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## Section 1.0 Introduction

The purpose of the prospectus is to summarize the existing conditions of a 221.5-acre property and assess its potential as the Kimball Ranch Mitigation Bank (KRMB or Site) to provide compensatory wetland mitigation for unavoidable impacts to wetlands associated with Section 404 permits issued by the U.S. Army Corps of Engineers (USACE), if determined appropriate per 33 CFR § 332.3 (1)(a) and 33 CFR § 332.3 (1)(b).

This prospectus has been prepared in accordance with 33 CFR § 332.8(d) (2).

## 1.1 Regional Description and Site Location

The KRMB is located within the Atchafalaya Basin and the Atchafalaya National Heritage Area. The 221.5-acre Site is located on Kimball Ranch Road approximately 3.65 miles southwest of Erwinville, Louisiana. The Site is centered approximately at 30.507538 N, -91.472002 W in Section 32, Township 6 South, Range 10 East of West Baton Rouge Parish (Figure 1).

The KRMB is a mosaic of remnant bottomland hardwood forest and pasture currently utilized for livestock grazing. The north and east perimeter of the property is a spoil bank adjacent to a parish-maintained drainage canal. Breaches in the spoil bank allow the property to drain through man-made ditches and swales which run throughout the KRMB. The southern border of the property is a man-made drainage ditch that separates the KRMB from agricultural fields (rice and soybean). The western border is remnant hardwood forest which functions as a windbreak and separates the KRMB from another agricultural field. The KRMB is currently composed of 24.8 acres of remnant hardwood forest and approximately 196.7 acres of pastureland with interspersed baldcypress (*Taxodium distichum*) trees (Figure 2a and 2b).

#### 1.2 Sponsorship and Ownership

Kimball Properties, LLC, will serve as the Sponsor and Owner of the Proposed KRMB and will construct, operate, monitor, and manage the bank. Mr. Kevin Kimball will serve as the Owner Representative of the KRMB. The Owner will protect the property by granting the conservation servitude as described in Section 6.4.

#### 1.3 Driving Directions to the Site

From Baton Rouge, take I-10 West to Grosse Tete (Exit 139). Turn right on to Sidney Road (LA-77) and continue north approximately 8.7 miles to Jack Torres Road. Turn right onto Jack Torres Road and continue approximately 1.6 miles to Kimball Ranch Road. Turn right onto Kimball Ranch Road and continue approximately 1.4 miles down Kimball Ranch Road. The



KRMB will be north of the road and can be accessed through a gate at the southwest corner of the property.

# Section 2.0 Project Goals and Objectives

Re-establishment, rehabilitation, and preservation of bottomland hardwood forest are the goals of the KRMB. Through restoration and preservation activities, 209.7 acres of bottomland hardwood forest will provide additional wetland functions that do not currently exist with the current land use. Restoration will result in improved localized and downstream water due to the removal of livestock and re-establishment of hardwood forest at the site.

Specifically, the project objectives of the proposed KRMB are to:

- Restore historical hydrologic conditions, within practicable reason
- Re-establish native bottomland hardwood forest through hydrologic restoration and the establishment of native tree species
- Preserve remnant stands of bottomland hardwood communities through removal of livestock and inclusion within the conservation servitude
- Implement active and adaptive management practices—including but not limited to invasive/noxious species control, monitoring, and long-term maintenance—to sustain the KRMB and ensure long-term viability
- Provide long-term protection through establishment of a conservation servitude
- Restore forested habitat for aquatic fauna, including the threatened Louisiana black bear (Ursus americanus luteolus)
- Implement a restoration plan consistent with the goals of the Atchafalaya National Heritage Area's Management Plan, established in 2011 by the Atchafalaya Trace Commission

# Section 3.0 Ecological Suitability of the Site

# 3.1 Historical Ecological Characteristics of the Site

The historical land use of the project area was agricultural land used primarily for grazing livestock. The surrounding land use was historically forested wetlands. Review of historical topographic surveys indicates that the surrounding land, particularly to the west, was initially cleared sometime between 1954 and 1963 (Appendix A). The KRMB was then cleared sometime between 1963 and 1969 based on historic aerial photography, and has remained in its current state since that time (Appendix B).

Prior to its conversion, the KRMB was in an area of Pointe Coupee and West Baton Rouge parishes known as the "Greve's Swamp" according to a 1906 Topographic Survey. The historical hydrology of the site prior to the conversion to agricultural land was likely surface water flow from the surrounding area and from overbank flooding from the bayous that ran through the area. A branch of Bayou Tommy ran through the Site historically. Prior to the partial clear cut of the property, a drainage canal was excavated north of the property between 1952 and 1962. The canal redirected the flow of water from the bayou, most likely to be used for agricultural irrigation. The spoil bank from the canal cut off a portion of the bayou that ran onto the property.

## 3.2 Current Ecological Characteristics of the Site

The Site is currently primarily cleared land utilized for livestock grazing with interspersed patches of remnant bottomland hardwood forest. The majority of the remaining individual trees on the Site are bald cypress. The surrounding land use is a mosaic of native bottomland hardwood forest and agriculture. The southern and western boundaries of the project area are adjacent to agricultural land, primarily rice and soybean production. The northern and eastern boundaries are defined by a spoil bank and drainage canal, which separate the project area from the adjacent bottomland hardwood forest. Soils, vegetation, and hydrology are described in detail in the following sections.

# 3.2.1 Soils

The NRCS's Web Soil Survey was used to determine mapped soil series. The revised official series descriptions were used to confirm profile matrix, redox features, and texture of soils underlying the Site. The Web Soil Survey shows that the Site is underlain by Commerce silty clay loam, Sharkey clay, and Tunica clay (Figure 3). Sharkey clay consists of very deep, poorly to very poorly drained, very slowly permeable soils that formed in clayey alluvium. Commerce silty clay loams consist of deep, somewhat poorly drained, moderately slowly permeable soils that formed in loamy alluvial sediments. Tunica clays consist of deep, poorly drained, very slowly permeable soils that formed in clayey alluvium and the underlying loamy alluvium.

Sharkey clay, Tunica clay, and Commerce silty clay loam are listed as hydric on the local list (NRCS Web Soil Survey 2013), although the hydric component for both Tunica clay and Commerce silty clay loam is identified as Sharkey. Approximately 60% of the Site is mapped as being underlain by Sharkey clay. All soils observed during field delineation displayed indicators of hydric soils. These results can be seen in the wetland data report submitted to the USACE New Orleans District (CEMVN).

Soils in areas of heavy cattle use are compacted. Most of this compaction is present in areas where water or shade is present, especially around groups of cypress trees in the pasture, and in the hardwood forest areas.

# 3.2.2 Vegetation

The KRMB consists of a combination of pasture land and remnant bottomland hardwood forest. Approximately 196.7 acres of the KRMB are open pasture dominated by bahiagrass (*Paspalum notatum*) with scattered bald cypress trees (*Taxodium distichum*). Other herbaceous species include Bermuda grass (*Cynodon dactylon*), scattered clover (*Trifolium sp.*), marsh-pennywort (*Hydrocotyle umbellata*), and dotted smartweed (*Polygonum punctatum*).

The remaining 24.8 acres of the site are remanant hardwood forest. These areas are dominated by water oak (*Quercus nigra*), overcup oak (*Q. lyrata*), sycamore (*Platanus occidentalis*), green ash (*Fraxinus pennsylvanica*), American elm (*Ulmus americana*), and sweetgum (*Liquidambar styraciflua*). Other tree species present include sweet pecan (*Carya illinoinensis*), willow oak (*Q. phellos*), and Drummond red maple (*Acer rubrum var. drummondii*). Herbaceous vegetation in the forested areas is dominated by marsh-pennywort, dotted smartweed, dewberry (*Rubus trivialis*), and *Cyperus* sp., although dewberry and *Cyperus* sp. are only present in the windbreak on the western boundary. This is likely due to this forested area being outside of the current pasture.

## 3.2.3 Hydrology

The Site is located in the Lower Grand River Basin, situated between Bayou Tommy to the east and Bayou Grosse Tete to the west. Elevations on the Site range from 13 to 20 feet above the National Geodetic Vertical Datum (NGVD) for mean sea level (Figure 4). The source of hydrology on the Site is rainfall. Man-made ditches around and within the Site facilitate drainage off site. The site drains primarily northeast to a drainage canal maintained by West Baton Rouge Parish, which flows into Bayou Tommy. Bayou Tommy empties into Bayou Chope/Bayou Choctaw and eventually into the Gulf Intracoastal Waterway near Port Allen.

The contributing drainage basin for the Site is the Lower Grand River basin. This basin drains an area of approximately 792 square miles in Pointe Coupee, West Baton Rouge, and Iberville parishes. Major waterbodies within the basin include Bayou Fordoche, Bayou Portage, Bayou Grosse Tete, Bayou Poudras, Grand Bayou, Bayou Goula, Bayou Tigre, and the Lower Grand River.

#### 3.2.4 Wetland Delineation

A request for Preliminary Jurisdictional Determination was submitted to the CEMVN on February 26, 2014. A determination was received on May 16, 2014. The KRMB contains 209.7 acres of Section 404 Jurisdictional Wetlands, and 19,000 linear feet of other waters. The Preliminary Jurisdictional Determination is included as Appendix C.

## 3.3 General Need for the Project in this Area

This project will add approximately 187.1 additional acres of bottomland hardwood forest to already existing bottomland hardwood forest, and preserve 22.6 acres of remnant bottomland hardwood forest. The project area is bordered to the north and west by Pointe Coupee Parish, where critical habitat has been defined for the Louisiana black bear (*Ursus americanus luteolus*). This project and the bottomland hardwood forest that it will restore would provide additional habitat for the black bear.

This project is also within the Atchafalaya National Heritage Area (ANHA). In September 2011, a Management Plan/Environmental Assessment (MP/EA) was released for the ANHA. A core focus of the MP/EA is natural resources, which would be "managed, protected, and promoted within their broader context." Water quality and wetlands would be improved and protected through restoration and removal of cattle. Biological diversity would be an important consideration, and "biologically diverse native communities would be protected and restored." The KRMB would accomplish all of these goals by re-establishing wetland habitat, which would provide runoff filtration and increased diversity.

Alternative B of the ANHA MP/EA would have the focus placed on natural resources. The MP/EA states that Alternative B would "place the greatest emphasis on strategies designed to link resources at an areawide or regionwide level." Restoration of environmental resources would be a main goal of Alternative B, which the KRMB would accomplish.

## 3.4 Technical Feasibility

The construction work required to complete restoration is routine in nature, consisting primarily of filling in the man-made ditches and swales across the property to restore its historical hydrologic conditions to the extent practicable. Appropriate vegetative plantings will be implemented to restore the Site to native forested wetland species. The mapped soil types are historically supportive of the species proposed for restoration of the Site.

# Section 4.0 Establishment of the Mitigation Bank

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#### 4.1 Site Restoration Plan

The Sponsor proposes, through the use of a Nationwide Permit (NWP-27), to re-establish approximately 187.1 acres of bottomland hardwoods by planting desirable species of native vegetation and to preserve and enhance approximately 22.6 acres of existing bottomland hardwood forest (Figure 5). Approximately 11.8 acres of uplands will occupy the KRMB. Table 1 shows a complete breakdown of the acreages on the KRMB pre- and post-restoration.

The Sponsor will take appropriate actions to re-establish natural hydrologic conditions. Re-establishment of the natural hydrologic regime will include the closing of breaches in spoil banks along the north and east boundaries of the KRMB, and the filling of any man-made drainage ditches and swales within the former farm fields (Figures 2a and 2b). A typical cross section of spoil bank breaches and ditches to be filled is included (Figure 6). No temporary or long-term structural features will be required.

Restoration will be accomplished by re-establishing natural hydrology to the Site and planting an appropriate species mixture of bottomland hardwoods during the standard planting season (December-March). Seedlings will be planted on approximately 200 acres, using 9 by 9-foot spacing, for an initial stand density of at least 532 seedlings per acre. A mixture of at least 70 percent hard-mast and a maximum of 30 percent soft-mast-producing species will be planted in accordance with the following species selection list. If seedling availability renders a discrepancy of more than five percent from the desired mixture of hard-mast to soft-mast species, New Orleans District approval to modify the plan will be obtained. A mixture of the selected species will be planted to re-establish the Site (Table 2).

#### 4.2 Current Site Risks

There are drainage canals on the north and east sides of the property that the Sponsor has no control over. These canals are parish maintained. The Sponsor owns the property surrounding the KRMB, so the Sponsor will have control over any hydrologic disturbances, such as ditches and culverts, on the adjacent properties.

A power line right-of-way (ROW) is located on the eastern side of the property. There are no other known encumbrances on the property.

The Site is zoned as agricultural, as well as the surrounding properties. There are no known plans to develop any of the surrounding properties.

## 4.3 Long-Term Sustainability of the Site

Active and adaptive management will ensure the long-term sustainability and viability of the KRMB. This includes, but is not limited to, invasive species control, monitoring and long-term maintenance. With leveling of the spoil bank, hydrology on the KRMB will be influenced by overflow from the drainage canals and precipitation. Therefore, there will be no long-term structural management requirements.

# Section 5.0 Proposed Service Area

The KRMB is located within United States Geological Survey (USGS) Hydrologic Unit Code (HUC) 08070300 which includes portions of Pointe Coupee, West Baton Rouge, and Iberville Parishes west of the Mississippi River (Figure 7). HUC 08070300 will serve as the KRMB's primary service area, while HUC 08080101 and 08090302 will serve as secondary service areas for the KRMB. These service areas were chosen due to the connectivity of the Site with critical habitat for black bear.

# Section 6.0 Operation of the Mitigation Bank

## 6.1 Project Representatives

Sponsor and Owner:

Kimball Properties, LLC 876 N. Jefferson Avenue

Port Allen, Louisiana 70767

Agent:

Charles E. Jones

5551 Corporate Boulevard, Suite 200

Baton Rouge, Louisiana 70808

cjones@CRAworld.com

225-292-9007

Owner Representative:

Mr. Kevin Kimball

876 N. Jefferson Avenue Port Allen, Louisiana 70767

jkk@brcoxmail.com

225-344-0220

# 6.2 Qualifications of the Sponsor

The Sponsor has been involved in farming and manipulation of the project site since the 1950s. As such the Sponsor is intimately familiar with the site conditions and has the experience necessary to successfully implement all facets of the mitigation banking agreement. Additionally, the Sponsor has hired Mr. Charles Jones of Conestoga-Rovers & Associates to provide consulting services with regard to the establishment and management of the Kimball Ranch Mitigation Bank. Kimball Ranch Mitigation Bank will be managed by Mr. J. Kevin Kimball, Attorney, who has practiced law for 25 years with a large portion of his practice dealing with real estate transactions.

# 6.3 Proposed Long-Term Ownership and Management Representatives

The long-term Owner, Sponsor, and Manager of the KRMB will be Kimball Properties, LLC. However, the Sponsor may appoint a long-term Steward if such appointment is approved by the CEMVN.

#### 6.4 Site Protection

To ensure long-term protection of all lands included in the compensatory mitigation contract, the Sponsor, its heirs, assigns, or successors will be responsible for maintaining and protecting lands contained within the restored portion of the KRMB in perpetuity, unless the lands are transferred to a state or federal resource agency, non-profit conservation organization, or this responsibility is contractually conveyed to another person, all of which will be subject to approval by the New Orleans District. A conservation servitude will be prepared to include a non-profit or state agency as the Grantor and Holder. This conservation servitude specifically prohibits activities that would reduce the quality of the re-established wetlands. The conservation servitude also specifies permissible activities such as hunting, fishing, and recreational use given the activity causes no negative effect on the functions and values of the restored wetlands. Forest management within the conservation servitude could be allowed given that this activity is performed to maintain or improve the overall ecological function of the Site. Impacts that adversely affect the function and value of the Site and that are caused by permissible activities will require permitting and subsequent mitigation.

## 6.5 Long-Term Strategy

Long-term management will consist of vegetation management, invasive species control, monitoring, site protection, and funding of these activities. The wetland habitats will be managed to maintain and increase the functions of the KRMB. Invasive species control will involve control of undesirable or invasive forest vegetative species such as Chinese tallow trees.

After leveling of the spoil banks and filling of any ditches or swales on the property, no structural management will be required for hydrologic or vegetative restoration.

A long-term management plan will be included with the mitigation banking instrument which will detail the requirements for long-term management, including activities, funding, and a mechanism for funding as outlined in 33 CFR § 332.7 (d).

