is commonly silty clay or clay and less commonly silty clay loam or clay loam. Reaction ranges from moderately acid to slightly alkaline and is typically noncalcareous.

The BCk or BC horizon has colors in shades of gray or brown. Redoximorphic features of these colors and in other shades of yellow, red or olive range from few to many. Texture is clay loam, silty clay loam, silty clay, or clay. Some pedons have fragments or thin strata of shale or marl. These materials make up less than 35 percent of the matrix. Reaction ranges from neutral to moderately alkaline. Concretions and masses of calcium carbonate range from none to common.

The C horizon, where encountered, is shale or marl or stratified layers of shale, marl and clay.

COMPETING SERIES: There are no competing series. Similar soils are the Dacosta, Herty, Lufkin, Mabank, and Steedham series. Dacosta soils have a mollic epipedon and are members of the hyperthermic family. Herty, Lufkin and Mabank soils have an abrupt texture change between the A and Bt horizon. In addition, Herty soils are in the udic moisture regime. Steedham soils have sola from 20 to 40 inches thick, and are well drained.

GEOGRAPHIC SETTING: Wilson soils are on nearly level to gently sloping terraces or remnants of terraces. Slope gradients are 0 to 5 percent but dominantly less than 1 percent. The soil formed in alkaline clayey alluvium. Mean annual temperature ranges from 64 to 70 degrees F., and mean annual precipitation ranges from 32 to 45 inches. Frost free days range from 220 to 270 days and elevation ranges from 250 to 700 feet. Thornthwaite P-E indices from 50 to 70.

GEOGRAPHICALLY ASSOCIATED SOILS: These are the Bonham, Burleson, Crockett, Houston Black, Lufkin, Mabank, and Normangee series. Bonham soils have mollic epipedons. Burleson soils are on similar positions. Burleson and Houston Black soils are clayey to the surface and have slickensides (Vertisols). Crockett and Normangee soils have Bt horizons with chroma of more than 2. Bonham, Houston Black, Crockett and Normangee soils are on slightly higher positions above Wilson. Lufkin soils are on similar or slightly lower concave positions. Mabank soils are on similar positions.

DRAINAGE AND PERMEABILITY: Moderately well drained. Permeability is very slow. Runoff is low on 0 to 1 percent slopes, medium on 1 to 3 percent slopes, and high on 3 to 5 percent slopes. Very slow internal drainage. The soil is seasonally wet and is saturated in the surface layer and upper part of the Bt horizon during the winter and spring seasons for periods of 10 to 30 days.

USE AND VEGETATION: Wilson soils are cropped to cotton, sorghums, small grain, and corn. Many areas are now idle or are used for unimproved pasture. Original vegetation was tall prairie grasses, mainly andropogon species, and widely spaced motts of elm and oak trees. Most areas that are not cropped have few to many mesquite trees.

DISTRIBUTION AND EXTENT: Mainly in the Blackland Prairies of Texas, with small areas in Oklahoma. The soil is extensive, probably exceeding 1,000,000 acres.

E-2: Supplement to the Preliminary Jurisdictional Determination

ALAN PLUMMER ASSOCIATES, INC.
ENVIRONMENTAL ENGINEERS - DESIGNERS - SCIENTISTS

Supplement Number 1 to the Preliminary Jurisdictional Determination of Waters of the U.S. – Proposed Lake Ralph Hall

SPONSOR:

UPPER TRINITY REGIONAL WATER DISTRICT

JANUARY 30, 2008

ALAN PLUMMER ASSOCIATES, INC.

FIGURES A4-A6
SHOWING STREAMS AND TRIBUTARIES WITH IDENTIFICATION LABELS THAT CORRESPOND TO TABLE 5

Legend

Jurisdictional

Stream Channels

On-Channel Ponds

Non-Jurisdictional

Remnant North Sulphur River Channels without Current Hydraulic or Hydrologic Connections

Upland Ponds

FIGURE A-4
PRELIMINARY JURISDICTIONAL DETERMINATION
OF WATERS OF THE U.S.

PREPARED BY:
TIM CAPPS (10-10-05)
FIGURE 4 OF 6

2,000 1,000 0 Feet

F:\PROJECTS\036\04\02\GIS\REPORT\FIGURES\PJD\FIGURE4A_PJD_LAKE.MXD

Legend

Jurisdictional

Stream Channels

On-Channel Ponds

Non-Jurisdictional

Remnant North Sulphur River Channels without Current Hydraulic or Hydrologic Connections

Upland Ponds

FIGURE A-5
PRELIMINARY JURISDICTIONAL DETERMINATION
OF WATERS OF THE U.S.

PREPARED BY:
TIM CAPPS (10-10-05)
FIGURE 5 OF 6

2,000 1,000 0 Feet

E:\PROJECTS\03450\002\GIS\REPORTS\FIGURES\PJD\FIGURE A5_PJD_LAKE.MXD