sample plots within the construction area of Alternate 4 were identified to contain potential wetlands due to the lack of hydric soils, hydrophytic vegetation, and/or wetland hydrology. The construction of Alternate 4 would not impact any wetlands.

None of the habitat that would be impacted by the proposed project is unique or critical to the survival of any know wildlife species. The proposed Alternate 4 should not adversely affect any known endangered/threatened species or their critical habitat.

Although the loss of habitat will be permanent in some areas, the area surrounding the project area should provide adequate habitat for the displaced species. The US Army Corps of Engineers has the final responsibility to determine whether or not his site is actually jurisdictional.

## 2.3 ALTERNATE 7 AND 7A

During the site inspection, eighteen sample plots were performed. At these sample locations, the soil, hydrology, and vegetation were inspected. The data collected was recorded on Wetland Data Forms. The Data Forms are included with this evaluation. In addition to sample plots, a transect was traversed in the area mapped as Mowata-Vidrine located north and east of the Weingarten Development property. Along the transect, the wetlands and non-wetlands were measured and the percentage of wetlands on this portion of the property was determined from the results. The Transect Form is included with this evaluation. In addition to the transect, a Global Positioning System (GPS) was utilized to map wetland/non-wetland areas. Once GPS mapping was completed, geospatial data was imported into Arc View GIS for graphical display and land cover analysis.

Photographs of the project area were taken and are also included with this evaluation. The findings of the site inspection are described in the following sections.

## Vegetation

The typical dominant plant species that were encountered at the site include the following:

### Facultative Upland

*Cynodon dactylon* (Bermuda Grass)  
*Carya illinoensis* (Pecan)  
*Solidago altissima* (Tall Goldenrod)  
*Callicarpa americana* (American Beautyberry)  
*Quercus alba* (White Oak)  
*Prunus serotina* (Black Cherry)  
*Juniperus virginiana* (Eastern Red Cedar)  
*Paspalum notatum* (Bahia Grass)  
*Quercus falcate* (Southern Red Oak)  
*Sassafras albidum* (Sassafras)  
*Digitaria ciliaris* (Southern Crabgrass)  
*Ambrosia artemisiifolia* (Annual Ragweed)  
*Morus rubra* (Red Mulberry)  
*Quercus virginiana* (Live Oak)  
*Rubus trivialis* (Southern Dewberry)

### Facultative

*Quercus nigra* (Water Oak)  
*Smilax glauca* (Cat Greenbrier)  
*Ilex vomitoria* (Yaupon)  
*Lonicera japonica* (Japanese Honeysuckle)  
*Setaria verticillata* (Bristlegrass)  
*Triadica sebifera* (Chinese Tallow)  
*Liquidambar styraciflua* (Sweetgum)  
*Ligustrum sinense* (Chinese Privet)  
*Gelsemium sempervirens* (Yellow Jessamine)  
*Nyssa sylvatica* (Blackgum)

*Toxicodendron radicans* (Poison Ivy)  
*Baccharis halimifolia* (Eastern Baccharis)  
*Vitis rotundifolia* (Muscadine)  
*Stenotaphrum secundatum* (St. Augustine Grass)  
*Pinus taeda* (Loblolly Pine)  
*Magnolia grandiflora* (Southern Magnolia)

*Viburnum dentatum* (Arrowwood)

Facultative Wet

*Axonopus fissifolius* (Carpet Grass)  
*Iva frutescens* (Jesuit's Bark)  
*Solidago sempervirens* (Seaside Goldenrod)

Obligate Wetland

*Taxodium distichum* (Bald Cypress)  
*Pluchea foetida* (Stinky Camphorweed)  
*Alternanthera philoxeroides* (Alligatorweed)  
*Paspalum distichum* (Knotgrass)

Soils

The review of the Soil Survey indicated that Alternate 7 and 7a are located on five soil types: Mowata-Vidrine silt loams (Mt), Crowley-Vidrine silt loams (Cr), Aquents, frequently flooded (AN), Basile and Guyton silt loams, frequently flooded (BB), and Acadia silt loam, 1 to 3 percent slopes (Ac). Basile and Guyton silt loams, Aquents, frequently flooded, and Mowata-Vidrine silt loams are listed as hydric soils in Calcasieu Parish.

Mowata-Vidrine silt loams are level and poorly drained and somewhat poorly drained. They are on broad flats on the Gulf Coast Prairies. The landscape consists of broad flats that have many small convex mounds. In many areas, the mounds have been smoothed. The mounds are circular and range from 50 to 150 feet in diameter and 1 to 6 feet in height before leveling. The Mowata soil is located in the intermound areas and comprises approximately 60% of the complex. The Vidrine soil is located on the mounds and comprises approximately

30% of the complex. According to the soil survey, areas are irregular in shape and range from 40 to 2,000 acres.

Crowley-Vidrine silt loams are level and somewhat poorly drained. They are on broad convex ridges on the Gulf Coast Prairies. This complex consist of small areas of Crowley and Vidrine soils that are so intermingled that they cannot be mapped separately at the scale selected. Areas are irregular in shape and range from 20 to 1,000 acres. The landscape consists of broad, convex ridges that contain many small convex mounds or mound areas that have been smoothed. The mounds are circular and range from 50 to 150 feet in diameter and 1 foot to 6 feet in height before leveling. Most areas have been leveled and have a slope of 0 to 1 percent.

Basile and Guyton silt loams, frequently flooded are level and poorly drained. They are on the flood plains of narrow streams that drain the terrace uplands. Areas are long and narrow and range from 30 to over 2500 acres. Most mapped areas contain both soils in varying proportions, but some areas contain only one of the soils. In areas that contain both soils the Guyton soil is in slightly higher positions than the Basile soil. Floodwater frequently covers these soils to a depth of 1 foot to 6 feet for periods up to 10 days, mostly in winter and spring. The mapped areas contain 55 percent Basile soil and about 25 percent Guyton soil.

Acadia silt loam, 1 to 3 percent slopes are very gently sloping and somewhat poorly drained. The soil is on side slopes on the terrace uplands. The areas are irregular in shape and range from 40 to 350 acres.

Aquents, frequently flooded soils are loamy and clayey. They are in areas where spoil has been deposited during the construction and maintenance of navigable waterways. The soils are within areas of marsh and are slightly higher than the surrounding soils. Areas are irregular in shape and about 10 to 250 acres. Slopes are generally less than 1 percent.

### Hydrology

General observations were performed to evaluate for wetland hydrology. Potential primary indicators include saturation, oxidized rhizospheres, and water-stained leaves. During the investigation several primary indicators including oxidized rhizospheres were observed at sample plots 11, 18, 20 and 22. When one of the primary indicators or two secondary indicators were present, wetland hydrology was noted at that location.

## Conclusion

Several areas of Alternates 7 and 7a were identified to contain potential wetlands due to the presence of hydric soils, hydrophytic vegetation, and wetland hydrology. The potential wetland areas identified during this evaluation, which may impact forested wetlands and marsh, are of low to moderate quality. The construction of Alternate 7 or 7a would impact approximately 10.13 acres of wetlands.

As part of the wetland permitting process, mitigation will be initiated for the wetlands being impacted by construction activities for this project. The impacts to wetland areas will be minimized per DOTD's Standard Specifications. In addition, mitigation will be provided for unavoidable wetland habitat loss. This mitigation will be coordinated with the Corps of Engineers.

None of the habitat that would be impacted by the proposed project is unique or critical to the survival of any known wildlife species. The proposed Alternates 7 and 7a should not adversely affect any known endangered/threatened species or their critical habitat.

Although the loss of habitat will be permanent in some areas, the area surrounding the project area should provide adequate habitat for the displaced species. The US Army Corps of Engineers has the final responsibility to determine whether or not his site is actually jurisdictional.

## 2.4 ALTERNATE 16A

During the site inspection, ten sample plots were performed. At these sample locations, the soil, hydrology, and vegetation were inspected. The data collected was recorded on Wetland Data Forms. The Data Forms are included with this evaluation.

Photographs of the project area were taken and are also included with this evaluation. The findings of the site inspection are described in the following sections.

### Vegetation

The typical dominant plant species that were encountered at the site include the following:

#### Facultative Upland

*Cynodon dactylon* (Bermuda Grass)

*Solidago altissima* (Tall Goldenrod)

*Paspalum notatum* (Bahia Grass)

*Ambrosia artemisiifolia* (Annual Ragweed)

*Iopomea cordatotrilhoa* (Tie vine)

Facultative

*Quercus nigra* (Water Oak)

*Triadica sebifera* (Chinese Tallow)

*Baccharis halimifolia* (Eastern Baccharis)

*Pinus taeda* (Loblolly Pine)

*Verbena brasiliensis* (Brazilian Vervain)

Facultative Wet

*Axonopus fissifolius* (Carpet Grass)

Obligate Wetlands

*Paspalum distichum* (Knotgrass)

Soils

The review of the Soil Survey indicated that Alternate 16a is located on four soil types: Mowata-Vidrine silt loams (Mt), Crowley-Vidrine silt loams (Cr), Basile and Guyton silt loams, frequently flooded (BB), and Acadia silt loam, 1 to 3 percent slopes (Ac). Basile and Guyton silt loams and Mowata-Vidrine silt loams are listed as hydric soils in Calcasieu Parish.

Mowata-Vidrine silt loams are level and poorly drained and somewhat poorly drained. They are on broad flats on the Gulf Coast Prairies. The landscape consists of broad flats that have many small convex mounds. In many areas, the mounds have been smoothed. The mounds are circular and range from 50 to 150 feet in diameter and 1 to 6 feet in height before leveling. The Mowata soil is located in the intermound areas and comprises approximately 60% of the complex. The Vidrine soil is located on the mounds and comprises approximately 30% of the complex. According to the soil survey, areas are irregular in shape and range from 40 to 2,000 acres.

Crowley-Vidrine silt loams are level and somewhat poorly drained. They are on broad convex ridges on the Gulf Coast Prairies. This complex consist of small

areas of Crowley and Vidrine soils that are so intermingled that they cannot be mapped separately at the scale selected. Areas are irregular in shape and range from 20 to 1,000 acres. The landscape consists of broad, convex ridges that contain many small convex mounds or mound areas that have been smoothed. The mounds are circular and range from 50 to 150 feet in diameter and 1 foot to 6 feet in height before leveling. Most areas have been leveled and have a slope of 0 to 1 percent.

Basile and Guyton silt loams, frequently flooded are level and poorly drained. They are on the flood plains of narrow streams that drain the terrace uplands. Areas are long and narrow and range from 30 to over 2500 acres. Most mapped areas contain both soils in varying proportions, but some areas contain only one of the soils. In areas that contain both soils the Guyton soil is in slightly higher positions than the Basile soil. Floodwater frequently covers these soils to a depth of 1 foot to 6 feet for periods up to 10 days, mostly in winter and spring. The mapped areas contain 55 percent Basile soil and about 25 percent Guyton soil.

Acadia silt loam, 1 to 3 percent slopes are very gently sloping and somewhat poorly drained. The soil is on side slopes on the terrace uplands. The areas are irregular in shape and range from 40 to 350 acres.

### Hydrology

General observations were performed to evaluate for wetland hydrology. Potential primary indicators include saturation, oxidized rhizospheres, and water-stained leaves. During the investigation of Alternate 16a, sample plot 18 contained oxidized rhizospheres.

### Conclusion

Several areas of Alternate 16a were identified to contain potential wetlands due to the presence of hydric soils, hydrophytic vegetation, and wetland hydrology. The potential wetland areas identified during this evaluation, which may impact marsh, are of low to moderate quality. The construction of Alternate 16a would impact approximately 1.87 acres of wetlands.

As part of the wetland permitting process, mitigation will be initiated for the wetlands being impacted by construction activities for this project. The impacts to wetland areas will be minimized per DOTD's Standard Specifications. In addition, mitigation will be provided for unavoidable wetland habitat loss. This mitigation will be coordinated with the Corps of Engineers.

None of the habitat that would be impacted by the proposed project is unique or critical to the survival of any known wildlife species. The proposed Alternate 16a should not adversely affect any known endangered/threatened species or their critical habitat.

Although the loss of habitat will be permanent in some areas, the area surrounding the project area should provide adequate habitat for the displaced species. The US Army Corps of Engineers has the final responsibility to determine whether or not this site is actually jurisdictional.

## 2.5 ALTERNATE 21B

During the site inspection, thirteen sample plots were performed. At these sample locations, the soil, hydrology, and vegetation were inspected. The data collected was recorded on Wetland Data Forms. The Data Forms are included with this evaluation. In addition to sample plots, a transect was traversed in the area mapped as Mowata-Vidrine located north and east of the Weingarten Development property. Along the transect, the wetlands and non-wetlands were measured and the percentage of wetlands on this portion of the property was determined from the results. The Transect Form is included with this evaluation. In addition to the transect, a Global Positioning System (GPS) was utilized to map wetland/non-wetland areas. Once GPS mapping was completed, geospatial data was imported into Arc View GIS for graphical display and land cover analysis.

Photographs of the project area were taken and are also included with this evaluation. The findings of the site inspection are described in the following sections.

### Vegetation

The typical dominant plant species that were encountered at the site include the following:

#### Facultative Upland

*Cynodon dactylon* (Bermuda Grass)

*Carya illinoensis* (Pecan)

*Solidago altissima* (Tall Goldenrod)

*Callicarpa americana* (American Beautyberry)

*Paspalum notatum* (Bahia Grass)

*Quercus falcate* (Southern Red Oak)

*Sassafras albidum* (Sassafras)

*Digitaria ciliaris* (Southern Crabgrass)

*Rubus trivialis* (Southern Dewberry)

Facultative

*Quercus nigra* (Water Oak)

*Smilax glauca* (Cat Greenbrier)

*Ilex vomitoria* (Yaupon)

*Triadica sebifera* (Chinese Tallow)

*Liquidambar styraciflua* (Sweetgum)

*Gelsemium sempervirens* (Yellow Jessamine)

*Baccharis halimifolia* (Eastern Baccharis)

*Vitis rotundifolia* (Muscadine)

*Stenotaphrum secundatum* (St. Augustine Grass)

*Pinus taeda* (Loblolly Pine)

*Verbena brasiliensis* (Brazilian Vervain)

*Viburnum dentatum* (Arrowwood)

Facultative Wet

*Axonopus fissifolius* (Carpet Grass)

*Iva frutescens* (Jesuit's Bark)

*Solidago sempervirens* (Seaside Goldenrod)

Obligate Wetland

*Taxodium distichum* (Bald Cypress)

*Pluchea foetida* (Stinky Camphorweed)

*Alternanthera philoxeroides* (Alligatorweed)

Soils

The review of the Soil Survey indicated that Alternate 21b is located on five soil types: Mowata-Vidrine silt loams (Mt), Crowley-Vidrine silt loams (Cr), Aquent, frequently flooded (AN), Udifluents, 1 to 20 percent slopes (UA), and Acadia silt loam, 1 to 3 percent slopes (Ac). Mowata-Vidrine silt loams and Aquent, frequently flooded are listed as hydric soils in Calcasieu Parish.

Mowata-Vidrine silt loams are level and poorly drained and somewhat poorly drained. They are on broad flats on the Gulf Coast Prairies. The landscape consists of broad flats that have many small convex mounds. In many areas, the mounds have been smoothed. The mounds are circular and range from 50 to 150 feet in diameter and 1 to 6 feet in height before leveling. The Mowata soil is located in the intermound areas and comprises approximately 60% of the complex. The Vidrine soil is located on the mounds and comprises approximately 30% of the complex. According to the soil survey, areas are irregular in shape and range from 40 to 2,000 acres.

Crowley-Vidrine silt loams are level and somewhat poorly drained. They are on broad convex ridges on the Gulf Coast Prairies. This complex consist of small areas of Crowley and Vidrine soils that are so intermingled that they cannot be mapped separately at the scale selected. Areas are irregular in shape and range from 20 to 1,000 acres. The landscape consists of broad, convex ridges that contain many small convex mounds or mound areas that have been smoothed. The mounds are circular and range from 50 to 150 feet in diameter and 1 foot to 6 feet in height before leveling. Most areas have been leveled and have a slope of 0 to 1 percent.

Acadia silt loam, 1 to 3 percent slopes are very gently sloping and somewhat poorly drained. The soil is on side slopes on the terrace uplands. The areas are irregular in shape and range from 40 to 350 acres.

Udifluvents, 1 to 20 percent slopes consists of sandy to clayey soil material that has been excavated from other places during the construction and maintenance of navigable waterways. These soils have no identifiable soil layers. They are variable in texture and slope. Areas range from irregular in shape to long and narrow and are from 20 to several hundred acres. Relief ranges from about 1 foot to 15 feet. Slopes are short and choppy and range from 1 to 20 percent.

Aquents, frequently flooded soils are loamy and clayey. They are in areas where spoil has been deposited during the construction and maintenance of navigable waterways. The soils are within areas of marsh and are slightly higher than the surrounding soils. Areas are irregular in shape and about 10 to 250 acres. Slopes are generally less than 1 percent.

## Hydrology

General observations were performed to evaluate for wetland hydrology. Potential primary indicators include saturation, oxidized rhizospheres, and water-stained leaves. During the investigation several primary indicators including oxidized rhizospheres were observed at sample plots 11, 20, and 22. When one of

the primary indicators or two secondary indicators were present, wetland hydrology was noted at that location.

### Conclusion

Several areas of Alternate 21b were identified to contain potential wetlands due to the presence of hydric soils, hydrophytic vegetation, and wetland hydrology. The potential wetland areas identified during this evaluation, which may impact forested wetlands and marsh, are of low to moderate quality. The construction of Alternate 21b would impact approximately 8.5 acres of wetlands.

As part of the wetland permitting process, mitigation will be initiated for the wetlands being impacted by construction activities for this project. The impacts to wetland areas will be minimized per DOTD's Standard Specifications. In addition, mitigation will be provided for unavoidable wetland habitat loss. This mitigation will be coordinated with the Corps of Engineers.

None of the habitat that would be impacted by the proposed project is unique or critical to the survival of any known wildlife species. The proposed Alternate 21b should not adversely affect any known endangered/threatened species or their critical habitat.

Although the loss of habitat will be permanent in some areas, the area surrounding the project area should provide adequate habitat for the displaced species. The US Army Corps of Engineers has the final responsibility to determine whether or not this site is actually jurisdictional.

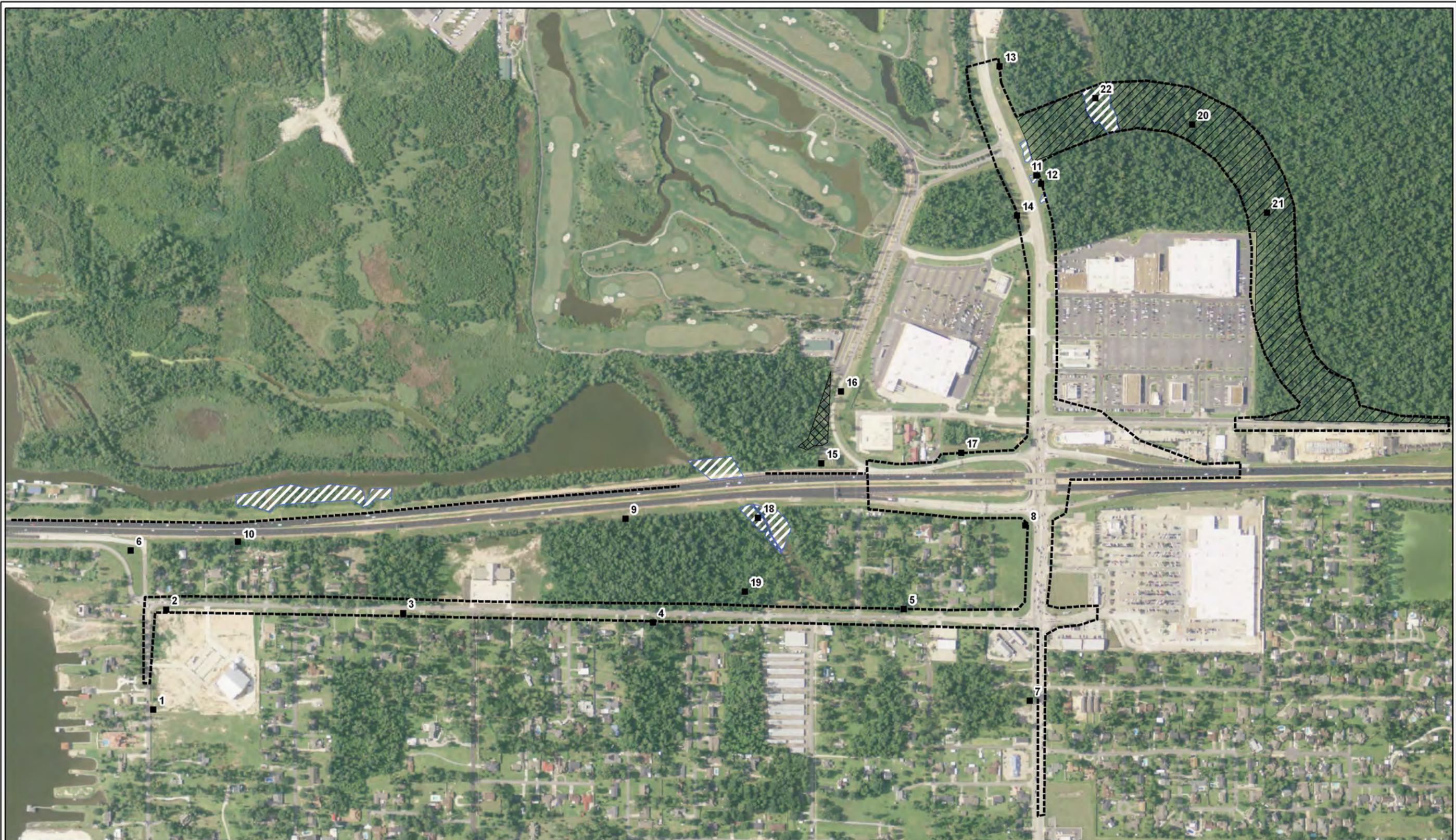
## 3.0 RESULTS

Based on the wetland evaluation performed by Arabie Environmental the wetland impacts attributed to the Alternates are as follows:

- Alternate 2-Wetland Impact 8.53 acres
- Alternate 4-No Wetland Impact
- Alternate 7 and 7a-Wetland Impact 10.13 acres
- Alternate 16a-Wetland Impact 1.87 acres
- Alternate 21b-Wetland Impact 8.5 acres

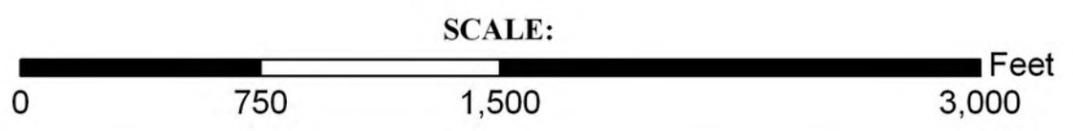
**FIGURE 1**

*Alternate 2 Site Diagram*



**LEGEND**

- Approximate Construction Boundary of Alternate 2
- 100% Wetland Area
- 40% Wetland Area
- 36% Wetland Area
- Sample Plot Location and Number



	ABMB/STANTEC I-10 COVE LANE INTERCHANGE LAKE CHARLES, LOUISIANA		
<b>ALTERNATE 2          SITE DIAGRAM          WETLAND EVALUATION</b>			
Drawn By:	JRK	Date:	8/31/12
Checked By:	CRH	Date:	8/31/12
AES Project #	11161		
Revised:			

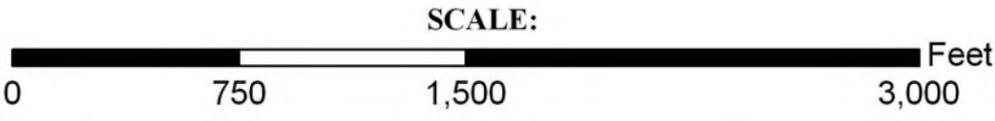
**FIGURE 2**

*Alternate 4 Site Diagram*



**LEGEND**

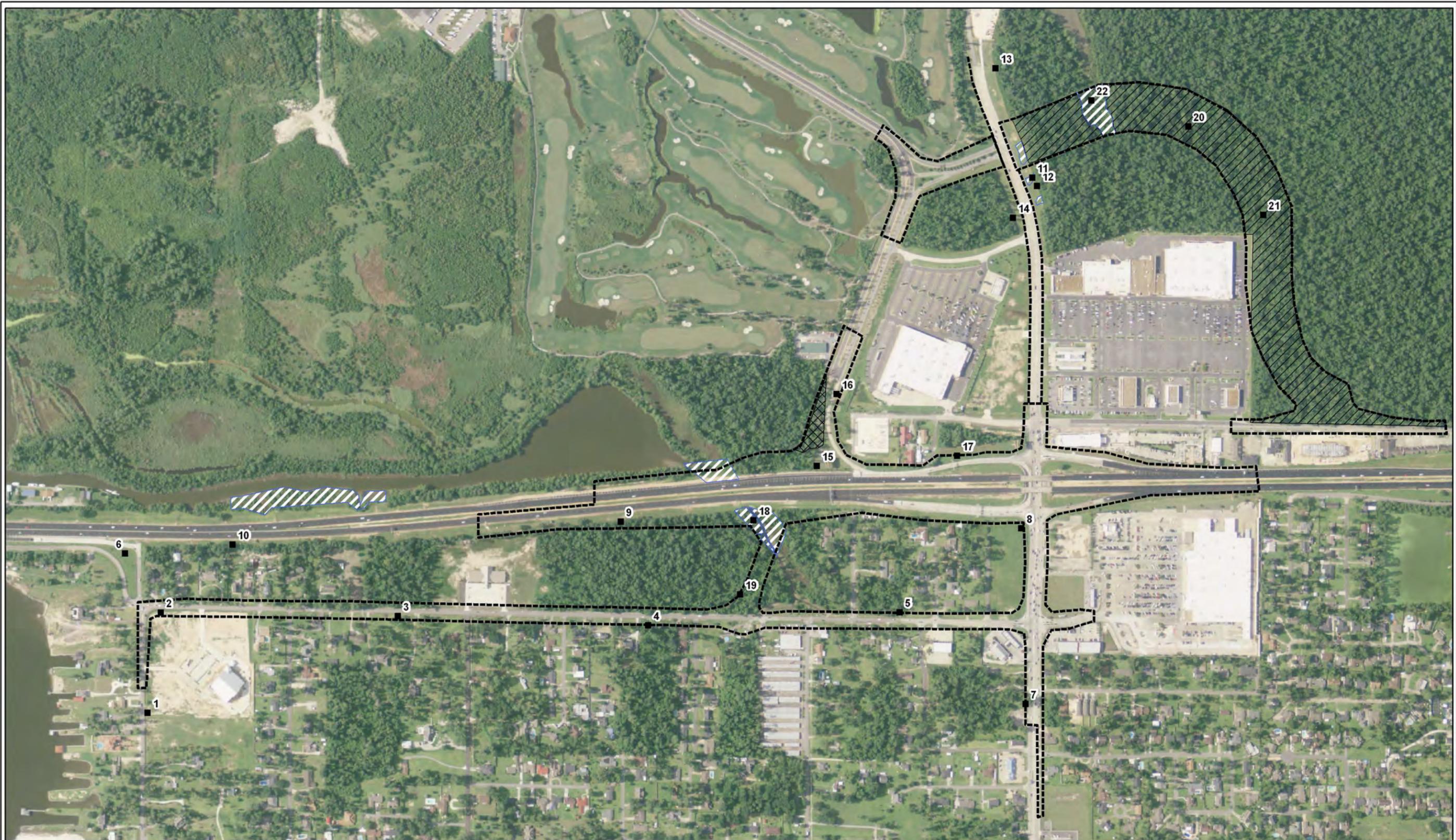
- Approximate Construction Boundary of Alternate 4
- 100% Wetland Area
- 40% Wetland Area
- 36% Wetland Area
- Sample Plot Location and Number



	ABMB/STANTEC I-10 COVE LANE INTERCHANGE LAKE CHARLES, LOUISIANA	
<b>ALTERNATE 4          SITE DIAGRAM          WETLAND EVALUATION</b>		
Drawn By:	JRK	Date: 8/31/12
Checked By:	CRH	Date: 8/31/12
AES Project #	11161	
Revised:		

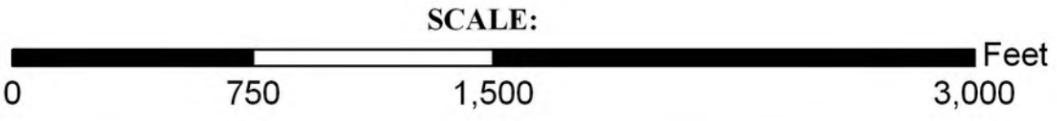
**FIGURE 3**

*Alternate 7 Site Diagram*



**LEGEND**

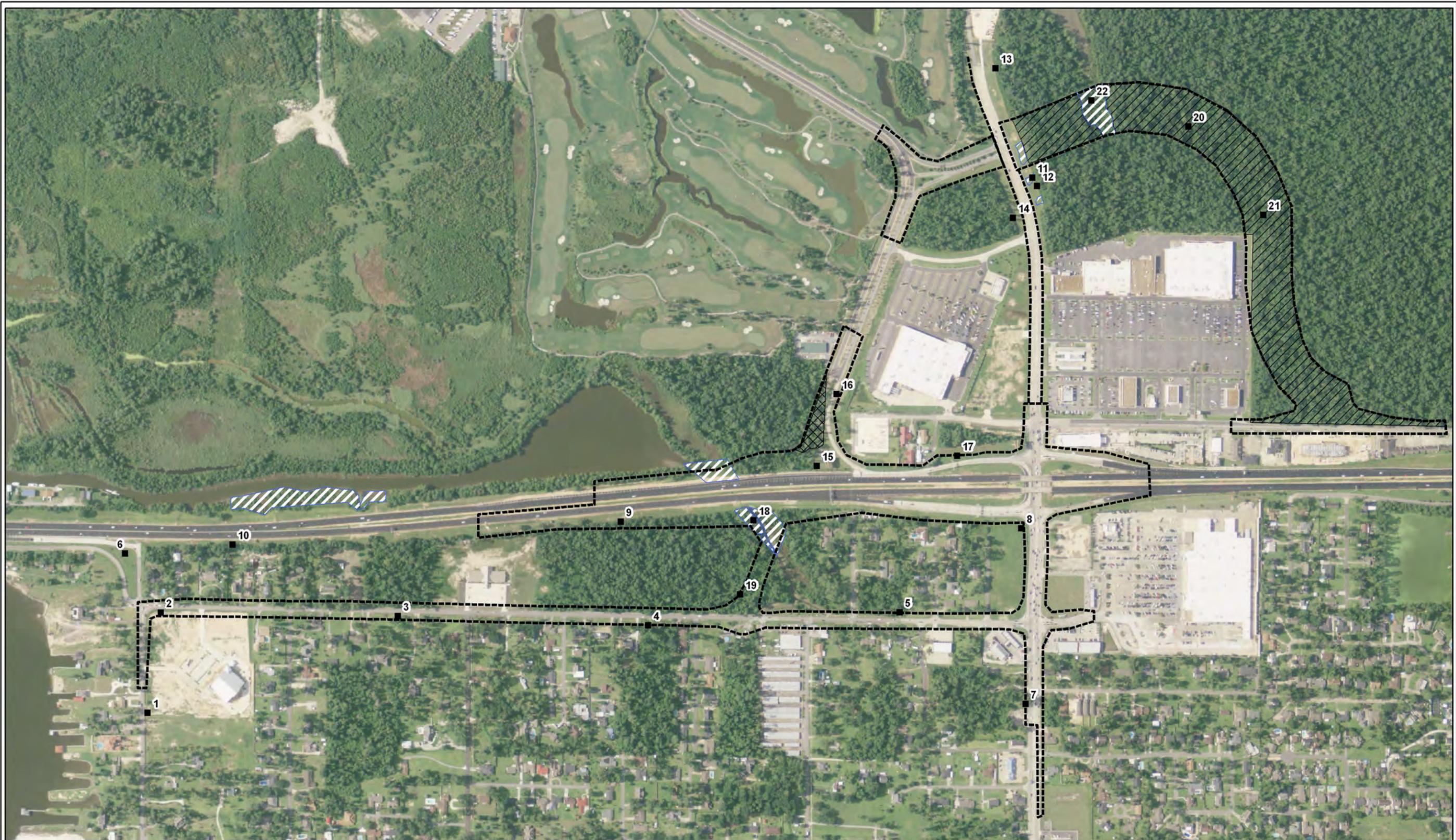
-  Approximate Construction Boundary of Alternate 7
-  100% Wetland Area
-  40% Wetland Area
-  36% Wetland Area
-  Sample Plot Location and Number



	ABMB/STANTEC I-10 COVE LANE INTERCHANGE LAKE CHARLES, LOUISIANA		
<b>ALTERNATE 7          SITE DIAGRAM          WETLAND EVALUATION</b>			
Drawn By:	JRK	Date:	8/31/12
Checked By:	CRH	Date:	8/31/12
AES Project #	11161		
Revised:			

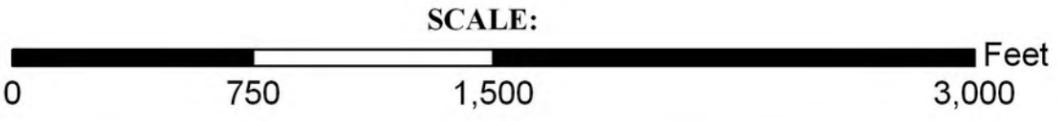
**FIGURE 4**

*Alternate 7A Site Diagram*



**LEGEND**

- Approximate Construction Boundary of Alternate 7a
- 100% Wetland Area
- 40% Wetland Area
- 36% Wetland Area
- Sample Plot Location and Number



	ABMB/STANTEC I-10 COVE LANE INTERCHANGE LAKE CHARLES, LOUISIANA		
<b>ALTERNATE 7a          SITE DIAGRAM          WETLAND EVALUATION</b>			
Drawn By:	JRK	Date:	8/31/12
Checked By:	CRH	Date:	8/31/12
AES Project #	11161		
Revised:			

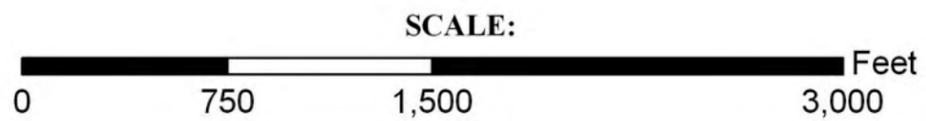
**FIGURE 5**

*Alternate 16A Site Diagram*



**LEGEND**

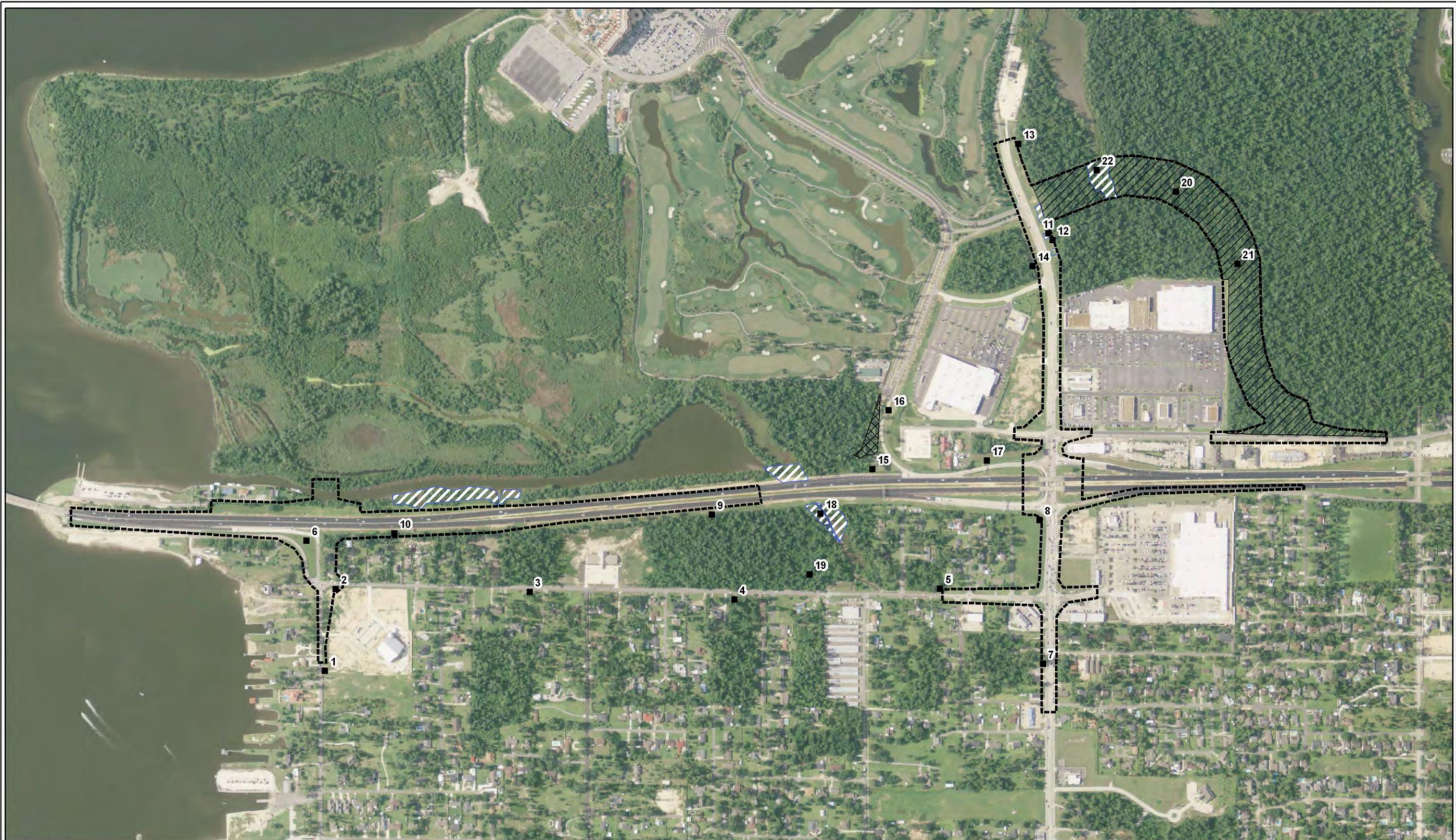
- Approximate Construction Boundary of Alternate 16a
- 100% Wetland Area
- 40% Wetland Area
- 36% Wetland Area
- Sample Plot Location and Number



	ABMB/STANTEC I-10 COVE LANE INTERCHANGE LAKE CHARLES, LOUISIANA		
<b>ALTERNATE 16a          SITE DIAGRAM          WETLAND EVALUATION</b>			
Drawn By:	JRK	Date:	8/31/12
Checked By:	CRH	Date:	8/31/12
AES Project #	11161		
Revised:			

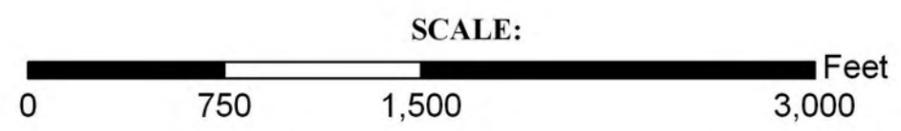
**FIGURE 6**

*Alternate 21B Site Diagram*



**LEGEND**

- Approximate Construction Boundary of Alternate 21b
- 100% Wetland Area
- 40% Wetland Area
- 36% Wetland Area
- Sample Plot Location and Number



	ABMB/STANTEC I-10 COVE LANE INTERCHANGE LAKE CHARLES, LOUISIANA		
<b>ALTERNATE 21b          SITE DIAGRAM          WETLAND EVALUATION</b>			
Drawn By:	JRK	Date:	8/31/12
Checked By:	CRH	Date:	8/31/12
AES Project #	11161		
Revised:			

**ATTACHMENT A**

*Wetland Data Forms*

**WETLAND DATA FORM: ROUTINE ONSITE DETERMINATION METHOD**

Project/Site: Ameristar City/Parish Lake Charles/Calcasieu Sampling Date 8/21/2012  
 Applicant/Owner Ameristar State Louisiana Sample Plot 1  
 Investigator(s) C. Hoffpauir Sec., Town., Range Sec. 14, Town. 10 South, Range 9 West  
 Latitude 474370 Longitude 3340199 Datum NAD 83  
 Subregion LRR-T Soil Map Unit Name: Crowley-Vidrine silt loam (Cr) NWI Classification: \_\_\_\_\_  
 Landform: Convex Local Relief: Ridge Slope (%) 1-3%

Are site climatic/hydrologic conditions typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks)

Are Vegetation No, Soil No, Hydrology No significantly disturbed?

Are Vegetation No, Soil No, Hydrology No naturally disturbed?

"Normal Circumstances" present? Yes X No \_\_\_\_\_ (if no, explain in Remarks)

**SUMMARY OF FINDINGS**

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area Within a Wetland? Yes _____ No <u>X</u>
Hydric Soils Present?	Yes _____ No <u>X</u>	
Wetland Hydrology Present?	Yes _____ No <u>X</u>	

Remarks:

**HYDROLOGY (check all that apply)**

<u>Primary Hydrology Indicators:</u>		<u>Secondary Hydrology Indicators:</u>
<u>No</u> Surface Water	<u>No</u> Water-Stained Leaves	<u>No</u> Surface Soil Cracks
<u>No</u> High Water Table	<u>No</u> Aquatic Fauna	<u>No</u> Sparsely Vegetated Concave Surface
<u>No</u> Saturation	<u>No</u> Marl Deposits ( <b>LRRU</b> )	<u>No</u> Drainage Patterns
<u>No</u> Water Marks	<u>No</u> Hydrogen Sulfide Odor	<u>No</u> Moss Trim Lines
<u>No</u> Sediment Deposits	<u>No</u> Oxidized Rhizospheres on Living Roots	<u>No</u> Dry-Season Water Table
<u>No</u> Drift Deposits	<u>No</u> Presence of Reduced Iron	<u>No</u> Crayfish Burrows
<u>No</u> Algal Mat or Crust	<u>No</u> Recent Iron Reduction in Tilled Soils	<u>No</u> Saturation Visible on Aerial Imagery
<u>No</u> Iron Deposits	<u>No</u> Thin Muck Surface	<u>No</u> Geomorphic Position
<u>No</u> Inundation Visible on Aerial Imagery	<u>No</u> Other (Explain in Remarks)	<u>No</u> Shallow Aquitard
		<u>No</u> FAC-Neutral Test

<b>Field Observations</b>		<b>WETLAND HYDROLOGY PRESENT?</b>
Surface Water Present?	Yes _____ No <u>X</u> Depth (in.)	YES
Water Table Present?	Yes _____ No <u>X</u> Depth (in.)	NO <u>X</u>
Saturation Present?	Yes _____ No <u>X</u> Depth (in.)	

Describe Recorded Data (Stream Gauge, Monitoring Well, Aerial Photos, Previous Inspections), if available:

Remarks:

**WETLAND DATA FORM: ROUTINE ONSITE DETERMINATION METHOD**

**VEGETATION**

Sample Point 1

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum ( Plot Size _____ )				<b>Dominance Test Worksheet:</b> Number of Dominant Species That are OBL, FACW, of FAC <u>0</u> (A)  Number of Dominant Species Across All Strata <u>1</u> (B)  Percent of Dominant Species That are OBL, FACW, or FAC <u>0</u> (A/B)
1. None				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
		= Total Cover		
Sapling Stratum ( Plot Size _____ )				<b>Prevalance Index Worksheet:</b> Total % Cover of:                      Multiply by: OBL Species                                  x1 _____ FACW Species                                x2 _____ FAC Species                                    x3 _____ FACU Species                                 x4 _____ UPL Species                                  x5 _____ Column Totals                                (A) _____ (B)  Prevalance Index (B/A) = _____
1. None				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
		= Total Cover		
Shrub Stratum ( Plot Size _____ )				<b>Hydrophytic Vegetation Indicators:</b> Dominance Test is > 50% _____ Prevalance Index is ≤ 3.0 <sup>1</sup> _____ Problematic Vegetation <sup>1</sup> _____  <sup>1</sup> Indicators of hydric soils and wetland hydrology must be present, unless disturbed or problematic.
1. None				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
		= Total Cover		
Herbaceous Stratum ( Plot Size _____ )				<b>Vegetation Strata Definitions:</b> Tree - Woody plants, excluding woody vines, approximately 20 ft or more in height and 3 in. or larger in diameter at breast height (DBH)  Sapling - Woody plants, excluding woody vines, approximately 20 ft or more in height and less than 3 in. DBH.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft. in height.
1. <u>Cynodon dactylon</u>	98%	Yes	FACU	
2. <u>Digitaria ciliaris</u>	2%	No	FACU	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	100%	= Total Cover		
Woody Vine Stratum ( Plot Size _____ )				Herb - All herbaceous (non-wood) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft. in height.  Woody Vine - All woody vines, regardless of height.
1. None				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
		= Total Cover		
				<b>HYDROPHYTIC VEGETATION PRESENT?</b> YES _____ NO     X
Remarks:				



**WETLAND DATA FORM: ROUTINE ONSITE DETERMINATION METHOD**

Project/Site: Ameristar City/Parish Lake Charles/Calcasieu Sampling Date 8/21/2012  
 Applicant/Owner Ameristar State Louisiana Sample Plot 2  
 Investigator(s) C. Hoffpauir Sec., Town., Range Sec. 14, Town. 10 South, Range 9 West  
 Latitude 474394 Longitude 3340381 Datum NAD 83  
 Subregion LRR-T Soil Map Unit Name: Crowley-Vidrine silt loam (Cr) NWI Classification: \_\_\_\_\_  
 Landform: Convex Local Relief: Ridge Slope (%) 0

Are site climatic/hydrologic conditions typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks)

Are Vegetation No, Soil No, Hydrology No significantly disturbed?

Are Vegetation No, Soil No, Hydrology No naturally disturbed?

"Normal Circumstances" present? Yes X No \_\_\_\_\_ (if no, explain in Remarks)

**SUMMARY OF FINDINGS**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	Is the Sampled Area Within a Wetland? Yes _____ No <u>X</u>
Hydric Soils Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	
Remarks:	

**HYDROLOGY (check all that apply)**

<b>Primary Hydrology Indicators:</b>	<b>Secondary Hydrology Indicators:</b>
<u>No</u> Surface Water	<u>No</u> Surface Soil Cracks
<u>No</u> High Water Table	<u>No</u> Sparsely Vegetated Concave Surface
<u>No</u> Saturation	<u>No</u> Drainage Patterns
<u>No</u> Water Marks	<u>No</u> Moss Trim Lines
<u>No</u> Sediment Deposits	<u>No</u> Dry-Season Water Table
<u>No</u> Drift Deposits	<u>No</u> Crayfish Burrows
<u>No</u> Algal Mat or Crust	<u>No</u> Saturation Visible on Aerial Imagery
<u>No</u> Iron Deposits	<u>No</u> Geomorphic Position
<u>No</u> Inundation Visible on Aerial Imagery	<u>No</u> Shallow Aquitard
<u>No</u> Water-Stained Leaves	<u>No</u> FAC-Neutral Test
<u>No</u> Aquatic Fauna	
<u>No</u> Marl Deposits (LRRU)	
<u>No</u> Hydrogen Sulfide Odor	
<u>No</u> Oxidized Rhizospheres on Living Roots	
<u>No</u> Presence of Reduced Iron	
<u>No</u> Recent Iron Reduction in Tilled Soils	
<u>No</u> Thin Muck Surface	
<u>No</u> Other (Explain in Remarks)	

<b>Field Observations</b>	<b>WETLAND HYDROLOGY PRESENT?</b>
Surface Water Present? Yes _____ No <u>X</u> Depth (in.)	YES
Water Table Present? Yes _____ No <u>X</u> Depth (in.)	NO <u>X</u>
Saturation Present? Yes _____ No <u>X</u> Depth (in.)	

Describe Recorded Data (Stream Gauge, Monitoring Well, Aerial Photos, Previous Inspections), if available:

Remarks:

**WETLAND DATA FORM: ROUTINE ONSITE DETERMINATION METHOD**

**VEGETATION**

Sample Point 2

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum ( Plot Size _____ )				<b>Dominance Test Worksheet:</b>
1. None				Number of Dominant Species That are OBL, FACW, or FAC <u>1</u> (A)
2. _____				
3. _____				Number of Dominant Species Across All Strata <u>1</u> (B)
4. _____				
5. _____				Percent of Dominant Species That are OBL, FACW, or FAC <u>100</u> (A/B)
6. _____				
7. _____				
		= Total Cover		
Sapling Stratum ( Plot Size _____ )				<b>Prevalance Index Worksheet:</b>
1. None				<u>        </u> <b>Total % Cover of:</b> <u>        </u> <b>Multiply by:</b>
2. _____				OBL Species <u>        </u> x1 <u>        </u>
3. _____				FACW Species <u>        </u> x2 <u>        </u>
4. _____				FAC Species <u>        </u> x3 <u>        </u>
5. _____				FACU Species <u>        </u> x4 <u>        </u>
6. _____				UPL Species <u>        </u> x5 <u>        </u>
7. _____				Column Totals <u>        </u> (A) <u>        </u> (B)
		= Total Cover		Prevalance Index (B/A) = <u>        </u>
Shrub Stratum ( Plot Size _____ )				<b>Hydrophytic Vegetation Indicators:</b>
1. None				Dominance Test is > 50% <u>X</u>
2. _____				Prevalance Index is ≤ 3.0 <sup>1</sup> <u>        </u>
3. _____				Problematic Vegetation <sup>1</sup> <u>        </u>
4. _____				
5. _____				<sup>1</sup> Indicators of hydric soils and wetland hydrology must be present, unless disturbed or problematic.
6. _____				
7. _____				
		= Total Cover		
Herbaceous Stratum ( Plot Size _____ )				<b>Vegetation Strata Definitions:</b>
1. Axonopus fissifolius	95%	Yes	FACW	Tree - Woody plants, excluding woody vines, approximately 20 ft or more in height and 3 in. or larger in diameter at breast height (DBH)
2. Diodia virginiana	2%	No	FACW	
3. Cynodon dactylon	2%	No	FACU	Sapling - Woody plants, excluding woody vines, approximately 20 ft or more in height and less than 3 in. DBH.
4. _____				
5. _____				
6. _____				Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft. in height.
7. _____				
	99%	= Total Cover		
Woody Vine Stratum ( Plot Size _____ )				Herb - All herbaceous (non-wood) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft. in height.
1. None				
2. _____				
3. _____				
4. _____				
5. _____				Woody Vine - All woody vines, regardless of height.
6. _____				
7. _____				
		= Total Cover		
				<b>HYDROPHYTIC VEGETATION PRESENT?</b>
				YES <u>X</u>
				NO <u>        </u>
Remarks:				

**WETLAND DATA FORM: ROUTINE ONSITE DETERMINATION METHOD**

**SOILS**

Sample Point 2

**Profile Description:** (Describe to the depth needed to document the indicator or confirm absence of indicators)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-7"	10YR 5/3	100					Silt loam	
7-16"	10YR 6/4	100					Silt loam	

<sup>1</sup>Type: C= Concentration, D = Depletion, RM= Reduced Matrix, CS = Covered or Coated Sand Grains.

<sup>2</sup>Location: PL = Pore Lining, M = Matrix.

**Hydric Soil Indicators:**

<input type="checkbox"/> No	Histosol	<input type="checkbox"/> No	Polyvalue Below Surface
<input type="checkbox"/> No	Histic Epipedon	<input type="checkbox"/> No	Thin Dark Surface
<input type="checkbox"/> No	Black Histic	<input type="checkbox"/> No	Loamy Mucky Mineral
<input type="checkbox"/> No	Hydrogen Sulfide	<input type="checkbox"/> No	Loamy Gleyed Matrix
<input type="checkbox"/> No	Stratified Layers	<input type="checkbox"/> No	Depleted Matrix
<input type="checkbox"/> No	Organic Bodies	<input type="checkbox"/> No	Redox Dark Surface
<input type="checkbox"/> No	5 cm Mucky Mineral	<input type="checkbox"/> No	Depleted Dark Surface
<input type="checkbox"/> No	Mucky Presence	<input type="checkbox"/> No	Redox Depressions
<input type="checkbox"/> No	1 cm Muck	<input type="checkbox"/> No	Marl
<input type="checkbox"/> No	Depleted Below Dark Surface	<input type="checkbox"/> No	Depleted Ochric
<input type="checkbox"/> No	Thick Dark Surface	<input type="checkbox"/> No	Iron-Manganese Masses
<input type="checkbox"/> No	Coast Prairie Redox	<input type="checkbox"/> No	Umbric Surface
<input type="checkbox"/> No	Sandy Mucky Mineral	<input type="checkbox"/> No	Delta Ochric
<input type="checkbox"/> No	Sandy Gleyed Matrix	<input type="checkbox"/> No	Reduced Vertic
<input type="checkbox"/> No	Sandy Redox	<input type="checkbox"/> No	Piedmont FloodPlain Soils
<input type="checkbox"/> No	Stripped Matrix	<input type="checkbox"/> No	Anomalous Bright Loamy Soils
<input type="checkbox"/> No	Dark Surface		

**Indicators for Problematic Hydric Soils:**

<input type="checkbox"/> No	1 cm Muck
<input type="checkbox"/> No	2 cm Muck
<input type="checkbox"/> No	Reduced Vertic
<input type="checkbox"/> No	Piedmont Floodplain Soils
<input type="checkbox"/> No	Amomalous Bright Loamy Solis
<input type="checkbox"/> No	Red Parent Material
<input type="checkbox"/> No	Very Shallow Dark Surface
<input type="checkbox"/> No	Other (Explain in Remarks)

**Restrictive Layer (If Observed)**

Type: \_\_\_\_\_  
 Depth: \_\_\_\_\_ inches

**HYDRIC SOILS PRESENT?**

YES \_\_\_\_\_  
 NO  X \_\_\_\_\_

Remarks:

**WETLAND DATA FORM: ROUTINE ONSITE DETERMINATION METHOD**

Project/Site: Ameristar City/Parish Lake Charles/Calcasieu Sampling Date 8/21/2012  
 Applicant/Owner Ameristar State Louisiana Sample Plot 3  
 Investigator(s) C. Hoffpauir Sec., Town., Range Sec. 14, Town. 10 South, Range 9 West  
 Latitude 474827 Longitude 3340375 Datum NAD 83  
 Subregion LRR-T Soil Map Unit Name: Acadia silt loam NWI Classification: \_\_\_\_\_  
 Landform: Convex Local Relief: Ridge Slope (%) 1-3%

Are site climatic/hydrologic conditions typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks)

Are Vegetation No, Soil No, Hydrology No significantly disturbed?

Are Vegetation No, Soil No, Hydrology No naturally disturbed?

"Normal Circumstances" present? Yes X No \_\_\_\_\_ (if no, explain in Remarks)

**SUMMARY OF FINDINGS**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	Is the Sampled Area Within a Wetland? Yes _____ No <u>X</u>
Hydric Soils Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:

**HYDROLOGY (check all that apply)**

<b>Primary Hydrology Indicators:</b>		<b>Secondary Hydrology Indicators:</b>
<u>No</u> Surface Water	<u>No</u> Water-Stained Leaves	<u>No</u> Surface Soil Cracks
<u>No</u> High Water Table	<u>No</u> Aquatic Fauna	<u>No</u> Sparsely Vegetated Concave Surface
<u>No</u> Saturation	<u>No</u> Marl Deposits ( <b>LRRU</b> )	<u>No</u> Drainage Patterns
<u>No</u> Water Marks	<u>No</u> Hydrogen Sulfide Odor	<u>No</u> Moss Trim Lines
<u>No</u> Sediment Deposits	<u>No</u> Oxidized Rhizospheres on Living Roots	<u>No</u> Dry-Season Water Table
<u>No</u> Drift Deposits	<u>No</u> Presence of Reduced Iron	<u>No</u> Crayfish Burrows
<u>No</u> Algal Mat or Crust	<u>No</u> Recent Iron Reduction in Tilled Soils	<u>No</u> Saturation Visible on Aerial Imagery
<u>No</u> Iron Deposits	<u>No</u> Thin Muck Surface	<u>No</u> Geomorphic Position
<u>No</u> Inundation Visible on Aerial Imagery	<u>No</u> Other (Explain in Remarks)	<u>No</u> Shallow Aquitard
		<u>No</u> FAC-Neutral Test

<b>Field Observations</b>	<b>WETLAND HYDROLOGY PRESENT?</b>
Surface Water Present? Yes _____ No <u>X</u> Depth (in.)	YES
Water Table Present? Yes _____ No <u>X</u> Depth (in.)	NO <u>X</u>
Saturation Present? Yes _____ No <u>X</u> Depth (in.)	

Describe Recorded Data (Stream Gauge, Monitoring Well, Aerial Photos, Previous Inspections), if available:

Remarks:

**WETLAND DATA FORM: ROUTINE ONSITE DETERMINATION METHOD**

**VEGETATION**

Sample Point 3

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum ( Plot Size _____ )				<b>Dominance Test Worksheet:</b>
1. <u>Quercus nigra</u>	<u>1%</u>	<u>Yes</u>	<u>FAC</u>	Number of Dominant Species That are OBL, FACW, of FAC <u>4</u> (A)
2. _____				
3. _____				
4. _____				Number of Dominant Species Across All Strata <u>6</u> (B)
5. _____				
6. _____				Percent of Dominant Species That are OBL, FACW, or FAC <u>67</u> (A/B)
7. _____	<u>1%</u>	<u>= Total Cover</u>		
Sapling Stratum ( Plot Size _____ )				<b>Prevalance Index Worksheet:</b>
1. <u>Quercus nigra</u>	<u>1%</u>	<u>Yes</u>	<u>FAC</u>	<b>Total % Cover of:</b>
2. <u>Carya illinoensis</u>	<u>1%</u>	<u>Yes</u>	<u>FACU</u>	<b>Multiply by:</b>
3. _____				OBL Species _____ x1 _____
4. _____				FACW Species _____ x2 _____
5. _____				FAC Species _____ x3 _____
6. _____				FACU Species _____ x4 _____
7. _____				UPL Species _____ x5 _____
	<u>2%</u>	<u>= Total Cover</u>		Column Totals _____ (A) _____ (B)
				Prevalance Index (B/A) = _____
Shrub Stratum ( Plot Size _____ )				<b>Hydrophytic Vegetation Indicators:</b>
1. <u>Ilex vomitria</u>	<u>2%</u>	<u>Yes</u>	<u>FAC</u>	Dominance Test is > 50% <u>X</u>
2. _____				Prevalance Index is ≤ 3.0 <sup>1</sup> _____
3. _____				Problematic Vegetation <sup>1</sup> _____
4. _____				
5. _____				<sup>1</sup> Indicators of hydric soils and wetland hydrology must be present, unless disturbed or problematic.
6. _____				
7. _____	<u>2%</u>	<u>= Total Cover</u>		
Herbaceous Stratum ( Plot Size _____ )				<b>Vegetation Strata Definitions:</b>
1. <u>Eremochloa Buse</u>	<u>95%</u>	<u>Yes</u>	<u>NI</u>	Tree - Woody plants, excluding woody vines, approximately 20 ft or more in height and 3 in. or larger in diameter at breast height (DBH)
2. _____				
3. _____				Sapling - Woody plants, excluding woody vines, approximately 20 ft or more in height and less than 3 in. DBH.
4. _____				
5. _____				Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft. in height.
6. _____				
7. _____	<u>95%</u>	<u>= Total Cover</u>		
Woody Vine Stratum ( Plot Size _____ )				Herb - All herbaceous (non-wood) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft. in height.
1. <u>Lonicera japonica</u>	<u>1%</u>	<u>Yes</u>	<u>FAC</u>	
2. _____				
3. _____				
4. _____				
5. _____				Woody Vine - All woody vines, regardless of height.
6. _____				
7. _____	<u>1%</u>	<u>= Total Cover</u>		
				<b>HYDROPHYTIC VEGETATION PRESENT?</b>
				YES <u>X</u>
				NO _____
Remarks:				

**WETLAND DATA FORM: ROUTINE ONSITE DETERMINATION METHOD**

**SOILS**

Sample Point 3

Profile Description: (Describe to the depth needed to document the indicator or confirm absence of indicators)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-3"	10YR 4/2	100					Silt loam	
3-15"	10YR 6/2	100					Silt loam	

<sup>1</sup>Type: C= Concentration, D = Depletion, RM= Reduced Matrix, CS = Covered or Coated Sand Grains.

<sup>2</sup>Location: PL = Pore Lining, M = Matrix.

**Hydric Soil Indicators:**

<input type="checkbox"/> No	Histosol	<input type="checkbox"/> No	Polyvalue Below Surface
<input type="checkbox"/> No	Histic Epipedon	<input type="checkbox"/> No	Thin Dark Surface
<input type="checkbox"/> No	Black Histic	<input type="checkbox"/> No	Loamy Mucky Mineral
<input type="checkbox"/> No	Hydrogen Sulfide	<input type="checkbox"/> No	Loamy Gleyed Matrix
<input type="checkbox"/> No	Stratified Layers	<input type="checkbox"/> No	Depleted Matrix
<input type="checkbox"/> No	Organic Bodies	<input type="checkbox"/> No	Redox Dark Surface
<input type="checkbox"/> No	5 cm Mucky Mineral	<input type="checkbox"/> No	Depleted Dark Surface
<input type="checkbox"/> No	Mucky Presence	<input type="checkbox"/> No	Redox Depressions
<input type="checkbox"/> No	1 cm Muck	<input type="checkbox"/> No	Marl
<input type="checkbox"/> No	Depleted Below Dark Surface	<input type="checkbox"/> No	Depleted Ochric
<input type="checkbox"/> No	Thick Dark Surface	<input type="checkbox"/> No	Iron-Manganese Masses
<input type="checkbox"/> No	Coast Prairie Redox	<input type="checkbox"/> No	Umbric Surface
<input type="checkbox"/> No	Sandy Mucky Mineral	<input type="checkbox"/> No	Delta Ochric
<input type="checkbox"/> No	Sandy Gleyed Matrix	<input type="checkbox"/> No	Reduced Vertic
<input type="checkbox"/> No	Sandy Redox	<input type="checkbox"/> No	Piedmont FloodPlain Soils
<input type="checkbox"/> No	Stripped Matrix	<input type="checkbox"/> No	Anomalous Bright Loamy Soils
<input type="checkbox"/> No	Dark Surface		

**Indicators for Problematic Hydric Soils:**

<input type="checkbox"/> No	1 cm Muck
<input type="checkbox"/> No	2 cm Muck
<input type="checkbox"/> No	Reduced Vertic
<input type="checkbox"/> No	Piedmont Floodplain Soils
<input type="checkbox"/> No	Amomalous Bright Loamy Solis
<input type="checkbox"/> No	Red Parent Material
<input type="checkbox"/> No	Very Shallow Dark Surface
<input type="checkbox"/> No	Other (Explain in Remarks)

**Restrictive Layer (If Observed)**

Type: \_\_\_\_\_  
 Depth: \_\_\_\_\_ inches

**HYDRIC SOILS PRESENT?**

YES \_\_\_\_\_  
 NO  X \_\_\_\_\_

Remarks:

**WETLAND DATA FORM: ROUTINE ONSITE DETERMINATION METHOD**

Project/Site: Ameristar City/Parish Lake Charles/Calcasieu Sampling Date 8/21/2012  
 Applicant/Owner Ameristar State Louisiana Sample Plot 4  
 Investigator(s) C. Hoffpauir Sec., Town., Range Sec. 14, Town. 10 South, Range 9 West  
 Latitude 475284 Longitude 3340358 Datum NAD 83  
 Subregion LRR-T Soil Map Unit Name: Crowley-Vidrine silt loam NWI Classification: \_\_\_\_\_  
 Landform: Convex Local Relief: Ridge Slope (%) 1%

Are site climatic/hydrologic conditions typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks)

Are Vegetation No, Soil No, Hydrology No significantly disturbed?

Are Vegetation No, Soil No, Hydrology No naturally disturbed?

"Normal Circumstances" present? Yes X No \_\_\_\_\_ (if no, explain in Remarks)

**SUMMARY OF FINDINGS**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	Is the Sampled Area Within a Wetland? Yes _____ No <u>X</u>
Hydic Soils Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:

**HYDROLOGY (check all that apply)**

<b>Primary Hydrology Indicators:</b>		<b>Secondary Hydrology Indicators:</b>
<u>No</u> Surface Water	<u>No</u> Water-Stained Leaves	<u>No</u> Surface Soil Cracks
<u>No</u> High Water Table	<u>No</u> Aquatic Fauna	<u>No</u> Sparsely Vegetated Concave Surface
<u>No</u> Saturation	<u>No</u> Marl Deposits ( <b>LRRU</b> )	<u>No</u> Drainage Patterns
<u>No</u> Water Marks	<u>No</u> Hydrogen Sulfide Odor	<u>No</u> Moss Trim Lines
<u>No</u> Sediment Deposits	<u>No</u> Oxidized Rhizospheres on Living Roots	<u>No</u> Dry-Season Water Table
<u>No</u> Drift Deposits	<u>No</u> Presence of Reduced Iron	<u>No</u> Crayfish Burrows
<u>No</u> Algal Mat or Crust	<u>No</u> Recent Iron Reduction in Tilled Soils	<u>No</u> Saturation Visible on Aerial Imagery
<u>No</u> Iron Deposits	<u>No</u> Thin Muck Surface	<u>No</u> Geomorphic Position
<u>No</u> Inundation Visible on Aerial Imagery	<u>No</u> Other (Explain in Remarks)	<u>No</u> Shallow Aquitard
		<u>No</u> FAC-Neutral Test

**Field Observations**

Surface Water Present? Yes \_\_\_\_\_ No X Depth (in.)

Water Table Present? Yes \_\_\_\_\_ No X Depth (in.)

Saturation Present? Yes \_\_\_\_\_ No X Depth (in.)

**WETLAND HYDROLOGY PRESENT?**

YES

NO X

Describe Recorded Data (Stream Gauge, Monitoring Well, Aerial Photos, Previous Inspections), if available:

Remarks

**WETLAND DATA FORM: ROUTINE ONSITE DETERMINATION METHOD**

**VEGETATION**

Sample Point 4

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum ( Plot Size _____ )				<b>Dominance Test Worksheet:</b>
1. <u>Liquidambar styraciflua</u>	<u>1%</u>	<u>Yes</u>	<u>FAC</u>	Number of Dominant Species That are OBL, FACW, of FAC <u>6</u> (A)
2. <u>Quercus alba</u>	<u>2%</u>	<u>Yes</u>	<u>FACU</u>	
3. _____				Number of Dominant Species Across All Strata <u>9</u> (B)
4. _____				
5. _____				Percent of Dominant Species That are OBL, FACW, or FAC <u>67</u> (A/B)
6. _____				
7. _____				
	<u>3%</u>	= Total Cover		
Sapling Stratum ( Plot Size _____ )				<b>Prevalance Index Worksheet:</b>
1. <u>Quercus nigra</u>	<u>20%</u>	<u>Yes</u>	<u>FAC</u>	<b>Total % Cover of:</b> <u>        </u> <b>Multiply by:</b> _____
2. <u>Liquidambar styraciflua</u>	<u>2%</u>	<u>No</u>	<u>FAC</u>	OBL Species _____ x1 _____
3. <u>Magnolia grandiflora</u>	<u>1%</u>	<u>No</u>	<u>FAC</u>	FACW Species _____ x2 _____
4. <u>Prunus serotina</u>	<u>1%</u>	<u>No</u>	<u>FACU</u>	FAC Species _____ x3 _____
5. _____				FACU Species _____ x4 _____
6. _____				UPL Species _____ x5 _____
7. _____				Column Totals _____ (A) _____ (B)
	<u>24%</u>	= Total Cover		Prevalance Index (B/A) = _____
Shrub Stratum ( Plot Size _____ )				<b>Hydrophytic Vegetation Indicators:</b>
1. <u>Ligustrum sinense</u>	<u>10%</u>	<u>Yes</u>	<u>FAC</u>	Dominance Test is > 50% <u>X</u>
2. _____				Prevalance Index is ≤ 3.0 <sup>1</sup> _____
3. _____				Problematic Vegetation <sup>1</sup> _____
4. _____				
5. _____				<sup>1</sup> Indicators of hydric soils and wetland hydrology must be present, unless disturbed or problematic.
6. _____				
7. _____				
	<u>10%</u>	= Total Cover		
Herbaceous Stratum ( Plot Size _____ )				<b>Vegetation Strata Definitions:</b>
1. <u>Solidago altissima</u>	<u>5%</u>	<u>Yes</u>	<u>FACU</u>	Tree - Woody plants, excluding woody vines, approximately 20 ft or more in height and 3 in. or larger in diameter at breast height (DBH)
2. <u>Callicarpa americana</u>	<u>5%</u>	<u>Yes</u>	<u>FACU</u>	
3. _____				Sapling - Woody plants, excluding woody vines, approximately 20 ft or more in height and less than 3 in. DBH.
4. _____				
5. _____				Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft. in height.
6. _____				
7. _____				
	<u>10%</u>	= Total Cover		
Woody Vine Stratum ( Plot Size _____ )				Herb - All herbaceous (non-wood) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft. in height.
1. <u>Gelsemium sempervirens</u>	<u>10%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Toxicodendron radicans</u>	<u>5%</u>	<u>Yes</u>	<u>FAC</u>	
3. <u>Vitis rotundifolia</u>	<u>5%</u>	<u>Yes</u>	<u>FAC</u>	
4. <u>Campsis radicans</u>	<u>2%</u>	<u>No</u>	<u>FAC</u>	
5. _____				Woody Vine - All woody vines, regardless of height.
6. _____				
7. _____				
	<u>22%</u>	= Total Cover		
				<b>HYDROPHYTIC VEGETATION PRESENT?</b>
				YES <u>X</u>
				NO _____
Remarks:				

**WETLAND DATA FORM: ROUTINE ONSITE DETERMINATION METHOD**

**SOILS**

Sample Point 4

**Profile Description:** (Describe to the depth needed to document the indicator or confirm absence of indicators)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-2"	10YR 4/4	100					Silt loam	
2-15"	10YR 5/4	100					Silt loam	

<sup>1</sup>Type: C= Concentration, D = Depletion, RM= Reduced Matrix, CS = Covered or Coated Sand Grains.

<sup>2</sup>Location: PL = Pore Lining, M = Matrix.

**Hydric Soil Indicators:**

<input type="checkbox"/> No	Histosol	<input type="checkbox"/> No	Polyvalue Below Surface
<input type="checkbox"/> No	Histic Epipedon	<input type="checkbox"/> No	Thin Dark Surface
<input type="checkbox"/> No	Black Histic	<input type="checkbox"/> No	Loamy Mucky Mineral
<input type="checkbox"/> No	Hydrogen Sulfide	<input type="checkbox"/> No	Loamy Gleyed Matrix
<input type="checkbox"/> No	Stratified Layers	<input type="checkbox"/> No	Depleted Matrix
<input type="checkbox"/> No	Organic Bodies	<input type="checkbox"/> No	Redox Dark Surface
<input type="checkbox"/> No	5 cm Mucky Mineral	<input type="checkbox"/> No	Depleted Dark Surface
<input type="checkbox"/> No	Mucky Presence	<input type="checkbox"/> No	Redox Depressions
<input type="checkbox"/> No	1 cm Muck	<input type="checkbox"/> No	Marl
<input type="checkbox"/> No	Depleted Below Dark Surface	<input type="checkbox"/> No	Depleted Ochric
<input type="checkbox"/> No	Thick Dark Surface	<input type="checkbox"/> No	Iron-Manganese Masses
<input type="checkbox"/> No	Coast Prairie Redox	<input type="checkbox"/> No	Umbric Surface
<input type="checkbox"/> No	Sandy Mucky Mineral	<input type="checkbox"/> No	Delta Ochric
<input type="checkbox"/> No	Sandy Gleyed Matrix	<input type="checkbox"/> No	Reduced Vertic
<input type="checkbox"/> No	Sandy Redox	<input type="checkbox"/> No	Piedmont FloodPlain Soils
<input type="checkbox"/> No	Stripped Matrix	<input type="checkbox"/> No	Anomalous Bright Loamy Soils
<input type="checkbox"/> No	Dark Surface		

**Indicators for Problematic Hydric Soils:**

<input type="checkbox"/> No	1 cm Muck
<input type="checkbox"/> No	2 cm Muck
<input type="checkbox"/> No	Reduced Vertic
<input type="checkbox"/> No	Piedmont Floodplain Soils
<input type="checkbox"/> No	Amomalous Bright Loamy Solis
<input type="checkbox"/> No	Red Parent Material
<input type="checkbox"/> No	Very Shallow Dark Surface
<input type="checkbox"/> No	Other (Explain in Remarks)

**Restrictive Layer (If Observed)**

Type: \_\_\_\_\_  
 Depth: \_\_\_\_\_ inches

**HYDRIC SOILS PRESENT?**

YES \_\_\_\_\_  
 NO  X \_\_\_\_\_

Remarks:

**WETLAND DATA FORM: ROUTINE ONSITE DETERMINATION METHOD**

Project/Site: Ameristar City/Parish Lake Charles/Calcasieu Sampling Date 8/21/2012  
 Applicant/Owner Ameristar State Louisiana Sample Plot 5  
 Investigator(s) C. Hoffpauir Sec., Town., Range Sec. 14, Town. 10 South, Range 9 West  
 Latitude 475743 Longitude 3340382 Datum NAD 83  
 Subregion LRR-T Soil Map Unit Name: Acadia silt loam NWI Classification: \_\_\_\_\_  
 Landform: Convex Local Relief: Ridge Slope (%) 1-3%

Are site climatic/hydrologic conditions typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks)

Are Vegetation No, Soil No, Hydrology No significantly disturbed?

Are Vegetation No, Soil No, Hydrology No naturally disturbed?

"Normal Circumstances" present? Yes X No \_\_\_\_\_ (if no, explain in Remarks)

**SUMMARY OF FINDINGS**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	Is the Sampled Area Within a Wetland? Yes _____ No <u>X</u>
Hydic Soils Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:

**HYDROLOGY (check all that apply)**

<b>Primary Hydrology Indicators:</b>		<b>Secondary Hydrology Indicators:</b>
<u>No</u> Surface Water	<u>No</u> Water-Stained Leaves	<u>No</u> Surface Soil Cracks
<u>No</u> High Water Table	<u>No</u> Aquatic Fauna	<u>No</u> Sparsely Vegetated Concave Surface
<u>No</u> Saturation	<u>No</u> Marl Deposits ( <b>LRRU</b> )	<u>No</u> Drainage Patterns
<u>No</u> Water Marks	<u>No</u> Hydrogen Sulfide Odor	<u>No</u> Moss Trim Lines
<u>No</u> Sediment Deposits	<u>No</u> Oxidized Rhizospheres on Living Roots	<u>No</u> Dry-Season Water Table
<u>No</u> Drift Deposits	<u>No</u> Presence of Reduced Iron	<u>No</u> Crayfish Burrows
<u>No</u> Algal Mat or Crust	<u>No</u> Recent Iron Reduction in Tilled Soils	<u>No</u> Saturation Visible on Aerial Imagery
<u>No</u> Iron Deposits	<u>No</u> Thin Muck Surface	<u>No</u> Geomorphic Position
<u>No</u> Inundation Visible on Aerial Imagery	<u>No</u> Other (Explain in Remarks)	<u>No</u> Shallow Aquitard
		<u>No</u> FAC-Neutral Test

**Field Observations**

Surface Water Present? Yes \_\_\_\_\_ No X Depth (in.)

Water Table Present? Yes \_\_\_\_\_ No X Depth (in.)

Saturation Present? Yes \_\_\_\_\_ No X Depth (in.)

**WETLAND HYDROLOGY PRESENT?**

YES

NO X

Describe Recorded Data (Stream Gauge, Monitoring Well, Aerial Photos, Previous Inspections), if available:

Remarks

**WETLAND DATA FORM: ROUTINE ONSITE DETERMINATION METHOD**

**VEGETATION**

Sample Point 5

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum ( Plot Size _____ )				<b>Dominance Test Worksheet:</b>
1. <u>Liquidambar styraciflua</u>	<u>2%</u>	<u>Yes</u>	<u>FAC</u>	Number of Dominant Species That are OBL, FACW, of FAC <u>7</u> (A)
2. <u>Quercus nigra</u>	<u>2%</u>	<u>Yes</u>	<u>FAC</u>	
3. <u>Pinus taeda</u>	<u>2%</u>	<u>Yes</u>	<u>FAC</u>	Number of Dominant Species Across All Strata <u>8</u> (B)
4. <u>Prunus serotina</u>	<u>2%</u>	<u>Yes</u>	<u>FACU</u>	
5. _____				
6. _____				Percent of Dominant Species That are OBL, FACW, or FAC <u>88</u> (A/B)
7. _____				
	<u>8%</u>	= Total Cover		
Sapling Stratum ( Plot Size _____ )				<b>Prevalance Index Worksheet:</b>
1. <u>Quercus nigra</u>	<u>5%</u>	<u>Yes</u>	<u>FAC</u>	Total % Cover of:      Multiply by:
2. <u>Liquidambar styraciflua</u>	<u>2%</u>	<u>Yes</u>	<u>FAC</u>	OBL Species _____ x1 _____
3. <u>Pinus taeda</u>	<u>2%</u>	<u>Yes</u>	<u>FAC</u>	FACW Species _____ x2 _____
4. _____				FAC Species _____ x3 _____
5. _____				FACU Species _____ x4 _____
6. _____				UPL Species _____ x5 _____
7. _____				Column Totals _____ (A) _____ (B)
	<u>9%</u>	= Total Cover		Prevalance Index (B/A) = _____
Shrub Stratum ( Plot Size _____ )				<b>Hydrophytic Vegetation Indicators:</b>
1. _____				Dominance Test is > 50% <u>X</u>
2. _____				Prevalance Index is ≤ 3.0 <sup>1</sup> _____
3. _____				Problematic Vegetation <sup>1</sup> _____
4. _____				
5. _____				<sup>1</sup> Indicators of hydric soils and wetland hydrology must be present, unless disturbed or problematic.
6. _____				
7. _____				
		= Total Cover		
Herbaceous Stratum ( Plot Size _____ )				<b>Vegetation Strata Definitions:</b>
1. <u>Stenotaphrum secundatum</u>	<u>80%</u>	<u>Yes</u>	<u>FAC</u>	Tree - Woody plants, excluding woody vines, approximately 20 ft or more in height and 3 in. or larger in diameter at breast height (DBH)
2. <u>Ambrosia trifida</u>	<u>5%</u>	<u>No</u>	<u>FAC</u>	
3. <u>Paspalum notatum</u>	<u>2%</u>	<u>No</u>	<u>FACU</u>	Sapling - Woody plants, excluding woody vines, approximately 20 ft or more in height and less than 3 in. DBH.
4. _____				
5. _____				Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft. in height.
6. _____				
7. _____				
	<u>87%</u>	= Total Cover		
Woody Vine Stratum ( Plot Size _____ )				Herb - All herbaceous (non-wood) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft. in height.
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				Woody Vine - All woody vines, regardless of height.
6. _____				
7. _____				
		= Total Cover		
				<b>HYDROPHYTIC VEGETATION PRESENT?</b>
				YES <u>X</u>
				NO _____
Remarks:				



**WETLAND DATA FORM: ROUTINE ONSITE DETERMINATION METHOD**

Project/Site: Ameristar City/Parish Lake Charles/Calcasieu Sampling Date 8/21/2012  
 Applicant/Owner Ameristar State Louisiana Sample Plot 6  
 Investigator(s) C. Hoffpauir Sec., Town., Range Sec. 15, Town. 10 South, Range 9 West  
 Latitude 474329 Longitude 3340489 Datum NAD 83  
 Subregion LRR-T Soil Map Unit Name: Acadia silt loam NWI Classification: \_\_\_\_\_  
 Landform: Convex Local Relief: Ridge Slope (%) 1-3%

Are site climatic/hydrologic conditions typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks)

Are Vegetation No, Soil No, Hydrology No significantly disturbed?

Are Vegetation No, Soil No, Hydrology No naturally disturbed?

"Normal Circumstances" present? Yes X No \_\_\_\_\_ (if no, explain in Remarks)

**SUMMARY OF FINDINGS**

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	Is the Sampled Area Within a Wetland? Yes _____ No <u>X</u>
Hydric Soils Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:

**HYDROLOGY (check all that apply)**

<b>Primary Hydrology Indicators:</b>		<b>Secondary Hydrology Indicators:</b>
<u>No</u> Surface Water	<u>No</u> Water-Stained Leaves	<u>No</u> Surface Soil Cracks
<u>No</u> High Water Table	<u>No</u> Aquatic Fauna	<u>No</u> Sparsely Vegetated Concave Surface
<u>No</u> Saturation	<u>No</u> Marl Deposits ( <b>LRRU</b> )	<u>No</u> Drainage Patterns
<u>No</u> Water Marks	<u>No</u> Hydrogen Sulfide Odor	<u>No</u> Moss Trim Lines
<u>No</u> Sediment Deposits	<u>No</u> Oxidized Rhizospheres on Living Roots	<u>No</u> Dry-Season Water Table
<u>No</u> Drift Deposits	<u>No</u> Presence of Reduced Iron	<u>No</u> Crayfish Burrows
<u>No</u> Algal Mat or Crust	<u>No</u> Recent Iron Reduction in Tilled Soils	<u>No</u> Saturation Visible on Aerial Imagery
<u>No</u> Iron Deposits	<u>No</u> Thin Muck Surface	<u>No</u> Geomorphic Position
<u>No</u> Inundation Visible on Aerial Imagery	<u>No</u> Other (Explain in Remarks)	<u>No</u> Shallow Aquitard
		<u>No</u> FAC-Neutral Test

<b>Field Observations</b>	<b>WETLAND HYDROLOGY PRESENT?</b>
Surface Water Present? Yes _____ No <u>X</u> Depth (in.)	YES
Water Table Present? Yes _____ No <u>X</u> Depth (in.)	NO <u>X</u>
Saturation Present? Yes _____ No <u>X</u> Depth (in.)	

Describe Recorded Data (Stream Gauge, Monitoring Well, Aerial Photos, Previous Inspections), if available:

Remarks:

**WETLAND DATA FORM: ROUTINE ONSITE DETERMINATION METHOD**

**VEGETATION**

Sample Point 6

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum ( Plot Size _____ )				<b>Dominance Test Worksheet:</b> Number of Dominant Species That are OBL, FACW, of FAC <u>0</u> (A)  Number of Dominant Species Across All Strata <u>1</u> (B)  Percent of Dominant Species That are OBL, FACW, or FAC <u>0</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	= Total Cover			
Sapling Stratum ( Plot Size _____ )				<b>Prevalance Index Worksheet:</b> Total % Cover of:                      Multiply by: OBL Species _____ x1 _____ FACW Species _____ x2 _____ FAC Species _____ x3 _____ FACU Species _____ x4 _____ UPL Species _____ x5 _____ Column Totals _____ (A) _____ (B)  Prevalance Index (B/A) = _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	= Total Cover			
Shrub Stratum ( Plot Size _____ )				<b>Hydrophytic Vegetation Indicators:</b> Dominance Test is > 50% _____ Prevalance Index is ≤ 3.0 <sup>1</sup> _____ Problematic Vegetation <sup>1</sup> _____  <sup>1</sup> Indicators of hydric soils and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	= Total Cover			
Herbaceous Stratum ( Plot Size _____ )				<b>Vegetation Strata Definitions:</b> Tree - Woody plants, excluding woody vines, approximately 20 ft or more in height and 3 in. or larger in diameter at breast height (DBH)  Sapling - Woody plants, excluding woody vines, approximately 20 ft or more in height and less than 3 in. DBH.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft. in height.
1. Paspalum notatum	95%	Yes	FACU	
2. Paspalum dilatatum	2%	No	FAC	
3. Cynodon dactylon	2%	No	FACU	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	99% = Total Cover			
Woody Vine Stratum ( Plot Size _____ )				Herb - All herbaceous (non-wood) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft. in height.  Woody Vine - All woody vines, regardless of height.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	= Total Cover			
				<b>HYDROPHYTIC VEGETATION PRESENT?</b> YES _____ NO <input checked="" type="checkbox"/>
Remarks:				

**WETLAND DATA FORM: ROUTINE ONSITE DETERMINATION METHOD**

**SOILS**

Sample Point 6

**Profile Description:** (Describe to the depth needed to document the indicator or confirm absence of indicators)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-15"	10YR 4/4	95	Aggregate	5			Clay	Fill with aggregate present

<sup>1</sup>Type: C= Concentration, D = Depletion, RM= Reduced Matrix, CS = Covered or Coated Sand Grains.  
<sup>2</sup>Location: PL = Pore Lining, M = Matrix.

**Hydric Soil Indicators:**

No	Histosol	No	Polyvalue Below Surface
No	Histic Epipedon	No	Thin Dark Surface
No	Black Histic	No	Loamy Mucky Mineral
No	Hydrogen Sulfide	No	Loamy Gleyed Matrix
No	Stratified Layers	No	Depleted Matrix
No	Organic Bodies	No	Redox Dark Surface
No	5 cm Mucky Mineral	No	Depleted Dark Surface
No	Mucky Presence	No	Redox Depressions
No	1 cm Muck	No	Marl
No	Depleted Below Dark Surface	No	Depleted Ochric
No	Thick Dark Surface	No	Iron-Manganese Masses
No	Coast Prairie Redox	No	Umbric Surface
No	Sandy Mucky Mineral	No	Delta Ochric
No	Sandy Gleyed Matrix	No	Reduced Vertic
No	Sandy Redox	No	Piedmont FloodPlain Soils
No	Stripped Matrix	No	Anomalous Bright Loamy Soils
No	Dark Surface		

<b>Indicators for Problematic Hydric Soils:</b> No 1 cm Muck No 2 cm Muck No Reduced Vertic No Piedmont Floodplain Soils No Amomalous Bright Loamy Solis No Red Parent Material No Very Shallow Dark Surface No Other (Explain in Remarks)	<b>Restrictive Layer (If Observed)</b> Type: _____ Depth: _____ inches
	<b>HYDRIC SOILS PRESENT?</b> YES _____ NO <u>  X  </u>

Remarks:

**WETLAND DATA FORM: ROUTINE ONSITE DETERMINATION METHOD**

Project/Site: Ameristar City/Parish Lake Charles/Calcasieu Sampling Date 8/21/2012  
 Applicant/Owner Ameristar State Louisiana Sample Plot 7  
 Investigator(s) C. Hoffpauir Sec., Town., Range Sec. 14, Town. 10 South, Range 9 West  
 Latitude 475973 Longitude 3340215 Datum NAD 83  
 Subregion LRR-T Soil Map Unit Name: Crowley-Vidrine silt loam NWI Classification: \_\_\_\_\_  
 Landform: Convex Local Relief: Ridge Slope (%) 1%

Are site climatic/hydrologic conditions typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks)

Are Vegetation No, Soil No, Hydrology No significantly disturbed?

Are Vegetation No, Soil No, Hydrology No naturally disturbed?

"Normal Circumstances" present? Yes X No \_\_\_\_\_ (if no, explain in Remarks)

**SUMMARY OF FINDINGS**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	Is the Sampled Area Within a Wetland? Yes _____ No <u>X</u>
Hydic Soils Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:

**HYDROLOGY (check all that apply)**

<u>Primary Hydrology Indicators:</u>		<u>Secondary Hydrology Indicators:</u>
<u>No</u> Surface Water	<u>No</u> Water-Stained Leaves	<u>No</u> Surface Soil Cracks
<u>No</u> High Water Table	<u>No</u> Aquatic Fauna	<u>No</u> Sparsely Vegetated Concave Surface
<u>No</u> Saturation	<u>No</u> Marl Deposits ( <b>LRRU</b> )	<u>No</u> Drainage Patterns
<u>No</u> Water Marks	<u>No</u> Hydrogen Sulfide Odor	<u>No</u> Moss Trim Lines
<u>No</u> Sediment Deposits	<u>No</u> Oxidized Rhizospheres on Living Roots	<u>No</u> Dry-Season Water Table
<u>No</u> Drift Deposits	<u>No</u> Presence of Reduced Iron	<u>No</u> Crayfish Burrows
<u>No</u> Algal Mat or Crust	<u>No</u> Recent Iron Reduction in Tilled Soils	<u>No</u> Saturation Visible on Aerial Imagery
<u>No</u> Iron Deposits	<u>No</u> Thin Muck Surface	<u>No</u> Geomorphic Position
<u>No</u> Inundation Visible on Aerial Imagery	<u>No</u> Other (Explain in Remarks)	<u>No</u> Shallow Aquitard
		<u>No</u> FAC-Neutral Test

**Field Observations**

Surface Water Present? Yes \_\_\_\_\_ No X Depth (in.)

Water Table Present? Yes \_\_\_\_\_ No X Depth (in.)

Saturation Present? Yes \_\_\_\_\_ No X Depth (in.)

**WETLAND HYDROLOGY PRESENT?**

YES

NO X

Describe Recorded Data (Stream Gauge, Monitoring Well, Aerial Photos, Previous Inspections), if available:

Remarks

**WETLAND DATA FORM: ROUTINE ONSITE DETERMINATION METHOD**

**VEGETATION**

Sample Point 7

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum ( Plot Size _____ )				<b>Dominance Test Worksheet:</b> Number of Dominant Species That are OBL, FACW, of FAC <u>2</u> (A)  Number of Dominant Species Across All Strata <u>4</u> (B)  Percent of Dominant Species That are OBL, FACW, or FAC <u>50</u> (A/B)
1. <u>Quercus falcata</u>	1%	Yes	FACU	
2. <u>Carya illinoensis</u>	1%	Yes	FACU	
3. <u>Pinus taeda</u>	1%	Yes	FAC	
4. _____				
5. _____				
6. _____				
7. _____				
	3%	= Total Cover		
Sapling Stratum ( Plot Size _____ )				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
		= Total Cover		
Shrub Stratum ( Plot Size _____ )				<b>Hydrophytic Vegetation Indicators:</b> Dominance Test is > 50% <u>X</u> Prevalance Index is ≤ 3.0 <sup>1</sup> _____ Problematic Vegetation <sup>1</sup> _____  <sup>1</sup> Indicators of hydric soils and wetland hydrology must be present, unless disturbed or problematic.
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
		= Total Cover		
Herbaceous Stratum ( Plot Size _____ )				
1. <u>Stenotaphrum secundatum</u>	90%	Yes	FAC	
2. <u>Cynodon dactylon</u>	5%	No	FACU	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	95%	= Total Cover		
Woody Vine Stratum ( Plot Size _____ )				Herb - All herbaceous (non-wood) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft. in height.  Woody Vine - All woody vines, regardless of height.
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
		= Total Cover		
Remarks:				



**WETLAND DATA FORM: ROUTINE ONSITE DETERMINATION METHOD**

Project/Site: Ameristar City/Parish Lake Charles/Calcasieu Sampling Date 8/21/2012  
 Applicant/Owner Ameristar State Louisiana Sample Plot 8  
 Investigator(s) C. Hoffpauir Sec., Town., Range Sec. 14, Town. 10 South, Range 9 West  
 Latitude 475965 Longitude 3340535 Datum NAD 83  
 Subregion LRR-T Soil Map Unit Name: Mowata-Vidrine silt loams NWI Classification: \_\_\_\_\_  
 Landform: Convex Local Relief: Slope Slope (%) 1-3%

Are site climatic/hydrologic conditions typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks)

Are Vegetation No, Soil No, Hydrology No significantly disturbed?

Are Vegetation No, Soil No, Hydrology No naturally disturbed?

"Normal Circumstances" present? Yes X No \_\_\_\_\_ (if no, explain in Remarks)

**SUMMARY OF FINDINGS**

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	Is the Sampled Area Within a Wetland? Yes _____ No <u>X</u>
Hydric Soils Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:

**HYDROLOGY (check all that apply)**

<b>Primary Hydrology Indicators:</b>	<b>Secondary Hydrology Indicators:</b>
<u>No</u> Surface Water	<u>No</u> Surface Soil Cracks
<u>No</u> High Water Table	<u>No</u> Sparsely Vegetated Concave Surface
<u>No</u> Saturation	<u>No</u> Drainage Patterns
<u>No</u> Water Marks	<u>No</u> Moss Trim Lines
<u>No</u> Sediment Deposits	<u>No</u> Dry-Season Water Table
<u>No</u> Drift Deposits	<u>No</u> Crayfish Burrows
<u>No</u> Algal Mat or Crust	<u>No</u> Saturation Visible on Aerial Imagery
<u>No</u> Iron Deposits	<u>No</u> Geomorphic Position
<u>No</u> Inundation Visible on Aerial Imagery	<u>No</u> Shallow Aquitard
<u>No</u> Water-Stained Leaves	<u>No</u> FAC-Neutral Test
<u>No</u> Aquatic Fauna	
<u>No</u> Marl Deposits (LRRU)	
<u>No</u> Hydrogen Sulfide Odor	
<u>No</u> Oxidized Rhizospheres on Living Roots	
<u>No</u> Presence of Reduced Iron	
<u>No</u> Recent Iron Reduction in Tilled Soils	
<u>No</u> Thin Muck Surface	
<u>No</u> Other (Explain in Remarks)	

<b>Field Observations</b>	<b>WETLAND HYDROLOGY PRESENT?</b>
Surface Water Present? Yes _____ No <u>X</u> Depth (in.)	YES
Water Table Present? Yes _____ No <u>X</u> Depth (in.)	NO <u>X</u>
Saturation Present? Yes _____ No <u>X</u> Depth (in.)	

Describe Recorded Data (Stream Gauge, Monitoring Well, Aerial Photos, Previous Inspections), if available:

Remarks:

**WETLAND DATA FORM: ROUTINE ONSITE DETERMINATION METHOD**

**VEGETATION**

Sample Point 8

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum ( Plot Size _____ )				<b>Dominance Test Worksheet:</b> Number of Dominant Species That are OBL, FACW, of FAC <u>1</u> (A)  Number of Dominant Species Across All Strata <u>3</u> (B)  Percent of Dominant Species That are OBL, FACW, or FAC <u>33</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	= Total Cover			
Sapling Stratum ( Plot Size _____ )				<b>Prevalance Index Worksheet:</b> Total % Cover of:                      Multiply by: OBL Species _____ x1 _____ FACW Species _____ x2 _____ FAC Species _____ x3 _____ FACU Species _____ x4 _____ UPL Species _____ x5 _____ Column Totals _____ (A) _____ (B)  Prevalance Index (B/A) = _____
1. Juniperus virginiana	1%	Yes	FACU	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	1% = Total Cover			
Shrub Stratum ( Plot Size _____ )				<b>Hydrophytic Vegetation Indicators:</b> Dominance Test is > 50% _____ Prevalance Index is ≤ 3.0 <sup>1</sup> _____ Problematic Vegetation <sup>1</sup> _____  <sup>1</sup> Indicators of hydric soils and wetland hydrology must be present, unless disturbed or problematic.
1. Baccharis halimifolia	1%	Yes	FAC	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	1% = Total Cover			
Herbaceous Stratum ( Plot Size _____ )				<b>Vegetation Strata Definitions:</b> Tree - Woody plants, excluding woody vines, approximately 20 ft or more in height and 3 in. or larger in diameter at breast height (DBH)  Sapling - Woody plants, excluding woody vines, approximately 20 ft or more in height and less than 3 in. DBH.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft. in height.
1. Paspalum notatum	98%	Yes	FACU	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	98% = Total Cover			
Woody Vine Stratum ( Plot Size _____ )				Herb - All herbaceous (non-wood) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft. in height.  Woody Vine - All woody vines, regardless of height.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	= Total Cover			
				<b>HYDROPHYTIC VEGETATION PRESENT?</b> YES _____ NO <input checked="" type="checkbox"/>
Remarks:				

## WETLAND DATA FORM: ROUTINE ONSITE DETERMINATION METHOD

### SOILS

Sample Point 8

Profile Description: (Describe to the depth needed to document the indicator or confirm absence of indicators)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-16"	10YR 5/2	100					Silt loam	

<sup>1</sup>Type: C= Concentration, D = Depletion, RM= Reduced Matrix, CS = Covered or Coated Sand Grains.

<sup>2</sup>Location: PL = Pore Lining, M = Matrix.

**Hydric Soil Indicators:**

<input type="checkbox"/> No	Histosol	<input type="checkbox"/> No	Polyvalue Below Surface
<input type="checkbox"/> No	Histic Epipedon	<input type="checkbox"/> No	Thin Dark Surface
<input type="checkbox"/> No	Black Histic	<input type="checkbox"/> No	Loamy Mucky Mineral
<input type="checkbox"/> No	Hydrogen Sulfide	<input type="checkbox"/> No	Loamy Gleyed Matrix
<input type="checkbox"/> No	Stratified Layers	<input type="checkbox"/> No	Depleted Matrix
<input type="checkbox"/> No	Organic Bodies	<input type="checkbox"/> No	Redox Dark Surface
<input type="checkbox"/> No	5 cm Mucky Mineral	<input type="checkbox"/> No	Depleted Dark Surface
<input type="checkbox"/> No	Mucky Presence	<input type="checkbox"/> No	Redox Depressions
<input type="checkbox"/> No	1 cm Muck	<input type="checkbox"/> No	Marl
<input type="checkbox"/> No	Depleted Below Dark Surface	<input type="checkbox"/> No	Depleted Ochric
<input type="checkbox"/> No	Thick Dark Surface	<input type="checkbox"/> No	Iron-Manganese Masses
<input type="checkbox"/> No	Coast Prairie Redox	<input type="checkbox"/> No	Umbric Surface
<input type="checkbox"/> No	Sandy Mucky Mineral	<input type="checkbox"/> No	Delta Ochric
<input type="checkbox"/> No	Sandy Gleyed Matrix	<input type="checkbox"/> No	Reduced Vertic
<input type="checkbox"/> No	Sandy Redox	<input type="checkbox"/> No	Piedmont FloodPlain Soils
<input type="checkbox"/> No	Stripped Matrix	<input type="checkbox"/> No	Anomalous Bright Loamy Soils
<input type="checkbox"/> No	Dark Surface		

**Indicators for Problematic Hydric Soils:**

<input type="checkbox"/> No	1 cm Muck
<input type="checkbox"/> No	2 cm Muck
<input type="checkbox"/> No	Reduced Vertic
<input type="checkbox"/> No	Piedmont Floodplain Soils
<input type="checkbox"/> No	Anomalous Bright Loamy Soils
<input type="checkbox"/> No	Red Parent Material
<input type="checkbox"/> No	Very Shallow Dark Surface
<input type="checkbox"/> No	Other (Explain in Remarks)

**Restrictive Layer (If Observed)**

Type: \_\_\_\_\_  
 Depth: \_\_\_\_\_ inches

**HYDRIC SOILS PRESENT?**

YES \_\_\_\_\_  
 NO  X \_\_\_\_\_

Remarks:

**WETLAND DATA FORM: ROUTINE ONSITE DETERMINATION METHOD**

Project/Site: Ameristar City/Parish Lake Charles/Calcasieu Sampling Date 8/21/2012  
 Applicant/Owner Ameristar State Louisiana Sample Plot 9  
 Investigator(s) C. Hoffpauir Sec., Town., Range Sec. 14, Town. 10 South, Range 9 West  
 Latitude 475234 Longitude 3340547 Datum NAD 83  
 Subregion LRR-T Soil Map Unit Name: Crowley-Vidrine silt loams NWI Classification: \_\_\_\_\_  
 Landform: Convex Local Relief: Ridge Slope (%) 1-3%

Are site climatic/hydrologic conditions typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks)

Are Vegetation No, Soil No, Hydrology No significantly disturbed?

Are Vegetation No, Soil No, Hydrology No naturally disturbed?

"Normal Circumstances" present? Yes X No \_\_\_\_\_ (if no, explain in Remarks)

**SUMMARY OF FINDINGS**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	Is the Sampled Area Within a Wetland? Yes _____ No <u>X</u>
Hydric Soils Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:

**HYDROLOGY (check all that apply)**

<u>Primary Hydrology Indicators:</u>	<u>Secondary Hydrology Indicators:</u>
<u>No</u> Surface Water	<u>No</u> Surface Soil Cracks
<u>No</u> High Water Table	<u>No</u> Sparsely Vegetated Concave Surface
<u>No</u> Saturation	<u>No</u> Drainage Patterns
<u>No</u> Water Marks	<u>No</u> Moss Trim Lines
<u>No</u> Sediment Deposits	<u>No</u> Dry-Season Water Table
<u>No</u> Drift Deposits	<u>No</u> Crayfish Burrows
<u>No</u> Algal Mat or Crust	<u>No</u> Saturation Visible on Aerial Imagery
<u>No</u> Iron Deposits	<u>No</u> Geomorphic Position
<u>No</u> Inundation Visible on Aerial Imagery	<u>No</u> Shallow Aquitard
<u>No</u> Water-Stained Leaves	<u>No</u> FAC-Neutral Test
<u>No</u> Aquatic Fauna	
<u>No</u> Marl Deposits (LRRU)	
<u>No</u> Hydrogen Sulfide Odor	
<u>No</u> Oxidized Rhizospheres on Living Roots	
<u>No</u> Presence of Reduced Iron	
<u>No</u> Recent Iron Reduction in Tilled Soils	
<u>No</u> Thin Muck Surface	
<u>No</u> Other (Explain in Remarks)	

<b>Field Observations</b>	<b>WETLAND HYDROLOGY PRESENT?</b> YES NO <u>X</u>
Surface Water Present? Yes _____ No <u>X</u> Depth (in.)	
Water Table Present? Yes _____ No <u>X</u> Depth (in.)	
Saturation Present? Yes _____ No <u>X</u> Depth (in.)	

Describe Recorded Data (Stream Gauge, Monitoring Well, Aerial Photos, Previous Inspections), if available:

Remarks:

**WETLAND DATA FORM: ROUTINE ONSITE DETERMINATION METHOD**

**VEGETATION**

Sample Point 9

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum ( Plot Size _____ )				<b>Dominance Test Worksheet:</b> Number of Dominant Species That are OBL, FACW, of FAC <u>4</u> (A)  Number of Dominant Species Across All Strata <u>5</u> (B)  Percent of Dominant Species That are OBL, FACW, or FAC <u>80</u> (A/B)
1. <u>Quercus nigra</u>	<u>2%</u>	Yes	FAC	
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	<u>2%</u>	= Total Cover		
Sapling Stratum ( Plot Size _____ )				
1. <u>Triadica sebifera</u>	<u>5%</u>	Yes	FAC	
2. <u>Pinus taeda</u>	<u>2%</u>	Yes	FAC	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	<u>7%</u>	= Total Cover		
Shrub Stratum ( Plot Size _____ )				<b>Hydrophytic Vegetation Indicators:</b> Dominance Test is > 50% <u>X</u> Prevalance Index is ≤ 3.0 <sup>1</sup> _____ Problematic Vegetation <sup>1</sup> _____  <sup>1</sup> Indicators of hydric soils and wetland hydrology must be present, unless disturbed or problematic.
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
		= Total Cover		
Herbaceous Stratum ( Plot Size _____ )				
1. <u>Paspalum notatum</u>	<u>70%</u>	Yes	FACU	
2. <u>Callicarpa americana</u>	<u>2%</u>	No	FACU	
3. <u>Cynadon dactylon</u>	<u>10%</u>	No	FACU	
4. _____				
5. _____				
6. _____				
7. _____				
	<u>82%</u>	= Total Cover		
Woody Vine Stratum ( Plot Size _____ )				Herb - All herbaceous (non-wood) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft. in height.  Woody Vine - All woody vines, regardless of height.
1. <u>Gelsemium sempervirens</u>	<u>5%</u>	Yes	FAC	
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	<u>5%</u>	= Total Cover		
Remarks:				



**WETLAND DATA FORM: ROUTINE ONSITE DETERMINATION METHOD**

Project/Site: Ameristar City/Parish Lake Charles/Calcasieu Sampling Date 8/21/2012  
 Applicant/Owner Ameristar State Louisiana Sample Plot 10  
 Investigator(s) C. Hoffpauir Sec., Town., Range Sec. 14, Town. 10 South, Range 9 West  
 Latitude 474525 Longitude 3340505 Datum NAD 83  
 Subregion LRR-T Soil Map Unit Name: Acadia silt loam NWI Classification: \_\_\_\_\_  
 Landform: Convex Local Relief: Ridge Slope (%) 1-3%

Are site climatic/hydrologic conditions typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks)

Are Vegetation No, Soil No, Hydrology No significantly disturbed?

Are Vegetation No, Soil No, Hydrology No naturally disturbed?

"Normal Circumstances" present? Yes X No \_\_\_\_\_ (if no, explain in Remarks)

**SUMMARY OF FINDINGS**

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	Is the Sampled Area Within a Wetland? Yes _____ No <u>X</u>
Hydric Soils Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:

**HYDROLOGY (check all that apply)**

<b>Primary Hydrology Indicators:</b>		<b>Secondary Hydrology Indicators:</b>
<u>No</u> Surface Water	<u>No</u> Water-Stained Leaves	<u>No</u> Surface Soil Cracks
<u>No</u> High Water Table	<u>No</u> Aquatic Fauna	<u>No</u> Sparsely Vegetated Concave Surface
<u>No</u> Saturation	<u>No</u> Marl Deposits ( <b>LRRU</b> )	<u>No</u> Drainage Patterns
<u>No</u> Water Marks	<u>No</u> Hydrogen Sulfide Odor	<u>No</u> Moss Trim Lines
<u>No</u> Sediment Deposits	<u>No</u> Oxidized Rhizospheres on Living Roots	<u>No</u> Dry-Season Water Table
<u>No</u> Drift Deposits	<u>No</u> Presence of Reduced Iron	<u>No</u> Crayfish Burrows
<u>No</u> Algal Mat or Crust	<u>No</u> Recent Iron Reduction in Tilled Soils	<u>No</u> Saturation Visible on Aerial Imagery
<u>No</u> Iron Deposits	<u>No</u> Thin Muck Surface	<u>No</u> Geomorphic Position
<u>No</u> Inundation Visible on Aerial Imagery	<u>No</u> Other (Explain in Remarks)	<u>No</u> Shallow Aquitard
		<u>No</u> FAC-Neutral Test

<b>Field Observations</b>		<b>WETLAND HYDROLOGY PRESENT?</b>
Surface Water Present? Yes _____ No <u>X</u> Depth (in.)		YES
Water Table Present? Yes _____ No <u>X</u> Depth (in.)		NO <u>X</u>
Saturation Present? Yes _____ No <u>X</u> Depth (in.)		

Describe Recorded Data (Stream Gauge, Monitoring Well, Aerial Photos, Previous Inspections), if available:

Remarks:

**WETLAND DATA FORM: ROUTINE ONSITE DETERMINATION METHOD**

**VEGETATION**

Sample Point 10

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum ( Plot Size _____ )				<b>Dominance Test Worksheet:</b> Number of Dominant Species That are OBL, FACW, of FAC <u>1</u> (A)  Number of Dominant Species Across All Strata <u>5</u> (B)  Percent of Dominant Species That are OBL, FACW, or FAC <u>20</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	= Total Cover			
Sapling Stratum ( Plot Size _____ )				<b>Prevalance Index Worksheet:</b> Total % Cover of:                      Multiply by: OBL Species                                  x1 _____ FACW Species                                x2 _____ FAC Species                                    x3 _____ FACU Species                                 x4 _____ UPL Species                                  x5 _____ Column Totals                                (A) _____ (B) _____  Prevalance Index (B/A) = _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	= Total Cover			
Shrub Stratum ( Plot Size _____ )				<b>Hydrophytic Vegetation Indicators:</b> Dominance Test is > 50% _____ Prevalance Index is ≤ 3.0 <sup>1</sup> _____ Problematic Vegetation <sup>1</sup> _____  <sup>1</sup> Indicators of hydric soils and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	= Total Cover			
Herbaceous Stratum ( Plot Size _____ )				<b>Vegetation Strata Definitions:</b> Tree - Woody plants, excluding woody vines, approximately 20 ft or more in height and 3 in. or larger in diameter at breast height (DBH)  Sapling - Woody plants, excluding woody vines, approximately 20 ft or more in height and less than 3 in. DBH.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft. in height.  Herb - All herbaceous (non-wood) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft. in height.  Woody Vine - All woody vines, regardless of height.
1. <u>Solidago altissima</u>	5%	Yes	FACU	
2. <u>Verbena brasiliensis</u>	5%	Yes	FAC	
3. <u>Lantana camara</u>	5%	Yes	FACU	
4. <u>Paspalum urvillei</u>	2%	No	FAC	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	17% = Total Cover			
Woody Vine Stratum ( Plot Size _____ )				<b>HYDROPHYTIC VEGETATION PRESENT?</b> YES _____ NO <input checked="" type="checkbox"/>
1. <u>Ipomoea cordatotriloba</u>	25%	Yes	FACU	
2. <u>Rubus trivialis</u>	25%	Yes	FACU	
3. <u>Ampelopsis cordata</u>	10%	No	FAC	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	60% = Total Cover			
Remarks:				



**WETLAND DATA FORM: ROUTINE ONSITE DETERMINATION METHOD**

Project/Site: Ameristar City/Parish Lake Charles/Calcasieu Sampling Date 8/22/2012  
 Applicant/Owner Ameristar State Louisiana Sample Plot 11  
 Investigator(s) C. Hoffpauir Sec., Town., Range Sec. 12, Town. 10 South, Range 9 West  
 Latitude 475985 Longitude 3341173 Datum NAD 83  
 Subregion LRR-T Soil Map Unit Name: Mowata-Vidrine silt loams NWI Classification: \_\_\_\_\_  
 Landform: Concave Local Relief: Intermound Slope (%) <1%

Are site climatic/hydrologic conditions typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks)

Are Vegetation No, Soil No, Hydrology No significantly disturbed?

Are Vegetation No, Soil No, Hydrology No naturally disturbed?

"Normal Circumstances" present? Yes X No \_\_\_\_\_ (if no, explain in Remarks)

**SUMMARY OF FINDINGS**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	Is the Sampled Area Within a Wetland? Yes <u>X</u> No _____
Hydric Soils Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks:

**HYDROLOGY (check all that apply)**

<u>Primary Hydrology Indicators:</u>	<u>Secondary Hydrology Indicators:</u>
<u>No</u> Surface Water	<u>No</u> Surface Soil Cracks
<u>No</u> High Water Table	<u>No</u> Sparsely Vegetated Concave Surface
<u>No</u> Saturation	<u>No</u> Drainage Patterns
<u>No</u> Water Marks	<u>No</u> Moss Trim Lines
<u>No</u> Sediment Deposits	<u>No</u> Dry-Season Water Table
<u>No</u> Drift Deposits	<u>No</u> Crayfish Burrows
<u>No</u> Algal Mat or Crust	<u>No</u> Saturation Visible on Aerial Imagery
<u>No</u> Iron Deposits	<u>No</u> Geomorphic Position
<u>No</u> Inundation Visible on Aerial Imagery	<u>No</u> Shallow Aquitard
<u>Yes</u> Water-Stained Leaves	<u>No</u> FAC-Neutral Test
<u>No</u> Aquatic Fauna	
<u>No</u> Marl Deposits (LRRU)	
<u>No</u> Hydrogen Sulfide Odor	
<u>Yes</u> Oxidized Rhizospheres on Living Roots	
<u>No</u> Presence of Reduced Iron	
<u>No</u> Recent Iron Reduction in Tilled Soils	
<u>No</u> Thin Muck Surface	
<u>No</u> Other (Explain in Remarks)	

<b>Field Observations</b>	<b>WETLAND HYDROLOGY PRESENT?</b> YES <u>X</u> NO
Surface Water Present? Yes _____ No <u>X</u> Depth (in.)	
Water Table Present? Yes _____ No <u>X</u> Depth (in.)	
Saturation Present? Yes _____ No <u>X</u> Depth (in.)	

Describe Recorded Data (Stream Gauge, Monitoring Well, Aerial Photos, Previous Inspections), if available:

Remarks:

**WETLAND DATA FORM: ROUTINE ONSITE DETERMINATION METHOD**

**VEGETATION**

Sample Point 11

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum ( Plot Size _____ )				<b>Dominance Test Worksheet:</b> Number of Dominant Species That are OBL, FACW, of FAC <u>3</u> (A)  Number of Dominant Species Across All Strata <u>3</u> (B)  Percent of Dominant Species That are OBL, FACW, or FAC <u>100</u> (A/B)
1. <u>Liquidambar styraciflua</u>	<u>1%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Nyssa sylvatica</u>	<u>1%</u>	<u>Yes</u>	<u>FAC</u>	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	<u>2%</u>	= Total Cover		
Sapling Stratum ( Plot Size _____ )				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
		= Total Cover		
Shrub Stratum ( Plot Size _____ )				<b>Hydrophytic Vegetation Indicators:</b> Dominance Test is > 50% <u>X</u> Prevalence Index is ≤ 3.0 <sup>1</sup> _____ Problematic Vegetation <sup>1</sup> _____  <sup>1</sup> Indicators of hydric soils and wetland hydrology must be present, unless disturbed or problematic.
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
		= Total Cover		
Herbaceous Stratum ( Plot Size _____ )				
1. <u>Axonopus fissifolius</u>	<u>95%</u>	<u>Yes</u>	<u>FACW</u>	
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	<u>95%</u>	= Total Cover		
Woody Vine Stratum ( Plot Size _____ )				<b>HYDROPHYTIC VEGETATION PRESENT?</b> YES <u>X</u> NO _____
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
		= Total Cover		
Remarks:				

**WETLAND DATA FORM: ROUTINE ONSITE DETERMINATION METHOD**

**SOILS**

Sample Point 11

**Profile Description:** (Describe to the depth needed to document the indicator or confirm absence of indicators)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-4"	10YR 6/2	95	10YR 5/6	5	C	M, PL	Silt loam	
4-16"	10YR 5/2	95	10YR 5/6	5	C	M, PL	Silt loam	

<sup>1</sup>Type: C= Concentration, D = Depletion, RM= Reduced Matrix, CS = Covered or Coated Sand Grains.

<sup>2</sup>Location: PL = Pore Lining, M = Matrix.

**Hydric Soil Indicators:**

<input type="checkbox"/> No	Histosol	<input type="checkbox"/> No	Polyvalue Below Surface
<input type="checkbox"/> No	Histic Epipedon	<input type="checkbox"/> No	Thin Dark Surface
<input type="checkbox"/> No	Black Histic	<input type="checkbox"/> No	Loamy Mucky Mineral
<input type="checkbox"/> No	Hydrogen Sulfide	<input type="checkbox"/> No	Loamy Gleyed Matrix
<input type="checkbox"/> No	Stratified Layers	<input type="checkbox"/> Yes	Depleted Matrix
<input type="checkbox"/> No	Organic Bodies	<input type="checkbox"/> No	Redox Dark Surface
<input type="checkbox"/> No	5 cm Mucky Mineral	<input type="checkbox"/> No	Depleted Dark Surface
<input type="checkbox"/> No	Mucky Presence	<input type="checkbox"/> No	Redox Depressions
<input type="checkbox"/> No	1 cm Muck	<input type="checkbox"/> No	Marl
<input type="checkbox"/> No	Depleted Below Dark Surface	<input type="checkbox"/> No	Depleted Ochric
<input type="checkbox"/> No	Thick Dark Surface	<input type="checkbox"/> No	Iron-Manganese Masses
<input type="checkbox"/> No	Coast Prairie Redox	<input type="checkbox"/> No	Umbric Surface
<input type="checkbox"/> No	Sandy Mucky Mineral	<input type="checkbox"/> No	Delta Ochric
<input type="checkbox"/> No	Sandy Gleyed Matrix	<input type="checkbox"/> No	Reduced Vertic
<input type="checkbox"/> No	Sandy Redox	<input type="checkbox"/> No	Piedmont FloodPlain Soils
<input type="checkbox"/> No	Stripped Matrix	<input type="checkbox"/> No	Anomalous Bright Loamy Soils
<input type="checkbox"/> No	Dark Surface		

**Indicators for Problematic Hydric Soils:**

<input type="checkbox"/> No	1 cm Muck
<input type="checkbox"/> No	2 cm Muck
<input type="checkbox"/> No	Reduced Vertic
<input type="checkbox"/> No	Piedmont Floodplain Soils
<input type="checkbox"/> No	Amomalous Bright Loamy Solis
<input type="checkbox"/> No	Red Parent Material
<input type="checkbox"/> No	Very Shallow Dark Surface
<input type="checkbox"/> No	Other (Explain in Remarks)

**Restrictive Layer (If Observed)**

Type: \_\_\_\_\_  
 Depth: \_\_\_\_\_ inches

**HYDRIC SOILS PRESENT?**

YES  X \_\_\_\_\_  
 NO \_\_\_\_\_

Remarks:

**WETLAND DATA FORM: ROUTINE ONSITE DETERMINATION METHOD**

Project/Site: Ameristar City/Parish Lake Charles/Calcasieu Sampling Date 8/22/2012  
 Applicant/Owner Ameristar State Louisiana Sample Plot 12  
 Investigator(s) C. Hoffpauir Sec., Town., Range Sec. 11, Town. 10 South, Range 9 West  
 Latitude 475994 Longitude 3341158 Datum NAD 83  
 Subregion LRR-T Soil Map Unit Name: Mowata-Vidrine silt loams NWI Classification: \_\_\_\_\_  
 Landform: Convex Local Relief: Mound Slope (%) 1-3%

Are site climatic/hydrologic conditions typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks)

Are Vegetation No, Soil No, Hydrology No significantly disturbed?

Are Vegetation No, Soil No, Hydrology No naturally disturbed?

"Normal Circumstances" present? Yes X No \_\_\_\_\_ (if no, explain in Remarks)

**SUMMARY OF FINDINGS**

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	Is the Sampled Area Within a Wetland? Yes _____ No <u>X</u>
Hydric Soils Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:

**HYDROLOGY (check all that apply)**

<b>Primary Hydrology Indicators:</b>		<b>Secondary Hydrology Indicators:</b>
<u>No</u> Surface Water	<u>No</u> Water-Stained Leaves	<u>No</u> Surface Soil Cracks
<u>No</u> High Water Table	<u>No</u> Aquatic Fauna	<u>No</u> Sparsely Vegetated Concave Surface
<u>No</u> Saturation	<u>No</u> Marl Deposits ( <b>LRRU</b> )	<u>No</u> Drainage Patterns
<u>No</u> Water Marks	<u>No</u> Hydrogen Sulfide Odor	<u>No</u> Moss Trim Lines
<u>No</u> Sediment Deposits	<u>No</u> Oxidized Rhizospheres on Living Roots	<u>No</u> Dry-Season Water Table
<u>No</u> Drift Deposits	<u>No</u> Presence of Reduced Iron	<u>No</u> Crayfish Burrows
<u>No</u> Algal Mat or Crust	<u>No</u> Recent Iron Reduction in Tilled Soils	<u>No</u> Saturation Visible on Aerial Imagery
<u>No</u> Iron Deposits	<u>No</u> Thin Muck Surface	<u>No</u> Geomorphic Position
<u>No</u> Inundation Visible on Aerial Imagery	<u>No</u> Other (Explain in Remarks)	<u>No</u> Shallow Aquitard
		<u>No</u> FAC-Neutral Test

<b>Field Observations</b>		<b>WETLAND HYDROLOGY PRESENT?</b>
Surface Water Present? Yes _____ No <u>X</u> Depth (in.)		YES
Water Table Present? Yes _____ No <u>X</u> Depth (in.)		NO <u>X</u>
Saturation Present? Yes _____ No <u>X</u> Depth (in.)		

Describe Recorded Data (Stream Gauge, Monitoring Well, Aerial Photos, Previous Inspections), if available:

Remarks:

**WETLAND DATA FORM: ROUTINE ONSITE DETERMINATION METHOD**

**VEGETATION**

Sample Point 12

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum ( Plot Size _____ )				<b>Dominance Test Worksheet:</b>
1. <u>Quercus nigra</u>	<u>2%</u>	<u>Yes</u>	<u>FAC</u>	Number of Dominant Species That are OBL, FACW, of FAC <u>2</u> (A)
2. <u>Quercus falcata</u>	<u>1%</u>	<u>Yes</u>	<u>FACU</u>	
3. _____				Number of Dominant Species Across All Strata <u>6</u> (B)
4. _____				
5. _____				Percent of Dominant Species That are OBL, FACW, or FAC <u>33</u> (A/B)
6. _____				
7. _____	<u>3%</u>	<u>= Total Cover</u>		
Sapling Stratum ( Plot Size _____ )				<b>Prevalance Index Worksheet:</b>
1. _____				<b>Total % Cover of:</b>
2. _____				<b>Multiply by:</b>
3. _____				OBL Species _____ x1 _____
4. _____				FACW Species _____ x2 _____
5. _____				FAC Species _____ x3 _____
6. _____				FACU Species _____ x4 _____
7. _____				UPL Species _____ x5 _____
				Column Totals _____ (A) _____ (B)
		<u>= Total Cover</u>		Prevalance Index (B/A) = _____
Shrub Stratum ( Plot Size _____ )				<b>Hydrophytic Vegetation Indicators:</b>
1. <u>Sassafras albidum</u>	<u>1%</u>	<u>Yes</u>	<u>FACU</u>	Dominance Test is > 50% _____
2. _____				Prevalance Index is ≤ 3.0 <sup>1</sup> _____
3. _____				Problematic Vegetation <sup>1</sup> _____
4. _____				
5. _____				<sup>1</sup> Indicators of hydric soils and wetland hydrology must be present, unless disturbed or problematic.
6. _____				
7. _____	<u>1%</u>	<u>= Total Cover</u>		
Herbaceous Stratum ( Plot Size _____ )				<b>Vegetation Strata Definitions:</b>
1. <u>Digitaria ciliaris</u>	<u>30%</u>	<u>Yes</u>	<u>FACU</u>	Tree - Woody plants, excluding woody vines, approximately 20 ft or more in height and 3 in. or larger in diameter at breast height (DBH)
2. <u>Cynodon dactylon</u>	<u>20%</u>	<u>Yes</u>	<u>FACU</u>	
3. <u>Setaria verticillata</u>	<u>5%</u>	<u>Yes</u>	<u>FAC</u>	Sapling - Woody plants, excluding woody vines, approximately 20 ft or more in height and less than 3 in. DBH.
4. _____				
5. _____				Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft. in height.
6. _____				
7. _____	<u>55%</u>	<u>= Total Cover</u>		
Woody Vine Stratum ( Plot Size _____ )				Herb - All herbaceous (non-wood) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft. in height.
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				Woody Vine - All woody vines, regardless of height.
6. _____				
7. _____				
		<u>= Total Cover</u>		<b>HYDROPHYTIC VEGETATION PRESENT?</b>
				YES _____
				NO <u>X</u>
Remarks:				



**WETLAND DATA FORM: ROUTINE ONSITE DETERMINATION METHOD**

Project/Site: Ameristar City/Parish Lake Charles/Calcasieu Sampling Date 8/22/2012  
 Applicant/Owner Ameristar State Louisiana Sample Plot 13  
 Investigator(s) C. Hoffpauir Sec., Town., Range Sec. 11, Town. 10 South, Range 9 West  
 Latitude 475918 Longitude 3341372 Datum NAD 83  
 Subregion LRR-T Soil Map Unit Name: Mowata-Vidrine silt loams NWI Classification: \_\_\_\_\_  
 Landform: Convex Local Relief: Mound Slope (%) 1-3%

Are site climatic/hydrologic conditions typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks)

Are Vegetation No, Soil No, Hydrology No significantly disturbed?

Are Vegetation No, Soil No, Hydrology No naturally disturbed?

"Normal Circumstances" present? Yes X No \_\_\_\_\_ (if no, explain in Remarks)

**SUMMARY OF FINDINGS**

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	Is the Sampled Area Within a Wetland? Yes _____ No <u>X</u>
Hydric Soils Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:

**HYDROLOGY (check all that apply)**

<b>Primary Hydrology Indicators:</b>	<b>Secondary Hydrology Indicators:</b>
<u>No</u> Surface Water	<u>No</u> Surface Soil Cracks
<u>No</u> High Water Table	<u>No</u> Sparsely Vegetated Concave Surface
<u>No</u> Saturation	<u>No</u> Drainage Patterns
<u>No</u> Water Marks	<u>No</u> Moss Trim Lines
<u>No</u> Sediment Deposits	<u>No</u> Dry-Season Water Table
<u>No</u> Drift Deposits	<u>No</u> Crayfish Burrows
<u>No</u> Algal Mat or Crust	<u>No</u> Saturation Visible on Aerial Imagery
<u>No</u> Iron Deposits	<u>No</u> Geomorphic Position
<u>No</u> Inundation Visible on Aerial Imagery	<u>No</u> Shallow Aquitard
<u>No</u> Water-Stained Leaves	<u>No</u> FAC-Neutral Test
<u>No</u> Aquatic Fauna	
<u>No</u> Marl Deposits (LRRU)	
<u>No</u> Hydrogen Sulfide Odor	
<u>No</u> Oxidized Rhizospheres on Living Roots	
<u>No</u> Presence of Reduced Iron	
<u>No</u> Recent Iron Reduction in Tilled Soils	
<u>No</u> Thin Muck Surface	
<u>No</u> Other (Explain in Remarks)	

**Field Observations**

Surface Water Present? Yes \_\_\_\_\_ No X Depth (in.) \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No X Depth (in.) \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No X Depth (in.) \_\_\_\_\_

**WETLAND HYDROLOGY PRESENT?**

YES  
NO X

Describe Recorded Data (Stream Gauge, Monitoring Well, Aerial Photos, Previous Inspections), if available:

Remarks:

**WETLAND DATA FORM: ROUTINE ONSITE DETERMINATION METHOD**

**VEGETATION**

Sample Point 13

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum ( Plot Size _____ )				<b>Dominance Test Worksheet:</b> Number of Dominant Species That are OBL, FACW, of FAC <u>0</u> (A)  Number of Dominant Species Across All Strata <u>1</u> (B)  Percent of Dominant Species That are OBL, FACW, or FAC <u>0</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	= Total Cover			
Sapling Stratum ( Plot Size _____ )				<b>Prevalance Index Worksheet:</b> Total % Cover of:                      Multiply by: OBL Species                                  x1 _____ FACW Species                                x2 _____ FAC Species                                    x3 _____ FACU Species                                 x4 _____ UPL Species                                  x5 _____ Column Totals                                (A) _____ (B)  Prevalance Index (B/A) = _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	= Total Cover			
Shrub Stratum ( Plot Size _____ )				<b>Hydrophytic Vegetation Indicators:</b> Dominance Test is > 50% _____ Prevalance Index is ≤ 3.0 <sup>1</sup> _____ Problematic Vegetation <sup>1</sup> _____  <sup>1</sup> Indicators of hydric soils and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	1% = Total Cover			
Herbaceous Stratum ( Plot Size _____ )				<b>Vegetation Strata Definitions:</b> Tree - Woody plants, excluding woody vines, approximately 20 ft or more in height and 3 in. or larger in diameter at breast height (DBH)  Sapling - Woody plants, excluding woody vines, approximately 20 ft or more in height and less than 3 in. DBH.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft. in height.
1. <u>Cynodon dactylon</u>	95%	Yes	FACU	
2. <u>Axonopus fissifolius</u>	5%	No	FACW	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	100% = Total Cover			
Woody Vine Stratum ( Plot Size _____ )				Herb - All herbaceous (non-wood) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft. in height.  Woody Vine - All woody vines, regardless of height.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	= Total Cover			
				<b>HYDROPHYTIC VEGETATION PRESENT?</b> YES _____ NO     X
Remarks:				

**WETLAND DATA FORM: ROUTINE ONSITE DETERMINATION METHOD**

**SOILS**

Sample Point 13

**Profile Description:** (Describe to the depth needed to document the indicator or confirm absence of indicators)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-4"	7.5YR 4/4	100					Clay	Fill
4-6"	10YR 7/2	98	10YR 5/6	2	C	M	Clay	Fill
6-16"	10YR 5/4	100					Silt loam	

<sup>1</sup>Type: C= Concentration, D = Depletion, RM= Reduced Matrix, CS = Covered or Coated Sand Grains.

<sup>2</sup>Location: PL = Pore Lining, M = Matrix.

**Hydric Soil Indicators:**

<input type="checkbox"/> No	Histosol	<input type="checkbox"/> No	Polyvalue Below Surface
<input type="checkbox"/> No	Histic Epipedon	<input type="checkbox"/> No	Thin Dark Surface
<input type="checkbox"/> No	Black Histic	<input type="checkbox"/> No	Loamy Mucky Mineral
<input type="checkbox"/> No	Hydrogen Sulfide	<input type="checkbox"/> No	Loamy Gleyed Matrix
<input type="checkbox"/> No	Stratified Layers	<input type="checkbox"/> No	Depleted Matrix
<input type="checkbox"/> No	Organic Bodies	<input type="checkbox"/> No	Redox Dark Surface
<input type="checkbox"/> No	5 cm Mucky Mineral	<input type="checkbox"/> No	Depleted Dark Surface
<input type="checkbox"/> No	Mucky Presence	<input type="checkbox"/> No	Redox Depressions
<input type="checkbox"/> No	1 cm Muck	<input type="checkbox"/> No	Marl
<input type="checkbox"/> No	Depleted Below Dark Surface	<input type="checkbox"/> No	Depleted Ochric
<input type="checkbox"/> No	Thick Dark Surface	<input type="checkbox"/> No	Iron-Manganese Masses
<input type="checkbox"/> No	Coast Prairie Redox	<input type="checkbox"/> No	Umbric Surface
<input type="checkbox"/> No	Sandy Mucky Mineral	<input type="checkbox"/> No	Delta Ochric
<input type="checkbox"/> No	Sandy Gleyed Matrix	<input type="checkbox"/> No	Reduced Vertic
<input type="checkbox"/> No	Sandy Redox	<input type="checkbox"/> No	Piedmont FloodPlain Soils
<input type="checkbox"/> No	Stripped Matrix	<input type="checkbox"/> No	Anomalous Bright Loamy Soils
<input type="checkbox"/> No	Dark Surface		

**Indicators for Problematic Hydric Soils:**

<input type="checkbox"/> No	1 cm Muck
<input type="checkbox"/> No	2 cm Muck
<input type="checkbox"/> No	Reduced Vertic
<input type="checkbox"/> No	Piedmont Floodplain Soils
<input type="checkbox"/> No	Amomalous Bright Loamy Solis
<input type="checkbox"/> No	Red Parent Material
<input type="checkbox"/> No	Very Shallow Dark Surface
<input type="checkbox"/> No	Other (Explain in Remarks)

**Restrictive Layer (If Observed)**

Type: \_\_\_\_\_  
 Depth: \_\_\_\_\_ inches

**HYDRIC SOILS PRESENT?**

YES \_\_\_\_\_  
 NO   X  

Remarks:

**WETLAND DATA FORM: ROUTINE ONSITE DETERMINATION METHOD**

Project/Site: Ameristar City/Parish Lake Charles/Calcasieu Sampling Date 8/22/2012  
 Applicant/Owner Ameristar State Louisiana Sample Plot 14  
 Investigator(s) C. Hoffpauir Sec., Town., Range Sec. 11, Town. 10 South, Range 9 West  
 Latitude 475950 Longitude 3341100 Datum NAD 83  
 Subregion LRR-T Soil Map Unit Name: Mowata-Vidrine silt loams NWI Classification: \_\_\_\_\_  
 Landform: Convex Local Relief: Ridge Slope (%) 1-3%

Are site climatic/hydrologic conditions typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks)

Are Vegetation No, Soil No, Hydrology No significantly disturbed?

Are Vegetation No, Soil No, Hydrology No naturally disturbed?

"Normal Circumstances" present? Yes X No \_\_\_\_\_ (if no, explain in Remarks)

**SUMMARY OF FINDINGS**

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	Is the Sampled Area Within a Wetland? Yes _____ No <u>X</u>
Hydric Soils Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:

**HYDROLOGY (check all that apply)**

<b>Primary Hydrology Indicators:</b>	<b>Secondary Hydrology Indicators:</b>
<u>No</u> Surface Water	<u>No</u> Surface Soil Cracks
<u>No</u> High Water Table	<u>No</u> Sparsely Vegetated Concave Surface
<u>No</u> Saturation	<u>No</u> Drainage Patterns
<u>No</u> Water Marks	<u>No</u> Moss Trim Lines
<u>No</u> Sediment Deposits	<u>No</u> Dry-Season Water Table
<u>No</u> Drift Deposits	<u>No</u> Crayfish Burrows
<u>No</u> Algal Mat or Crust	<u>No</u> Saturation Visible on Aerial Imagery
<u>No</u> Iron Deposits	<u>No</u> Geomorphic Position
<u>No</u> Inundation Visible on Aerial Imagery	<u>No</u> Shallow Aquitard
<u>No</u> Water-Stained Leaves	<u>No</u> FAC-Neutral Test
<u>No</u> Aquatic Fauna	
<u>No</u> Marl Deposits (LRRU)	
<u>No</u> Hydrogen Sulfide Odor	
<u>No</u> Oxidized Rhizospheres on Living Roots	
<u>No</u> Presence of Reduced Iron	
<u>No</u> Recent Iron Reduction in Tilled Soils	
<u>No</u> Thin Muck Surface	
<u>No</u> Other (Explain in Remarks)	

<b>Field Observations</b>	<b>WETLAND HYDROLOGY PRESENT?</b>
Surface Water Present? Yes _____ No <u>X</u> Depth (in.)	YES
Water Table Present? Yes _____ No <u>X</u> Depth (in.)	NO <u>X</u>
Saturation Present? Yes _____ No <u>X</u> Depth (in.)	

Describe Recorded Data (Stream Gauge, Monitoring Well, Aerial Photos, Previous Inspections), if available:

Remarks:

**WETLAND DATA FORM: ROUTINE ONSITE DETERMINATION METHOD**

**VEGETATION**

Sample Point 14

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum ( Plot Size _____ )				<b>Dominance Test Worksheet:</b> Number of Dominant Species That are OBL, FACW, of FAC <u>0</u> (A)  Number of Dominant Species Across All Strata <u>1</u> (B)  Percent of Dominant Species That are OBL, FACW, or FAC <u>0</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	= Total Cover			
Sapling Stratum ( Plot Size _____ )				<b>Prevalance Index Worksheet:</b> Total % Cover of:                      Multiply by: OBL Species                                  x1 _____ FACW Species                                x2 _____ FAC Species                                  x3 _____ FACU Species                                x4 _____ UPL Species                                 x5 _____ Column Totals                                (A) _____ (B)  Prevalance Index (B/A) = _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	= Total Cover			
Shrub Stratum ( Plot Size _____ )				<b>Hydrophytic Vegetation Indicators:</b> Dominance Test is > 50% _____ Prevalance Index is ≤ 3.0 <sup>1</sup> _____ Problematic Vegetation <sup>1</sup> _____  <sup>1</sup> Indicators of hydric soils and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	1% = Total Cover			
Herbaceous Stratum ( Plot Size _____ )				<b>Vegetation Strata Definitions:</b> Tree - Woody plants, excluding woody vines, approximately 20 ft or more in height and 3 in. or larger in diameter at breast height (DBH)  Sapling - Woody plants, excluding woody vines, approximately 20 ft or more in height and less than 3 in. DBH.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft. in height.
1. <u>Cynodon dactylon</u>	98%	Yes	FACU	
2. <u>Axonopus fissifolius</u>	2%	No	FACW	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	100% = Total Cover			
Woody Vine Stratum ( Plot Size _____ )				Herb - All herbaceous (non-wood) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft. in height.  Woody Vine - All woody vines, regardless of height.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	= Total Cover			
				<b>HYDROPHYTIC VEGETATION PRESENT?</b> YES _____ NO    X
Remarks:				

**WETLAND DATA FORM: ROUTINE ONSITE DETERMINATION METHOD**

**SOILS**

Sample Point 14

Profile Description: (Describe to the depth needed to document the indicator or confirm absence of indicators)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-16	Fill						Clay	Fill

<sup>1</sup>Type: C= Concentration, D = Depletion, RM= Reduced Matrix, CS = Covered or Coated Sand Grains.  
<sup>2</sup>Location: PL = Pore Lining, M = Matrix.

Hydric Soil Indicators:		
No	Histosol	No Polyvalue Below Surface
No	Histic Epipedon	No Thin Dark Surface
No	Black Histic	No Loamy Mucky Mineral
No	Hydrogen Sulfide	No Loamy Gleyed Matrix
No	Stratified Layers	No Depleted Matrix
No	Organic Bodies	No Redox Dark Surface
No	5 cm Mucky Mineral	No Depleted Dark Surface
No	Mucky Presence	No Redox Depressions
No	1 cm Muck	No Marl
No	Depleted Below Dark Surface	No Depleted Ochric
No	Thick Dark Surface	No Iron-Manganese Masses
No	Coast Prarie Redox	No Umbric Surface
No	Sandy Mucky Mineral	No Delta Ochric
No	Sandy Gleyed Matrix	No Reduced Vertic
No	Sandy Redox	No Piedmont FloodPlain Soils
No	Stripped Matrix	No Anomalous Bright Loamy Soils
No	Dark Surface	

<b>Indicators for Problematic Hydric Soils:</b> No 1 cm Muck No 2 cm Muck No Reduced Vertic No Piedmont Floodplain Soils No Amomalous Bright Loamy Solis No Red Parent Material No Very Shallow Dark Surface No Other (Explain in Remarks)	<b>Restrictive Layer (If Observed)</b> Type: _____ Depth _____ inches
	<b>HYDRIC SOILS PRESENT?</b> YES _____ NO <u>  X  </u>

Remarks:

**WETLAND DATA FORM: ROUTINE ONSITE DETERMINATION METHOD**

Project/Site: Ameristar City/Parish Lake Charles/Calcasieu Sampling Date 8/22/2012  
 Applicant/Owner Ameristar State Louisiana Sample Plot 15  
 Investigator(s) C. Hoffpauir Sec., Town., Range Sec. 14, Town. 10 South, Range 9 West  
 Latitude 475592 Longitude 3340648 Datum NAD 83  
 Subregion LRR-T Soil Map Unit Name: Crowley-Vidrine silt loams NWI Classification: \_\_\_\_\_  
 Landform: Convex Local Relief: Slope Slope (%) 1-3%

Are site climatic/hydrologic conditions typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks)

Are Vegetation No, Soil No, Hydrology No significantly disturbed?

Are Vegetation No, Soil No, Hydrology No naturally disturbed?

"Normal Circumstances" present? Yes X No \_\_\_\_\_ (if no, explain in Remarks)

**SUMMARY OF FINDINGS**

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	Is the Sampled Area Within a Wetland? Yes _____ No <u>X</u>
Hydric Soils Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:

**HYDROLOGY (check all that apply)**

<b>Primary Hydrology Indicators:</b>		<b>Secondary Hydrology Indicators:</b>
<u>No</u> Surface Water	<u>No</u> Water-Stained Leaves	<u>No</u> Surface Soil Cracks
<u>No</u> High Water Table	<u>No</u> Aquatic Fauna	<u>No</u> Sparsely Vegetated Concave Surface
<u>No</u> Saturation	<u>No</u> Marl Deposits ( <b>LRRU</b> )	<u>No</u> Drainage Patterns
<u>No</u> Water Marks	<u>No</u> Hydrogen Sulfide Odor	<u>No</u> Moss Trim Lines
<u>No</u> Sediment Deposits	<u>No</u> Oxidized Rhizospheres on Living Roots	<u>No</u> Dry-Season Water Table
<u>No</u> Drift Deposits	<u>No</u> Presence of Reduced Iron	<u>No</u> Crayfish Burrows
<u>No</u> Algal Mat or Crust	<u>No</u> Recent Iron Reduction in Tilled Soils	<u>No</u> Saturation Visible on Aerial Imagery
<u>No</u> Iron Deposits	<u>No</u> Thin Muck Surface	<u>No</u> Geomorphic Position
<u>No</u> Inundation Visible on Aerial Imagery	<u>No</u> Other (Explain in Remarks)	<u>No</u> Shallow Aquitard
		<u>No</u> FAC-Neutral Test

<b>Field Observations</b>	<b>WETLAND HYDROLOGY PRESENT?</b>
Surface Water Present? Yes _____ No <u>X</u> Depth (in.)	YES
Water Table Present? Yes _____ No <u>X</u> Depth (in.)	NO <u>X</u>
Saturation Present? Yes _____ No <u>X</u> Depth (in.)	

Describe Recorded Data (Stream Gauge, Monitoring Well, Aerial Photos, Previous Inspections), if available:

Remarks:

**WETLAND DATA FORM: ROUTINE ONSITE DETERMINATION METHOD**

**VEGETATION**

Sample Point 15

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum ( Plot Size _____ )				<b>Dominance Test Worksheet:</b> Number of Dominant Species That are OBL, FACW, of FAC <u>1</u> (A)  Number of Dominant Species Across All Strata <u>3</u> (B)  Percent of Dominant Species That are OBL, FACW, or FAC <u>33</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	= Total Cover			
Sapling Stratum ( Plot Size _____ )				<b>Prevalance Index Worksheet:</b> Total % Cover of:                      Multiply by: OBL Species _____ x1 _____ FACW Species _____ x2 _____ FAC Species _____ x3 _____ FACU Species _____ x4 _____ UPL Species _____ x5 _____ Column Totals _____ (A) _____ (B)  Prevalance Index (B/A) = _____
1. <i>Triadica sebifera</i>	2%	Yes	FAC	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	2% = Total Cover			
Shrub Stratum ( Plot Size _____ )				<b>Hydrophytic Vegetation Indicators:</b> Dominance Test is > 50% _____ Prevalance Index is ≤ 3.0 <sup>1</sup> _____ Problematic Vegetation <sup>1</sup> _____  <sup>1</sup> Indicators of hydric soils and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	= Total Cover			
Herbaceous Stratum ( Plot Size _____ )				<b>Vegetation Strata Definitions:</b> Tree - Woody plants, excluding woody vines, approximately 20 ft or more in height and 3 in. or larger in diameter at breast height (DBH)  Sapling - Woody plants, excluding woody vines, approximately 20 ft or more in height and less than 3 in. DBH.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft. in height.  Herb - All herbaceous (non-wood) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft. in height.  Woody Vine - All woody vines, regardless of height.
1. <i>Ambrosia artemisiifolia</i>	50%	Yes	FACU	
2. <i>Croton capitatus</i>	25%	Yes	NI	
3. <i>Ambrosia trifida</i>	5%	No	FAC	
4. <i>Verbena brasiliensis</i>	5%	No	FAC	
5. <i>Eupatorium capillifolium</i>	5%	No	FACU	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	95% = Total Cover			
Woody Vine Stratum ( Plot Size _____ )				<b>HYDROPHYTIC VEGETATION PRESENT?</b> YES _____ NO <input checked="" type="checkbox"/> X
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	= Total Cover			
Remarks:				

## WETLAND DATA FORM: ROUTINE ONSITE DETERMINATION METHOD

### SOILS

Sample Point 15

Profile Description: (Describe to the depth needed to document the indicator or confirm absence of indicators)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-8"	10YR 4/3	100					Silty Clay	
8-16"	10YR 6/4	98	10YR 5/6	2	C	M	Silt loam	

<sup>1</sup>Type: C= Concentration, D = Depletion, RM= Reduced Matrix, CS = Covered or Coated Sand Grains.

<sup>2</sup>Location: PL = Pore Lining, M = Matrix.

#### Hydric Soil Indicators:

<input type="checkbox"/> No Histosol	<input type="checkbox"/> No Polyvalue Below Surface
<input type="checkbox"/> No Histic Epipedon	<input type="checkbox"/> No Thin Dark Surface
<input type="checkbox"/> No Black Histic	<input type="checkbox"/> No Loamy Mucky Mineral
<input type="checkbox"/> No Hydrogen Sulfide	<input type="checkbox"/> No Loamy Gleyed Matrix
<input type="checkbox"/> No Stratified Layers	<input type="checkbox"/> No Depleted Matrix
<input type="checkbox"/> No Organic Bodies	<input type="checkbox"/> No Redox Dark Surface
<input type="checkbox"/> No 5 cm Mucky Mineral	<input type="checkbox"/> No Depleted Dark Surface
<input type="checkbox"/> No Mucky Presence	<input type="checkbox"/> No Redox Depressions
<input type="checkbox"/> No 1 cm Muck	<input type="checkbox"/> No Marl
<input type="checkbox"/> No Depleted Below Dark Surface	<input type="checkbox"/> No Depleted Ochric
<input type="checkbox"/> No Thick Dark Surface	<input type="checkbox"/> No Iron-Manganese Masses
<input type="checkbox"/> No Coast Prairie Redox	<input type="checkbox"/> No Umbric Surface
<input type="checkbox"/> No Sandy Mucky Mineral	<input type="checkbox"/> No Delta Ochric
<input type="checkbox"/> No Sandy Gleyed Matrix	<input type="checkbox"/> No Reduced Vertic
<input type="checkbox"/> No Sandy Redox	<input type="checkbox"/> No Piedmont FloodPlain Soils
<input type="checkbox"/> No Stripped Matrix	<input type="checkbox"/> No Anomalous Bright Loamy Soils
<input type="checkbox"/> No Dark Surface	

#### Indicators for Problematic Hydric Soils:

<input type="checkbox"/> No 1 cm Muck
<input type="checkbox"/> No 2 cm Muck
<input type="checkbox"/> No Reduced Vertic
<input type="checkbox"/> No Piedmont Floodplain Soils
<input type="checkbox"/> No Anomalous Bright Loamy Soils
<input type="checkbox"/> No Red Parent Material
<input type="checkbox"/> No Very Shallow Dark Surface
<input type="checkbox"/> No Other (Explain in Remarks)

#### Restrictive Layer (If Observed)

Type: \_\_\_\_\_  
 Depth: \_\_\_\_\_ inches

#### HYDRIC SOILS PRESENT?

YES \_\_\_\_\_  
 NO  X \_\_\_\_\_

Remarks:

**WETLAND DATA FORM: ROUTINE ONSITE DETERMINATION METHOD**

Project/Site: Ameristar City/Parish Lake Charles/Calcasieu Sampling Date 8/22/2012  
 Applicant/Owner Ameristar State Louisiana Sample Plot 16  
 Investigator(s) C. Hoffpauir Sec., Town., Range Sec. 14, Town. 10 South, Range 9 West  
 Latitude 475628 Longitude 334779 Datum NAD 83  
 Subregion LRR-T Soil Map Unit Name: Mowata-Vidrine silt loams NWI Classification: \_\_\_\_\_  
 Landform: Convex Local Relief: Ridge Slope (%) 1-10%

Are site climatic/hydrologic conditions typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks)

Are Vegetation No, Soil No, Hydrology No significantly disturbed?

Are Vegetation No, Soil No, Hydrology No naturally disturbed?

"Normal Circumstances" present? Yes X No \_\_\_\_\_ (if no, explain in Remarks)

**SUMMARY OF FINDINGS**

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	Is the Sampled Area Within a Wetland? Yes _____ No <u>X</u>
Hydric Soils Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:

**HYDROLOGY (check all that apply)**

<b>Primary Hydrology Indicators:</b>	<b>Secondary Hydrology Indicators:</b>
<u>No</u> Surface Water	<u>No</u> Surface Soil Cracks
<u>No</u> High Water Table	<u>No</u> Sparsely Vegetated Concave Surface
<u>No</u> Saturation	<u>No</u> Drainage Patterns
<u>No</u> Water Marks	<u>No</u> Moss Trim Lines
<u>No</u> Sediment Deposits	<u>No</u> Dry-Season Water Table
<u>No</u> Drift Deposits	<u>No</u> Crayfish Burrows
<u>No</u> Algal Mat or Crust	<u>No</u> Saturation Visible on Aerial Imagery
<u>No</u> Iron Deposits	<u>No</u> Geomorphic Position
<u>No</u> Inundation Visible on Aerial Imagery	<u>No</u> Shallow Aquitard
<u>No</u> Water-Stained Leaves	<u>No</u> FAC-Neutral Test
<u>No</u> Aquatic Fauna	
<u>No</u> Marl Deposits (LRRU)	
<u>No</u> Hydrogen Sulfide Odor	
<u>No</u> Oxidized Rhizospheres on Living Roots	
<u>No</u> Presence of Reduced Iron	
<u>No</u> Recent Iron Reduction in Tilled Soils	
<u>No</u> Thin Muck Surface	
<u>No</u> Other (Explain in Remarks)	

<b>Field Observations</b>	<b>WETLAND HYDROLOGY PRESENT?</b>
Surface Water Present? Yes _____ No <u>X</u> Depth (in.)	YES
Water Table Present? Yes _____ No <u>X</u> Depth (in.)	NO <u>X</u>
Saturation Present? Yes _____ No <u>X</u> Depth (in.)	

Describe Recorded Data (Stream Gauge, Monitoring Well, Aerial Photos, Previous Inspections), if available:

Remarks:

**WETLAND DATA FORM: ROUTINE ONSITE DETERMINATION METHOD**

**VEGETATION**

Sample Point 16

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum ( Plot Size _____ )				<b>Dominance Test Worksheet:</b> Number of Dominant Species That are OBL, FACW, of FAC <u>0</u> (A)  Number of Dominant Species Across All Strata <u>1</u> (B)  Percent of Dominant Species That are OBL, FACW, or FAC <u>0</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	= Total Cover			
Sapling Stratum ( Plot Size _____ )				<b>Prevalance Index Worksheet:</b> Total % Cover of:                      Multiply by: OBL Species                                  x1 _____ FACW Species                                x2 _____ FAC Species                                    x3 _____ FACU Species                                x4 _____ UPL Species                                  x5 _____ Column Totals                                (A) _____ (B)  Prevalance Index (B/A) = _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	= Total Cover			
Shrub Stratum ( Plot Size _____ )				<b>Hydrophytic Vegetation Indicators:</b> Dominance Test is > 50% _____ Prevalance Index is ≤ 3.0 <sup>1</sup> _____ Problematic Vegetation <sup>1</sup> _____  <sup>1</sup> Indicators of hydric soils and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	= Total Cover			
Herbaceous Stratum ( Plot Size _____ )				<b>Vegetation Strata Definitions:</b> Tree - Woody plants, excluding woody vines, approximately 20 ft or more in height and 3 in. or larger in diameter at breast height (DBH)  Sapling - Woody plants, excluding woody vines, approximately 20 ft or more in height and less than 3 in. DBH.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft. in height.
1. <u>Cynodon dactylon</u>	100%	Yes	FACU	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	100% = Total Cover			
Woody Vine Stratum ( Plot Size _____ )				Herb - All herbaceous (non-wood) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft. in height.  Woody Vine - All woody vines, regardless of height.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	= Total Cover			
				<b>HYDROPHYTIC VEGETATION PRESENT?</b> YES _____ NO <u>X</u>
Remarks:				

**WETLAND DATA FORM: ROUTINE ONSITE DETERMINATION METHOD**

**SOILS**

Sample Point 16

**Profile Description:** (Describe to the depth needed to document the indicator or confirm absence of indicators)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-16"	Fill						Clay & Aggregate	Fill

<sup>1</sup>Type: C= Concentration, D = Depletion, RM= Reduced Matrix, CS = Covered or Coated Sand Grains.

<sup>2</sup>Location: PL = Pore Lining, M = Matrix.

**Hydric Soil Indicators:**

No	Histosol	No	Polyvalue Below Surface
No	Histic Epipedon	No	Thin Dark Surface
No	Black Histic	No	Loamy Mucky Mineral
No	Hydrogen Sulfide	No	Loamy Gleyed Matrix
No	Stratified Layers	No	Depleted Matrix
No	Organic Bodies	No	Redox Dark Surface
No	5 cm Mucky Mineral	No	Depleted Dark Surface
No	Mucky Presence	No	Redox Depressions
No	1 cm Muck	No	Marl
No	Depleted Below Dark Surface	No	Depleted Ochric
No	Thick Dark Surface	No	Iron-Manganese Masses
No	Coast Prairie Redox	No	Umbric Surface
No	Sandy Mucky Mineral	No	Delta Ochric
No	Sandy Gleyed Matrix	No	Reduced Vertic
No	Sandy Redox	No	Piedmont FloodPlain Soils
No	Stripped Matrix	No	Anomalous Bright Loamy Soils
No	Dark Surface		

**Indicators for Problematic Hydric Soils:**

No	1 cm Muck
No	2 cm Muck
No	Reduced Vertic
No	Piedmont Floodplain Soils
No	Amomalous Bright Loamy Solis
No	Red Parent Material
No	Very Shallow Dark Surface
No	Other (Explain in Remarks)

**Restrictive Layer (If Observed)**

Type: \_\_\_\_\_  
 Depth: \_\_\_\_\_ inches

**HYDRIC SOILS PRESENT?**

YES \_\_\_\_\_  
 NO   X  

Remarks:

**WETLAND DATA FORM: ROUTINE ONSITE DETERMINATION METHOD**

Project/Site: Ameristar City/Parish Lake Charles/Calcasieu Sampling Date 8/22/2012  
 Applicant/Owner Ameristar State Louisiana Sample Plot 17  
 Investigator(s) C. Hoffpauir Sec., Town., Range Sec. 14, Town. 10 South, Range 9 West  
 Latitude 475848 Longitude 3340667 Datum NAD 83  
 Subregion LRR-T Soil Map Unit Name: Crowley-Vidrine silt loams NWI Classification: \_\_\_\_\_  
 Landform: Slope Local Relief: Slope Slope (%) 1-3%

Are site climatic/hydrologic conditions typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks)

Are Vegetation No, Soil No, Hydrology No significantly disturbed?

Are Vegetation No, Soil No, Hydrology No naturally disturbed?

"Normal Circumstances" present? Yes X No \_\_\_\_\_ (if no, explain in Remarks)

**SUMMARY OF FINDINGS**

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	Is the Sampled Area Within a Wetland? Yes _____ No <u>X</u>
Hydric Soils Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:

**HYDROLOGY (check all that apply)**

<b>Primary Hydrology Indicators:</b>		<b>Secondary Hydrology Indicators:</b>
<u>No</u> Surface Water	<u>No</u> Water-Stained Leaves	<u>No</u> Surface Soil Cracks
<u>No</u> High Water Table	<u>No</u> Aquatic Fauna	<u>No</u> Sparsely Vegetated Concave Surface
<u>No</u> Saturation	<u>No</u> Marl Deposits ( <b>LRRU</b> )	<u>No</u> Drainage Patterns
<u>No</u> Water Marks	<u>No</u> Hydrogen Sulfide Odor	<u>No</u> Moss Trim Lines
<u>No</u> Sediment Deposits	<u>No</u> Oxidized Rhizospheres on Living Roots	<u>No</u> Dry-Season Water Table
<u>No</u> Drift Deposits	<u>No</u> Presence of Reduced Iron	<u>No</u> Crayfish Burrows
<u>No</u> Algal Mat or Crust	<u>No</u> Recent Iron Reduction in Tilled Soils	<u>No</u> Saturation Visible on Aerial Imagery
<u>No</u> Iron Deposits	<u>No</u> Thin Muck Surface	<u>No</u> Geomorphic Position
<u>No</u> Inundation Visible on Aerial Imagery	<u>No</u> Other (Explain in Remarks)	<u>No</u> Shallow Aquitard
		<u>No</u> FAC-Neutral Test

<b>Field Observations</b>		<b>WETLAND HYDROLOGY PRESENT?</b>
Surface Water Present? Yes _____ No <u>X</u> Depth (in.)		YES
Water Table Present? Yes _____ No <u>X</u> Depth (in.)		NO <u>X</u>
Saturation Present? Yes _____ No <u>X</u> Depth (in.)		

Describe Recorded Data (Stream Gauge, Monitoring Well, Aerial Photos, Previous Inspections), if available:

Remarks:

**WETLAND DATA FORM: ROUTINE ONSITE DETERMINATION METHOD**

**VEGETATION**

Sample Point 17

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum ( Plot Size _____ )				<b>Dominance Test Worksheet:</b> Number of Dominant Species That are OBL, FACW, of FAC <u>0</u> (A)  Number of Dominant Species Across All Strata <u>1</u> (B)  Percent of Dominant Species That are OBL, FACW, or FAC <u>0</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	= Total Cover			
Sapling Stratum ( Plot Size _____ )				<b>Prevalance Index Worksheet:</b> Total % Cover of:                      Multiply by: OBL Species                                  x1 _____ FACW Species                                x2 _____ FAC Species                                  x3 _____ FACU Species                                x4 _____ UPL Species                                  x5 _____ Column Totals                                (A) _____ (B)  Prevalance Index (B/A) = _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	= Total Cover			
Shrub Stratum ( Plot Size _____ )				<b>Hydrophytic Vegetation Indicators:</b> Dominance Test is > 50% _____ Prevalance Index is ≤ 3.0 <sup>1</sup> _____ Problematic Vegetation <sup>1</sup> _____  <sup>1</sup> Indicators of hydric soils and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	= Total Cover			
Herbaceous Stratum ( Plot Size _____ )				<b>Vegetation Strata Definitions:</b> Tree - Woody plants, excluding woody vines, approximately 20 ft or more in height and 3 in. or larger in diameter at breast height (DBH)  Sapling - Woody plants, excluding woody vines, approximately 20 ft or more in height and less than 3 in. DBH.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft. in height.
1. <u>Cynodon dactylon</u>	<u>98%</u>	<u>Yes</u>	<u>FACU</u>	
2. <u>Paspalum notatum</u>	<u>2%</u>	<u>No</u>	<u>FACU</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	<u>100%</u> = Total Cover			
Woody Vine Stratum ( Plot Size _____ )				Herb - All herbaceous (non-wood) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft. in height.  Woody Vine - All woody vines, regardless of height.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	= Total Cover			
				<b>HYDROPHYTIC VEGETATION PRESENT?</b> YES _____ NO <u>X</u>
Remarks:				

**WETLAND DATA FORM: ROUTINE ONSITE DETERMINATION METHOD**

**SOILS**

Sample Point 17

**Profile Description:** (Describe to the depth needed to document the indicator or confirm absence of indicators)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-10"	10YR3/2	100					Silt loam	
10-16"	10YR 5/2	100					Silt loam	

<sup>1</sup>Type: C= Concentration, D = Depletion, RM= Reduced Matrix, CS = Covered or Coated Sand Grains.

<sup>2</sup>Location: PL = Pore Lining, M = Matrix.

**Hydric Soil Indicators:**

<input type="checkbox"/> No	Histosol	<input type="checkbox"/> No	Polyvalue Below Surface
<input type="checkbox"/> No	Histic Epipedon	<input type="checkbox"/> No	Thin Dark Surface
<input type="checkbox"/> No	Black Histic	<input type="checkbox"/> No	Loamy Mucky Mineral
<input type="checkbox"/> No	Hydrogen Sulfide	<input type="checkbox"/> No	Loamy Gleyed Matrix
<input type="checkbox"/> No	Stratified Layers	<input type="checkbox"/> No	Depleted Matrix
<input type="checkbox"/> No	Organic Bodies	<input type="checkbox"/> No	Redox Dark Surface
<input type="checkbox"/> No	5 cm Mucky Mineral	<input type="checkbox"/> No	Depleted Dark Surface
<input type="checkbox"/> No	Mucky Presence	<input type="checkbox"/> No	Redox Depressions
<input type="checkbox"/> No	1 cm Muck	<input type="checkbox"/> No	Marl
<input type="checkbox"/> No	Depleted Below Dark Surface	<input type="checkbox"/> No	Depleted Ochric
<input type="checkbox"/> No	Thick Dark Surface	<input type="checkbox"/> No	Iron-Manganese Masses
<input type="checkbox"/> No	Coast Prairie Redox	<input type="checkbox"/> No	Umbric Surface
<input type="checkbox"/> No	Sandy Mucky Mineral	<input type="checkbox"/> No	Delta Ochric
<input type="checkbox"/> No	Sandy Gleyed Matrix	<input type="checkbox"/> No	Reduced Vertic
<input type="checkbox"/> No	Sandy Redox	<input type="checkbox"/> No	Piedmont FloodPlain Soils
<input type="checkbox"/> No	Stripped Matrix	<input type="checkbox"/> No	Anomalous Bright Loamy Soils
<input type="checkbox"/> No	Dark Surface		

**Indicators for Problematic Hydric Soils:**

<input type="checkbox"/> No	1 cm Muck
<input type="checkbox"/> No	2 cm Muck
<input type="checkbox"/> No	Reduced Vertic
<input type="checkbox"/> No	Piedmont Floodplain Soils
<input type="checkbox"/> No	Amomalous Bright Loamy Solis
<input type="checkbox"/> No	Red Parent Material
<input type="checkbox"/> No	Very Shallow Dark Surface
<input type="checkbox"/> No	Other (Explain in Remarks)

**Restrictive Layer (If Observed)**

Type: \_\_\_\_\_  
 Depth: \_\_\_\_\_ inches

**HYDRIC SOILS PRESENT?**

YES \_\_\_\_\_  
 NO  X \_\_\_\_\_

Remarks:

**WETLAND DATA FORM: ROUTINE ONSITE DETERMINATION METHOD**

Project/Site: Ameristar City/Parish Lake Charles/Calcasieu Sampling Date 8/22/2012  
 Applicant/Owner Ameristar State Louisiana Sample Plot 18  
 Investigator(s) C. Hoffpauir Sec., Town., Range Sec. 14, Town. 10 South, Range 9 West  
 Latitude 475476 Longitude 3340549 Datum NAD 83  
 Subregion LRR-T Soil Map Unit Name: Basile and Guyton silt loams NWI Classification: \_\_\_\_\_  
 Landform: Floodplain Local Relief: Depression Slope (%) <1%

Are site climatic/hydrologic conditions typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks)

Are Vegetation No, Soil No, Hydrology No significantly disturbed?

Are Vegetation No, Soil No, Hydrology No naturally disturbed?

"Normal Circumstances" present? Yes X No \_\_\_\_\_ (if no, explain in Remarks)

**SUMMARY OF FINDINGS**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	Is the Sampled Area Within a Wetland? Yes <u>X</u> No _____
Hydric Soils Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks:

**HYDROLOGY (check all that apply)**

<u>Primary Hydrology Indicators:</u>	<u>Secondary Hydrology Indicators:</u>
<u>No</u> Surface Water	<u>No</u> Surface Soil Cracks
<u>No</u> High Water Table	<u>No</u> Sparsely Vegetated Concave Surface
<u>Yes</u> Saturation	<u>No</u> Drainage Patterns
<u>No</u> Water Marks	<u>No</u> Moss Trim Lines
<u>No</u> Sediment Deposits	<u>No</u> Dry-Season Water Table
<u>No</u> Drift Deposits	<u>Yes</u> Crayfish Burrows
<u>Yes</u> Algal Mat or Crust	<u>No</u> Saturation Visible on Aerial Imagery
<u>No</u> Iron Deposits	<u>No</u> Geomorphic Position
<u>No</u> Inundation Visible on Aerial Imagery	<u>No</u> Shallow Aquitard
<u>No</u> Water-Stained Leaves	<u>No</u> FAC-Neutral Test
<u>No</u> Aquatic Fauna	
<u>No</u> Marl Deposits (LRRU)	
<u>No</u> Hydrogen Sulfide Odor	
<u>Yes</u> Oxidized Rhizospheres on Living Roots	
<u>No</u> Presence of Reduced Iron	
<u>No</u> Recent Iron Reduction in Tilled Soils	
<u>No</u> Thin Muck Surface	
<u>No</u> Other (Explain in Remarks)	

<b>Field Observations</b>	<b>WETLAND HYDROLOGY PRESENT?</b>
Surface Water Present? Yes _____ No <u>X</u> Depth (in.) _____	YES <u>X</u>
Water Table Present? Yes _____ No <u>X</u> Depth (in.) _____	NO
Saturation Present? Yes <u>X</u> No _____ Depth (in.) <u>at 9"</u>	

Describe Recorded Data (Stream Gauge, Monitoring Well, Aerial Photos, Previous Inspections), if available:

Remarks:

**WETLAND DATA FORM: ROUTINE ONSITE DETERMINATION METHOD**

**VEGETATION**

Sample Point 18

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum ( Plot Size _____ )				<b>Dominance Test Worksheet:</b> Number of Dominant Species That are OBL, FACW, of FAC <u>1</u> (A)  Number of Dominant Species Across All Strata <u>1</u> (B)  Percent of Dominant Species That are OBL, FACW, or FAC <u>100</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	= Total Cover			
Sapling Stratum ( Plot Size _____ )				<b>Prevalance Index Worksheet:</b> Total % Cover of:                      Multiply by: OBL Species                                      x1 _____ FACW Species                                    x2 _____ FAC Species                                        x3 _____ FACU Species                                    x4 _____ UPL Species                                        x5 _____ Column Totals                                    (A) _____ (B)  Prevalance Index (B/A) = _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	= Total Cover			
Shrub Stratum ( Plot Size _____ )				<b>Hydrophytic Vegetation Indicators:</b> Dominance Test is > 50%                      X _____ Prevalance Index is ≤ 3.0 <sup>1</sup> _____ Problematic Vegetation <sup>1</sup> _____  <sup>1</sup> Indicators of hydric soils and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	= Total Cover			
Herbaceous Stratum ( Plot Size _____ )				<b>Vegetation Strata Definitions:</b> Tree - Woody plants, excluding woody vines, approximately 20 ft or more in height and 3 in. or larger in diameter at breast height (DBH)  Sapling - Woody plants, excluding woody vines, approximately 20 ft or more in height and less than 3 in. DBH.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft. in height.
1. <u>Paspalum distichum</u>	100%	Yes	OBL	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	100% = Total Cover			
Woody Vine Stratum ( Plot Size _____ )				Herb - All herbaceous (non-wood) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft. in height.  Woody Vine - All woody vines, regardless of height.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	= Total Cover			
				<b>HYDROPHYTIC VEGETATION PRESENT?</b> YES <u>X</u> NO _____
Remarks:				



**WETLAND DATA FORM: ROUTINE ONSITE DETERMINATION METHOD**

Project/Site: Ameristar City/Parish Lake Charles/Calcasieu Sampling Date 8/22/2012  
 Applicant/Owner Ameristar State Louisiana Sample Plot 19  
 Investigator(s) C. Hoffpauir Sec., Town., Range Sec. 14, Town. 10 South, Range 9 West  
 Latitude 475452 Longitude 3340414 Datum NAD 83  
 Subregion LRR-T Soil Map Unit Name: Acadia silt loam NWI Classification: \_\_\_\_\_  
 Landform: Ridge Local Relief: Convex Slope (%) 1-3%

Are site climatic/hydrologic conditions typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks)

Are Vegetation No, Soil No, Hydrology No significantly disturbed?

Are Vegetation No, Soil No, Hydrology No naturally disturbed?

"Normal Circumstances" present? Yes X No \_\_\_\_\_ (if no, explain in Remarks)

**SUMMARY OF FINDINGS**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	Is the Sampled Area Within a Wetland? Yes _____ No <u>X</u>
Hydric Soils Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:

**HYDROLOGY (check all that apply)**

<u>Primary Hydrology Indicators:</u>	<u>Secondary Hydrology Indicators:</u>
<u>No</u> Surface Water	<u>No</u> Surface Soil Cracks
<u>No</u> High Water Table	<u>No</u> Sparsely Vegetated Concave Surface
<u>No</u> Saturation	<u>No</u> Drainage Patterns
<u>No</u> Water Marks	<u>No</u> Moss Trim Lines
<u>No</u> Sediment Deposits	<u>No</u> Dry-Season Water Table
<u>No</u> Drift Deposits	<u>No</u> Crayfish Burrows
<u>No</u> Algal Mat or Crust	<u>No</u> Saturation Visible on Aerial Imagery
<u>No</u> Iron Deposits	<u>No</u> Geomorphic Position
<u>No</u> Inundation Visible on Aerial Imagery	<u>No</u> Shallow Aquitard
<u>No</u> Water-Stained Leaves	<u>No</u> FAC-Neutral Test
<u>No</u> Aquatic Fauna	
<u>No</u> Marl Deposits (LRRU)	
<u>No</u> Hydrogen Sulfide Odor	
<u>No</u> Oxidized Rhizospheres on Living Roots	
<u>No</u> Presence of Reduced Iron	
<u>No</u> Recent Iron Reduction in Tilled Soils	
<u>No</u> Thin Muck Surface	
<u>No</u> Other (Explain in Remarks)	

**Field Observations**

Surface Water Present? Yes \_\_\_\_\_ No X Depth (in.)

Water Table Present? Yes \_\_\_\_\_ No X Depth (in.)

Saturation Present? Yes \_\_\_\_\_ No X Depth (in.)

**WETLAND HYDROLOGY PRESENT?**

YES

NO X

Describe Recorded Data (Stream Gauge, Monitoring Well, Aerial Photos, Previous Inspections), if available:

Remarks

**WETLAND DATA FORM: ROUTINE ONSITE DETERMINATION METHOD**

**VEGETATION**

Sample Point 19

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum ( Plot Size _____ )				<b>Dominance Test Worksheet:</b>
1. <u>Prunus serotina</u>	<u>2%</u>	Yes	FACU	Number of Dominant Species That are OBL, FACW, of FAC <u>8</u> (A)
2. <u>Quercus nigra</u>	<u>2%</u>	Yes	FAC	
3. <u>Magnolia grandiflora</u>	<u>2%</u>	Yes	FAC	Number of Dominant Species Across All Strata <u>13</u> (B)
4. <u>Liquidambar styraciflua</u>	<u>1%</u>	Yes	FAC	
5. _____				
6. _____				Percent of Dominant Species That are OBL, FACW, or FAC <u>62</u> (A/B)
7. _____				
	<u>7%</u>	= Total Cover		
Sapling Stratum ( Plot Size _____ )				<b>Prevalance Index Worksheet:</b>
1. <u>Quercus virginiana</u>	<u>2%</u>	Yes	FACU	<b>Total % Cover of:</b> OBL Species _____ x1 _____
2. <u>Triadica sebifera</u>	<u>5%</u>	Yes	FAC	FACW Species _____ x2 _____
3. <u>Prunus serotina</u>	<u>2%</u>	Yes	FACU	FAC Species _____ x3 _____
4. <u>Morus rubra</u>	<u>2%</u>	Yes	FACU	FACU Species _____ x4 _____
5. _____				UPL Species _____ x5 _____
6. _____				Column Totals _____ (A) _____ (B)
7. _____				
	<u>11%</u>	= Total Cover		Prevalance Index (B/A) = _____
Shrub Stratum ( Plot Size _____ )				<b>Hydrophytic Vegetation Indicators:</b>
1. <u>Viburnum dentatum</u>	<u>25%</u>	Yes	FAC	Dominance Test is > 50% <u>X</u>
2. <u>Ilex vomitoria</u>	<u>20%</u>	Yes	FAC	Prevalance Index is ≤ 3.0 <sup>1</sup> _____
3. <u>Aralia spinosa</u>	<u>5%</u>	No	FAC	Problematic Vegetation <sup>1</sup> _____
4. <u>Callicarpa americana</u>	<u>2%</u>	No	FACU	
5. _____				<sup>1</sup> Indicators of hydric soils and wetland hydrology must be present, unless disturbed or problematic.
6. _____				
7. _____				
	<u>52%</u>	= Total Cover		
Herbaceous Stratum ( Plot Size _____ )				<b>Vegetation Strata Definitions:</b>
1. _____				Tree - Woody plants, excluding woody vines, approximately 20 ft or more in height and 3 in. or larger in diameter at breast height (DBH)
2. _____				
3. _____				Sapling - Woody plants, excluding woody vines, approximately 20 ft or more in height and less than 3 in. DBH.
4. _____				
5. _____				Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft. in height.
6. _____				
7. _____				
	_____	= Total Cover		
Woody Vine Stratum ( Plot Size _____ )				Herb - All herbaceous (non-wood) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft. in height.
1. <u>Vitis rotundifolia</u>	<u>5%</u>	Yes	FAC	
2. <u>Rubus trivialis</u>	<u>5%</u>	Yes	FACU	
3. <u>Lygodium japonicum</u>	<u>2%</u>	No	FAC	
4. <u>Gelsemium sempervirens</u>	<u>5%</u>	Yes	FAC	
5. _____				Woody Vine - All woody vines, regardless of height.
6. _____				
7. _____				
	<u>17%</u>	= Total Cover		<b>HYDROPHYTIC VEGETATION PRESENT?</b>
				YES <u>X</u>
				NO
Remarks:				

**WETLAND DATA FORM: ROUTINE ONSITE DETERMINATION METHOD**

**SOILS**

Sample Point 19

Profile Description: (Describe to the depth needed to document the indicator or confirm absence of indicators)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-16"	10YR 5/4	100					Silt loam	

<sup>1</sup>Type: C= Concentration, D = Depletion, RM= Reduced Matrix, CS = Covered or Coated Sand Grains.

<sup>2</sup>Location: PL = Pore Lining, M = Matrix.

**Hydric Soil Indicators:**

No	Histosol	No	Polyvalue Below Surface
No	Histic Epipedon	No	Thin Dark Surface
No	Black Histic	No	Loamy Mucky Mineral
No	Hydrogen Sulfide	No	Loamy Gleyed Matrix
No	Stratified Layers	No	Depleted Matrix
No	Organic Bodies	No	Redox Dark Surface
No	5 cm Mucky Mineral	No	Depleted Dark Surface
No	Mucky Presence	No	Redox Depressions
No	1 cm Muck	No	Marl
No	Depleted Below Dark Surface	No	Depleted Ochric
No	Thick Dark Surface	No	Iron-Manganese Masses
No	Coast Prairie Redox	No	Umbric Surface
No	Sandy Mucky Mineral	No	Delta Ochric
No	Sandy Gleyed Matrix	No	Reduced Vertic
No	Sandy Redox	No	Piedmont FloodPlain Soils
No	Stripped Matrix	No	Anomalous Bright Loamy Soils
No	Dark Surface		

**Indicators for Problematic Hydric Soils:**

No	1 cm Muck
No	2 cm Muck
No	Reduced Vertic
No	Piedmont Floodplain Soils
No	Amomalous Bright Loamy Solis
No	Red Parent Material
No	Very Shallow Dark Surface
No	Other (Explain in Remarks)

**Restrictive Layer (If Observed)**

Type: \_\_\_\_\_  
 Depth: \_\_\_\_\_ inches

**HYDRIC SOILS PRESENT?**

YES \_\_\_\_\_  
 NO   X  

Remarks:

**WETLAND DATA FORM: ROUTINE ONSITE DETERMINATION METHOD**

Project/Site: Ameristar City/Parish Lake Charles/Calcasieu Sampling Date 8/27/2012  
 Applicant/Owner Ameristar State Louisiana Sample Plot 20  
 Investigator(s) C. Hoffpauir Sec., Town., Range Sec. 12, Town. 10 South, Range 9 West  
 Latitude 476270 Longitude 3341266 Datum NAD 83  
 Subregion LRR-T Soil Map Unit Name: Mowata-Vidrine silt loams NWI Classification: \_\_\_\_\_  
 Landform: Concave Local Relief: Intermound Slope (%) <1%

Are site climatic/hydrologic conditions typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks)

Are Vegetation No, Soil No, Hydrology No significantly disturbed?

Are Vegetation No, Soil No, Hydrology No naturally disturbed?

"Normal Circumstances" present? Yes X No \_\_\_\_\_ (if no, explain in Remarks)

**SUMMARY OF FINDINGS**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	Is the Sampled Area Within a Wetland? Yes <u>X</u> No _____
Hydric Soils Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks:

**HYDROLOGY (check all that apply)**

<u>Primary Hydrology Indicators:</u>	<u>Secondary Hydrology Indicators:</u>
<u>No</u> Surface Water	<u>No</u> Surface Soil Cracks
<u>No</u> High Water Table	<u>No</u> Sparsely Vegetated Concave Surface
<u>No</u> Saturation	<u>No</u> Drainage Patterns
<u>No</u> Water Marks	<u>No</u> Moss Trim Lines
<u>No</u> Sediment Deposits	<u>No</u> Dry-Season Water Table
<u>No</u> Drift Deposits	<u>No</u> Crayfish Burrows
<u>No</u> Algal Mat or Crust	<u>No</u> Saturation Visible on Aerial Imagery
<u>No</u> Iron Deposits	<u>No</u> Geomorphic Position
<u>No</u> Inundation Visible on Aerial Imagery	<u>No</u> Shallow Aquitard
<u>Yes</u> Water-Stained Leaves	<u>No</u> FAC-Neutral Test
<u>No</u> Aquatic Fauna	
<u>No</u> Marl Deposits (LRRU)	
<u>No</u> Hydrogen Sulfide Odor	
<u>Yes</u> Oxidized Rhizospheres on Living Roots	
<u>No</u> Presence of Reduced Iron	
<u>No</u> Recent Iron Reduction in Tilled Soils	
<u>No</u> Thin Muck Surface	
<u>No</u> Other (Explain in Remarks)	

**Field Observations**

Surface Water Present? Yes \_\_\_\_\_ No X Depth (in.)

Water Table Present? Yes \_\_\_\_\_ No X Depth (in.)

Saturation Present? Yes \_\_\_\_\_ No X Depth (in.)

**WETLAND HYDROLOGY PRESENT?**

YES X

NO

Describe Recorded Data (Stream Gauge, Monitoring Well, Aerial Photos, Previous Inspections), if available:

Remarks

**WETLAND DATA FORM: ROUTINE ONSITE DETERMINATION METHOD**

**VEGETATION**

Sample Point 20

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum ( Plot Size _____ )				<b>Dominance Test Worksheet:</b> Number of Dominant Species That are OBL, FACW, of FAC <u>6</u> (A)  Number of Dominant Species Across All Strata <u>6</u> (B)  Percent of Dominant Species That are OBL, FACW, or FAC <u>100</u> (A/B)
1. <u>Liquidambar styraciflua</u>	<u>5%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Quercus nigra</u>	<u>5%</u>	<u>Yes</u>	<u>FAC</u>	
3. <u>Nyssa sylvatica</u>	<u>2%</u>	<u>No</u>	<u>FAC</u>	
4. _____				
5. _____				
6. _____				
7. _____				
	<u>12%</u>	= Total Cover		
Sapling Stratum ( Plot Size _____ )				
1. <u>Triadica sebifera</u>	<u>5%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Quercus nigra</u>	<u>5%</u>	<u>Yes</u>	<u>FAC</u>	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	<u>10%</u>	= Total Cover		
Shrub Stratum ( Plot Size _____ )				<b>Hydrophytic Vegetation Indicators:</b> Dominance Test is > 50% <u>X</u> Prevalance Index is ≤ 3.0 <sup>1</sup> _____ Problematic Vegetation <sup>1</sup> _____  <sup>1</sup> Indicators of hydric soils and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Ilex vomitoria</u>	<u>40%</u>	<u>Yes</u>	<u>FAC</u>	
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	<u>40%</u>	= Total Cover		
Herbaceous Stratum ( Plot Size _____ )				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
		= Total Cover		
Woody Vine Stratum ( Plot Size _____ )				<b>HYDROPHYTIC VEGETATION PRESENT?</b> YES <u>X</u> NO _____
1. <u>Vitis rotundifolia</u>	<u>2%</u>	<u>Yes</u>	<u>FAC</u>	
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	<u>2%</u>	= Total Cover		
Remarks:				

**WETLAND DATA FORM: ROUTINE ONSITE DETERMINATION METHOD**

**SOILS**

Sample Point 20

**Profile Description:** (Describe to the depth needed to document the indicator or confirm absence of indicators)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-16"	10YR 6/2	90	7.5YR 5/6	10	C	M, PL	Silt loam	

<sup>1</sup>Type: C= Concentration, D = Depletion, RM= Reduced Matrix, CS = Covered or Coated Sand Grains.

<sup>2</sup>Location: PL = Pore Lining, M = Matrix.

**Hydric Soil Indicators:**

<input type="checkbox"/> No	Histosol	<input type="checkbox"/> No	Polyvalue Below Surface
<input type="checkbox"/> No	Histic Epipedon	<input type="checkbox"/> No	Thin Dark Surface
<input type="checkbox"/> No	Black Histic	<input type="checkbox"/> No	Loamy Mucky Mineral
<input type="checkbox"/> No	Hydrogen Sulfide	<input type="checkbox"/> No	Loamy Gleyed Matrix
<input type="checkbox"/> No	Stratified Layers	<input type="checkbox"/> Yes	Depleted Matrix
<input type="checkbox"/> No	Organic Bodies	<input type="checkbox"/> No	Redox Dark Surface
<input type="checkbox"/> No	5 cm Mucky Mineral	<input type="checkbox"/> No	Depleted Dark Surface
<input type="checkbox"/> No	Mucky Presence	<input type="checkbox"/> Yes	Redox Depressions
<input type="checkbox"/> No	1 cm Muck	<input type="checkbox"/> No	Marl
<input type="checkbox"/> No	Depleted Below Dark Surface	<input type="checkbox"/> No	Depleted Ochric
<input type="checkbox"/> No	Thick Dark Surface	<input type="checkbox"/> No	Iron-Manganese Masses
<input type="checkbox"/> No	Coast Prairie Redox	<input type="checkbox"/> No	Umbric Surface
<input type="checkbox"/> No	Sandy Mucky Mineral	<input type="checkbox"/> No	Delta Ochric
<input type="checkbox"/> No	Sandy Gleyed Matrix	<input type="checkbox"/> No	Reduced Vertic
<input type="checkbox"/> No	Sandy Redox	<input type="checkbox"/> No	Piedmont FloodPlain Soils
<input type="checkbox"/> No	Stripped Matrix	<input type="checkbox"/> No	Anomalous Bright Loamy Soils
<input type="checkbox"/> No	Dark Surface		

**Indicators for Problematic Hydric Soils:**

<input type="checkbox"/> No	1 cm Muck
<input type="checkbox"/> No	2 cm Muck
<input type="checkbox"/> No	Reduced Vertic
<input type="checkbox"/> No	Piedmont Floodplain Soils
<input type="checkbox"/> No	Amomalous Bright Loamy Solis
<input type="checkbox"/> No	Red Parent Material
<input type="checkbox"/> No	Very Shallow Dark Surface
<input type="checkbox"/> No	Other (Explain in Remarks)

**Restrictive Layer (If Observed)**

Type: \_\_\_\_\_  
 Depth: \_\_\_\_\_ inches

**HYDRIC SOILS PRESENT?**

YES  X \_\_\_\_\_  
 NO \_\_\_\_\_

Remarks:

**WETLAND DATA FORM: ROUTINE ONSITE DETERMINATION METHOD**

Project/Site: Ameristar City/Parish Lake Charles/Calcasieu Sampling Date 8/27/2012  
 Applicant/Owner Ameristar State Louisiana Sample Plot 21  
 Investigator(s) C. Hoffpauir Sec., Town., Range Sec. 12, Town. 10 South, Range 9 West  
 Latitude 476407 Longitude 3341105 Datum NAD 83  
 Subregion LRR-T Soil Map Unit Name: Mowata-Vidrine silt loams NWI Classification: \_\_\_\_\_  
 Landform: Convex Local Relief: Mound Slope (%) 1-3%

Are site climatic/hydrologic conditions typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks)

Are Vegetation No, Soil No, Hydrology No significantly disturbed?

Are Vegetation No, Soil No, Hydrology No naturally disturbed?

"Normal Circumstances" present? Yes X No \_\_\_\_\_ (if no, explain in Remarks)

**SUMMARY OF FINDINGS**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	Is the Sampled Area Within a Wetland? Yes _____ No <u>X</u>
Hydic Soils Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:

**HYDROLOGY (check all that apply)**

<u>Primary Hydrology Indicators:</u>	<u>Secondary Hydrology Indicators:</u>
<u>No</u> Surface Water	<u>No</u> Surface Soil Cracks
<u>No</u> High Water Table	<u>No</u> Sparsely Vegetated Concave Surface
<u>No</u> Saturation	<u>No</u> Drainage Patterns
<u>No</u> Water Marks	<u>No</u> Moss Trim Lines
<u>No</u> Sediment Deposits	<u>No</u> Dry-Season Water Table
<u>No</u> Drift Deposits	<u>No</u> Crayfish Burrows
<u>No</u> Algal Mat or Crust	<u>No</u> Saturation Visible on Aerial Imagery
<u>No</u> Iron Deposits	<u>No</u> Geomorphic Position
<u>No</u> Inundation Visible on Aerial Imagery	<u>No</u> Shallow Aquitard
<u>No</u> Water-Stained Leaves	<u>No</u> FAC-Neutral Test
<u>No</u> Aquatic Fauna	
<u>No</u> Marl Deposits (LRRU)	
<u>No</u> Hydrogen Sulfide Odor	
<u>No</u> Oxidized Rhizospheres on Living Roots	
<u>No</u> Presence of Reduced Iron	
<u>No</u> Recent Iron Reduction in Tilled Soils	
<u>No</u> Thin Muck Surface	
<u>No</u> Other (Explain in Remarks)	

<b>Field Observations</b>	<b>WETLAND HYDROLOGY PRESENT?</b> YES NO <u>X</u>
Surface Water Present? Yes _____ No <u>X</u> Depth (in.)	
Water Table Present? Yes _____ No <u>X</u> Depth (in.)	
Saturation Present? Yes _____ No <u>X</u> Depth (in.)	

Describe Recorded Data (Stream Gauge, Monitoring Well, Aerial Photos, Previous Inspections), if available:

Remarks:

**WETLAND DATA FORM: ROUTINE ONSITE DETERMINATION METHOD**

**VEGETATION**

Sample Point 21

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum ( Plot Size _____ )				<b>Dominance Test Worksheet:</b>
1. <u>Quercus nigra</u>	<u>10%</u>	<u>Yes</u>	<u>FAC</u>	Number of Dominant Species That are OBL, FACW, of FAC <u>5</u> (A)
2. <u>Liquidambar styraciflua</u>	<u>2%</u>	<u>No</u>	<u>FAC</u>	
3. _____				Number of Dominant Species Across All Strata <u>6</u> (B)
4. _____				
5. _____				Percent of Dominant Species That are OBL, FACW, or FAC <u>83</u> (A/B)
6. _____				
7. _____	<u>12%</u>	<u>= Total Cover</u>		
Sapling Stratum ( Plot Size _____ )				<b>Prevalance Index Worksheet:</b>
1. <u>Quercus nigra</u>	<u>5%</u>	<u>Yes</u>	<u>FAC</u>	<b>Total % Cover of:</b>
2. <u>Triadica sebifera</u>	<u>5%</u>	<u>Yes</u>	<u>FAC</u>	<b>Multiply by:</b>
3. _____				OBL Species _____ x1 _____
4. _____				FACW Species _____ x2 _____
5. _____				FAC Species _____ x3 _____
6. _____				FACU Species _____ x4 _____
7. _____				UPL Species _____ x5 _____
	<u>10%</u>	<u>= Total Cover</u>		Column Totals _____ (A) _____ (B)
				Prevalance Index (B/A) = _____
Shrub Stratum ( Plot Size _____ )				<b>Hydrophytic Vegetation Indicators:</b>
1. <u>Ilex vomitoria</u>	<u>50%</u>	<u>Yes</u>	<u>FAC</u>	Dominance Test is > 50% <u>X</u>
2. <u>Viburnum dentatum</u>	<u>5%</u>	<u>No</u>	<u>FAC</u>	Prevalance Index is ≤ 3.0 <sup>1</sup> _____
3. _____				Problematic Vegetation <sup>1</sup> _____
4. _____				
5. _____				<sup>1</sup> Indicators of hydric soils and wetland hydrology must be present, unless disturbed or problematic.
6. _____				
7. _____	<u>55%</u>	<u>= Total Cover</u>		
Herbaceous Stratum ( Plot Size _____ )				<b>Vegetation Strata Definitions:</b>
1. <u>Callicarpa americana</u>	<u>5%</u>	<u>Yes</u>	<u>FACU</u>	Tree - Woody plants, excluding woody vines, approximately 20 ft or more in height and 3 in. or larger in diameter at breast height (DBH)
2. _____				
3. _____				Sapling - Woody plants, excluding woody vines, approximately 20 ft or more in height and less than 3 in. DBH.
4. _____				
5. _____				Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft. in height.
6. _____	<u>5%</u>	<u>= Total Cover</u>		
7. _____				
Woody Vine Stratum ( Plot Size _____ )				Herb - All herbaceous (non-wood) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft. in height.
1. <u>Smilax glauca</u>	<u>2%</u>	<u>Yes</u>	<u>FAC</u>	
2. _____				
3. _____				Woody Vine - All woody vines, regardless of height.
4. _____				
5. _____				
6. _____				
7. _____	<u>2%</u>	<u>= Total Cover</u>		
				<b>HYDROPHYTIC VEGETATION PRESENT?</b>
				YES <u>X</u>
				NO _____
Remarks:				

## WETLAND DATA FORM: ROUTINE ONSITE DETERMINATION METHOD

### SOILS

Sample Point 21

Profile Description: (Describe to the depth needed to document the indicator or confirm absence of indicators)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-4"	10YR 5/3	100					Silt loam	
4-16"	10YR 5/4	100					Silt loam	

<sup>1</sup>Type: C= Concentration, D = Depletion, RM= Reduced Matrix, CS = Covered or Coated Sand Grains.

<sup>2</sup>Location: PL = Pore Lining, M = Matrix.

**Hydric Soil Indicators:**

<input type="checkbox"/> No	Histosol	<input type="checkbox"/> No	Polyvalue Below Surface
<input type="checkbox"/> No	Histic Epipedon	<input type="checkbox"/> No	Thin Dark Surface
<input type="checkbox"/> No	Black Histic	<input type="checkbox"/> No	Loamy Mucky Mineral
<input type="checkbox"/> No	Hydrogen Sulfide	<input type="checkbox"/> No	Loamy Gleyed Matrix
<input type="checkbox"/> No	Stratified Layers	<input type="checkbox"/> No	Depleted Matrix
<input type="checkbox"/> No	Organic Bodies	<input type="checkbox"/> No	Redox Dark Surface
<input type="checkbox"/> No	5 cm Mucky Mineral	<input type="checkbox"/> No	Depleted Dark Surface
<input type="checkbox"/> No	Mucky Presence	<input type="checkbox"/> No	Redox Depressions
<input type="checkbox"/> No	1 cm Muck	<input type="checkbox"/> No	Marl
<input type="checkbox"/> No	Depleted Below Dark Surface	<input type="checkbox"/> No	Depleted Ochric
<input type="checkbox"/> No	Thick Dark Surface	<input type="checkbox"/> No	Iron-Manganese Masses
<input type="checkbox"/> No	Coast Prairie Redox	<input type="checkbox"/> No	Umbric Surface
<input type="checkbox"/> No	Sandy Mucky Mineral	<input type="checkbox"/> No	Delta Ochric
<input type="checkbox"/> No	Sandy Gleyed Matrix	<input type="checkbox"/> No	Reduced Vertic
<input type="checkbox"/> No	Sandy Redox	<input type="checkbox"/> No	Piedmont FloodPlain Soils
<input type="checkbox"/> No	Stripped Matrix	<input type="checkbox"/> No	Anomalous Bright Loamy Soils
<input type="checkbox"/> No	Dark Surface		

**Indicators for Problematic Hydric Soils:**

<input type="checkbox"/> No	1 cm Muck
<input type="checkbox"/> No	2 cm Muck
<input type="checkbox"/> No	Reduced Vertic
<input type="checkbox"/> No	Piedmont Floodplain Soils
<input type="checkbox"/> No	Amomalous Bright Loamy Solis
<input type="checkbox"/> No	Red Parent Material
<input type="checkbox"/> No	Very Shallow Dark Surface
<input type="checkbox"/> No	Other (Explain in Remarks)

**Restrictive Layer (If Observed)**

Type: \_\_\_\_\_  
 Depth: \_\_\_\_\_ inches

**HYDRIC SOILS PRESENT?**

YES \_\_\_\_\_  
 NO  X \_\_\_\_\_

Remarks:

**WETLAND DATA FORM: ROUTINE ONSITE DETERMINATION METHOD**

Project/Site: Ameristar City/Parish Lake Charles/Calcasieu Sampling Date 8/27/2012  
 Applicant/Owner Ameristar State Louisiana Sample Plot 22  
 Investigator(s) C. Hoffpauir Sec., Town., Range Sec. 12, Town. 10 South, Range 9 West  
 Latitude 476093 Longitude 3341314 Datum NAD 83  
 Subregion LRR-T Soil Map Unit Name: Mowata-Vidrine silt loams NWI Classification: \_\_\_\_\_  
 Landform: Concave Local Relief: Drain Slope (%) <1%

Are site climatic/hydrologic conditions typical for this time of year? Yes X No \_\_\_\_\_ (if no, explain in Remarks)

Are Vegetation No, Soil No, Hydrology No significantly disturbed?

Are Vegetation No, Soil No, Hydrology No naturally disturbed?

"Normal Circumstances" present? Yes X No \_\_\_\_\_ (if no, explain in Remarks)

**SUMMARY OF FINDINGS**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	Is the Sampled Area Within a Wetland? Yes <u>X</u> No _____
Hydric Soils Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks:

**HYDROLOGY (check all that apply)**

<u>Primary Hydrology Indicators:</u>		<u>Secondary Hydrology Indicators:</u>
<u>No</u> Surface Water	<u>No</u> Water-Stained Leaves	<u>No</u> Surface Soil Cracks
<u>Yes</u> High Water Table	<u>No</u> Aquatic Fauna	<u>Yes</u> Sparsely Vegetated Concave Surface
<u>Yes</u> Saturation	<u>No</u> Marl Deposits ( <b>LRRU</b> )	<u>No</u> Drainage Patterns
<u>No</u> Water Marks	<u>Yes</u> Hydrogen Sulfide Odor	<u>No</u> Moss Trim Lines
<u>No</u> Sediment Deposits	<u>Yes</u> Oxidized Rhizospheres on Living Roots	<u>No</u> Dry-Season Water Table
<u>No</u> Drift Deposits	<u>No</u> Presence of Reduced Iron	<u>No</u> Crayfish Burrows
<u>No</u> Algal Mat or Crust	<u>No</u> Recent Iron Reduction in Tilled Soils	<u>No</u> Saturation Visible on Aerial Imagery
<u>No</u> Iron Deposits	<u>No</u> Thin Muck Surface	<u>No</u> Geomorphic Position
<u>No</u> Inundation Visible on Aerial Imagery	<u>No</u> Other (Explain in Remarks)	<u>No</u> Shallow Aquitard
		<u>No</u> FAC-Neutral Test

**Field Observations**

Surface Water Present? Yes \_\_\_\_\_ No X Depth (in.) \_\_\_\_\_  
 Water Table Present? Yes X No \_\_\_\_\_ Depth (in.) at 10"  
 Saturation Present? Yes X No \_\_\_\_\_ Depth (in.) to surface

**WETLAND HYDROLOGY PRESENT?**

YES X  
NO

Describe Recorded Data (Stream Gauge, Monitoring Well, Aerial Photos, Previous Inspections), if available:

Remarks

**WETLAND DATA FORM: ROUTINE ONSITE DETERMINATION METHOD**

**VEGETATION**

Sample Point 22

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum ( Plot Size _____ )				<b>Dominance Test Worksheet:</b>
1. <u>Triadica sebifera</u>	<u>5%</u>	Yes	FAC	Number of Dominant Species That are OBL, FACW, of FAC <u>7</u> (A)
2. <u>Taxodium distichum</u>	<u>2%</u>	Yes	OBL	
3. _____				Number of Dominant Species Across All Strata <u>7</u> (B)
4. _____				
5. _____				Percent of Dominant Species That are OBL, FACW, or FAC <u>100</u> (A/B)
6. _____				
7. _____	<u>7%</u>	= Total Cover		
Sapling Stratum ( Plot Size _____ )				<b>Prevalance Index Worksheet:</b>
1. <u>Triadica sebifera</u>	<u>5%</u>	Yes	FAC	<b>Total % Cover of:</b> OBL Species _____ x1 _____
2. _____				FACW Species _____ x2 _____
3. _____				FAC Species _____ x3 _____
4. _____				FACU Species _____ x4 _____
5. _____				UPL Species _____ x5 _____
6. _____				Column Totals _____ (A) _____ (B)
7. _____	<u>5%</u>	= Total Cover		Prevalance Index (B/A) = _____
Shrub Stratum ( Plot Size _____ )				<b>Hydrophytic Vegetation Indicators:</b>
1. <u>Iva frutescens</u>	<u>50%</u>	Yes	FACW	Dominance Test is > 50% <u>X</u>
2. <u>Sabal minor</u>	<u>5%</u>	No	FACW	Prevalance Index is ≤ 3.0 <sup>1</sup> _____
3. _____				Problematic Vegetation <sup>1</sup> _____
4. _____				
5. _____				<sup>1</sup> Indicators of hydric soils and wetland hydrology must be present, unless disturbed or problematic.
6. _____				
7. _____	<u>55%</u>	= Total Cover		
Herbaceous Stratum ( Plot Size _____ )				<b>Vegetation Strata Definitions:</b>
1. <u>Pluchea foetida</u>	<u>10%</u>	Yes	OBL	Tree - Woody plants, excluding woody vines, approximately 20 ft or more in height and 3 in. or larger in diameter at breast height (DBH)
2. <u>Alternanthera philoxeroides</u>	<u>10%</u>	Yes	OBL	
3. <u>Solidago sempervirens</u>	<u>5%</u>	Yes	FACW	Sapling - Woody plants, excluding woody vines, approximately 20 ft or more in height and less than 3 in. DBH.
4. _____				
5. _____				Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft. in height.
6. _____				
7. _____	<u>25%</u>	= Total Cover		
Woody Vine Stratum ( Plot Size _____ )				Herb - All herbaceous (non-wood) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft. in height.
1. _____				
2. _____				
3. _____				Woody Vine - All woody vines, regardless of height.
4. _____				
5. _____				
6. _____				
7. _____				
				<b>HYDROPHYTIC VEGETATION PRESENT?</b>
				YES <u>X</u>
				NO _____

Remarks:



**ATTACHMENT B**

*Transect Form*



**ATTACHMENT C**

*Site Photographs*



Photograph 1  
Sample Plot 1



Photograph 2  
General View of Plot 1



Photograph 3  
Sample Plot 2



Photograph 4  
General View of Plot 2



Photograph 5  
Sample Plot 3



Photograph 6  
General View of Plot 3



Photograph 7  
Sample Plot 4



Photograph 8  
General View of Plot 4



Photograph 9  
Sample Plot 5



Photograph 10  
General View of Plot 5



Photograph 11  
Sample Plot 6



Photograph 12  
General View of Plot 6



Photograph 13  
Sample Plot 7



Photograph 14  
General View of Plot 7



Photograph 15  
Sample Plot 8



Photograph 16  
General View of Plot 8



Photograph 17  
Sample Plot 9



Photograph 18  
General View of Plot 9



Photograph 19  
Sample Plot 10



Photograph 20  
General View of Plot 10



Photograph 21  
Sample Plot 11



Photograph 22  
General View of Plot 11



Photograph 23  
Sample Plot 12



Photograph 24  
General View of Plot 12



Photograph 25  
Sample Plot 13



Photograph 26  
General View of Plot 13



Photograph 27  
Sample Plot 14



Photograph 28  
General View of Plot 14



Photograph 29  
Sample Plot 15



Photograph 30  
General View of Plot 15



Photograph 31  
Sample Plot 16



Photograph 32  
General View of Plot 16



Photograph 33  
Sample Plot 17



Photograph 34  
General View of Plot 17



Photograph 35  
Sample Plot 18



Photograph 36  
General View of Plot 18



Photograph 37  
Sample Plot 19



Photograph 38  
General View of Plot 19



Photograph 39  
Sample Plot 20



Photograph 40  
General View of Plot 20



Photograph 41  
Sample Plot 21



Photograph 42  
General View of Plot 21



Photograph 43  
Sample Plot 22



Photograph 44  
General View of Plot 22