

Prospectus Checklist for Mitigation Banks per CFR 332.8(d)(2)
TWINWOOD WETLAND MITIGATION BANK
SWG-2017-00517

The objectives of the proposed mitigation bank:

- Identify the habitat type(s) (bottomland hardwoods, swamp, fresh marsh, pine savannah, etc.) that will be provided.
 - [Section II.B.2 and 3, page 4](#)
- Identify the amount (acres) of each habitat type that will be provided.
 - [Section II.B.2 and 3, page 4](#)
- Identify the aquatic functions to be restored/enhanced.
 - [Section II.B.2 and 3, page 4](#)
- Identify the methods of compensation (re-establishment, rehabilitation, enhancement, preservation) used to establish the mitigation bank.
 - [Section II.B.2 and 3, page 4](#)
- Identify the mitigation bank's plan for operation.
 - [Section III.A-G, pages 4-6](#)

Describe how the bank or in-lieu fee program will be established:

- Identify the work necessary to accomplish site restoration/enhancement and describe how the proposed work will meet identified goals and objectives.
 - [Section II.B.2 and 3, page 4](#)
- Provide a vicinity map (USGS topographic map).
 - Please reference [Appendix D](#) of the Prospectus.
- Provide a current aerial photograph identifying the area to be protected by the conservation servitude.
 - Please reference [Appendix H- Conceptual Development Plan](#).
- Provide site-specific maps and cross sections showing proposed work. Include an elevation map, soil map, map showing the location of each method of compensation per habitat type, and a map showing the hydrologic restoration... this should include cross-sections of any earthen work where applicable.
 - Please reference [Appendix B- Fort Bend County Soil Map](#).
 - Please reference [Appendix H- Conceptual Development Plan](#).
- For the prospectus public notice to serve as the public notice for any necessary Department of the Army permit, a permit application must be submitted otherwise, a separate public notice will be necessary.

Identify the proposed service area:

- Provide a map identifying the proposed service area of the bank.
 - [Appendix A- Proposed Service Area](#).
- Provide a rationale for determining the limits of the proposed service area.
 - [Section I, page 2](#)
- Identify the general need for and technical feasibility of the proposed mitigation bank or in-lieu fee program.
 - [Section I, page 2](#)
- Identify any watershed plans the mitigation project would accommodate.
 - [Unknown at this time](#).
- Identify any regional or local benefits derived from the bank.
 - Future development requiring mitigation needs within Fort Bend County would be able to utilize the available credits of the bank. [Section I, page 2](#)
- Identify any potential threats to the bank site or resource type the bank intends to provide and/or protect.
 - [Section II.b.1, page 4](#)

Discuss the feasibility of the proposed construction work required to develop the bank.

The proposed construction activities are very feasible given the small amount of dirt work required to achieve the desired wetland elevation. Existing wetlands on the site will be utilized as the base line elevation for all proposed restoration and establishment activities. Once the desired elevation is achieved, the restored/established wetlands will be planted with desirable hydrophytic vegetation. Again, the existing on-site wetlands will be utilized to determine the appropriate species composition as reference sites to ensure planted species survival within the area.

Identify the proposed future ownership arrangements and long-term management strategy for the proposed mitigation bank or in-lieu fee program:

Provide contact information (name, address, telephone number, e-mail address, etc.) for the Sponsor, land owner, and agent.

- **Sponsor/Owner:** Twinwood (U.S.), Inc.
Attn: Glen Plowman
10514 FM 1489
Simonton, Texas 77476
- **Agent:** Berg-Oliver Associates, Inc.
Attn: Keith Morgan
14701 St. Mary's Lane, Suite 400
Houston, Texas 77079
Phone: 281-589-0898
Email: kmorgan@bergoliver.com
- **Identify the proposed long-term ownership.**
 - **Sponsor/Owner:** Twinwood (U.S.), Inc.
Attn: Glen Plowman
10514 FM 1489
Simonton, Texas 77476
- **Identify the party responsible for long-term management.**
 - **Sponsor/Owner:** Twinwood (U.S.), Inc.
Attn: Glen Plowman
10514 FM 1489
Simonton, Texas 77476
- **Identify the proposed site protection instrument that would be utilized.**
 - A conservation easement will be utilized for the long term protection of the bank.
- **Identify the "holder" of that instrument if a "holder" is required.**
 - A qualified third party land trust will be the holder of the easement. The exact entity is still unknown at this time.

Summarize the qualifications of the sponsor to successfully complete the type of mitigation project proposed as well as any similar previous activities completed by the sponsor.

The sponsor has not undertaken any other similar activities to date. However, the sponsor is the owner/operator of a 14,000 ± acre ranch that includes rice farming, livestock production, and other commodity row crop production. Therefore, they have experience with managing land for a desired purpose and understand the unique ecosystem along the Brazos River.

For mitigation banks, the prospectus must also address: The ecological suitability of the site to achieve the objectives of the proposed mitigation bank, including the physical, chemical, and biological characteristics of the bank site and how that site will support the planned types of aquatic resources and functions

- **Summarize current site conditions including land use, vegetation, hydrology, and soils.**
 - The 321.47 acre proposed TWMB property lies entirely within the 100-year floodplain of the Brazos River as published by the Federal Emergency Management Agency (FEMA) (*Appendix C*). The project area is dominated by open pasture areas, with a few pockets of remnant forested areas. The majority of this site is currently undeveloped land utilized for agricultural livestock production and is improved grazing pasture for the livestock. The tract has historically been used for agricultural activities such as livestock production.
- **Identify all known encumbrances including mortgages, liens, rights-of- way, servitudes, easements, etc.**
 - The subject property does not contain any mortgages, liens, right-of-ways, servitudes, or easement.
- **Identify previous land uses of the site and adjacent properties.**
 - The project area is dominated by open pasture areas, with a few pockets of remnant forested areas. The majority of this site is currently undeveloped land utilized for agricultural livestock production and is improved grazing pasture for the livestock. The tract has historically been used for agricultural activities such as livestock production. The subject property is bordered by the Brazos River to the west, an oxbow to the north, and existing residential properties to the east and south.
- **Identify zoning and any existing and/or proposed development adjacent to the bank.**
 - There are no zoning restrictions on the tract. The tract is bordered by the Brazos to the west and an oxbow of the Brazos to the north, therefore no development will occur west or north of the tract. The tract is also bordered by existing single-family residential developments to the east and south and are not likely to be modified for the foreseeable future.

- **Summarize the historical hydrology of the site.**
 - There is an existing oxbow on the subject property. Additionally the subject property is adjacent to the Brazos River. It is the opinion of the Sponsor that the subject property contains 36.22 acres of adjacent jurisdictional wetlands, 1.38 acres (~11423 linear feet) of Waters of the U.S., and 1.32 acres (~8,318 linear feet) of man-made ditches. Again, the entire project area is located with the mapped FEMA 100-year floodplain.
- **Include a jurisdictional determination of “waters of the U.S.” from the Corps. Please note that this item is necessary to support the method of compensation statement.**
 - The Corps has not performed a jurisdictional determination of “waters of the U.S.” on the subject property to date; however, the Sponsor has performed a Wetland Delineation and is the opinion of the Sponsor that the subject property contains 36.22 acres of adjacent jurisdictional wetlands, 1.38 acres (~11423 linear feet) of Waters of the U.S., and 1.32 acres (~8,318 linear feet) of man-made ditches.

Assurance of sufficient water rights and/or hydrological influences on the site to support the long-term sustainability of the mitigation bank:

- **Describe any existing hydrologic disturbances on and adjacent to the site over which the sponsor has no control.**
 - The subject property is adjacent to the Brazos River, which is subject to flooding events during heavy rainfall. The Sponsor would not have control over the flooding events, however, these disturbances could improve the hydrology in the area by overbank flooding.
- **Identify any temporary or long-term structural management requirements (levees, weirs, culverts, etc.,) needed to assure hydrologic/vegetative restoration.**
 - The Sponsor is not proposing to impede water rights of any surrounding property owners or public waterways. The hydrology of all wetlands on the TWMB property will be supported by natural rainfall and diversion of an existing ditch on the subject property. The ditch currently drains water from residential development along the eastern boundary of the property into an oxbow wetland along the northern boundary of the TWMB property. The proposed plans will not change the total outflow of water from the residential area or the total inflow of water into the oxbow wetland. The Sponsor is proposing to divert this drainage away from the oxbow wetland in the eastern portion of the property, into proposed grassland swales constructed within the middle portion of the subject property, which will flow through created wetlands, tie into existing ditches, and eventually outfall into the existing oxbow wetland at the current outfall location. Herbaceous wetlands are proposed to be planted with desirable herbaceous wetland species. Excavated material could be used to develop maintenance roads on-site for enhanced access across the site, otherwise will be transported offsite to the proper facility.
- **Describe:**
 - **Water source(s) and losses(s) (precipitation, surface runoff, groundwater, stream, tidal).**
 - The Sponsor is proposing to divert this drainage away from the oxbow wetland in the eastern portion of the property, into proposed grassland swales constructed within the middle portion of the subject property, which will flow through created wetlands, tie into existing ditches, and eventually outfall into the existing oxbow wetland at the current outfall location. Herbaceous wetlands are proposed to be planted with desirable herbaceous wetland species. Additional water sources include precipitation, runoff from precipitation, and overbank flooding from the Brazos River.
 - **For sites with overbank flow: Hydro-period (seasonal depth, duration, and timing of inundation and/or saturation) Contributing drainage area (map and size).**
 - The site has previously been flooded periodically by the Brazos River overflow during extreme rainfall events. Recent evidence shows approximately 3-feet of inundation during flooding events based on water marks on trees. Duration is estimated to be between two (2) to four (4) weeks during these flooding events. Average proposed water depth in the existing wetlands is 6-12 inches during the winter and less than 2 inches during the summer. Existing wetland area appear to stay inundated and saturated for at least three (3) to four (4) months during the growing season.

Reviewer:_____

Date:_____

Complete: Yes / No