

DESIGNATION ORDER

By virtue of the authority vested in me by the Secretary of Agriculture under Regulation 36 CFR 251.23, I hereby designate as the Cross Timbers Research Natural Area the lands described in the preceding report by Harry F. Swank, dated June 24, 1975: Said lands shall hereafter be administered as a research natural area subject to said regulations and instructions thereunder.

June 8, 1977
(Date)

John R. McElaine
Chief

ESTABLISHMENT REPORT

CROSS TIMBERS RESEARCH NATURAL AREA
NATIONAL FORESTS IN TEXAS, WISE COUNTY, TEXAS

Prepared by:

Harry F. Swank, Supervisor's Staff, National Forests in Texas

Approved:

John M. Courtney 7-8-75
Forest Supervisor Date
National Forests in Texas

Floyd Bond 4/12/76
Regional Forester Date
Region 8

Laurence E. Lassen 4/22/76
DEPUTY Director Date
Southern Forest Experiment Station

ESTABLISHMENT REPORT

For the Cross Timbers Research Natural Area, within Lyndon B. Johnson National Grassland, Wise County, Texas.

a. Principal Distinguishing Features

The Area includes soils and vegetation characteristic of two major vegetative zones in Texas - the Western Cross Timbers and the Grand Prairie. Approximately 10% of the area lies within the Grand Prairie zone, with the remainder in the Western Cross Timbers zone. (See map Exhibit B). Vegetation over most of the area is characterized as Oak-Savannah, K-Type 69 and K-Type 84.

Much of the Cross Timbers and Grand Prairie vegetative zones was subjected to various disturbing influences from 1800 to 1936, which produced widespread changes in vegetative composition. These influences are described in the publication "The Vegetation of the Western Cross Timber", by Dr. E.J. Dyksterhuis, published by the Soil Conservation Service in 1949.

As a result of these disturbance factors, little of the Western Cross Timbers has vegetation representative of the "original" or near-climax composition. A few relict areas were located and described by Dr. Dyksterhuis. Although the area included herein was not considered a relict site, it does exhibit composition similar to the original vegetation of the Cross Timbers.

Because of the scarcity of sizeable areas which are representative of the original vegetation of the Western Cross Timbers, this area was proposed for management as a Research Natural Area.

b. Location

General location of the area is in Central North Texas, approximately 45 miles northwest of Fort Worth (Exhibit A). Latitude 33°22' North and longitude 97°36' West. Elevation is at 1100 ft. m.s.l.

The main belt of the Western Cross Timbers originally covered an estimated 2,400,000 acres, extending from the Red River southwestward to the vicinity of Brownwood, Texas, a distance of about 150 miles.

The northern half lies in a relatively contiguous belt varying from 20 to 40 miles in width. The southern half is wider but is much interrupted by other soils and vegetative zones. The Western Cross Timbers is bounded to the east by the Grand Prairie throughout its length.

c. The following Table shows Acres by Cover Type within the Area

Oak Woodland (Post Oak, Blackjack Oak, Live Oak, Juniper)	260 Acres
Open Grassland (Bluestem, Indian, Switchgrass, Gramas)	90 Acres
Shrub (Wild plum, Sumac, Greenbrier, Bumelia and Others)	10 Acres
Stream Channel-Woodland (Willow, Cottonwood, Elm, Oaks)	10 Acres

Approximately 70 acres of the open grassland is within the Grand Prairie vegetative zone. The remaining 300 acres is within the Western Cross Timbers.

d. Physical Climatic Conditions

The Area occurs in two land resource zones, each having distinct soil types:

West Cross Timbers Zone (81% of area)

Soils have a sandy loam to loam fine sand surface ranging in thickness from 2 to 24 inches. The subsoil varies from a sandy clay loam to sandy clay and is from 3 to 6 feet in depth. The parent material consists of fine sands and silts of the Antlers sand formation. This material is known as "packsand" or "sugar sand". It appears cemented, massive, and hard when dry, but seems to dissolve when moistened. This soil and parent material are extremely erosive.

Topography is mostly gently rolling with the steeper slopes up to 20% in grade. Drainage is generally northward.

Grand Prairie Zone (19% of area)

This part occurs as relatively high limestone mesas. Soils on these mesas have a thin, calcareous clay loam to clay surface and a subsoil that extends to a depth of 10 to 30 inches. The parent material is hard limestone. The vegetation is open grassland with scattered clumps of live oaks.

The Grand Prairie limestone mesas occupy the southern and eastern fringes of the Area, and are relatively flat with steep slopes breaking off northward into the West Cross Timbers Zone.

e. Description of Values

- (1) The vegetative cover generally consists of oak savannah, with mixed mid and tall grasses in the understory and openings. Little bluestem is by far the most abundant grass species. (Exhibit C). Mixed with the grasses, is a sparse component of various forbs and shrubs.

The Western Cross Timbers part of the Area exhibits a vegetative composition similar in many ways to the vegetation of the "original" Cross Timbers as described by Dyksterhuis (1949). "Original" refers to the condition prior to settlement in the early 1800's. Little bluestem (*Andropogon scoparius*) comprises about the same part of the composition (70%) as was projected for the original vegetation. The tall grasses, Indian grass (*Sorghastrum nutans*) and Big bluestem (*Andropogon gerardi*) are present but less abundant than originally. Other grass species are similar in composition to the original.

Trees and shrubs are more abundant than in the general vegetative composition of the original West Cross Timbers, although the location of the Research Natural Area adjacent to a stream channel would suggest a greater proportion of woody plants in the original cover, also.

Several openings are adjacent to the Area on the northern side. These were caused by clearings for farming during the early 1900's. They exhibit signs of erosion, but most of these areas have grown back to native grasses similar in mixture to original vegetation but with greater abundance of forbs and dis-climax species.

The vegetation on the Grand Prairie portion of the Area is not well representative of the general Grand Prairie cover as it occurred prior to settlement. The zone consists mainly of exposed limestone mesas and adjacent transition slopes into the lower Western Cross Timber. (Exhibit D). Although the composition is largely mid and tall grasses similar to the Grand Prairie, their exposure to heavy grazing by livestock, public use for recreation, and their location at the fringe of the Grand Prairie, cause considerable variation from "typical" Grand Prairie vegetation.

Sample relicts of the Grand Prairie zone show a vegetative composition of mid and tall grasses similar to that of the West Cross Timbers with fewer trees. Little bluestem originally constituted about two-thirds of the understory vegetation in both zones, with other mid and tall grasses comprising most of the remaining composition. The present cover on the limestone mesas is a mixture of mid-grasses - Aristidas, Stipas, Boutelouas, and Andropogons, with a variety of perennial forbs.

(2) Geology

The site probably has some significance as a Research Natural Area from the geological standpoint. It encompasses some of the transition zone between Western Cross Timbers and Grand Prairie. The Cross Timbers originally occupied the beach and land adjacent to the shoreline of an inland sea. The sea of Cretaceous times retreated generally to the south and east to the present Gulf of Mexico, leaving adjoining areas of arenaceous and calcareous materials. The calcareous layers formed the parent material for what is now the Grand Prairie and the arenaceous materials developed into the Western Cross Timbers, which being of more open-textured soils, favored tree growth.

The transition between soils of calcareous origin (Grand Prairie) and those of arenaceous origin (Western Cross Timbers) is represented within the Research Natural Area. The Area also illustrates how the more erosive soils of the Cross Timbers have eroded to the extent that the former adjacent lake bed of calcareous materials now generally occupies a higher elevation which partially accounts for the "limestone mesas" overlooking the Western Cross Timbers. (Exhibit D).

(3) Fauna

The Area supports a variety of native wildlife species which are characteristic of prairie and Oak-savannah habitat. Those parts of the Area that have remained in native vegetation have probably always had a wildlife community typical of grassland and Oak-savannah environment, although certain species native to the area have disappeared for various reasons. These include bison, black bear, gray wolf, antelope, wild turkey, prairie chicken, and several lesser species of mammals and birds. The only "big game" species of mammals and birds. The only "big game" species now present is the white-tailed deer. Deer "signs" are numerous on the Area.

The old fields that have returned to native vegetative cover during the past 35 years, have gone through considerable changes

in their wildlife. As the fields were broken and brought under cultivation, habitat conditions changed to favor farm game species such as quail, dove, rabbits and possibly deer. When farming was abandoned and the fields gradually returned to native grass and forb cover, habitat conditions changed to again favor grassland wildlife species and the farm game species declined or disappeared.

Although a detailed listing of wildlife species is not available, partial lists for mammals, reptiles and birds are shown in the attached Exhibit E.

(4) Minerals

The limestone mesas included in the Area contain some surface material suitable for road surfacing. None has been removed from the Research Natural Area although nearby mesas have provided some quarry materials. No removal of surface materials such as sand, gravel or limestone is expected from the area. Further removal from nearby sites will not be allowed, according to the Cross Timbers Unit Plan.

Sub-surface minerals, oil and gas, are being developed and utilized in the vicinity, although there are no developments within the Area. The nearest producing well is approximately one mile southeast. Mineral rights on the Area are reserved to prior owners until November 8, 1991.

(5) Recreation

No recreation developments are planned within or nearby the Area. The nearest developed recreation site is at Black Creek Lake, approximately 1.3 miles south. (Exhibit F).

The Area does receive some dispersed recreation use including hunting, horseback riding, hiking, and bird dog trial activity. The latter use is the only organized dispersed recreation activity directly affecting the Research Natural Area at this time. Bird dog training and trials are held in the vicinity several times during each year, using "planted" as well as wild quails for the hunts. The dogs ordinarily are followed by owners on horseback, either training or judging. The birds are not shot.

The bird dog activity involve some horseback riding within the Area which can be regulated to assure compatibility. Or this use can be eliminated so that the base line data is no longer effected.

A hiking trail connecting Black Creek Lake and Cottonwood Lake Recreation Areas is planned during the next 10 years. It will be located along the mesa tops just east of the Area. The trail location and development will be coordinated to protect the Research Natural Area.

(6) Other Uses

The Area is within a range allotment managed for cattle grazing. Grazing in recent years and the current stocking rate, have provided light use of forage. The Research Natural Area will be fenced to exclude livestock grazing.

Fencing would allow controlled grazing of the Area if desired. More important, fencing would stop O.R.V. use within the area. There would be no impact on the grazing allotment if the area was fenced.

(7) Potential Research Values

It is difficult to itemize detailed research projects that would be conducted on the proposed research natural area until a research management plan is completed with the institutes and researchers that would be directly involved.

The primary research value of the area however, would be to provide base line information with which to compare this natural area with changes that are occurring in other Cross Timbers type areas.

Other values are to conduct a detailed continual monitoring of the area to establish the rate of and direction of change when left undisturbed and natural. To study the rate of recovery from former cultivated and grazed uses. To conduct non-game species research.

Also, use as a field laboratory for the biological sciences. Inventory and monitor vegetational changes over a long period of undisturbed management. Again, the primary value would be the long term availability of base line data.

The U.S. Fish and Wildlife Department has a research natural area within the Western Cross Timbers type. The area is located in Oklahoma, approximately 100 miles North of Wichita Falls, Texas and West of Lawton, Oklahoma. It is located in the Wichita Mountains National Wildlife Refuge. It is approximately 3900 acres in size. The name of the R.N.A. is North Mountain Natural Area. This area is approximately 160 miles from the proposed Cross Timbers Research Natural Area.

The vegetative types are the same. The North Mountain Natural Area has both the Cross Timbers K-84 (approximately 600 acres) and the Bluestem Grand Prairie K-69. There would definitely be duplication of areas if the Cross Timbers area was designated a Research Natural Area.

(8) Ownership Status

Beginning at a common corner of #7 of Tract #390-2 and #2 of Tract #390-3, thence South 85° East for a distance of 660'; then North 62° East for a distance of 660'; then North 15° East for a distance of 1848'; then South 70° East for a distance of 3201'; then South 5° East for a distance of 1188' to the intersection with the North edge of Forest Service Road 900.

Then following the north edge of Forest Service Road 900 in a southwesterly direction with its meanders to the intersection with the east side of Forest Service Road 900-A. Then following the east side of Forest Service Road 900-A in a northerly direction with its meanders to the point of beginning. The proposed R.N.A. is 370 acres and is all in Government ownership. The proposed area covers portion of U.S.A. Tracts numbers 390-1, 390-3, 390-4, 390-6, 390-8, 390-24 and 390-25.

The Area is within the Denton Creek Watershed and is covered by the Denton Creek Watershed Supplemental Work Plan. None of the planned flood retarding structures affect the Area directly. Several small sediment control structures and gully plugs have been constructed within the Area. These have been in place several years and the structures are revegetated and inconspicuous. They should have no effect on the base line date; however, they are and appear unnatural.

There were two public listening sessions on the Cross Timbers Unit Plak. There were no comments by the public at that time either pro or con.

(9) Administration and Protection

The U.S. Forest Service through the District Rangers Office in Decatur, Texas would be responsible for on-the-ground administration and protection. The scientific and educational uses of the R.N.A. would be the responsibility of the Southern Research Station.

EXHIBIT E

Mammals

1. Opossum - *Didelphis marsupialis*
2. Eastern Mole - *Scalopus aquaticus*
3. Raccoon - *Procyon lotor*
4. Long-tailed Weasel - *Mustela frenata*
5. Spotted Skunk - *Spilogale putorius*
6. Striped Skunk - *Mephitis mephitis*
7. Gray Fox - *Urocyon cinereoargenteus*
8. Coyote - *Canis latrans*
9. Bobcat - *Lynx rufus*
10. Thirteen-lined Ground Squirrel - *Citellus tridecemlineatus*
11. Fox Squirrel - *Sciurus niger*
12. Eastern Flying Squirrel - *Glaucomys volans*
13. Plains Pocket Gopher - *Geomys bursarius*
14. Hispid Pocket Mouse - *Perognathus hispidus*
15. Plains Harvest Mouse - *Reithrodontomys montanus*
16. Deer Mouse - *Peromyscus maniculatus*
17. White-footed Mouse - *Peromyscus leucopus*
18. Blacktail Jackrabbit - *Lepus californicus*
19. Eastern Cottontail - *Sylvilagus floridanus*
20. White-tailed Deer - *Odocoileus virginianus*
21. Armadillo - *Dasypus novemcinctus*

Reptiles and Amphibians

1. Common Snapping Turtle - *Chelydra serpentina serpentina*
2. Yellow Mud Turtle - *Kinosternon flavescens flavescens*
3. Ornate Box Turtle - *Terrapene ornata ornata*
4. Eastern Collared Lizard - *Crotaphytus collaris collaris*
5. Texas Horned Lizard - *Phrynosoma cornutum*
6. Diamond-backed Water Snake - *Natrix rhombifera rhombifera*
7. Eastern Hognose Snake - *Heterodon platyrhinos*
8. Eastern Yellow-bellied Racer - *Coluber constrictor flaviventris*
9. Western Coachwhip - *Masticophis flagellum testaceus*
10. Texas Rat Snake - *Elaphe obsoleta lindehimeri*
11. Bullsnake - *Pituophis melanoleucus sayi*
12. Prairie Kingsnake - *Lampropeltis calligaster calligaster*
13. Speckled Kingsnake - *Lampropeltis getulus holbrooki*
14. Broad-banded Copperhead - *Agkistrodon piscivorus leucostoma*
15. Western Cottonmouth - *Agkistrodon piscivorus leucostoma*
16. Timber Rattlesnake - *Crotalus horridus horridus*
17. Western Diamondback Rattlesnake - *Crotalus atrox*
18. Rio Grande Leopard Frog - *Rana pipiens berlandieri*
19. Bullfrog - *Rana catesbeiana*

<u>Birds</u>	<u>Winter</u>	<u>Summer</u>	<u>Year-long</u>	<u>Migrant</u>
1. Canada Goose - <i>Branta canadensis</i>				X
2. White-fronted Goose - <i>Anser albifrons</i>				X
3. Blue Goose - <i>Chen caerulescens</i>				X
4. Snow Goose - <i>Chen hyperborea</i>				X
5. Mallard - <i>Anas platyrhynchos</i>	X			
6. Pintail - <i>Anas acuta</i>	X			
7. Gadwall - <i>Anas strepera</i>	X			
8. American Widgeon - <i>Moreca americana</i>	X			
9. Shoveler - <i>Spatula clypeata</i>				X
10. Blue-winged Teal - <i>Anas discors</i>				X
11. Green-winged Teal - <i>Anas carolinensis</i>	X			
12. Redhead - <i>Aythya americana</i>				X
13. Canvasback - <i>Aythya vailisineria</i>				X
14. Ring-necked Duck - <i>Aythya collaris</i>				X
15. Lesser Scaup - <i>Aythya affinia</i>	X			
16. Common Goldeneye - <i>Bucephala clangula</i>	X			
17. Bufflehead - <i>Bucephala albeola</i>	X			
18. Ruddy Duck - <i>Oxyura jamaicensis</i>				X
19. Common Merganser - <i>Mergus merganser</i>	X			
20. Turkey Vulture - <i>Cathartes aura</i>			X	
21. Black Vulture - <i>Coragyps atratus</i>			X	
22. Mississippi Kite - <i>Ictinia mississippiensis</i>	X			
23. Sharp-shinned Hawk - <i>Accipiter striatus</i>			X	
24. Cooper's Hawk - <i>Accipiter cooperii</i>			X	
25. Marsh Hawk - <i>Circus cyaneus</i>			X	
26. Red-tailed Hawk - <i>Buteo jamaicensis</i>			X	
27. Red-shouldered Hawk - <i>Buteo lineatus</i>			X	
28. Swainson's Hawk - <i>Buteo swainsoni</i>		X		
29. Pigeon Hawk - <i>Falco columbarius</i>				X
30. Sparrow Hawk - <i>Falco sparverius</i>			X	
31. Bobwhite - <i>Colinus virginianus</i>			X	
32. Common Egret - <i>Casmerodius albus</i>		X		
33. Snowy Egret - <i>Leucophoyx thula</i>		X		
34. Little Blue Heron - <i>Florida caerulea</i>		X		
35. Least Bittern - <i>Ixobrychus exilis</i>		X		
36. Whooping Crane - <i>Grus americana</i>				X
37. Sandhill Crane - <i>Grus canadensis</i>				X
38. American Coot - <i>Fulica americana</i>			X	
39. Semipalmated Plover - <i>Charadrius semipalmatus</i>				X
40. Killdeer - <i>Charadrius vociferus</i>			X	
41. Upland Plover - <i>Bartremia longicauda</i>				X
42. Common Snipe - <i>Capella gallinago</i>	X			
43. Bonaparte's Gull - <i>Larus philadelphia</i>				X
44. Mourning Dove - <i>Zenaidura macroura</i>			X	
45. Yellow-billed Cuckoo - <i>Coccyzus americanus</i>		X		
46. Roadrunner - <i>Geococcyx californianus</i>			X	
47. Barn Owl - <i>Tyto alba</i>			X	
48. Barred Owl - <i>Strix varia</i>			X	
49. Screech Owl - <i>Otus asio</i>			X	
50. Great Horned Owl - <i>Bubo virginianus</i>			X	

Birds (cont'd)	Winter	Summer	Year-long	Migrant
51. Chuck-will's-widow - <i>Caprimulgus carolinensis</i>				X
52. Poor-will - <i>Phalaenoptilus nuttallii</i>				X
53. Common Nighthawk - <i>Chordeiles minor</i>		X		
54. Chimney Swift - <i>Chaetura pelagica</i>		X		
55. Ruby-throated Hummingbird - <i>Archilochus colubris</i>		X		
56. Black-chinned Hummingbird - <i>Archilochus alexandri</i>			X	
57. Belted Kingfisher - <i>Megaceryle alcyon</i>				
58. Yellow-shafted Flicker - <i>Colaptes auratus</i>	X			X
59. Red-headed Woodpecker - <i>Melanerpes erythrocephalus</i>				X
60. Ladder-backed Woodpecker - <i>Dendrocopos scalaris</i>		X		
61. Scissor-tailed Flycatcher - <i>Muscivora forficata</i>		X		
62. Eastern Kingbird - <i>Tyrannus tyrannus</i>		X		
63. Western Kingbird - <i>Tyrannus verticalis</i>				X
64. Blue Jay - <i>Cyanocitta cristata</i>				X
65. Common Crow - <i>Corvus brachyrhynchos</i>				X
66. Carolina Chickadee - <i>Parus carolinensis</i>				X
67. Tufted Titmouse - <i>Parus bicolor</i>				X
68. White-breasted Nuthatch - <i>Sitta carolinensis</i>				
69. Brown Creeper - <i>Certhia familiaris</i>	X			
70. House Wren - <i>Troglodytes aedon</i>	X			
71. Mockingbird - <i>Mimus polyglottos</i>		X		X
72. Catbird - <i>Dumetella carolinensis</i>				X
73. Brown Thrasher - <i>Toxostoma rufum</i>				X
74. Robin - <i>Turdus migratorius</i>				X
75. Eastern Bluebird - <i>Sialia sialis</i>		X		
76. Cedar Waxwing - <i>Bombycilla cedrorum</i>				X
77. Loggerhead Shrike - <i>Lanius ludovicianus</i>				X
78. Starling - <i>Sturnus vulgaris</i>				X
79. House Sparrow - <i>Passer domesticus</i>				X
80. Eastern Meadowlark - <i>Sturnella magna</i>				X
81. Western Meadowlark - <i>Sturnella neglecta</i>				X
82. Yellow-headed Blackbird - <i>Xanthocephalus xanthocephalus</i>				X
83. Redwinged Blackbird - <i>Agelaius phoeniceus</i>		X		
84. Rusty Blackbird - <i>Euphagus carolinus</i>		X		
85. Brewer's Blackbird - <i>Euphagus cyanocephalus</i>				X
86. Common Grackle - <i>Quiscalus quiscula</i>			X	
87. Orchard Oriole - <i>Icterus spurius</i>			X	
88. Baltimore Oriole - <i>Icterus galbula</i>				X
89. Scarlet Tanager - <i>Piranga olivacea</i>			X	
90. Summer Tanager - <i>Piranga rubra</i>				X
91. Cardinal - <i>Richmondia cardinalis</i>			X	
92. Indigo Bunting - <i>Passerina cyanea</i>			X	
93. Painted Bunting - <i>Passerina ciris</i>		X		
94. Purple Finch - <i>Carpodacus purpureus</i>		X		
95. American Goldfinch - <i>Spinus tristis</i>			X	
96. Dircicissel - <i>Spiza americana</i>				X
97. Lark Sparrow - <i>Chondestes grammacus</i>		X		
98. Slate-colored Junco - <i>Junco hyemalis</i>				

EXHIBIT F

RECREATION AREAS

CROSS TIMBERS UNIT
 CROSS TIMBERS NATIONAL GRASSLAND
 TEXAS 1970



LEGEND

- Administrative Boundary (tentative)
- County Line
- City Limits
- National Grassland Ownership
- Flood Retention Structure
- District Ranger's Office
- Recreation Area
- Park Center
- Access & Butler Zone
- Existing Access & Butler Zone
- Proposed Access & Butler Zone
- Nature Area (Proposed)
- Hiking Trail (Proposed)
- Gravel Pit
- Point of Interest
- 3.1 Site code number

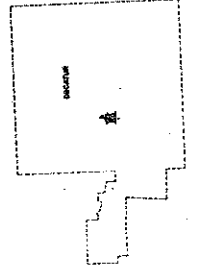
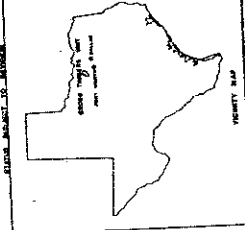
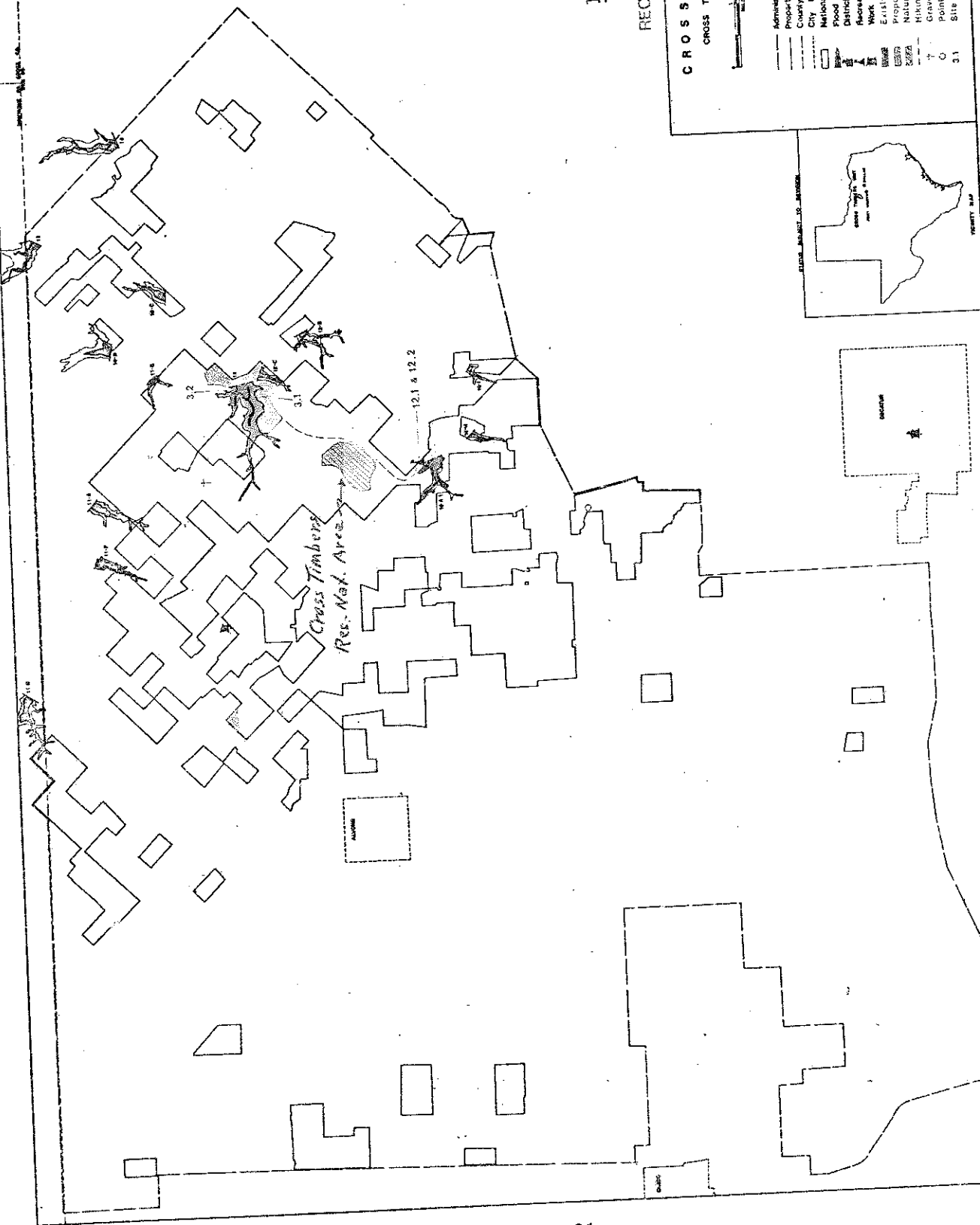


EXHIBIT G

PLANT LIST (Partial)

Cross Timbers Research Natural Area

Grasses and Grass-like

Big bluestem	---	Andropogon Gerardi
Silver bluestem	---	A. saccharoides
Little bluestem	---	A. scoparius
Broomsedge	---	A. virginicus
Prairie threeawn	---	Aristida oligantha
Sideoats grama	---	Bouteloua curtipendula
Hairy grama	---	B. hirsuta
Texas grama	---	B. Texana
Buffalo grass	---	Buchloe dactyloides
Canada wild-rye	---	Elymus canadensis
Plains lovegrass	---	Eragrostis intermedia
Purple lovegrass	---	E. spectabilis
Scribner panicum	---	Panicum Scribnerianum
Indian grass	---	Sorghastrum nutans
Purpletop	---	Tridens flavus
Sedges	---	Carex spp.
Cattail	---	Typha latifolia
Giant rush	---	Juncus spp.

Forbs

Ragweed	---	Ambrosia artemisiifolia
Aster	---	Aster
Partridge pea	---	Cassia fasciculata
Illinois Bundleflower	---	Desmanthus illinoensis
Beggar's-ticks	---	Desmodium spp.
Daisy Fleabane	---	Erigeron strigosus
Slender lespedeza	---	Lespedeza virginica
Gay feather	---	Liatris punctata
Pricklypear	---	Opuntia macrorhiza
Prairie coneflower	---	Petalostemum spp.
Woolly plantain	---	Plantago Purshii
Scurfy pea	---	Psoralea tenuiflora
Prairie coneflower	---	Ratibida columnaris
Black-eyed Susan	---	Rudbeckia hirta
Cat's-claw sensitive-brier	---	Schrandia Nuttallii
Compassplant	---	Silphium laciniatum
Nightshade	---	Solanum spp.

Shrubs and Vines

Flowering dogwood	---	Cornus florida
Rough-leaf dogwood	---	C. Drummondii
Skunk bush	---	Rhus aromatica
Chickasaw plum	---	Prunus angustifolia
Honeysuckle	---	Lonicera spp.
Greenbrier	---	Smilax spp.
Rusty blackhaw	---	Viburnum rufidulum
Coral-berry	---	Symphoricarpos orbiculatus
Wild grape	---	Vitis spp.
Youpon	---	Ilex vomitoria
Yucca	---	Yucca glauca
Lespedeza	---	Lespedeza spp.
Sumac	---	Rhus spp.
Poison Ivy	---	Rhus toxicodendron

Trees

Spanish oak	---	Quercus shumardii
Live oak	---	Q. virginiana
Post oak	---	Q. stellata
Blackjack oak	---	Q. marilandica
Eastern Red-cedar	---	Juniperus virginiana
Redbud	---	Cercis canadensis
Elm	---	Ulmus spp.
Hackberry	---	Celtis occidentalis
Black walnut	---	Juglans nigra
Willow	---	Salix spp.
Eastern cottonwood	---	Populus deltoides
Pecan	---	Carya illinoensis
Persimmon	---	Diospyros virginiana
Red Mulberry	---	Morus rubra
Chittamwood	---	Bumelia lanuginosa