SWG-2016-00335
Draft Mitigation Plan

HDR

MITIGATION PLAN FOR 5.61-Acre North Padre Island Property
SWG-2016-00335
Nueces County, Texas
Larry Childers

I) Mitigation Goals and Objectives

The applicant, Larry Childers, is proposing to construct a mixed use development consisting of a hotel and retail/commercial buildings and associated roadways and parking lots on an approximate 5.61-acre property located along Park Road (PR) 22 frontage on North Padre Island, in Corpus Christi, Nueces County, Texas (**Enclosure A - Permit Drawings**).

Construction of the main entrance road to the hotel (NWP 14)*will permanently impact (fill) 0.16 acres of freshwater wetland (Wetland 1). Development of the restaurant/retail sites (NWP 18)*will permanently impact (fill) 0.09 acre of freshwater wetland (Wetland 1 and Wetland 2) and 0.01 acre of freshwater pond (Pond 1). The proposed design plan was chosen out of four potential alternatives and will result in the complete avoidance of 0.08 acre of freshwater wetland. Table 1 provides a summary of proposed impacts.

Table 1. Summary of Jurisdictional Impacts

Resource Type	Existing (Acres)	Permanent Impacts (Acres)		Total Impacts (Acres)
		NWP 14 Impacts* (Fill)	NWP 18* Impacts (Fill)	
Freshwater wetland - Wetland 1	0.21	0.16	0.05	0.21
Freshwater wetland - Wetland 2	0.04	-	0.04	0.04
Freshwater wetland - Wetland 3	0.03	-	-	-
Freshwater wetland - Wetland 4	0.05	-	-	-
Freshwater pond - Pond 1	0.01	-	0.01	0.01
TOTAL	**0.34**	**0.16**	**0.10**	**0.26**

As compensatory mitigation for impacts to 0.26 acre of jurisdictional area, the applicant proposes to create and enhance on-site wetland habitat (**Enclosure A - Permit Drawings Sheets 5 and 9**). Wetland creation and enhancement are described in further detail below.

II) Site Selection Information

The wetland mitigation site was selected based on the following criteria: on-site location, adequate size to compensate for impacts, and suitable habitat to compensate for freshwater wetland. The selected site is located entirely within the 5.61-acre property and is part of the Corpus Christi Bay watershed in an area adjacent to Packery Channel Park. The selected on-site mitigation location will increase the size and functionality of an existing wetland (Wetland 4) that will be avoided by the proposed plans, therefore resulting in a higher probability of success for natural recruitment of the species that are found within the areas to be impacted.

hdrinc.com 555 N. Carancahua, Suite 1600, Corpus Christi, TX 78401-0849
(361) 696-3300

Note: The original application submission requested approval under the Nationwide Permit process, but did not meet the requirements of the program. Therefore, all impacts caused by the proposed project will be evaluated under the Individual Permit process.

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III) Site Protection Instrument

All created and enhanced habitat will be protected in perpetuity by a deed restriction, conservation easement, or equivalent legal instrument that limits use of the mitigation site to those that are consistent with this mitigation plan. The legal instrument will be established within six months of beginning work in jurisdictional areas.

IV) Baseline Information

Impact Site

The approximately 0.26 acre of wetlands that will be impacted (fill) on the 5.61-acre property are best characterized as non-tidal, mixed emergent wetlands. The vegetative community within the impacted sites includes *Spartina spartinae, Schinus terebinthifolius*, *Morella cerifera*, *Hydrocotyle bonariensis*, *Baptista leucophaea*, *Erythrina herbacea*, *Schizachyrium scoparium*, and *Andropogon glomeratus* (**Enclosure B - Wetland Delineation Report**).

Mitigation Site

Habitat Creation and Enhancement Area

The proposed mitigation consists of lowering 0.40 acre of on-site uplands by mechanical excavation to create emergent wetland and the enhancement of an existing wetland (Wetland 4) on the northern side of the property. The 0.40-acre mitigation site is located immediately adjacent to a larger area of contiguous wetland (Wetland 4), thereby expanding the size of a wetland that will offer similar, if not more, ecological functions in terms of habitat value and water quality treatment than the three wetlands that will be impacted. The vegetative community within the upland area includes *Schizachyrium scoparium*, *Morella cerifera, Hydrocotyle bonariensis*, *Iva angustifolia*, and *Ambrosia psilostachya*.

V) Number of Credits to be Provided

1) Wetland Restoration and Enhancement

Excavation to reference elevations of the adjacent (avoided) wetland (Wetland 4) will result in the creation of 0.40 acre of emergent wetland. Based on the surrounding habitat types, and connectivity to an existing emergent wetland, it is anticipated that the 0.40 acre mitigation site will naturally re-vegetate and form emergent wetland. Furthermore, the connectivity of the mitigation site with an existing emergent wetland (Wetland 4) will result in improved ecological function in terms of habitat value and water quality treatment than the three wetlands that will be impacted.

The wetlands proposed to be impacted are adjacent to Packery Channel (Corpus Christi Bay) but otherwise isolated from other waters of the U.S. including wetlands and less than 0.5 acre of wetland is proposed to be impacted. Based on the size and location of wetlands present within the project review area, the proposed creation and enhancement performed as compensatory mitigation for the proposed project will sufficiently offset the proposed project impacts.

VI) Mitigation Work Plan

The proposed wetland mitigation is located on-site at the 5.61-acre North Padre Island property. The existing emergent wetland (Wetland 4) adjacent to upland areas to be excavated will be used as reference elevations for restoration.

Approximately 0.40 acre of uplands will be excavated and graded to reference elevations. The applicant will be responsible for constructing the mitigation. The applicant will excavate the mitigation area to elevation conducive to recruitment and survival of the target species. Excavated material will be placed in uplands on-site or hauled off-site for storage and disposal. A post-construction survey of the wetland mitigation site will be conducted and submitted to the USACE within 60 days of mitigation project completion.

VII) Maintenance Plan

The applicant will be responsible for maintaining the wetland mitigation site to remain in compliance with this mitigation plan during years project monitoring is required or other actions are required by the USACE for the site to meet target success criteria. Once the USACE has determined that success criteria have been met, maintenance of the wetland mitigation site will be the responsibility of the permittee. Maintenance of the wetland mitigation site will also include removing trash and non-natural debris.

VIII) Ecological Performance Standards

Success of the wetland creation and enhancement mitigation effort will be evaluated using the following standards:

Year 1 – Vegetative percent cover of target wetland vegetation in created areas shall be equal to or greater than 25% after one complete growing season or one year after construction, whichever is longer.

Year 2 – Vegetative percent cover of target wetland vegetation in created areas shall be equal to or greater than 50% after two complete growing seasons or two years after construction, whichever is longer.

Year 3 – Vegetative percent cover of target wetland vegetation in created areas shall be equal to or greater than 70% three growing seasons after construction or 3 years after construction, whichever is longer. If the site meets target success criteria after Year 3, USACE may determine that no additional monitoring is required.

Year 4 – Vegetative percent cover of target wetland vegetation in created areas shall remain equal to or greater than 70% four growing seasons after construction or 4 years after construction, whichever is longer. If the site meets target success criteria after Year 4, USACE may determine that no additional monitoring is required.

Year 5 – Vegetative percent cover of target wetland vegetation in created areas shall remain equal to or greater than 70% five growing seasons after construction or 5 years after construction, whichever is longer.

Target wetland vegetation may include, but is not limited to, *Spartina spartinae*, *Spartina patens*, *Hydrocotyle bonariensis*, *Schizachyrium scoparium*, *Baptista leucophaea*, *Erythrina herbacea*, and *Andropogon glomeratus*.

No significant coverage of invasive species has been observed at the proposed wetland mitigation site and it is not anticipated that invasive species establishment at the site will be significantly greater than the surrounding habitats. Monitoring of the wetland mitigation site will be performed in accordance with USACE Regulatory Guidance Letter 08-03 and if an invasive species becomes a dominant species within the mitigation site this will be indicated in the annual monitoring report.

IX) Monitoring Requirements

A post-construction assessment of the habitat creation area, including a survey of the boundary and elevations within the grade-modified area, will be conducted after construction of the habitat creation area is complete. Annual monitoring will be conducted to document site performance in the context of the Ecological Performance Standards described above. Monitoring and reporting will be conducted annually for a period of five years in accordance with USACE Regulatory Guidance Letter 08-03. Annual monitoring reports will include a description of monitoring methodology, results, and photographic documentation of site conditions.

X) Long-Term Management Plan

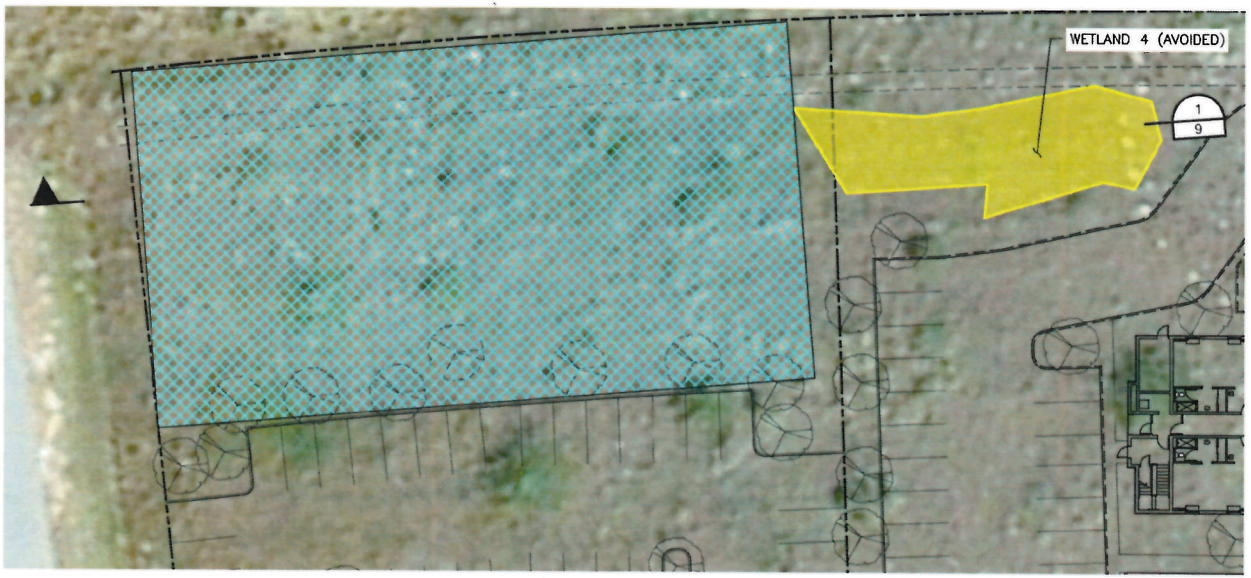
As stated above, all created and enhanced habitat will be protected in perpetuity by a deed restriction, conservation easement, or equivalent legal instrument. Long-term management may include removal of trash and/or invasive species as well as measures agreed upon by the applicant and the USACE if the site does not meet ecological performance standards defined in Section VIII.

XI) Adaptive Management Plan

If results of the monitoring indicate that mitigation is not successful, the applicant will coordinate with USACE to discuss an appropriate course of action. Example remedies may include, but are not limited to, planting efforts, alternative sites, or other remedies.

XII) Financial Assurances

The applicant, Larry Childers, has a history of successful development projects on North Padre Island and other parts of Corpus Christi, Texas.



ENLARGED – MITIGATION PLAN 1/3

SCALE: 0 25' 50'

LEGEND:

PROPERTY BOUNDARY

WETLAND CREATION (APPROXIMATELY 0.40 ACRES)

POTENTIAL JURISDICTIONAL WETLAND (AVOIDED)

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Permit Application No.:
Applicant Name:
Sheet ___ of ___

HDR
Texas P.E. Firm Registration No. F-754

ACTIVITY: NORTH PADRE REALTY – PERMIT

APPLICANT: NORTH PADRE REALTY

DATE: 06/2016

HDR JOB NO: 10C297549

DATUM:

REV. DATE:

SHEET 5 OF 9

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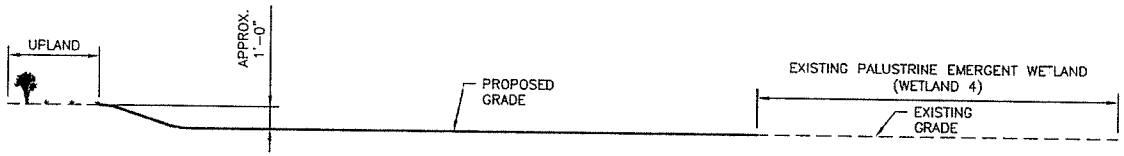
JUL 13 2016



CROSS SECTION – WETLAND CREATION 1/5

SCALE: NTS

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