

Steele Creek Mitigation Bank

Credit Transaction Report Form

This information is being submitted in accordance with procedures for credit transaction as listed in Section 11.0 of the Steele Creek Mitigation Bank Instrument.

Permit Applicant's name, address, & phone number:

Mark Smith, P.E.
Director of Public Works
City of College Station
P.O. Box 9960
College Station, Texas 77842
(979) 764-3692

USACE Permit and or other identification number:

Section 404 Nationwide Permit 14, Application No. 200200723

Brief description of the location and type of authorized work:

The Wolf Pen Creek Upper Trails Project involves the construction of a pedestrian trail system through the heavily wooded floodplain of Wolf Pen Creek in College Station, Brazos County, Texas. The trail meanders through the floodplain from the George Bush Drive Bridge on the west to the Dartmouth/Holleman Drive intersection on the east. The plan calls for six stream crossings over the length of the project, four over the main channel and two over a tributary that joins the main channel within the project area. The plans also call for seven bank stabilization projects to address localized erosion problems in the vicinity of the trail. One is directly associated with the trail and six others are isolated from the trail in nearby areas along Wolf Pen Creek.

Brief description of the nature and extent of adverse project impacts:

Under the proposed design, sections of the streambed would be impacted by the installation of the reinforced concrete structures. To minimize these impacts, the crossings were designed to be only long enough for the trail and a ten-foot clear zone on either side of the trail to prevent pedestrians from falling into the stream. A ten-foot section of rock rubble is also planned at the outfall of the box culverts to minimize erosion in the stream adjacent to the structures. The length of streambed impacted by the stream crossing varies from 47 to 56 feet for the six crossings. The total length of impacted streambed is 299 feet for the stream crossings. A segment of stream must be realigned to address a localized erosion problem that threatens an adjoining business. This realignment shortens the stream length by approximately 30 feet. The total length of streambed that is impacted by the stream crossings and realignment is 329 feet.

The width of the streambed between banks at the ordinary high water mark varies significantly throughout the project, but averages approximately 27 feet. For estimation purposes, a 50' wide section adjacent to each bank was assumed to have influence on the

aquatic habitat of the stream. Using these figures, the computation for impacts to Waters of the U.S. is as follows:

$$329' \times (27' + 50' + 50') = 41,783 \text{ s.f. or } 0.959 \text{ acres (rounded to } 1.0 \text{ ac.)}$$

The Darmouth/Holleman Intersection in College Station, Brazos County Texas is located within the Primary Service Area of the Steele Creek Mitigation Bank. In accordance with conversations with USACE officials who have visited this site, a Permanent, Medium Quality Habitat was used for the Impact Multiplier for the Steele Creek Mitigation Bank.

Number of Credits to be debited from the Bank:

Computations for the credit area needed in this mitigation bank are as follows:

Service Area Multipliers for Steele Creek Mitigation Bank

Primary Service Area	1.0
Secondary Service Area	1.5

Impact Multipliers for Steel Creek Mitigation Bank

For permanent impacts on:

High quality habitat	6.8
Medium quality habitat	4.8 *
Low quality habitat	2.8

$$\text{Credit Area} = (\text{Impacted Area}) \times (\text{Service Area Multiplier}) \times (\text{Impact Multiplier})$$

$$\begin{aligned} \text{Credit Area} &= 1.0 \text{ acre} \times 1.0 \times 4.8 \\ &= 4.8 \text{ acres} \end{aligned}$$

4.8 Credits to be debited from the Bank