Mitigation Cost Analysis

Note 1: This schedule follows the mitigation guidelines published in the Lewisville Lake Programmatic Environmental Assessment (PEA) dated September 30, 1999 (see footnote). Using an average of mitigation dollar costs from past land use actions at Lewisville Lake, and from Corps studies, the following mitigation costs will be applied to the Narrow Shoreline Variance Areas (NSVA) where mowing extends beyond the 50-foot MUZ: $ 2,178 an acre for grasslands restoration (or app. $ 0.05 per sq. ft.); $ 5,227 an acre for forests restoration (or app. $ 0.12 per sq. ft.); and $ 3,484 for a Savannah (mix of the two or app. $ 0.08). A recent example of such costs was published in the draft EA for the FM 2499 highway project dated November 2002.

Note 2: The table below utilizes 3,000 square feet of NSVA for various flood elevations as stated in the PEA. In the formula C x V x SF = M, C is the habitat condition multiplier, V is the square foot cost to mitigate, and SF is the number of square feet to be mowed (and therefore mitigated) in the NSVA. Using the formula, the cost to mitigate any size area is possible.

Note 3: In the absence of extenuating health or safety issues, permittees will not be allowed to disturb existing wetland vegetation.

Note 4: Mowed grasslands consisting of non-native species in most NSVA's would usually be considered poor vegetation condition and most are located within the 522 – 528 elevation range. Therefore, the cost to mitigate the mowing of these areas would rarely exceed a 3:1 ratio.

Note 5: Payment in lieu of cash or check may be made by signing a volunteer agreement and performing the required amount of mitigation in labor at a rate of $17.19 per hour within the timeframe stated within the conditions of the permit.

Elm Fork Project Shoreline Variance Mitigation Cost Schedule		
Vegetation/Habitat Condition using Stated PEA Flood Elevations	**Excellent Condition** (3:1 to 6:1) C x V x SF = M	**Good Condition** (2:1 to 5:1) C x V x SF = M	**Poor Condition** (1:1 to 4:1) C x V x SF = M
Woodlands			
(522 – 528)	3 x $ 0.12 x 3,000 = $ 1,080.00	2 x $ 0.12 x 3,000 = $ 720.00	1 x $ 0.12 x 3,000 = $ 360.00
(528 – 530.8)	4 x $ 0.12 x 3,000 = $ 1,440.00	3 x $ 0.12 x 3,000 = $ 1,080.00	2 x $ 0.12 x 3,000 = $ 720.00
(530.8 – 535.2)	5 x $ 0.12 x 3,000 = $ 1,800.00	4 x $ 0.12 x 3,000 = $ 1,440.00	3 x $ 0.12 x 3,000 = $ 1,080.00
(535.2 ≥ 537)	6 x $ 0.12 x 3,000 = $ 2,160.00	5 x $ 0.12 x 3,000 = $ 1,800.00	4 x $ 0.12 x 3,000 = $ 1,440.00
Grasslands			
(522 – 528)	3 x $ 0.05 x 3,000 = $ 450.00	2 x $ 0.05 x 3,000 = $ 300.00	1 x $ 0.05 x 3,000 = $ 150.00
(528 – 530.8)	4 x $ 0.05 x 3,000 = $ 650.00	3 x $ 0.05 x 3,000 = $ 450.00	2 x $ 0.05 x 3,000 = $ 300.00
(530.8 – 535.2)	5 x $ 0.05 x 3,000 = $ 750.00	4 x $ 0.05 x 3,000 = $ 650.00	3 x $ 0.05 x 3,000 = $ 450.00
(535.2 ≥ 537)	6 x $ 0.05 x 3,000 = $ 900.00	5 x $ 0.05 x 3,000 = $ 750.00	4 x $ 0.05 x 3,000 = $ 650.00
Savannah			
(522 – 528)	3 x $ 0.08 x 3,000 = $ 720.00	2 x $ 0.08 x 3,000 = $ 480.00	1 x $ 0.08 x 3,000 = $ 240.00
(528 – 530.8)	4 x $ 0.08 x 3,000 = $ 960.00	3 x $ 0.08 x 3,000 = $ 720.00	2 x $ 0.08 x 3,000 = $ 480.00
(530.8 – 535.2)	5 x $ 0.08 x 3,000 = $ 1,200.00	4 x $ 0.08 x 3,000 = $ 960.00	3 x $ 0.08 x 3,000 = $ 720.00
(535.2 ≥ 537)	6 x $ 0.08 x 3,000 = $ 1,440.00	5 x $ 0.08 x 3,000 = $ 1,200.00	4 x $ 0.08 x 3,000 = $ 960.00

Footnote: The 1999 PEA identified mitigation ratios for various habitat conditions / values and location within a range of flood event elevations. For example: Excellent vegetation/habitat conditions are mitigated on ratios ranging from 3:1 to 6:1; Good vegetation/habitat conditions are mitigated on ratios ranging from 2:1 to 5:1; Poor vegetation/habitat conditions are mitigated on ratios ranging from 1:1 to 4:1.