

AGENDA ITEM 48

Discuss and take appropriate action on the next phase of wetlands preliminary design for Brushy Creek Trail.

Moved: **Commissioner Heiligenstein**

Seconded: **Commissioner Hays**

Motion: To authorize the next phase of wetlands preliminary design for Brushy Creek Trail by K. Frieze & Associates.

Vote: **4 – 0.** **Commissioner Limmer** was absent from the dais.

< Attachment >

November 12, 2003

Commissioner Mike Heiligenstein
Williamson County, Precinct One
400 West Main Street, Suite
Round Rock, Texas
78664

Re: Brushy Creek Hike and Bike Trail
Wetland Enhancement Feasibility Study

Dear Commissioner Heiligenstein:

We are pleased to present the final version of our report entitled "Wetland and Riparian Corridor Enhancement Feasibility Study for the Brushy Creek Hike and Bike Trail." A total of 10 copies have been attached for distribution as you deem appropriate.

This report was prepared in response to a request by Williamson County to review the Brushy Creek Hike and Bike trail for appropriate areas to either create or enhance existing wetlands – for both aesthetic value and the improvement of wildlife habitat. K Friese & Associates, Inc. (KFA), with PBS&J ecology support, was authorized to conduct a feasibility study of approximately 1.6 miles of the trail between Avery Dam and the Oak Brook Subdivision footbridge over Brushy Creek. The scope of the study included data collection and assessment efforts, further enhancement/restoration recommendations for up to two sites, and identification of any possible funding sources.

Based upon field reconnaissance and coordination with County staff, two existing wetlands sites were identified as the best candidates for enhancement. The first one is an abandoned quarry located approximately 1,000 feet downstream of Avery Dam on the south bank of Brushy Creek (the "Abandoned Quarry Site"), and the second is along the tributary to Brushy Creek formed by the outfall of the Avery Ranch Golf Course dam (the "Irrigation Pond Outfall Site"). Refer to Appendix A, Drainage Area Map. Although both of these sites are located on private property, they are located immediately adjacent to the hike and bike trail, and it was determined that they offer unique wetland features and ideal public education opportunities.

The Abandoned Quarry site is a bowl shaped depression that has established a limited amount of wetland vegetation. Rainfall along with periodic creek overflows continually supply water to the area, however a more reliable and controlled water inflow and outflow would allow the site to further develop its wetland characteristics. Site

enhancement activities would include inflow and outflow controls, minor above-channel grading, and vegetation management.

The Irrigation Pond Outfall Site would be enhanced primarily through grading and terracing of the area. The work would include removing the existing dam construction access ramp, terracing the area to provide permanent erosion controls, and redefining the outfall channel to establish the wetland area.

Subsequent to our field reconnaissance, discussions with County Staff and the Trailhead Committee also indicated some interest in a wetland area along the floodplain bench between the golf course dam outfall and downstream to the existing low water crossing of Brushy Creek. Although this area was not originally identified as an area for natural enhancement in our feasibility analysis, this area is an excellent candidate for wetland creation through channel modifications and/or modifications to the existing low water crossing to provide a consistent water source, and vegetation management/plantings to provide the wetland vegetative element. Pictures depicting this area are attached herewith.

Should the County desire, all three areas could easily move into Phase II assessment, or Preliminary Engineering phase. The enhancement and creation of these proposed wetland areas would need to closely follow the guidelines established by the U.S. Army Corps of Engineers, Waterways Experiment Station. The steps in these guidelines would be applied to each of the three areas. Phase II would include a more detailed site investigation, conceptual design, and preparation of construction cost estimates. If cost estimates met with County approval, Phase III, or actual hydrologic design would be performed, and then construction could commence.

Finally, it should also be noted that a variety of potential supplemental funding sources are available to assist in implementing design and construction. These sources include reimbursement grants, matching grants, and in-lieu fee agreements through such entities as the Lower Colorado River Authority, Texas Parks and Wildlife Department, and the Nature Conservancy. These funding sources are discussed in more detail in the report.

Thank you for allowing KFA to be of service to Williamson County in performing this Wetlands Feasibility Analysis. We are available at any time to discuss any comments or questions you may have.

Respectfully Submitted,



Thomas M. Owens, P.E.

c: Mr. Jim Rodgers, Director of Parks and Recreation for Williamson County



View Looking Upstream from Existing Low Water Crossing



**Existing Vegetation and Flood Plain Bench
Upstream of Low Water Crossing**

**WETLAND AND RIPARIAN CORRIDOR
ENHANCEMENT FEASIBILITY STUDY
FOR THE BRUSHY CREEK HIKE AND BIKE TRAIL
WILLIAMSON COUNTY, TEXAS**

Document No. 030285
PBS&J Job No. 441257

**WETLAND AND RIPARIAN CORRIDOR
ENHANCEMENT FEASIBILITY STUDY PLAN
FOR THE BRUSHY CREEK HIKE AND BIKE TRAIL
WILLIAMSON COUNTY, TEXAS**

Prepared for:

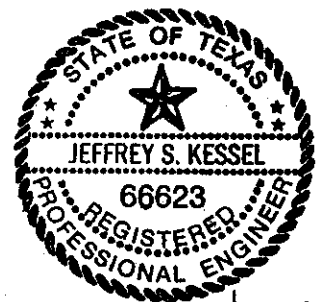
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Austin, Texas 78731

Prepared by:

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September 2003

Printed on recycled paper



J.S. Kessel
10/23/03

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1.0 INTRODUCTION

This document provides the results of our feasibility analysis of the riparian corridor adjacent to the Brushy Creek Hike and Bike Trail (BCHBT), Williamson County, Texas. Objectives of the study were to evaluate the project corridor and to identify areas that may be suitable for wetland creation and/or enhancement or restoration activities. Section One includes a project area description, including a summary of the geology, soils, vegetation, and wildlife that are characteristic of the hike and bike trail and surrounding creek corridor. Section Two provides a discussion of the two areas that were identified as candidate sites for wetland enhancement. It presents an outline of our recommended wetland enhancement strategy for the two sites, and the steps that must be taken to implement the recommended enhancement approach. A study area map that shows the wetland areas is provided in Appendix A.

Section Three outlines permitting issues related to the considered wetland enhancement activities. Section Four presents a cursory assessment of potential funding opportunities that would support project activities and objectives. This assessment presents potential funding sources and means for facilitating funding opportunities.

Documentation of existing resource features have been detailed in previous environmental reports (Espey, Huston & Associates, Inc., 1996). Therefore, the following sections provide a summary of the project area.

1.1 PROJECT AREA DESCRIPTION

The proposed project area is located approximately 3 miles east of Cedar Park, Texas, and 2 miles west of Round Rock, Texas, in Williamson County. The project area includes South Brushy Creek and adjacent county-owned properties. The riparian corridor subject to evaluation generally extends from the Avery Dam to the footbridge over Brushy Creek as it enters the Oak Brook subdivision. The Brushy Creek corridor is generally characterized by having a narrow floodplain in addition to areas with steep banks forming near vertical bluffs.

South Brushy Creek would be classified as a Waters of the U.S. under Section 404 of the Clean Water Act (33 USC 1344 et seq.). As such, any discharge of dredged or fill material within the jurisdictional limits of South Brushy Creek would be subject to regulatory authority of the U.S. Army Corps of Engineers (USACE), Fort Worth District. Additionally, periodic-adjacent wetlands within the project corridor include several palustrine, open-water, permanent, impounded wetlands (POWHh), one palustrine, forested, broad-leaved deciduous, temporary wetland (PFOIA), and the streambed itself is classified as a riverine, intermittent, streambed, seasonal wetland (R4SBC) according to data obtained from National Wetland Inventory maps (U.S. Fish and Wildlife Service (FWS), 1993a and 1993b).

1.1.1 Geology and Soils

The lower Cretaceous-age Edwards Limestone of the Fredricksburg Group occurs across the entire project area (Bureau of Economic Geology (BEG), 1974). This formation forms flat areas and plateaus bordered by scarps with thicknesses ranging from 60 to 350 feet (BEG, 1974). According to the Texas Commission on Environmental Quality (TCEQ) map records, the proposed wetland enhancement project areas are not located over the recharge zone of the Edwards Aquifer.

The project area lies entirely within the Blackland Prairie physiographic region and the Blackland Prairies Vegetational Area of Texas. The Blackland Prairie Physiographic Region of Texas is an area that has gently rolling to level terrain that is deeply dissected by numerous rivers and streams. The deep lime-rich soils historically supported diverse native vegetation including tall grasses with scattered woodlands of mesquite, juniper, and post oak. Today, the easily cultivated soils support prosperous agricultural activities consisting of row crops and pasturage (Chambers, 1948; Ferguson, 1986; and Swanson, 1995).

The Blackland Prairies Vegetational Area lies just east of the Cross Timbers and Prairies Vegetational Area and northeast of the Edwards Plateau Vegetational Area, as delineated by Hatch et al. (1990) (Figure 1-1). The project area is within a transitional zone among the three vegetational areas and has representative characteristics of all three. McMahan et al. (1984) includes this area within two vegetation designations: 1) Silver Bluestem-Texas Wintergrass Grassland, and 2) Crops.

The soils of the Blackland Prairies are typically dark-colored calcareous clays interspersed with some gray acid sandy loams (Thomas, 1975) and are characterized by nearly level to rolling, well-dissected terrain. Soil types that occur within the project area include Oakalla soils, channeled, and Sunev silty clay loam.

Oakalla soils occur on bottomlands in narrow stream valleys. Typically, the surface layer is a dark brown loam with a dark subsoil consisting of a brown clay loam. The available water capacity of this soil type is high, and these soils are often used as rangelands (Natural Resources Conservation Service (NRCS), 1983).

Sunev silty clay loam soils are gently sloping and occur on stream terraces below areas of the nearly level Sunev soil. The upper layer is dark grayish brown silty clay loam followed by a layer of light yellowish brown silty clay loam. Sunev silty clay loam soils are well drained, have moderate permeability, medium runoff, and have a moderate available water capacity. This soil is well suited for pasture and rangeland (NRCS, 1983).

1.1.2 Vegetation

The once natural climax vegetation community of the Blackland Prairies was dominated by prairie grasses with a few species of trees scattered throughout. Dominants included little bluestem

(*Schizachyrium scoparium*), big bluestem (*Andropogon gerardii*), Indiangrass (*Sorghastrum nutans*), and tall dropseed (*Sporobolus asper*), with minor grass species such as sideoats grama (*Bouteloua curtipendula*), hairy grama (*Bouteloua hirsuta*), and buffalograss (*Buchloe dactyloides*) (Hatch et al., 1990). Almost all of this region has been converted to cropland and domesticated pasture, thus little remains of the original native prairie vegetation. A few remnant Blackland Prairie grasslands remain, however, and some occur in the project area.

Vegetational resources currently existing in the project area were assessed during a field reconnaissance performed by PBS&J ecologists in July 2003. Major vegetation communities within the project area include grassland, bottomland/riparian woodland, brushland, upland woodland, and hydric and aquatic areas scattered throughout. Grassland and brushland are the predominant vegetation types occurring adjacent to the riparian corridor of South Brushy Creek. Bottomland/riparian habitat is limited to the riparian corridor and other scattered remnant riparian areas. Dominant vegetation includes green ash (*Fraxinus pennsylvanica*), pecan (*Carya illinoensis*), American sycamore (*Platanus occidentalis*), eastern cottonwood (*Populus deltoides*), sugarberry (*Celtis laevigata*), black willow (*Salix nigra*), and American elm (*Ulmus americana*). Understory species include young saplings of overstory species and hydrophytic herbaceous species such as sedges (*Carex* spp.), wildrye (*Elymus* sp.), smartweed (*Polygonum* sp.), vaseygrass (*Paspalum urvillei*), and giant ragweed (*Ambrosia trifida*), along with white crownbeard (*Verbesina virginica*), sideoats grama, and poison-ivy (*Toxicodendron radicans*). Upland woodland species include cedar elm (*Ulmus crassifolia*), sugarberry, coma (*Bumelia lanuginosa*), Ashe juniper (*Juniperus ashei*), and plateau live oak.

1.1.3 Wildlife

The project area lies on the western edge of the Texan Biotic Province and near its junction with the Balconian Biotic Province as described by Blair (1950). This transitional region is recognized as a broad ecotone between the forests of the Austroriparian and Carolinian provinces of eastern Texas and Oklahoma and the grasslands of the western parts of these states. The vertebrate fauna of these two provinces is represented by a mixture of species from the Austroriparian, Tamaulipan, Chihuahuan, Kansan, Balconian, and Texan biotic provinces.

Urodele species (salamanders and newts) that possibly occur in the project area include the smallmouth salamander (*Ambystoma texanum*) and northern slimy salamander (*Plethodon glutinosus*), which are restricted to moist bottomland or hydric habitats (Dixon, 1987; Garrett and Barker, 1987). Anuran species (frogs and toads) expected to occur in the project area include Woodhouse's toad (*Bufo woodhousei woodhousei*), Gulf Coast toad (*Bufo valliceps*), Blanchard's cricket frog (*Acris crepitans blanchardii*), upland chorus frog (*Pseudacris triseriata feriarum*), bullfrog (*Rana catesbeiana*), Couch's spadefoot (*Scaphiopus couchii*) and several treefrogs, including the green treefrog (*Hyla cinerea*), Cope's gray treefrog (*Hyla chrysoscelis*), and gray treefrog (*Hyla versicolor*) (Dixon, 1987; Garrett and Barker, 1987).

Reptiles expected to occur in the project area include turtles such as the common snapping turtle (*Chelydra serpentina serpentina*), red-eared slider (*Trachemys scripta elegans*), and ornate box turtle (*Terrapene ornata*); and lizards such as the green anole (*Anolis carolinensis*), six-lined racerunner (*Cnemidophorus sexlineatus sexlineatus*), ground skink (*Scincella lateralis*), Great Plains skink (*Eumeces obsoletus*), Texas spiny lizard (*Sceloporus olivaceus*), and western slender glass lizard (*Ophisaurus attenuatus*) (Dixon, 1987; Garrett and Barker, 1987).

Snakes of the area include the eastern yellowbelly racer (*Coluber constrictor flaviventris*), diamondback water snake (*Nerodia rhombifer*), prairie kingsnake (*Lampropeltis calligaster calligaster*), Texas rat snake (*Elaphe obsoleta lindheimeri*), western coachwhip (*Masticophis flagellum testaceus*), rough green snake (*Opheodrys aestivalis*), and several venomous species such as the copperhead (*Agkistrodon contortrix*), western cottonmouth (*Agkistrodon piscivorus leucostoma*), Texas coral snake (*Micrurus fulvius tener*), and western diamondback rattlesnake (*Crotalus atrox*) (Dixon, 1987; Tennant, 1998).

Numerous avian species found within the project area include year-round residents such as the black vulture (*Coragyps atratus*), red-tailed hawk (*Buteo jamaicensis*), killdeer (*Charadrius vociferus*), mourning dove (*Zenaida macroura*), northern mockingbird (*Mimus polyglottos*), loggerhead shrike (*Lanius ludovicianus*), northern cardinal (*Cardinalis cardinalis*), field sparrow (*Spizella pusilla*), eastern meadowlark (*Sturnella magna*), brown-headed cowbird (*Molothrus ater*), and house sparrow (*Passer domesticus*).

Many other species of birds migrate through the project area in the spring and fall or use the area for nesting (summer) or overwintering. Migrant/winter residents include the double-crested cormorant (*Phalacrocorax auritus*), song sparrow (*Melospiza melodia*), northern pintail (*Anas acuta*), gadwall (*Anas strepera*), ring-necked duck (*Aythya collaris*), wood duck (*Aix sponsa*), great blue heron (*Ardea herodias*), cedar waxwing (*Bombycilla cedrorum*), savannah sparrow (*Passerculus sandwichensis*), and American goldfinch (*Carduelis tristis*).

Summer residents include the chimney swift (*Chaetura pelagica*), scissor-tailed flycatcher (*Tyrannus forficatus*), purple martin (*Progne subis*), common nighthawk (*Chordeiles minor*), eastern kingbird (*Tyrannus tyrannus*), summer tanager (*Piranga rubra*), indigo bunting (*Passerina cyanea*), painted bunting (*Passerina ciris*), and orchard oriole (*Icterus spurius*). Numerous other migrating species such as arctic shorebirds wintering on the Gulf coast, northern passerines wintering in Central America, and raptors and waterfowl, pass through or over the project area during spring and fall migrations (Dickinson, 1999; Texas Ornithological Society (TOS), 1995).

Mammals of the project area include the eastern mole (*Scalopus aquaticus*), eastern red bat (*Lasiurus borealis*), Virginia opossum (*Didelphis virginiana*), nine-banded armadillo (*Dasypus novemcinctus*), eastern cottontail (*Sylvilagus floridanus*), black-tailed jackrabbit (*Lepus californicus*), eastern fox squirrel (*Sciurus niger*), plains pocket gopher (*Geomys bursarius*), hispid pocket mouse (*Chaetodipus hispidus*),

eastern woodrat (*Neotoma floridana*), coyote (*Canis latrans*), red fox (*Vulpes vulpes*), common gray fox (*Urocyon cinereoargenteus*), striped skunk (*Mephitis mephitis*), ringtail (*Bassariscus astutus*), common raccoon (*Procyon lotor*), bobcat (*Lynx rufus*), and white-tailed deer (*Odocoileus virginianus*) (Davis and Schmidly, 1994).

Aquatic habitats are limited to streams and stock ponds within the project area. Streams are typically shallow and intermittent. Faunal species occurring within the aquatic habitats of the project area include such fish species as the blackstripe topminnow (*Fundulus notatus*), mosquitofish (*Gambusia affinis*), largemouth bass (*Micropterus salmoides*), bluegill (*Lepomis macrochirus*), longear sunfish (*Lepomis megalotis*), and channel catfish (*Ictalurus punctatus*).

1.1.4 Threatened and Endangered Species

Six taxa either documented or having the potential to occur in Williamson County are considered by both the FWS and Texas Parks and Wildlife Department (TPWD) as endangered. These are the whooping crane (*Grus americana*), black-capped vireo (*Vireo atricapillus*), golden-cheeked warbler (*Dendroica chrysoparia*), Bone Cave harvestman (*Texella reyesi*), Tooth Cave ground beetle (*Rhadine persephone*), and the Coffin Cave mold beetle (*Batrissodes texanus*). The American peregrine falcon (*Falco peregrinus anatum*) and arctic peregrine falcon (*Falco peregrinus tundrius*) are listed by TPWD as endangered and threatened, respectively. The bald eagle (*Haliaeetus leucocephalus*) is federally listed as threatened and state-listed as endangered, while the mountain plover (*Charadrius montanus*) is currently proposed for federal listing as a threatened species.

It is the intent of the FWS to delist the bald eagle in the foreseeable future. The peregrine falcon has recently been delisted (64 FR (164): 46542–46558 August 1999) and the bald eagle has been proposed for delisting (64 FR 36453–36464; 6 July 1999).

Each year, the entire breeding population of whooping cranes migrates 2,600 miles from Wood Buffalo National Park in Canada's Northwest Territories, to the oak savannahs, salt marshes, and bays of the Aransas National Wildlife Refuge and surrounding area. The normal migration corridor for the whooping crane stretches from the panhandle eastward to the east-central portion of the state (FWS, 1995). During migration, the whooping crane makes regular stops at small stock ponds or other water bodies occurring in pastureland and feeds in cultivated fields such as sorghum or corn. Whooping cranes will utilize a variety of habitats for foraging and roosting during these stops, but seem to prefer isolated sites away from human activities (FWS, 1986). The project area lies within the migration corridor, and the whooping crane has been recorded from Travis and Williamson counties (Oberholser, 1974). Two adult and one immature whooping cranes were reported at a stock tank within the project area on 26 October 1987 (McCuller, 1987). Thus, it is possible that the whooping crane could utilize the project area as a stopover point and migrate through en route to the Aransas National Wildlife Refuge or Wood Buffalo National Park.

The black-capped vireo is an endangered species that occurs in Travis County (FWS, 1995). The black-capped vireo is a spring and summer resident in the Austin area and breeds in open, shrubby areas characterized by sumacs (*Rhus* spp.), shin oak, Ashe juniper, Lindheimer silktassel (*Garrya ovata* ssp. *lindheimeri*), Texas oak, and plateau live oak (Marshall et al., 1985). No recorded sightings of black-capped vireos occur within the project area, and the possibility of their occurrence is very unlikely because of the general absence of suitable habitat.

The golden-cheeked warbler is a species of particular interest because it has the distinction of being the only bird species that nests exclusively in Texas. Its nesting range comprises approximately the eastern one-third of the Edwards Plateau Region and the southwestern one-quarter of the Cross Timbers and Prairies Region. Its nesting habitat includes mature Ashe juniper, Texas oak, plateau live oak, and cedar elm trees in canyons and rough terrain. The golden-cheeked warbler has been listed as an endangered species due to ongoing and imminent habitat destruction. Appropriate habitat is lacking within the project area and no sightings of golden-cheeked warblers have been recorded there. The nearest documented record of occurrence for this species is located approximately 2.5 miles west near the City of Cedar Park.

Several federally endangered invertebrates, the Tooth Cave pseudoscorpion (*Tartarocreagris texana*), Tooth Cave spider (*Neoleptoneta myopica*), Tooth Cave ground beetle (*Rhadine persephone*), Kretschmarr Cave mold beetle (*Texamaurops reddelli*), Bee Creek Cave harvestman (*Texella reddelli*), Bone Cave harvestman (*Texella reyesi*), and Coffin Cave mold beetle (*Batrisodes texanus*); one federal candidate invertebrate, Warton's cave spider (*Cicurina wartoni*); and two species of concern (SOC) invertebrates, the Balcones cave amphipod (*Stygobromus balconis*) and bifurcated cave amphipod (*Stygobromus bifurcatus*), which have been reported from Travis County (FWS, 1998), are known only from karst features occurring west of Round Rock and, generally, west of Interstate Highway 35 (IH 35). As noted earlier, candidate species are those where sufficient information on biological vulnerability and threat(s) is on file to support proposals for federal listing and where development and publication of proposed rules are anticipated, while an SOC is one where some evidence of vulnerability exists, but not enough to support listing at the present time. None of these karst invertebrates is state-listed. Several documented occurrences of the Bone Cave harvestman have been recorded in the vicinity of the project area. Three individual records occur approximately 2.5 miles east of the project area, and one record occurs approximately 2.75 miles north of the project area (Texas Biological and Conservation Data System (TXBCD), 2003).

Although FWS has delisted the American peregrine falcon, this bird is still protected under the Migratory Bird Treaty Act. This action also removes the endangered due to similarity of appearance (E/SA) designation for the Arctic peregrine and any other free-flying peregrine falcons within the 48 conterminous states. The peregrine falcon is a rare to uncommon migrant throughout Texas (TOS, 1995). Both the American and Arctic subspecies are thought to be potential migrants in the project area vicinity. American peregrine falcons are rare migrants statewide and nest in the mountains of Trans-Pecos Texas. Arctic peregrine falcons migrate along the Texas coast during spring and fall. Padre Island is the

most important known staging area for migrants in the western hemisphere (Morizot and Maechtle, 1987). Peregrine falcons have been recorded from Travis County during the summer and winter (Oberholser, 1974) and, thus, may potentially occur in the project area. No peregrine falcons were observed during the April 1999 field surveys of the project area, and it is likely that any occurrences within the area would be of transitory migrants.

The bald eagle is a regular migrant and winter resident in the eastern half of the state, and is usually found in association with large bodies of water. In Texas, wintering and migrating bald eagles frequently stop over along the shores of reservoirs and large rivers, which provide the eagle with the bulk of its dietary requirements. While the bald eagle is currently known to nest in at least 35 counties of Texas, it does not nest in Travis County (Mitchell, 1998). Wintering and migrating bald eagles can be expected in the vicinity of the project area, particularly along the shores of area lakes and the Colorado River between the months of November through March. Bald eagle nesting and foraging habitat within the project area is quite limited; therefore, this raptor is not likely to occur other than as a transitory migrant. In July 1999, this species was proposed for delisting (64 FR 36453-36464; 6 July 1999).

The mountain plover, has been proposed for listing as threatened by the FWS (64 FR 7587-7601; 16 February 1999). It is known to nest in Jeff Davis County near the Davis Mountains and in Presidio County in the Sierra Vieja Mountains. This species is a rare migrant east to the Colorado River in central Texas, and absent in the woodlands of east Texas. The mountain plover is a rare to uncommon local winter resident on the coastal plains and inland from south Texas through the Edwards Plateau into the South Plains where it is generally found in agricultural fields (TOS, 1995). This species is not likely to occur within the project area.

While not federally listed or federal candidates, seven additional species are state-listed or federal SOC. They are the Texas horned Lizard (*Phrynosoma cornutum*), timber rattlesnake (*Crotalus horridus*), Texas garter snake (*Thamnophis sirtalis annectans*), Georgetown Salamander (*Eurycea naufragia*), Jollyville plateau salamander (*Eurycea tonkawae*), Buttercup Creek salamander (*Eurycea* sp.), and Leonora's dancer (*Argia leonorae*). The Georgetown salamander is currently a federal candidate, category 1 for proposed listing. The Texas horned lizard and timber rattlesnake are state-listed as threatened (TPWD, 2002).

The Texas horned lizard is a federal SOC that is also listed by TPWD as threatened. Except for a small area along the Louisiana border, the Texas horned lizard was historically found throughout the state in areas with flat, open terrain, scattered vegetation, and sandy or loamy soils. Although it has been near extirpated from the eastern half of the state, it still maintains relatively stable numbers in west Texas. According to Price (1990), it has virtually disappeared east of the line from Fort Worth to Austin to Corpus Christi (Price, 1990). This decline is speculated to be linked to habitat loss due to agricultural expansion, the spread of the red imported fire ant (*Solenopsis invicta*), and indiscriminant use of broadcast insecticides to combat the fire ant (Price, 1990). Bartlett and Bartlett (1999), however, indicate

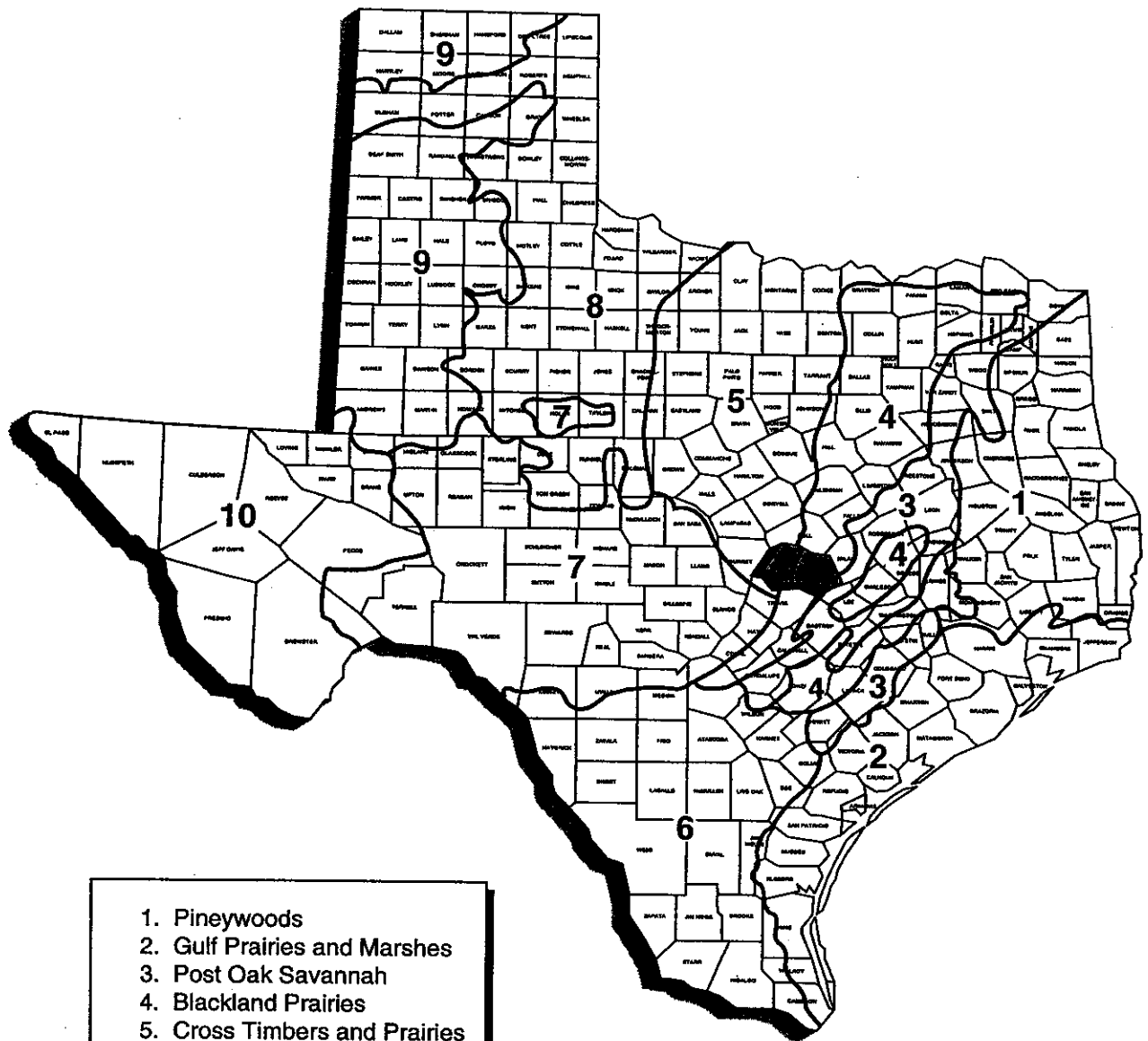
that populations of this species, which have been thought to be declining, may be stabilizing in some areas and that actual population statistics are unknown. This species may occur within the project area.

The timber rattlesnake generally prefers upland woods and rocky ridges throughout most of its range in the central and northeastern U.S. In Texas and throughout the south, it is known as the canebrake rattlesnake because of its historic prevalence in the dense cane thickets that were common in the bottomlands of east Texas before 1900. Although the cane brakes are almost gone, the timber rattlesnake still prefers dense undergrowth in riparian woodlands (Tennant, 1998). It primarily inhabits moist lowland forests and hilly woodland near rivers, streams, and lakes in the eastern third of the state from the Red River to the Gulf Coast (Werler and Dixon, 2000), but can also be found in open, upland pine and deciduous woods and the second-growth pastures of unused farmland. This species is not likely to occur within the project area.

Historically, the Texas garter snake was abundant in tall grass habitat associated with prairie potholes, and riparian meadowlands. Over 95 percent of the native tall grass prairie in Texas, however, has been converted to agricultural use. This species is now relatively rare but fairly numerous in scattered locations. Aside from prairie, the Texas garter snake inhabits marshy, flooded pastureland or meadows and grassy or brushy cover near ponds and streams, including the riparian canyon habitat at the eastern edge of the Edward's Plateau (Tennant, 1998; Werler and Dixon, 2000). Several sources do not include the Texas coastal plain within the range of this species (Tennant, 1988; Conant and Collins, 1991; Dixon, 2000). Werler and Dixon (2000), however, include scattered localities, which are based on specimen records, in a number of coastal plain counties. This species is not likely to occur within the project area.

Several species of salamanders, some of which have not yet been identified to species, are also associated with karst features or limestone outcrops that occur around the project area. They are the Buttercup Creek salamander, Georgetown salamander, and Jollyville Plateau salamander. Data provided by the TXBCD indicate an occurrence of the Jollyville Plateau salamander in Brushy Creek, northeast of Round Rock. It is possible that one or more of these species may occur within the project area.

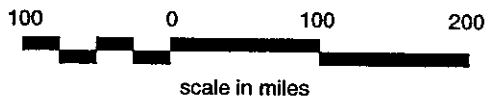
Leonora's dancer is a small, blue, uncommon but widely distributed damselfly species in south central and west Texas (Abbott, 2003). Leonora's dancer inhabits small streams and seepages within its range. This species is not likely to occur within the project area.



- 1. Pineywoods
- 2. Gulf Prairies and Marshes
- 3. Post Oak Savannah
- 4. Blackland Prairies
- 5. Cross Timbers and Prairies
- 6. South Texas Plains
- 7. Edwards Plateau
- 8. Rolling Plains
- 9. High Plains
- 10. Trans-Pecos



north



PBSJ

- Engineering
- Environmental Consulting
- Surveying

Figure 1-1

LOCATION OF WILLIAMSON COUNTY
IN RELATION TO THE
VEGETATIONAL AREAS OF TEXAS

Source: Hatch et al., 1990

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2.0 WETLAND ENHANCEMENT FEASIBILITY MEASURES

The Brushy Creek corridor, as it extends through the project area, appears to be stable and in good condition in terms of its streambed and banks. The riparian habitat adjacent to Brushy Creek is largely comprised of the following vegetation types: green ash, American sycamore, black willow, various sedges, smartweeds, common cattail, and bulrush. Each are hydrically adapted and suitable for a broad range of wetland conditions. The land use impacts to adjacent riparian habitats are typical to growing developments (erosion, nutrient indicators and related water quality impacts, etc.) and these impacts are generally localized. Much of the trail extends along a very attractive creek. The County intends to enhance the character of Brushy Creek, provide educational opportunities to trail users, and to improve water quality by implementing some targeted wetland enhancement projects within the hike and bike trail limits shown on the drainage map (see Appendix A). This feasibility study presents our findings and recommendations for enhancement of two wetland sites.

2.1 SITE DESCRIPTIONS

Based on field observations made on July 9, 2003, and follow-up coordination with Williamson County staff, two existing wetland areas were identified and are considered to be favorable candidates for enhancement efforts. Both areas occur on private lands not owned, but adjacent to Williamson County property. Previous and ongoing coordination between Williamson County personnel and the landowners in question has created a positive working relationship that may allow for proposed enhancement of the target areas. Each of these sites are near the hike and bike trail and offer unique wetland features and ideal public education opportunities. Such opportunities may include signage describing wetland functions and values; benefits to wildlife and humans; current threats facing wetland habitats, and, descriptions of various wetland features. The dissemination of information could be well facilitated by the use of education kiosks or turnouts from the existing trail with benches and appropriate signage as previously described.

Abandoned Quarry Site. The most upstream site is an abandoned quarry location approximately 1,000 feet downstream of the Avery Dam (see Appendix A, Drainage Area Map). This quarry site forms a relatively broad floodplain terrace on the south bank of Brushy Creek (see Appendix B, Site Photographs). This site is located on private property. The area becomes inundated when creek flows spread beyond the main channel and by runoff from precipitation events. This site has extensive bare soil areas. However, there are some areas where rooted emergent vegetation (e.g., pondweed (*Potamogeton* sp.) and smartweed (*Polygonum* sp.)) has become established. At present, the existing vegetation is largely isolated to areas where inundation persists longest. However, it is likely that wetland enhancement activities could be developed to promote additional vegetative establishment and growth and perpetuate the desired wetland characteristics of this subject area. The accessibility of this site offers a good opportunity for enhancement activities immediately adjacent to the existing trail. The high-ground

perspective of this wetland site offered by the trail would facilitate the development of interpretive and educational exhibits.

Irrigation Pond Outfall Site. A second wetland site was selected for a combination of restoration and enhancement opportunities. Located mostly on private property, this wetland site is contained within a short tributary segment that serves as an outfall from an irrigation reservoir located on the Avery Ranch Golf Course. This site extends along the tributary from its Brushy Creek confluence upstream to the concrete dam that forms the irrigation reservoir. The distance between the dam spillway and Brushy Creek is approximately 350 feet. This small tributary or outfall channel meanders as it enters Brushy Creek and presently has patches of wetland vegetation (e.g., common cattail (*Typha latifolia*), bulrush (*Scirpus* sp.), spikerush (*Eleocharis* sp.), and sedge (*Carex* sp.)) occurring sporadically along its length.

The photographs (see Appendix B) show that there are remnants of the golf course irrigation dam construction within the wetland areas, including dilapidated temporary erosion controls (silt fencing, etc.).

2.2 WETLAND ENHANCEMENT STRATEGY

The wetland enhancement strategy is conceived to achieve the following:

- improve the local aesthetics of the trail setting,
- offer wetland/ environmental education settings and information kiosks for trail users, and
- to maintain/ improve water quality through and downstream of the park and trail system.

This strategy is based on the understanding that the wetland resources are already at hand and that the enhancement activities will require a minimum of construction within the existing wetland footprint. The enhancement activities outlined below emphasize restoration rather than new construction.

The hydrology of each wetland site is primarily controlled by releases from Avery Reservoir. The wetland enhancement strategy is dependent on a determination of the frequency and duration of streamflow inundation of these sites. To date, we have gathered some preliminary streamflow data, based on an interview with Upper Brushy Creek Water Control and Improvement District staff (Owens, 2003) and some basic facility data from their web site. The Avery Reservoir has a storage capacity of 321 ac-ft. The reservoir low-flow releases are directed through two rectangular conduits located out in the reservoir that begin discharging when the reservoir levels rise above a certain operating level. The average release rate may be approximated using the average daily discharge rates of 2.5 million gallons per day from the wastewater treatment plant operated by Cedar Park, assuming the normal lake levels are maintained at the inlet to the rectangular conduits. The releases from the golf course irrigation reservoir also contribute to the wetland hydrology. A more detailed understanding of the range of flows and seasonal changes through the project reach is necessary to make specific recommendations on the types of wetland plants and maintenance activities. This research would be accomplished during preliminary design.

Abandoned Quarry Site. Previous excavation activities have resulted in the creation of a depressional or "bowl" area that has developed wetland characteristics (e.g., establishment of wetland vegetation) over time. Because of the bermed areas surrounding this site, creek overflow and rainfall are the only current means for supplying the water to this area. It is desired that a more reliable hydrologic regime be developed and maintained to allow the site to further evolve and proliferate its wetland characteristics.

The existing condition of the area would not warrant substantial excavation activities to enhance the wetland characteristics or capabilities. Construction activities for the creation of inflow and outflow controls may be considered to take advantage of continuous and accessible flows from Brushy Creek. Inflow controls would be adjusted as required to ensure a desirable hydrologic regime. This would not only include maintaining a suitable water level, but would also allow for a reduced hydrologic inflow to encourage periodic drawdowns to enhance wetland vitality by controlling vegetation overgrowth. It is desired that construction activities be very limited within the Brushy Creek channel, to minimize environmental impacts and costs related to difficult construction techniques and permitting. Site enhancement activities would focus on minor grading outside of the active channel and vegetation management. Preferably, a vegetation design would be developed to capture sediment from water flowing back into Brushy Creek to control elevated levels of sedimentation and turbidity. This scenario would enhance the vegetative capabilities of the quarry substrate and improve the vegetative structure of the wetland. Introduction of additional native wetland plants may be necessary to bring this area to its full wetland potential.

Irrigation Pond Outfall Site. Essentially, the plan is to provide a "finished" and stable landscape along the tributary wetland. The overall restoration/ enhancement goals are to redefine the tributary channel by eliminating the dam construction access ramp and adjacent temporary drainage channel, properly convey golf course drainage into the tributary, and provide the grading (terracing) and landscaping necessary to achieve permanent erosion control within the tributary. The restored tributary (outfall) channel would facilitate establishment of desirable wetland vegetation. As such, it could offer a higher level of treatment to the stormwater runoff from the golf course.

Located upstream from Brushy Creek, the proposed terracing, drainage work and landscaping should have only temporary, minimal impacts during construction. The initial objectives are to remove the dilapidated "temporary" erosion controls that were apparently installed for the dam and reservoir construction and to develop a plan to control stormwater runoff and otherwise protect the wetland area during the landscaping and wetland enhancement work. This work would include removal of the construction access ramp and re-establishing a permanent golf course drainageway into the tributary. Aside from the failing erosion controls, the tributary appears to be stable and there appears to be a steady flow from the irrigation reservoir, which makes an ideal wetland area that could be greatly enhanced. This wetland is easily viewed and accessible from the hike and bike trail and would provide excellent opportunities for the development of interpretive and educational exhibits.

In addition to the two wetland enhancement projects described above, other smaller erosion control projects were identified at various locations along the Brushy Creek corridor. Several points along the trail could be improved to control areas where visible erosion is beginning to appear. Most of these areas are located where upland drainage patterns intersect the trail and are subsequently routed under the adjacent County Road 174 and trail through culverts that discharge onto the Brushy Creek floodplain terrace. Efforts to enhance the structural stability of various trail features and similar efforts to disperse surface flows should alleviate trail erosion problems and ultimately enhance the water quality flowing through the park reach.

Also, various sections of the creek corridor would be suitable for vegetation management to enhance native plant communities. Such areas may include control of encroaching stands of Ashe juniper (*Juniperus ashei*) to favor more desirable woody species, increase species diversity and enhance site productivity. The allelopathic tendencies of the juniper combined with its ability to capture and intercept significant amounts of precipitation, often warrants active control to prevent potentially adverse landscape effects on native riparian communities.

2.3 WETLAND ENHANCEMENT ACTION ITEMS

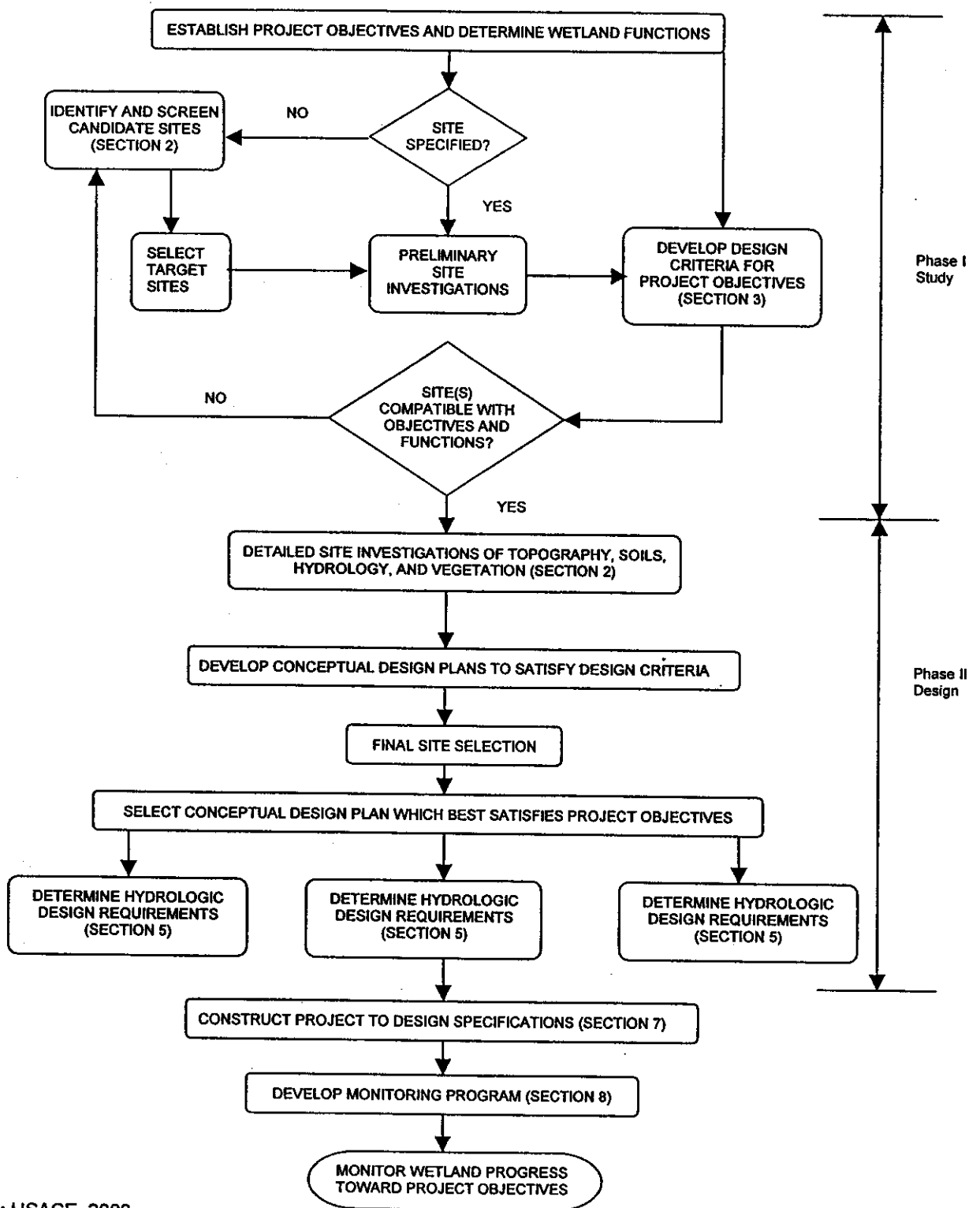
The desired design sequence for the creation and establishment of the created wetlands would closely follow guidelines established by the USACE, Waterways Experiment Station (WES) as outlined in their Wetlands Research Program (WRP) Technical Note WG-RS-3.1, Design Sequence for Wetlands Restoration and Establishment, and the Wetlands Engineering Handbook, TR-WRP-RE-21, March 2000, produced by their Environmental Laboratory in Vicksburg, Mississippi. These design documents provide consideration for all aspects of wetland creation including wetlands needs, site characteristics, and design criteria. Additional design guidance to facilitate site preparation and wetland plant establishment would be consistent with protocol detailed in the USACE, WES, WRP Technical Report WRP-RE-19 (Engineering Specification Guidelines for Wetland Plant Establishment and Subgrade Preparation, February 1998).

Figure 1-2 is a wetland design process schematic that we have been following to date. This schematic was taken from the Wetland Engineering Handbook, referenced above. On this figure we have indicated the actions taken so far with this design process. We have conducted the preliminary site investigation and established that the two sites will meet the project objectives: wetland enhancement, water quality and public education. The figure shows the remaining process that includes Phase II design elements that are necessary to implement the stated wetland objectives.

The following Phase II actions are the next steps anticipated for design and implementation of the proposed wetland enhancements:

1. Obtain dam operation data and related channel hydraulic information to determine the expected frequency and durations of wetland inundation at the proposed locations on Brushy Creek.

Figure 1-2
Decision Process for Restoration or Creation Project



Source: USACE, 2000.

2. Obtain site specific survey data to define the wetland areas and the inflow and outflow patterns
3. Obtain record drawings of the golf course dam and spillway that could be used for preliminary design of the proposed tributary restoration activities. Otherwise, a site survey will be required.
4. Conduct investigation of existing utilities in areas where grading activities are to occur
5. Research permits obtained for previous hike and bike trail activities to access supplemental permitting needs for wetland enhancement activities.

Beyond these basic data collection and site investigations, the following Phase II tasks are proposed:

- a detailed description of the project area including a wetland delineation;
- a detailed description of the project, including all proposed ground disturbing activities and structures, a construction schedule, and a revegetation plan that includes a list of species to be used, planting density, planting methods and schedule, and revegetation plan success criteria;
- a description of the local hydrology, assessment of likely project-related changes to local hydrology and connecting waterways, and demonstration that local hydrology would be sufficient to support the project;
- a description of how any adverse impacts to the aquatic ecosystem would be minimized;
- a discussion of any potential effect the project may have on any federally or state-listed endangered or threatened species that may be found in the project vicinity;
- a description of other pertinent issues and possible impacts such as those related to cultural resources, ecologically sensitive areas, local/regional hydrology, erosion and water quality related to wetland flows, land uses of adjacent properties, socioeconomic and recreational considerations, and regional or river basin planning;
- a plan for monitoring the development and success of the project, regularly reporting on the status and success of the project to the USACE (and other entities as required), and addressing contingencies, long-term maintenance, and protective real estate arrangements; and
- a detailed description of the projected costs of design, construction, monitoring, land or easement acquisition, long-term operation and maintenance, and contingencies.

3.0 PROJECT PERMITTING ISSUES

Proposed project activities that occur within regulated areas may be subject to permitting requirements by various regulatory entities. Specific permitting requirements cannot be identified until project activities and associated impacts have been identified and subsequent agency coordination has been initiated. The possible permitting requirements are based in PBS&J's knowledge of the project area and previous experience with similar project scenarios. Based on this experience, some potential permitting issues can be identified and are presented as follows by regulating agency.

- USACE Fort Worth District – Permitting requirements for projects affecting Waters of the U.S. in accordance with Section 404 of the Clean Water Act (33 USC 1344 et seq.).
- Texas General Land Office – Permitting requirements that may include obtaining a Miscellaneous Easement for impacts to a state-regulated waterbody.
- Texas Parks and Wildlife – Permitting requirements that may include obtaining a Sand and Gravel permit for impacts to a TPWD regulated waterbody. (Note: TPWD may also require a project Environmental Assessment report in support of permitting requirements.)
- Williamson County – Permitting requirements that may be required for activities that impact resources within the Brushy Creek watershed.
- Texas Commission on Environmental Quality (TCEQ) – Permitting requirements that may include a Texas Pollutant Discharge Elimination System (TPDES) Stormwater General Permit for Construction Activities (TXR150000) if the wetland enhancement activities disturb more than one acre of ground.
- TCEQ – Preparation of a Water Pollution Abatement Plan (WPAP) for any construction activities over the Edwards Aquifer Recharge or contributing zones and possibly for transition zones as well. (Note: At this time, cursory research does not indicate a need for a WPAP.)

In addition to various potential permitting requirements, proposed project activities may also require obtaining clearances from other regulatory agencies (e.g., FWS and Texas Historical Commission) and other state, county or local municipalities with a vested interest in the project area. It is possible that some proposed enhancement activities may be authorized under existing permits for previous hike and bike improvements. However, the applicability of these authorizations would be determined during initial Phase II activities.

4.0 PROJECT FUNDING, GRANTS AND OTHER FINANCIAL ASSISTANCE

In order to fully implement desired project activities, supplemental financial assistance may be required. Thus, potential supplemental sources of project funding have been identified. This list of potential financing opportunities is not all-inclusive and additional funding sources may be identified through further research. For the purposes of the feasibility analysis, a variety of funding sources have been identified including reimbursement grants, matching grants, and funding through in-lieu fee agreements.

The Lower Colorado River Authority (LCRA) offers several opportunities to obtain Community Grants and Assistance through their Partnerships in Parks (PIP) program. The PIP program seeks to primarily focus on outdoor recreation, parkland acquisition and outdoor environmental education opportunities for projects on municipal, county or municipal-district properties within the LCRA's service area. Project requests must be for a minimum of \$25,000 and no more than a maximum of \$200,000. The program requires matching funds that may be in the form of actual matched funds, in-kind services, donations or volunteer labor. Where grant requests exceed \$50,000, a community-wide park, recreation and open space master plan is recommended.

The TPWD oversees various grant and assistance programs administered through their Texas Recreation and Parks Account. Relevant opportunities that the Brushy Creek project may qualify for include the 1) Community Outdoor Outreach Program Grant; 2) Regional Park Grants; and 3) Local Park Planning Assistance Program. These opportunities are reimbursement programs whereby approved projects would be reimbursed as project monies are spent based on a pre-approved grant allocation. Program assistance is limited to tax exempt organizations, non-political groups, and local governments.

The Nature Conservancy (TNC), in cooperation with the USACE, Fort Worth District, manages a series of regional trust funds developed for in-lieu fee programs to finance wetland activities. Regional trusts are designated by various regions of the state and compensation amounts are limited to that amount available in the appropriate regional account. This program has no requirement for matching funds or services but requires joint approval by the USACE and TNC. Project funding would be awarded prior to project activities and would include post-project monitoring efforts to ensure project success.

The National Fish and Wildlife Foundation (NFWF) also provides matching grant funding for wetland projects. In fiscal year 2002, NFWF teamed with agencies, other foundations, citizen groups, etc. to provide matching grants for over 30 separate water resource projects across Texas. All 50 states have ongoing projects. The qualifying projects benefit conservation, education, habitat protection and restoration, and natural resource management. All federal funds released by the foundation must be matched by non-federal contributions, voluntarily given (i.e., cash, contributed goods and services, etc.).

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Appendix A

Drainage Area Map

Available for inspection in the County Clerk's office during regular business hours.

Appendix B

Site Photographs

APPENDIX B

BRUSHY CREEK WETLAND ENHANCEMENT

Photographs taken on July 9, 2003

Note: Right and left bank of Brushy Creek are defined looking downstream



Photo 1: View from Trail of abandoned quarry site in the south bank floodplain of Brushy Creek.

APPENDIX B (Cont.)



Photo 2: View of abandoned quarry "wetland" site further downstream from Photo 1. Note raised ground in background, adjacent to the creek.

APPENDIX B (Cont.)



Photo 3: Wetland below stilling basin of golf course dam and outlet works.

APPENDIX B (Cont.)



Photo 4: Golf course reservoir low-flow discharges to Brushy Creek. Note abandoned (and failed) construction erosion controls.

APPENDIX B (Cont.)



Photo 5: Temporary earthen access ramp that connects the abandoned low-water crossing on Brushy Creek to golf cart trail. Note temporary rock berm at left toe of the ramp.

APPENDIX B (Cont.)



Photo 6: View downstream along Brushy Creek from the hike and bike trail bridge located just upstream of the tributary serving as the golf course reservoir outfall channel. Note remaining erosion controls along right bank and visible sediment discharges over the creek banks.

Contract No. _____

Checklist

Prior to Initiation of Work

- ☐ Signed and Executed Agreement
- ☐ Scope of Services – Appendix A
 - ☐ Exhibit A – Services to be provided by County
 - ☐ Exhibit B – Services to be provided by Engineer
 - ☐ Exhibit C – Work Schedule
 - ☐ Exhibit D – Fee Schedule
- ☐ Production Schedule – Exhibit IV
- ☐ Hourly Rates of Engineer – Exhibit II
- ☐ Work Authorization - Attachment A to Exhibit I
 - ☐ Supplemental Work Authorization for Additional Work (if applicable)
- ☐ Data to be provided to Engineer by County
 - ☐ Plans
 - ☐ Maps
 - ☐ Studies
 - ☐ Reports
 - ☐ Field Notes
 - ☐ Statistics
 - ☐ Computations
 - ☐ Other: _____
- ☐ Contractors Qualification Statement – Appendix B
- ☐ Insurance
 - ☐ Worker's Compensation
 - ☐ Commercial General Liability Insurance
 - ☐ Automobile Liability Insurance
 - ☐ Professional Liability Errors and Omissions Insurance
 - ☐ Self Insurance Documentation
 - ☐ Insurance Certificates for Subcontractors and/or Sub-consultants
 - ☐ Approval of Insurance by County

Course of Work

- ☐ Original Engineering Work Product submittal
- ☐ "Completed" Engineering Work Product
- ☐ "Accepted" Engineering Work Product
- ☐ Modifications and/or Changes for Approval of Engineering Work Product
- ☐ "Approved" Engineering Work Product
- ☐ Revisions to Work Product
- ☐ Seal of Endorsement on all Engineering Work Product
- ☐ Data necessary for applications or documentation for permits and/or grants to be provided by Engineer to County

Notices (as applicable)

Contract No. _____

- ☐ Notice of Suspension
- ☐ Notice of Reinstatement
- ☐ Notice of Termination
- ☐ Notice of Staffing Changes
- ☐ Written Report of Accident

Documentation for Payment

- ☐ Internal Revenue Form W-9
- ☐ Invoice for Services Rendered
 - ☐ Supporting Documentation
 - ☐ Report of Completion Percentage
- ☐ Invoice for Reimbursables
 - ☐ Proof of prior payment by Engineer of Reimbursables

Contract No. _____

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PROFESSIONAL SERVICES AGREEMENT

STATE OF TEXAS §
 §
 COUNTY OF WILLIAMSON §

This Agreement is made and entered into this day by and between Williamson County, Texas, a political subdivision of the State of Texas, (*the "County"*) and K Frieze & Associates, Inc. (*the "Engineer"*).

WHEREAS, *County* proposes to obtain Preliminary Design for Wetlands Enhancement;

WHEREAS, *County* desires to obtain professional services for Brushy Creek Hike and Bike Trail Wetlands Enhancement Phase II – Preliminary Design (*the "Project"*);

WHEREAS, *Engineer* has the professional ability and expertise to fulfill the requirements of the *Project*, and to counsel *County* in the selection and analysis of cost-effective alternatives.

NOW, THEREFORE, *County* and *Engineer* agree to the performance of the professional services by *Engineer* and the payment for these services by *County* as set forth herein.

Section I Employment of the Engineer

County agrees to employ *Engineer* and *Engineer* agrees to perform professional engineering services for the *Project* as stated in the Sections to follow. As a condition to employment, it is specifically agreed that any disputes arising hereunder shall be submitted to the County Judge or his designee and/or agent as designated in the Scope of Services in Appendix A, or as otherwise designated (*individually or collectively the "County Judge"*). The *County Judge* shall have complete authority for the purpose of resolving technical matters. In all other cases, the decision of the Williamson County Commissioners Court shall be final and binding, subject to any civil remedies otherwise deemed appropriate by the parties hereto.

Section II Basic Services of the Engineer

- A. In consideration of the compensation herein provided, *Engineer* shall perform professional engineering services for the *Project*, which are acceptable to the *County Judge*, based on standard engineering practices and the scope of work described on the Exhibits attached to this Agreement. *Engineer* shall also serve as *County's* professional engineer in those phases of the *Project* to which this Agreement applies and will consult with and give advice to *County* during the performance of *Engineer's* services.
- B. *Engineer* shall not commence work until *Engineer* has been thoroughly briefed on the scope of the *Project* and has been notified in writing by the *County Judge* to proceed, as evidenced by a Work Authorization substantially in the form of Attachment A to Exhibit I.

Contract No. _____

2 of 29 Pages

- C. **County** shall provide **Engineer** with all existing plans, maps, studies, reports, field notes, statistics, computations, and other data in its possession relative to existing facilities and to this particular **Project** at no cost to **Engineer**; however, any and all such information shall remain the property of **County** and shall be returned, if the **County Judge** so instructs **Engineer**.
- D. **Engineer** shall perform the following Basic Scope of Services:
1. The basic Scope of Services shall generally consist of all elements of work, materials and equipment required for the development of the **Project**, including any Public Hearings, satisfactory to the **County Judge** and the County's Commissioners Court, in accordance with the requirements, policies, and general practices of Williamson County.
 2. The following documents shall be used in the development of the **Project**:
 - a. TxDOT 1980 Texas Manual of Uniform Traffic Control Devices for Streets and Highways, Revision 5, including:
 - i) The 1998 reprint of the Texas Manual on Uniform Traffic Control Devices for Streets and Highways
 - ii) The September 31, 1998, Federal Highway Administration (FHWA) Mandate from the National Cooperative Highway Research Program (NCHRP), Report 350
 - b. Texas Department of Transportation Construction Manual
 - c. Texas Department of Transportation's Standard Specifications for Construction of Highways, Streets, and Bridges, 1993 (English units)
 - d. National Environmental Policy Act (NEPA)
 - e. Texas Accessibility Standards (TAS) of the Architectural Barriers Act, Article 9102, Texas Civil Statutes, Effective April 4, 1994
 - f. Americans with Disabilities Act (ADA) Regulations
 - g. U.S. Army Corps Regulations
 - h. Southern Building Code
 - i. Uniform Building Code. Note: Williamson County will use the 1997 Uniform Building Code (May 1, 1997) as a guide for design.
 - j. National Electrical Code (most current version)
 - k. Williamson County Bond Program Standard Procedures Manual
 - l. TxDOT Bridge Division Foundation Manual
 3. As part of the Scope of Services, **Engineer** shall submit its work products to **County** for review at regular intervals.
 4. The detailed Scope of Services for the **Project** is set forth herein as Appendix A to this Agreement, and is expressly incorporated and made a part hereof.

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Section III
Fee schedule

- A. For and in consideration of the performance by *Engineer* of the work described in the Scope of Services, *County* shall pay and *Engineer* shall receive the fee set forth in Exhibit I. The fee is based upon the hourly rates set forth in Exhibit II. Exhibits I and II are attached hereto and made a part hereof. Invoices shall be submitted by *Engineer* on a monthly basis and are due upon presentation of all items required hereunder, and shall be considered past due if not paid within thirty (30) calendar days of the due date.
- B. For the performance of services not specifically described in the Scope of Services *Engineer* shall receive the additional services compensation described in Exhibit III, which is attached hereto and made a part hereof. In the event of any dispute over the classification of *Engineer's* services as basic or additional services under this agreement, the decision of the *County Judge* shall be final and binding on *Engineer*.

Section IV
Period of Service

- A. *Engineer* shall perform the professional services described in Appendix A, the Scope of Services, in accordance with the Production Schedule attached hereto as Exhibit IV and made a part hereof.
- B. This Agreement shall become effective upon the date approved by *County* and will remain in full force and effect for the period required for the design, construction contract award and construction of the *Project*, including warranty periods and any extensions of time, unless terminated earlier as provided for herein. *Engineer* shall complete all design work as described in the Scope of Services within 155 calendar days from receipt by *Engineer* of *County's* written Work Authorization and in accordance with the production timeline included in the Scope of Services.
- C. Neither *Engineer* nor *County* shall be responsible for delays caused by "Acts of God", non-county governmental processes, national emergency, or any other causes beyond *Engineer's* or *County's* reasonable control. Upon the discovery of such an event, *Engineer* shall notify *County*, and attend a special meeting with the *County Judge* to propose a program for a solution to the problem, and, if necessary, to establish an estimated period of time of suspension or extension of the work. A written request for an extension of time, when properly documented and justified by the circumstances, will be granted by the *County Judge*.
- D. *County* may suspend the work at any time for any reason without terminating this Agreement by giving written Notice of Suspension and the work may be reinstated and this Agreement resumed in full force and effect within sixty (60) days of receipt by *Engineer* of written

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Notice of Reinstatement from **County Engineer**, upon receipt of a Notice of Suspension shall follow the procedures described in the attached Exhibit V, which is attached hereto and made a part hereof. In the event such suspension of the **Project** or the **Engineer's** services hereunder extends for a period of ninety (90) days or more, consecutive or in the aggregate, **Engineer** may terminate this Agreement in writing and such termination shall be treated as a Notice of Termination as provided herein.

- E. Either party may terminate this Agreement for the substantial failure of the other party to perform in accordance with the terms of this Agreement (the substantiality of such failure to be based on standard engineering practices and the scope of work described on the Exhibits attached to this Agreement), through no material fault of the terminating party, and **County** may terminate this Agreement for reasons other than substantial failure by **Engineer** to perform by delivering a written Notice of Termination which shall take effect on the tenth day following receipt. If mutually agreed upon, the obligation to provide services under this Agreement may be terminated without cause upon thirty (30) days written notice. **Engineer** shall follow the procedures specified in Exhibit V upon issuance or receipt of such notice. In the event of termination of this Agreement because of the substantial failure of **Engineer** to perform, **County** may prosecute the work to completion by contract or otherwise and, in such a case, **Engineer** shall be liable for any additional costs incurred by **County**.
- F. **Engineer** specifically acknowledges that **County** will sustain damages for each day beyond the required dates of completion of the Preliminary and Design Phases as defined in the Scope of Services that the work has not been accepted and approved. Because of the impracticality and extreme difficulty of fixing and ascertaining **County's** actual damages, **Engineer** agrees that Zero and No/100 Dollars (\$0) per day shall be retained by **County** from any amounts due **Engineer** for every day that **Engineer** does not meet the production requirements set forth in Exhibit IV.
- G. Periods of time (i) during which a Notice of Suspension is in effect, or (ii) during which a submitted and complete engineering work product is in technical review, as described in Section VI, or (iii) during which a delay directly related to matters described in section IV(C) above, shall not be taken into account in computing the amount of liquidated damages. In the event that an engineering work product received by **County** is found to be incomplete, as defined in Section VI, Paragraph B, the period of time from the original submittal of the engineering work product to the receipt of subsequent submittal necessary to produce a completed submittal will be taken into account in computing the number of days and the amount of liquidated damages
- H. All references to time in this Agreement shall be measured in calendar days unless otherwise specified.

Section V Coordination with the County

- A. The **County Judge** will act on behalf of **County** with respect to the work to be performed under this Agreement. The **County Judge** shall have complete authority to interpret and

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define *County's* policies and decisions with respect to *Engineer's* services. The *County Judge* may designate representatives to transmit instructions and receive information.

- B. *Engineer* shall not commence work on any phase of the *Project* until a thorough briefing on the scope of the *Project* is received and a written Work Authorization is issued by the *County Judge* in substantially the form of Attachment A to Exhibit I.
- C. *Engineer* shall furnish all available data and reasonable assistance necessary for the development of applications or supporting documentation for any permits, grants, or planning advances as applicable to the professional services to be rendered pursuant to this Agreement, provided that *Engineer* shall not be obligated to develop additional data, appear at hearings, or prepare extensive reports, unless compensated for such work under other provisions of this Agreement.
- D. *Engineer* shall have the responsibility at all times under the terms of this Agreement to advise *County* whether in *Engineer's* judgment it is feasible to proceed with the recommendations given any constraints affecting the *Project*.
- E. *Engineer* shall cooperate and coordinate with *County's* staff, and other engineers and contractors as reasonable and necessary and as required by the *County Judge*.

Section VI Review of Work Product

- A. *Engineer's* engineering work product will be reviewed by *County* under its applicable technical requirements and procedures.
- B. Reports, plans, specifications, and supporting documents, (the "engineering work products"), shall be submitted by *Engineer* on or before the dates specified in the Production Schedule set forth in Exhibit IV. Upon receipt of the engineering work products, the submission shall be checked for completion. "Completion" shall be defined as: all of the required items (as defined by the scope of services described herein) have been included in the engineering work products in compliance with the requirements of this Agreement. . The completeness of any engineering work product submitted to *County* shall be determined by *County* within thirty (30) days of such submittal and *County* shall notify *Engineer* in writing within such 30-day period if such work product has been found to be incomplete.
- C. If the submission is complete, *County* shall notify *Engineer* and *County's* technical review process will begin.
- D. If the submission is incomplete, *County* shall notify *Engineer*, who shall perform such professional services as are required to complete the work and resubmit it to *County*. This process shall be repeated until a submission is complete.
- E. *County* shall review the completed work for compliance with the scope of work. If necessary, the completed work shall be returned to *Engineer*, who shall perform any required

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work and resubmit it to **County**. This process shall be repeated until the work is accepted. "Acceptance" shall mean that in the **County Judge's** opinion substantial compliance with the requirements of this Agreement has been achieved.

- F. After acceptance, **Engineer** shall perform any required modifications, changes, alterations, corrections, redesigns, and additional work necessary to receive final approval by the **County Judge**. "Approval" in this sense shall mean formal recognition that the work has been fully carried out.
- G. After approval of final engineering work products, **Engineer** shall without additional compensation perform any work required as a result of **Engineer's** development of the products which is found to be in error or omission due to **Engineer's** negligence. However, any work required or occasioned for the convenience of **County** after approval of a final product shall be paid for as Additional Services.
- H. In the event of any dispute over the classification of **Engineer's** work products as complete, accepted, or approved under this Agreement, the decision of the **County Judge** shall be final and binding on **Engineer**, subject to any civil remedy or determination otherwise available to the parties and deemed appropriate by the parties.

Section VII Revision to Work Product

Engineer shall make without expense to **County** such revisions to the work product as may be required to correct negligent errors or omissions so the work product meets the needs of **County**, but after the approval of the work product any revisions, additions, or other modifications made at **County's** request which involve extra services and expenses to **Engineer** shall entitle **Engineer** to additional compensation for such extra services and expenses, provided however, that **Engineer** agrees to perform any necessary corrections to the work products, which are found to be in negligent error or omission as a result of the **Engineer's** development of the work product, at any time, without additional compensation. If it is necessary due to such error or omission by **Engineer** to revise the plans in order to make the **Project** constructable, **Engineer** shall do so without additional compensation. In the event of any dispute over the classification of **Engineer's** services as Basic or Additional Services under this Agreement, the decision of the **County Judge** shall be final and binding on **Engineer**, subject to any civil remedy or determination otherwise available to the parties and deemed appropriate by the parties.

Section VIII Engineer's Responsibility and Liability

- A. **Engineer** covenants to undertake no task in which a professional license or certificate is required unless he or someone under his direction is appropriately licensed. In the event such licensed individual's license expires, is revoked, or is canceled, **Engineer** shall inform **County** of such event within five working days.
- C.B. **Engineer** shall be responsible for conformance with applicable federal and state laws, county

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permitting requirements, and city ordinances currently in effect, except as otherwise directed by the **County Judge** regarding county permitting or similar requirements properly waivable by the **County Judge**. Acceptance and approval of the final plans by **County** shall not release **Engineer** of any responsibility or liability for the accuracy and competency of his designs, working drawings, specifications, or other documents or work performed under this Agreement. Neither acceptance nor approval by **County** shall be an assumption of responsibility or liability by **County** for any defect, error, or omission in the designs, working drawings, specifications, or other documents prepared by **Engineer**.

- D. **Engineer** shall indemnify, protect, and save harmless **County**, its officials and employees and its agents and agents' employees from and against all claims, suits, actions, liability, loss, damage, reasonable attorney's fees, costs, and expenses (including, but not limited to expenses related to expert witnesses) of any kind whatsoever, to the extent arising from any negligent act, error or omission of **Engineer** or any of its subcontractors in connection with the performance of services under this Agreement; provided, however, **Engineer** shall not be responsible for the negligence of any other party, other than its subcontractors.
- E. **Engineer's** opinions of probable **Project** cost or construction cost represent **Engineer's** professional judgment as a design professional familiar with the construction industry, but **Engineer** does not guarantee that proposals, bids, or the construction cost, itself, will not vary from **Engineer's** opinions of probable cost.
- F. **Engineer** shall perform all services and responsibilities required of **Engineer** under this Agreement using at least that standard of care which a reasonably prudent engineer in Texas, who is licensed by the State Board of Engineers, or the State Board of Registered Professional Surveyors, as applicable, would use in similar circumstances.
- G. **Engineer** represents that it presently has, or is able to obtain, adequate qualified personnel in its employment for performance of the services required under this Agreement and that **Engineer** shall furnish and maintain, at its own expense, adequate and sufficient personnel and equipment, in the reasonable opinion of **County**, to perform the services when and as required and without delays. It is understood that **County** will approve assignment and release of all key **Engineer** and professional personnel.
- H. All employees of **Engineer** shall have such knowledge and experience as will enable them to perform the duties assigned to them. Any employee of **Engineer**, who in the opinion of **County** is incompetent or whose conduct becomes detrimental to the work or coordination with **County**, shall upon **County's** and/or **County Judge's** request be immediately removed from association with the **Project**.
- I. **Engineer** shall furnish all equipment, transportation, supplies, and materials required for its operations under this Agreement.
- J. **Engineer** shall place his Texas Professional Engineer's seal of endorsement on all documents and engineering data furnished to **County**, as required by law.

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- K. *Engineer* is an independent contractor under this Agreement. Neither he nor any officer, agent nor employee of *Engineer* shall be classified as an employee of *County*.

**Section IX
Ownership of Documents**

- A. Any and all documents, including the original drawings, estimates, computer tapes, graphic files, tracings, calculations, analyses, reports, specifications, field notes, and data prepared by *Engineer* are the property of *County* and upon completion of the work or termination of this Agreement or as otherwise instructed by *County* and/or *County Judge*, shall be delivered to *County* in an organized fashion with *Engineer* retaining a copy.
- B. Any reuse by *Engineer* of any such documents described in subsection A above, without the specific written consent of *County* shall be at *Engineer's* sole risk and without liability or legal exposure to *County*. Should *Engineer* be terminated, *Engineer* shall not be liable for *County's* use of partially completed designs, plans, or specifications on this *Project* or any other project, except to the extent such documents were deemed complete or otherwise "Accepted" or "Approved" as provided herein or represent completed work sealed by *Engineer*, or Surveyor, as applicable, as specified by professional standards.
- C. *Engineer* will not be responsible for any use or any modifications to the plans and documents described in subsection A performed by any entity other than Williamson County, and *County's* respective engineers and contractors, without the specific written consent of *Engineer*. Any modification as described in this paragraph shall be made in accordance with all applicable professional standards.

**Section X
Maintenance of and Right of Access to Records**

- A. *Engineer* agrees to maintain appropriate accounting records of costs, expenses, and payrolls of employees working on the *Project*, together with documentation of evaluations and study results for a period of three (3) years after final payment for completed services and all other pending matters concerning this Agreement have been closed.
- B. *Engineer* further agrees that *County* or its duly authorized representatives shall, until the expiration of three (3) years after final payment under this Agreement, have access to and the right to examine and photocopy any and all books, documents, papers and records of *Engineer*, which are directly pertinent to the services to be performed under this Agreement for the purposes of making audits, examinations, excerpts, and transcriptions. *Engineer* agrees that *County* shall have access during normal working hours to all necessary *Engineer* facilities and shall be provided adequate and appropriate work space in order to conduct audits in compliance with the provisions of this section. *County* shall give *Engineer* reasonable advance notice of intended audits.

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- C. **Engineer** further agrees to include in all its sub-consultant agreements hereunder a provision to the effect that the sub-consultant agrees that **County** shall, until the expiration of three (3) years after final payment under the subcontract, have access to and the right to examine and photocopy any directly pertinent books, documents, papers and records of such sub-consultant, involving transactions to the subcontract, and further, that **County** shall have access during normal working hours to all sub-consultant facilities, and shall be provided adequate and appropriate work space, in order to conduct audits in compliance with the provisions of this section together with subsection (D) hereof. **County** shall give sub-consultant reasonable advance notice of intended audits.
- D. **Engineer** and sub-consultant agree to photocopy such documents as may be requested by **County**. **County** agrees to reimburse **Engineer** for the cost of copies at the rate published in the Texas Administrative Code in effect as of the time copying is performed.

Section XI
Miscellaneous

- A. **Severability.** Any clause, sentence, provision, paragraph, or article of this Agreement held by a court of competent jurisdiction to be invalid, illegal, or ineffective shall not impair, invalidate, or nullify the remainder of this Agreement, but the effect thereof shall be limited to the clause, sentence, provision, paragraph or article so held to be invalid, illegal, or ineffective.
- B. **Venue.** It is contemplated that this Agreement shall be performed in Williamson County, Texas, and the venue and jurisdiction of any suit, right, or cause of action arising out of or in connection with this Agreement shall lie exclusively in Williamson County, Texas. This Agreement shall be governed by and construed in accordance with the laws of the State of Texas.
- C. **Equal Opportunity in Employment.** **Engineer** agrees, during the performance of the services under this Agreement, to comply with the equal opportunity in employment provisions cited in Exhibit VI, which is attached hereto and made a part hereof.
- D. **Certificate of Engineer.** **Engineer** certifies that neither **Engineer** nor any members of **Engineer's** firm has:
- (1) Employed or retained for a commission, percentage, brokerage, contingency fee, or other consideration, any firm or person (other than a bonafide employee working solely for **Engineer**) to solicit or secure the work provided by the Agreement.
 - (2) Agreed, as an expressed or implied condition for obtaining this contract, to employ or retain the services of any firm or person other than in connection with carrying out the work to be performed under this Agreement.
 - (3) Paid or agreed to pay to any firm, organization, or person (other than bonafide

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employees working solely for **Engineer**) any fee, contribution, donation, or consideration of any kind for, or in connection with, procuring or carrying out the work provided under this Agreement.

Engineer further agrees that this certification may be furnished to any local, state or federal governmental agencies in connection with this Agreement and for those portions of the **Project** involving participation of agency grant funds and is subject to all applicable state and federal, criminal and civil laws.

- E. **Notice.** Any notice to be given hereunder shall be in writing and may be affected by personal delivery in writing or by registered or certified mail, return receipt requested, addressed to the proper party, at the following address:

ENGINEER: K Friese & Associates, Inc.
6601 Cat Creek Trail
Austin, Texas 78731

COUNTY: Williamson County (or successor)

with copy to: Honorable Gene Taylor (or successor)
 Williamson County Attorney

Attn: File No.

and to:

- F. **Insurance Requirements.** **Engineer** agrees during the performance of the services under this Agreement to comply with the INSURANCE REQUIREMENTS provisions described in Exhibit VII, which is attached hereto and made a part hereof.

- G. **Property Taxes.** Notwithstanding anything to the contrary herein, to the extent **County** becomes aware that **Engineer** is delinquent in the payment of property taxes related to property located in Williamson County at the time of invoicing, **Engineer** hereby assigns any payments to be made for services rendered hereunder to the Williamson County Tax Assessor-Collector for the payment of said delinquent taxes. Notwithstanding the above, **County** shall not have an affirmative duty to determine if **Engineer** is delinquent in the payment of property taxes.

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- H. **Successors and Assigns.** This Agreement shall be binding upon and inure to the benefit of **County** and **Engineer** and their respective successors, executors, administrators, and assigns. Neither **County** nor **Engineer** may assign, sublet, or transfer his interest in or obligations under this Agreement without the written consent of the other party hereto.
- I. **Bidding Exemption.** This Agreement is exempted from the bidding requirements of the County Purchasing Act pursuant to Section 262.024(a)(4) of the Local Government Code as this is a contract for professional services.
- J. **Taxpayer Identification.** **Engineer** shall provide to **County Judge** upon submittal of **Engineer's** initial invoice requesting payment Internal Revenue Form W-9 Request for Taxpayer Identification Number and Certification that is completed in compliance with the Internal Revenue Code, its rules and regulations.
- K. **Compliance with Laws.** **Engineer** shall comply with all federal, state, and local laws, statutes, ordinances, rules and regulations, and the orders and decrees of any courts or administrative bodies or tribunals in any matter affecting the performance of this Agreement, including, without limitation, Worker's Compensation laws, minimum and maximum salary and wage statutes and regulations, licensing laws and regulations. When required, the **Engineer** shall furnish the **County** with certification of compliance with said laws, statutes, ordinances, rules, regulations, orders, and decrees above specified.
- L. **Reports of Accidents.** Within 24 hours after **Engineer** becomes aware of the occurrence of any accident or other event which results in, or might result in, injury to the person or property of any third person (other than an employee of the **Engineer**), whether or not it results from or involves any action or failure to act by the Engineer or any employee or agent of the Engineer and which arises in any manner from the performance of this Agreement, the Engineer shall send a written report of such accident or other event to the County, setting forth a full and concise statement of the facts pertaining thereto. The Engineer shall also immediately send the County a copy of any summons, subpoena, notice, or other documents served upon the Engineer, its agents, employees, or representatives, or received by it or them, in connection with any matter before any court arising in any manner from the Engineer's performance of work under this Agreement.
- M. **Entire Agreement.** This Agreement represents the entire and integrated Agreement between **County** and **Engineer** and supersedes all prior negotiations, representations, or agreements, either oral or written. This Agreement may be amended only by written instrument signed by both **County** and **Engineer**. NO OFFICIAL, EMPLOYEE, AGENT, OR REPRESENTATIVE OF THE COUNTY HAS ANY AUTHORITY, EITHER EXPRESS OR IMPLIED, TO AMEND THIS CONTRACT, EXCEPT PURSUANT TO SUCH EXPRESS AUTHORITY AS MAY BE GRANTED BY THE COUNTY COMMISSIONERS COURT.

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- N. ***Captions Not a Part Hereof.*** The captions or subtitles of the several sections and divisions of this Agreement constitute no part of the content hereof, but are only labels to assist in locating and reading the provisions hereof.
- O. ***Incorporation of Exhibits and Attachments.*** All of the Exhibits and Attachments, and Appendices referred to in the Agreement are incorporated by reference as if set forth verbatim herein.
- P. ***Entity Status.*** By my signature below, I certify that ***Engineer*** is a Corporation, duly authorized to transact and do business in the State of Texas.
- Q. ***Acknowledgement.*** As a duly authorized representative of ***Engineer***, I acknowledge by my signature below that I have read and understand the above paragraphs and that ***Engineer*** has the obligation to ensure compliance with its provisions by itself and its employees, agents, and representatives.
- R. ***Definition of Engineer.*** The term "Engineer" as used herein is defined as including Registered Professional Surveyors, as applicable to the work to be performed under this Agreement, and any reference to professional standards in regards to a Registered Professional Surveyor shall relate to those standards promulgated by the State Board of Registered Professional Surveyors.

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EXECUTED this 18 day of Nov., 2003.

THE ENGINEER:

WILLIAMSON COUNTY:

BY: Karen Friese

BY: John C. Daifler 11-18-03
Williamson County Judge

Printed Name: Karen A. Friese, P.E.

Title: President

Reviewed as to Form By:

County Attorney

Funds Verified By:

County Auditor

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EXHIBIT I**COMPENSATION FOR PROFESSIONAL SERVICES****ACTUAL COST OF SERVICES METHOD**

[Note: A separate Compensation Agreement will be attached for Compensation on a Work-Order Basis]

SECTION 1 - BASIS FOR COMPENSATION

- 1.1 The not-to-be-exceeded fee for the performance of the Scope of Services described in the Agreement shall be the sum of \$79,524.00.
- 1.2 The basis of compensation for the services of principals and employees engaged in the performance of the work shall be the hourly rates set forth in attached Exhibit II.
- 1.3 *Engineer* shall be reimbursed for non-labor and subcontract expense incurred in the performance of the services under this Agreement at invoice cost.

SECTION 2 - NOT-TO-BE-EXCEEDED FEE

- 2.1 *Engineer* and *County* acknowledge the fact that the not-to-be-exceeded fee is the total estimated costs of services to be rendered under this Agreement. This not-to-be-exceeded fee is based upon the labor and non-labor costs set forth in Exhibit II to this Agreement and described above, estimated to be required in the performance of the various phases of work provided for under this Agreement. Should the actual costs of the services rendered under this Agreement be less than such estimated cost, then *Engineer* shall receive compensation for only those services actually rendered.

SECTION 3 – WORK AUTHORIZATIONS

- 3.1 *County* will prepare and issue Work Authorizations, in the form identified and attached hereto as Attachment A to authorize the *Engineer* to perform one or more tasks. Each Work Authorization will include a description of the work to be performed, a description of the tasks and milestones, a work schedule for the tasks, and a fee amount agreed upon by the *County* and *Engineer*. The amount payable for a Work Authorization shall be supported by the estimated cost of each work task as described in the Work Authorization. The Work Authorization will not waive the *Engineer's* responsibilities and obligations established in this Agreement. The executed Work Authorizations shall become part of this Agreement.
- 3.2 Work included in a Work Authorization shall not begin until *County* and *Engineer* have signed the Work Authorization. All work must be completed on or before the completion date specified in the Work Authorization. The *Engineer* shall promptly notify the *County* of any event which will affect completion of the Work Authorization, although such notification shall not relieve the *Engineer* from costs or liabilities resulting from delays in completion of

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the Work Authorization. Any changes in the Work Authorization shall be enacted by a written Supplemental Work Authorization before additional work may be performed or additional costs incurred. Any Supplemental Work Authorization must be executed by both parties within the period specified in the Work Authorization. The **Engineer** shall not perform any proposed work or incur any additional costs prior to the execution, by both parties, of a Supplemental Work Authorization.

SECTION 4 - ADDITIONAL SERVICES

- 4.1 For additional services, compensation shall be negotiated in accordance with Exhibit III.
- 4.2 **Engineer** shall be compensated for extra services not included in the Scope of Services described in the Agreement on the basis specified in Exhibit III; however, **Engineer** shall not be compensated for work made necessary by **Engineer's** negligent errors or omissions.
- 4.3 The maximum amount payable under this Agreement without modification (the "**Compensation Cap**") is \$100,000, provided that any amounts paid or payable shall be solely pursuant to a validly issued Work Authorization or any Supplemental Work Authorization related thereto. In no event may the aggregate amount of compensation authorized under Work Authorizations and Supplemental Work Authorizations exceed the **Compensation Cap**.

SECTION 5 – REQUIRED SUPPORTING DOCUMENTATION

- 5.1 Upon submittal of the initial invoice for service, **Engineer** shall provide **County Judge** with an Internal Revenue Form W-9, Request for Taxpayer Identification Number and Certification that is complete in compliance with the Internal Revenue Code, its rules and regulations.
- 5.2 All invoices submitted to **County Judge** will be accompanied by an original, complete packet of supporting documentation. Invoices should detail hours worked by staff person, with a description of the work performed by individuals. Invoices should also contain a representation of the percentage of completion relative to that segment of the **Project**.
- 5.3 For additional services performed pursuant to Section III B of this Agreement, a separate invoice or itemization of this work will be presented with the same requirements for supporting documentation as in Section 5.2 of this Exhibit.
- 5.4 Invoices requesting reimbursement for expenditures related to the project (reimbursables) must be accompanied by copies of the provider's invoice which was previously paid by **Engineer**.

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ATTACHMENT A

WORK AUTHORIZATION NO. _____

This Work Authorization is made pursuant to the terms and conditions of the Agreement entered into by and between Williamson County, Texas, a political subdivision of the State of Texas, (*the "County"*) and K Friese & Associates, Inc. (*the "Engineer"*).

Part 1. The *Engineer* will provide the following engineering services:

See attached.

Part 2. The maximum amount payable for services under this Work Authorization without modification is \$100,000.

Part 3. Payment to the *Engineer* for the services established under this Work Authorization shall be made in accordance with the Agreement.

Part 4. This Work Authorization shall become effective on the date of final acceptance of the parties hereto and shall terminate on July 1, 2003, unless extended by a Supplemental Work Authorization.

Part 5. This Work Authorization does not waive the parties' responsibilities and obligations provided under the Agreement.

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ATTACHMENT A (con't.)**Part 6.** This Work Authorization is hereby accepted and acknowledged below.**ENGINEER:**K Friese & Associates, Inc.By: Karen Friese
SignatureKaren A. Friese, P.E.
Printed NamePresident
Title11/13/03
Date**COUNTY:**

Williamson County, Texas

By: John C. Doerfler
SignatureJohn C. Doerfler
Printed NameCounty Judge
Title11-18-03
Date**LIST OF EXHIBITS**

Exhibit A - Services to be Provided by County

Exhibit B - Services to be Provided by Engineer

Exhibit C - Work Schedule

Exhibit D - Fee Schedule

K FRIESE & ASSOCIATES, INC.

CONSULTING ENGINEERS

November 12, 2003

Commissioner Mike Heiligenstein
Williamson County, Precinct One
400 West Main Street, Suite 216
Round Rock, Texas
78664

Re: Brushy Creek Hike and Bike Trail Wetland Enhancement
Phase II - Preliminary Design

Dear Commissioner Heiligenstein:

We are pleased to present our Scope of Services and estimated budget for performing preliminary design on the above-referenced project. The Wetlands Enhancement Feasibility Study (Phase I) identified three existing wetlands sites that were deemed suitable for enhancement. The results of Phase II – Preliminary Design will include a detailed topographic and vegetation survey, preliminary site plan design for each enhancement location, and a detailed cost estimate for each site. K Friese & Associates, Inc. (KFA) will utilize support from PBS&J for survey, hydrology and ecology support.

Wetland enhancement design will be based on available (e.g., water quality data) and acquired (e.g., site surveys) data. The feasibility study (Phase I) provides the baseline for the formulation of design criteria. The desired design sequence for the establishment of the enhanced wetlands will closely follow guidelines established by the USACE, Waterways Experiment Station as outlined in their Wetlands Research Program (WRP) Technical Note WG-RS-3.1, and the Wetlands Engineering Handbook, TR-WRP-RE-21, March 2000. These design documents provide consideration for all aspects of wetland enhancement including wetlands needs, site characteristics, and design criteria.

SCOPE OF SERVICES

Task 1 Field Investigations

KFA will conduct detailed site investigations of the three wetland sites identified in the Phase I study. The focus of these investigations will be topography, soils and vegetation.

A. Topographic Survey - A topographic survey of each site will be conducted. The results of the survey will be used to prepare a site plan drawing that shows topography on a one-foot contour interval for each site. The survey limits will be defined in the field in a manner to include the proposed wetland inundation areas and the inflow and outflow points.

Commissioner Mike Heiligenstein
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B. Soil Sampling and Laboratory Testing - The purpose of soil sampling is to identify nutrient requirements and aid in the selection of plant species. Soil samples will be obtained using hand tools and delivered to a soils laboratory for analysis.

C. Vegetation Inventory - The vegetation inventory will be performed concurrent to the topographic survey. Predominate plant species in each area will be identified and field located, focusing on wetland species that are desired for each site. The objectives of these investigations are to obtain information to design a planting and landscape maintenance plan for each site.

Task 2 Hydrologic and Hydraulic Analyses - The proposed wetland hydrology is controlled by the Avery Dam, located on the South Fork of Brushy Creek, and the dam constructed to form the golf course irrigation pond that discharges into a short tributary of Brushy Creek. The hydrologic analysis will be based on an evaluation of permitted dam operations and any available stream flow records associated with these facilities. The results of the investigation are expected to provide a means to predict the frequency, extent, and duration of inundation at each of the proposed wetland sites under both existing and proposed conditions. This analysis will provide the basis for preliminary design of each enhancement site.

Task 3 Preliminary Design

A. Abandoned Quarry - KFA will prepare a site plan drawing that shows the limits of the proposed wetland enhancement area. This drawing will illustrate the inflow and outflow points, and include details and cross-sections of the proposed flow controls (berms, grade controls, etc. if required). The preliminary design will tabulate inventories of existing wetland plant species and proposed species and will generally delineate the existing and proposed plantings.

B. Irrigation Pond Outfall Site - A preliminary site plan drawing will be prepared showing the limits of the proposed wetland enhancement area, details and cross sections of the proposed channel improvements, soil stabilization improvements, and proposed grading. Inventories of existing wetland plant species and proposed species will be tabulated and a delineation of the existing and proposed plantings will be included.

C. Low Water Crossing to Avery Ranch - KFA will determine dry weather flows and low-water crossing design criteria (culvert size, top of crossing elevation, etc.). A site plan drawing that shows the limits of the proposed wetland enhancement area and the proposed inundation area will be prepared. The preliminary design will include tabulated inventories of existing wetland plant species and proposed species. The site plan will generally delineate the existing and proposed plantings.

Task 4 Permitting - KFA will evaluate the potential impacts of the proposed project and develop a permitting matrix. The matrix will identify the wetland site requiring the permit, the action/impact triggering the application, and the jurisdictional agency. The design approach is to minimize the need for permits to the maximum extent possible. Dependent upon the extent of impacts (if any) to waters of the U.S., we anticipate that a Nationwide Permit (NWP) will suffice for the project.

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Task 5 Funding Opportunities/Grant Application Assistance – KFA will contact and, if necessary, meet with the various agencies identified in the feasibility study as potential funding sources. KFA will present the project to the agency, determine eligibility, obtain funding applications, identify required application information, determine submittal timelines, and evaluate funding potential.

Task 6 Cost Estimates – KFA will prepare detailed final design and construction cost estimates for each wetland enhancement site. Estimates will be based on the preliminary design performed under Task 3. Recent unit prices from similar work, contractor interviews, and additional estimating resources will be used to develop the probable costs.

Task 7 Reporting – A Preliminary Engineering Report will be prepared documenting design criteria and methodology, preliminary design, permitting requirements, funding opportunities, and cost estimates. The design description for the establishment of the enhanced wetlands will document conformance with the guidelines established by the USACE, Waterways Experiment Station. The report will also recommend a scope of services to complete final design for each enhancement site. Two copies of the draft Preliminary Engineering Report and ten copies of the final report will be submitted to the County. KFA will meet with the County to address questions on the draft report and incorporate comments in the final report.

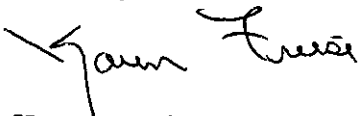
Task 8 Coordination and Management – Periodic meetings will be held with Williamson County Staff to present project status and progress. At the conclusion of preliminary design, a final meeting will be held to present the project to the County. We have assumed four progress meetings, one meeting to discuss the draft report, and one meeting to present the final results (total of six meetings with Williamson County Staff).

SCHEDULE AND BUDGET

KFA is prepared to begin work immediately upon authorization to proceed. We estimate completion of the draft Preliminary Engineering Report within 20 weeks of Notice to Proceed and completion of the final report 4 weeks after receiving comments from the County. We propose performing the project on a time and materials basis with a not-to-exceed budget of \$79,524.

We appreciate the opportunity to be of service to Williamson County on this important project. If you have any questions on this proposal, please do not hesitate to contact me.

Sincerely,



Karen A. Friese, P.E.
President

Attachment

Brushy Creek Hike and Bike Trail - Wetlands Enhancement
Phase II - Preliminary Design
Williamson County, Texas
Manpower/Budget Estimate

Task Description		Project Manager Hours	Project Eng Hours	Staff Eng Hours	Environ Staff Hours	Tech Hours	Clerical Hours	Total Labor Hours	Total Labor Cost \$	Non-Labor Cost \$	Survey & Lab \$	Total Costs \$
Task 1 Field Investigations												
A	Topographic Survey		8		8	8		24	\$2,432	\$200	\$18,600	\$21,232
B	Soil Sampling & Lab Testing				8		4	12	\$1,160	\$100	\$5,000	\$6,260
C	Vegetation Inventory				24	8	4	36	\$3,600	\$200		\$3,800
Task 2 Hydrologic & Hydraulic Analysis												
Task 3 Preliminary Site Plan												
A	Low Water Crossing	2	12	12	4	16		46	\$4,328	\$200		\$4,528
B	Abandoned Quarry Site	2	12	4	4	16		38	\$3,608	\$200		\$3,808
C	Irrigation Pond Outfall	2	12	4	4	16		38	\$3,608	\$200		\$3,808
Task 4 Permitting												
Task 5 Funding Assistance												
Task 6 Cost Estimates												
Task 7 Reporting												
Task 8 Management/Coordination Efforts												
		24	20		16		4	64	\$8,100	\$500		\$8,600
TOTALS		60	156	28	136	88	16	484	\$52,924	\$3,000	\$23,600	\$79,524

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EXHIBIT II
HOURLY RATES

- 1. Project Principal.....\$150**
- 2. Project Manager.....\$150**
- 3. Project Engineer.....\$119**
- 4. Staff Engineer.....\$90**
- 5. Environmental Staff.....\$120**
- 6. Technician.....\$65**
- 5. Secretary/Clerical.....\$50**

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EXHIBIT III**COMPENSATION FOR ADDITIONAL PROFESSIONAL SERVICES**

1. The fees described in Exhibits I and II to this Agreement shall provide compensation to ***Engineer*** for the work described in the Basic Scope of Services of the Agreement.
2. For the performance of work not described in the Basic Scope of Services of the Agreement, ***County*** shall pay and ***Engineer*** shall receive, under a negotiated contract modification, compensation based upon the method and rates set forth in Exhibits I and II to the Agreement.
3. The performance of any additional services must be authorized in writing in advance by the ***County Judge***.
4. In the event of any dispute over the classification of ***Engineer's*** services as either basic or additional services, the decision of the ***County Judge*** shall be final and binding.

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EXHIBIT IV**PRODUCTION SCHEDULE**

This Agreement shall become effective upon the date approved by *County* and will remain in full force and effect for the period required for the design, construction contract award and construction of the *Project*, including warranty periods and any extensions of time, unless terminated earlier as provided for herein. *Engineer* shall complete all design work as described in the Scope of Services within the timeline and/or schedule provided in the Scope of Services.

The number of days expiring from the date of submittal to *County* of a complete work product to the date the review is finished and comments returned to *Engineer* shall not be included within the days allowed for completion.

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EXHIBIT V**PROCEDURES FOR TERMINATION OR SUSPENSION**

Procedures for **Engineer** to follow upon receipt of Notice of Termination:

1. Upon receipt of a Notice of Termination and prior to the effective date of the termination, **Engineer** shall, unless the Notice otherwise directs, immediately begin to phase out and discontinue all services in connection with the performance of this Agreement and shall proceed to promptly cancel all existing orders and contracts insofar as such orders and contracts are chargeable to this Agreement. Within thirty (30) days after receipt of the Notice of Termination **Engineer** shall submit a statement, showing in detail the services performed under this Agreement prior to the effective date of termination.
2. Copies of all completed or partially completed designs, plans, and specifications prepared under this Agreement prior to the effective date of termination shall be delivered to **County** as a pre-condition to final payment.
3. Upon the above conditions being met, **County** shall pay **Engineer** for approved services actually performed under this Agreement, less previous payments.
4. Failure by **Engineer** to submit the required statement and to comply with the above stated conditions without good and reasonable cause shall constitute a waiver by **Engineer** of any and all rights or claims to collect the fee that **Engineer** may rightfully be entitled to for services performed under this Agreement.

Procedures for **Engineer** to follow upon receipt of Notice of Suspension:

1. Upon receipt of a Notice of Suspension and prior to the effective date of the suspension, **Engineer** shall, unless the Notice otherwise directs, immediately begin to phase-out and discontinue all services in connection with the performance of this Agreement and shall prepare a statement detailing the services performed under this Agreement prior to the effective date of suspension. Copies of all completed or partially completed designs, plans and specifications prepared under this Agreement prior to the effective date of suspension shall be prepared for possible delivery to **County**, but shall be retained by **Engineer** unless requested by **County**.
2. During the period of suspension, **Engineer** may submit the above-referenced statement to **County** for payment of the approved services actually performed under this Agreement, less previous payments.

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Procedures for **Engineer** to follow upon exercise of right to terminate for substantial failure of **County** to perform:

1. In the event that **Engineer** exercises such right to terminate, within thirty (30) days after receipt by **County** of **Engineer's** Notice of Termination, **Engineer** shall submit a statement detailing the services performed under this Agreement prior to the effective date of termination.
2. Copies of all completed or partially completed reports, designs, plans, studies, specifications and other work product shall be delivered to **County** as a pre-condition to final payment. Upon the above conditions being met, **County** shall pay **Engineer** for approved services actually performed under this Agreement, less previous payments.
3. Failure by **Engineer** to submit the required statement and to comply with the above stated conditions without good and reasonable cause shall constitute a waiver by **Engineer** of any and all rights or claims to collect the fee that **Engineer** may rightfully be entitled to for services performed under this Agreement.

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EXHIBIT VI**EQUAL OPPORTUNITY IN EMPLOYMENT**

- A. **Engineer** will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. **Engineer** will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; termination; rates of pay or other forms of compensation, and selection for training, including apprenticeship. **Engineer** agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this non-discrimination clause.
- B. **Engineer** will, in all solicitations or advertisements for employees placed by or on behalf of **Engineer**, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex or national origin.
- C. **Engineer** will send to the labor union representative or workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided by the Contract Compliance Officer advising the said labor union or worker's representatives of **Engineer's** obligations under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- D. **Engineer** will comply with the Regulations of the Department of Transportation (49 CFR 21 and 23 CFR 710.405) and all provisions of Executive Order 11246 of September 24, 1965, as amended by Executive Order 11375 (41 CFR 60) and of the rules, regulations and relevant order of the Secretary of Labor.
- E. **Engineer** will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations and orders of the Secretary of Labor, or pursuant thereto; and will permit access to his books, records, and accounts by the Department and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations and orders.
- F. In the event of **Engineer's** non-compliance with the non-discrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and **Engineer** may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, as amended by Executive Order 11375 (41 CFR 60) or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.
- G. **Engineer** will include the provisions of paragraph (A.) through (F.) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 or Executive Order 11246 of September 24, 1965, as amended by Executive Order 11375 (41 CFR 60), so that such provisions will

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be binding upon each subcontractor or vendor. **Engineer** will take such action with respect to any subcontractor purchase order as the Department may direct as a means of enforcing such provisions, including sanctions for non-compliance: provided, however, that in the event **Engineer** becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by **County** or Federal Agency, **Engineer** may request **County** and United States to enter into such litigation to protect the interest of the United States.

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EXHIBIT VII**INSURANCE REQUIREMENTS**

During the life of this Agreement, **Engineer** agrees to provide and maintain the following insurance:

- A. Worker's Compensation in accordance with statutory requirements.
- B. Commercial General Liability Insurance with a combined minimum Bodily Injury and Property Damage limits of \$1,000,000 per occurrence and \$2,000,000 in the aggregate, including coverage on same for independent subcontractor(s). WILLIAMSON COUNTY SHALL BE NAMED AS AN ADDITIONAL INSURED UNDER THIS COVERAGE.
- C. Automobile Liability Insurance for all owned, non-owned, and hired vehicles with combined minimum limits for Bodily Injury and Property Damage limits of \$1,000,000 per occurrence and \$1,000,000 in the aggregate. **Engineer** shall require any subcontractor(s) to provide Automobile Liability Insurance in the same minimum amounts.
- D. Professional Liability Errors and Omissions Insurance in the amount of \$1,000,000.
- E. In the event **Engineer** is self-insured in connection with any or all of the above-required insurance policies, **Engineer** shall submit proof of such self-insurance and all financial statements as reasonably required by the **County** in order to determine the acceptability of such self-insurance.

Engineer shall not commence any field work under this Agreement until he has obtained all required insurance and such insurance or self-insurance has been approved by **County**. **Engineer** shall not allow any subcontractor(s) to commence work to be performed in connection with this Agreement until all required insurance has been obtained and approved. Approval of the insurance by **County** shall not relieve or decrease the liability of **Engineer** hereunder.

The required insurance must be written by a company approved to do business in the State or Texas with a financial standing of at least an A- rating, as reflected in Best's insurance ratings or by a similar rating system recognized within the insurance industry at the time the policy is issued. **Engineer** shall furnish **County** with a certification of coverage issued by the insurer. **Engineer** shall not cause any insurance to be canceled nor permit any insurance to lapse. ALL INSURANCE CERTIFICATES SHALL INCLUDE A CLAUSE TO THE EFFECT THAT THE POLICY SHALL NOT BE CANCELED OR REDUCED, RESTRICTED OR LIMITED UNTIL TEN (10) DAYS AFTER COUNTY HAS RECEIVED WRITTEN NOTICE AS EVIDENCED BY RETURN RECEIPT OF REGISTERED OR CERTIFIED LETTER.

It is the intention of the **County** and the **County Judge**, and agreed to and hereby acknowledged by the **Engineer**, that no provision of this Professional Services Agreement shall be construed to require the **County** or the **County Judge** to submit to mandatory arbitration or mediation in the settlement of any claim, cause of action or dispute, except as specifically required in direct connection with an insurance claim or threat of claim under an insurance policy required under this Exhibit which

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absolutely requires arbitration or mediation of such claim, or as otherwise required by law or a court of law with jurisdiction over the provisions of this Agreement.

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APPENDIX A**SCOPE OF SERVICES**

THE ATTACHED SCOPE OF SERVICES IS INTENDED TO BE CONSISTENT WITH THE WILLIAMSON COUNTY PROFESSIONAL SERVICES AGREEMENT. TO THE EXTENT THE SCOPE IS INCONSISTENT WITH THE PROFESSIONAL SERVICES AGREEMENT, THE PROFESSIONAL SERVICES AGREEMENT WILL SUPERSEDE THE SCOPE AND WILL BE CONTROLLING.

THE ENGINEER SHALL PROVIDE EXPERT TESTIMONY IN ANY ADMINISTRATIVE OR COURT PROCEEDINGS THROUGH AN APPROPRIATE ENGINEERING PROFESSIONAL TO BE DETERMINED BY COUNTY AS ADDITIONAL SERVICES AT THE RATE OF COMPENSATION SET FORTH IN EXHIBIT II.

EXCEPT AS PROVIDED FOR FEE SERVICES OR WORK-ORDER BASED SERVICES, THE ATTACHED SCOPE OF SERVICES SHALL INCLUDE A PRODUCTION SCHEDULE REFLECTING A TIMELINE FOR THE EXECUTION OF THE PROJECT.

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APPENDIX B

CONTRACTOR'S QUALIFICATIONS STATEMENT

AGENDA ITEM 49

Authorize and award RFQ's for next phase of Brushy Creek Trail.

Tabled until the meeting of November 25, 2003.

COMMISSIONERS' COURT ADJOURNED TO EXECUTIVE SESSION AT 9:55 A.M. ON TUESDAY, NOVEMBER 18, 2003.

AGENDA ITEM 50

Discuss real estate (EXECUTIVE SESSION as per VTCA Govt. Code sec. 551.071 consultation with attorney.)

No action was taken on this item in Executive Session.

AGENDA ITEM 51

Discuss contemplated litigation: Juvenile Facility (EXECUTIVE SESSION as per VTCA Govt. Code sec. 551.071 consultation with attorney.)

No action was taken on this item in Executive Session.

AGENDA ITEM 52

Discuss pending litigation: David R. Lindsey VS. Williamson County Sheriffs Office (EXECUTIVE SESSION as per VTCA Govt. Code sec. 551.071 consultation with attorney.)

No action was taken on this item in Executive Session.

COMMISSIONERS' COURT RECONVENED FROM EXECUTIVE SESSION AT 10:38 A.M. ON TUESDAY, NOVEMBER 18, 2003.

AGENDA ITEM 53

Discuss and take appropriate action on real estate.

Real estate was not discussed in today's meeting.

AGENDA ITEM 54

Discuss and take appropriate action on contemplated litigation: Juvenile Facility.

No action was needed on this item.

AGENDA ITEM 55

Discuss and take appropriate action on pending litigation: David R. Lindsey VS. Williamson County Sheriffs Office.

Moved: **Judge Doerfler**

Seconded: **Commissioner Heiligenstein**

Motion: To authorize the county attorney to negotiate with the case of David R. Lindsey VS. Williamson County Sheriff's Office and report back to the Court.

Vote: 5 - 0

AGENDA ITEM 56

Comments from commissioners.

Commissioner Heiligenstein expressed his confidence that the Capital Metro funding will be gained for the McNeil Road improvements in the amount of between \$2.2 million and \$2.7 million.

Commissioner Hays presented a framed picture to **Commissioner Heiligenstein** in honorable recognition of his fifteen years of service on the Court. **Judge Doerfler**, **Commissioner Boatright** and **Commissioner Limmer** expressed similar kind remarks on the matter.

County Clerk Rister addressed the Court regarding Item 14, to clarify that the word training should have been written as certification.

COMMISSIONERS' COURT ADJOURNED AT 12:00 P.M. ON TUESDAY, NOVEMBER 18, 2003.