

Appendix 4H

Species of Concern Potentially Affected by the Longhorn Pipeline

Table 4H-1. Species of Concern within Counties Crossed by the Longhorn Pipeline System

Species of Concern	Austin	Bastrop	Blanco	Crane	Crockett	Culberson	Ector	El Paso	Fayette	Gillespie	Harris	Hays	Hudspeth	Kimble	Mason	Menard	Pecos	Reagan	Reeves	Schleicher	Travis	Upton	Waller	Ward
Birds																								
American Peregrine Falcon <i>Falco peregrinus anatum</i>	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X
Arctic Peregrine Falcon <i>Falco peregrinus tundrius</i>	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X
Attwater's Greater Prairie-Chicken <i>Tympanuchus cupido attwateri</i>	X										X												X	
Audubon's Oriole <i>Icterus graduacauda audubonii</i>		X																						
Bald Eagle <i>Haliaeetus leucocephalus</i>	X	X							X	X	X										X		X	
Black-Capped Vireo <i>Vireo atricapillus</i>			X		X					X		X		X		X	X	X		X	X	X		
Black Rail <i>Laterallus jamaicensis</i>											X													
Brown Pelican <i>Pelecanus occidentalis</i>											X													
Ferruginous Hawk <i>Buteo regalis</i>						X	X	X					X				X							
Golden-Cheeked Warbler <i>Dendroica chrysoparia</i>			X							X		X		X	X	X					X			
Henslow's Sparrow <i>Ammodramus henslowii</i>											X	X									X		X	
Interior Least Tern <i>Sterna antillarum athalassos</i>		X	X		X				X	X				X	X	X		X		X		X		
Least Tern <i>Sterna antillarum</i>								X																
Loggerhead Shrike <i>Lanius ludovicianus</i>	X	X	X	X	X																			

Table 4H-1. (Continued)

Species of Concern	Austin	Bastrop	Blanco	Crane	Crockett	Culberson	Ector	El Paso	Fayette	Gillespie	Harris	Hays	Hudspeth	Kimble	Mason	Menard	Pecos	Reagan	Reeves	Schleicher	Travis	Upton	Waller	Ward
Mexican Spotted Owl <i>Strix occidentalis lucida</i>						X		X					X											
Mountain Plover <i>Charadrius montanus</i>											X										X		X	
Northern Aplomado Falcon <i>Falco femoralis septentrionalis</i>								X					X						X					
Northern Goshawk <i>Accipiter gentilis</i>						X		X					X											
Peregrine Falcon <i>Falco peregrinus</i>	X				X	X		X								X			X	X				
Piping Plover <i>Charadrius melodus</i>											X													
Reddish Egret <i>Egretta rufescens</i>		X									X													
Sandhill Goosefoot <i>Chenopodium cycloides</i>				X																				X
Snowy Plover <i>Charadrius alexandrinus</i>											X													
Southwestern Willow Flycatcher <i>Empidonax traillii extimus</i>						X		X					X											
Swallow-tailed Kite <i>Elanoides forficatus</i>											X													
Western Burrowing Owl <i>Athene cunicularia hypugea</i>				X	X	X	X	X					X				X	X	X			X		X
White-faced Ibis <i>Plegadis chihi</i>		X		X		X	X	X			X		X				X		X	X	X		X	
White-tailed Hawk <i>Buteo albicaudatus</i>											X												X	
Whooping Crane <i>Grus americana</i>	X	X	X						X	X	X	X		X	X	X					X		X	

Table 4H-1. (Continued)

Species of Concern	Austin	Bastrop	Blanco	Crane	Crockett	Culberson	Ector	El Paso	Fayette	Gillespie	Harris	Hays	Hudspeth	Kimble	Mason	Menard	Pecos	Reagan	Reeves	Schleicher	Travis	Upton	Waller	Ward
Wood Stork <i>Mycteria americana</i>	X								X		X												X	
Zone-tailed Hawk <i>Buteo Albonotatus</i>						X		X		X		X		X					X	X				
Plants																								
Alamo beardtongue <i>Penstemon alamosensis</i>								X																
Basin bellflower <i>Campanula reverchonii</i>																					X			
Biennial woollywhite <i>Hymenopappus biennis</i>						X																		
Big red sage <i>Salvia penstemonoides</i>										X											X			
Bracted twistflower <i>Streptanthus bracteatus</i>																					X			
Broad-pod rushpea <i>Caesalpinia brachycarpa</i>					X																			
Bushy wild-buckwheat <i>Eriogonum suffruticosum</i>																	X							
Canyon mock orange <i>Philadelphus ernestii</i>			X									X									X			
Chisos agave <i>Agave glomeruliflora</i>						X							X											
Chisos coral-root <i>Hexalectris revoluta</i>						X																		
Clear Creek gambusia <i>Gambusia heterochir</i>																X								
Coastal gay-feather <i>Liatris bracteata</i>											X												X	

Table 4H-1. (Continued)

Species of Concern	Austin	Bastrop	Blanco	Crane	Crockett	Culberson	Ector	El Paso	Fayette	Gillespie	Harris	Hays	Hudspeth	Kimble	Mason	Menard	Pecos	Reagan	Reeves	Schleicher	Travis	Upton	Waller	Ward
Comal snakeweed <i>Colubrina stricta</i>								X																
Correll's false dragon-head <i>Physostegia correllii</i>																					X			
Dense cory cactus <i>Coryphantha dasyacantha</i> var. <i>dasyacantha</i>								X					X				X							
Desert night-blooming cereus <i>Cereus greggii</i> var. <i>greggii</i>								X					X				X							
Dune umbrella-sedge <i>Cyperus onerosus</i>																								X
Dune unicorn-plant <i>Proboscidea sabulosa</i>				X																				X
Edward's Plateau cornsalad <i>Valerianella texana</i>										X														
Few-flowered jewelflower <i>Streptanthus sparsiflorus</i>						X																		
Foster's rock-daisy <i>Perityle fosteri</i>						X																		
Glass Mountain coral-root <i>Hexalectris nitida</i>																					X			
Golden wave tickseed <i>Coreopsis intermedia</i>											X													
Granite spiderwort <i>Tradescantia pedicellata</i>			X												X									
Grayleaf rock-daisy <i>Perityle cinerea</i>																			X			X		
Guadalupe fescue <i>Festuca ligulata</i>						X																		

Table 4H-1. (Continued)

Species of Concern	Austin	Bastrop	Blanco	Crane	Crockett	Culberson	Ector	El Paso	Fayette	Gillespie	Harris	Hays	Hudspeth	Kimble	Mason	Menard	Pecos	Reagan	Reeves	Schleicher	Travis	Upton	Waller	Ward
Guadalupe Mountains aster <i>Aster laevis</i> var. <i>guadalupensis</i>						X																		
Guadalupe Mountains columbine <i>Aquilegia chrysantha</i> var. <i>chaplinae</i>						X																		
Guadalupe Mountains mescal bean <i>Sophora gypsophila</i> var. <i>guadalupensis</i>						X																		
Guadalupe Mountains violet <i>Viola guadalupensis</i>						X																		
Guadalupe Mountains pincushion cactus <i>Escobaria guadalupensis</i>						X																		
Guadalupe rabbitbrush <i>Chrysothamnus nauseosus</i> ssp. <i>texensis</i>						X																		
Gyp locoweed <i>Astragalus gypsodes</i>						X							X						X					
Gypsum scalebroom <i>Lepidospartum burgessii</i>													X											
Gypsum wild-buckwheat <i>Eriogonum gypsophyllum</i>						X																		
Hardtoe seepweed <i>Suaeda duripes</i>																	X		X					
Hester's cory cactus <i>Coryphantha hesteri</i>																	X							
Hill Country wild-mercury <i>Argythamnia aphanoides</i>			X							X		X				X								
Hite column cory cactus <i>Coryphantha albicolumnaria</i>																	X							
Houston machaeranthera <i>Machaeranthera aurea</i>											X													

Table 4H-1. (Continued)

Species of Concern	Austin	Bastrop	Blanco	Crane	Crockett	Culberson	Ector	El Paso	Fayette	Gillespie	Harris	Hays	Hudspeth	Kimble	Mason	Menard	Pecos	Reagan	Reeves	Schleicher	Travis	Upton	Waller	Ward
Houston meadow rue <i>Thalictrum texanum</i>									X		X												X	
Hueco rock-daisy <i>Perityle huecoensis</i>								X																
Irion County wild-buckwheat <i>Eriogonum nealleyi</i>																		X						
Lloyd's hedgehog cactus <i>Echinocereus lloydii</i>						X											X							
Mat leastdaisy <i>Chaetopappa hersheyi</i>						X							X											
McKittrick pennyroyal <i>Hedeoma apiculatum</i>						X																		
McKittrick snowberry <i>Symphoricarpos guadalupensis</i>						X																		
Murray's plum <i>Prunus murrayana</i>						X																		
Navasota ladies'-tresses <i>Spiranthes parksii</i>									X															
Neglected sunflower <i>Helianthus neglectus</i>																								X
Paper-spine cactus <i>Sclerocactus papyracanthus</i>													X											
Puzzle sunflower <i>Helianthus paradoxus</i>																	X		X					
Resin-leaf brickellbush <i>Brickellia baccharidea</i>								X																
Rock crevice milkwort <i>Polygala rimulicola</i> var. <i>rimulicola</i>						X							X											
Rock quillwort <i>Isoetes lithophila</i>															X									

Table 4H-1. (Continued)

Species of Concern	Austin	Bastrop	Blanco	Crane	Crockett	Culberson	Ector	El Paso	Fayette	Gillespie	Harris	Hays	Hudspeth	Kimble	Mason	Menard	Pecos	Reagan	Reeves	Schleicher	Travis	Upton	Waller	Ward	
Royal red penstemon <i>Penstemon cardinalis</i> ssp. <i>regalis</i>						X																			
Sand prickly-pear <i>Opuntia arenaria</i>								X					X												
Sand sacahuista <i>Nolina arenicola</i>						X		X					X												
Sandhill goosefoot <i>Chenopodium cycloides</i>						X		X																	
Smooth-stem skullcap <i>Scutellaria laevis</i>						X							X												
Sneed pincushion cactus <i>Coryphantha sneedii</i> var. <i>sneedii</i>								X																	
Sonora fleabane <i>Erigeron mimegletes</i>					X															X					
Sparsely-flowered jewelflower <i>Streptanthus sparsiflorus</i>						X																			
Strong bladderpod <i>Lesquerella valida</i>						X							X												
Swallow spurge <i>Chamaesyce golondrina</i>													X												
Terlingua brickellbush <i>Brickellia brachyphylla</i> var. <i>terlinguensis</i>													X												
Texabama croton <i>Croton alabamensis</i>																					X				
Texas false saltgrass <i>Allolepsis texana</i>								X																	
Texas prairie dawn <i>Hymenoxys texana</i>											X												X		

Table 4H-1. (Continued)

Species of Concern	Austin	Bastrop	Blanco	Crane	Crockett	Culberson	Ector	El Paso	Fayette	Gillespie	Harris	Hays	Hudspeth	Kimble	Mason	Menard	Pecos	Reagan	Reeves	Schleicher	Travis	Upton	Waller	Ward
Texas purple spike <i>Hexalectris warnockii</i>										X		X												
Texas snowbells <i>Styrax texana</i>														X										
Texas wild-rice <i>Zizania texana</i>												X												
Texas windmill-grass <i>Chloris texensis</i>											X													
Texas wolfberry <i>Lycium texanum</i>						X							X											
Tharp's blue-star <i>Amsonia tharpii</i>																	X							
Threeflower broomweed <i>Thurovia triflora</i>											X													X
Tobusch fishhook cactus <i>Ancistrocactus tobuschii</i>														X										
Two-bristle rock-daisy <i>Perityle bisetosa</i> var. <i>bisetosa</i>																	X							
Umbrella dune sedge <i>Cyperus onerosus</i>																								X
Warnock's coral-root <i>Hexalectris warnockii</i>										X		X												
Watson's false clappia-bush <i>Pseudoclapfia watsonii</i>													X											
Wheeler's spurge <i>Chamaesyce geyeri</i> var. <i>wheeleriana</i>								X					X											
Wright's water-willow <i>Justicia wrightii</i>																	X							
Wright's trumpets <i>Acleisanthes wrightii</i>																			X					

Table 4H-1. (Continued)

Species of Concern	Austin	Bastrop	Blanco	Crane	Crockett	Culberson	Ector	El Paso	Fayette	Gillespie	Harris	Hays	Hudspeth	Kimble	Mason	Menard	Pecos	Reagan	Reeves	Schleicher	Travis	Upton	Waller	Ward	
Mammals																									
Arizona black-tailed prairie dog <i>Cynomys ludovicianus arizonensis</i>						X		X					X						X						
Black bear <i>Ursus americanus</i>					X	X												X							
Black-footed ferret <i>Mustela nigripes</i>																			X						
Cave myotis bat <i>Myotis velifer</i>			X		X							X	X	X	X							X			
Davis Mt. cottontail rabbit <i>Sylvilagus floridanus robustus</i>						X											X								
Desert pocket gopher <i>Geomys bursarius arenarius</i>						X		X					X												
Elliot's short-tailed shrew <i>Blarina hylophaga hylophaga</i>		X																							
Fringed myotis bat <i>Myotis thysanodes</i>						X		X					X												
Gray-footed chipmunk <i>Tamias canipes</i>						X																			
Gray wolf <i>Canis lupus (extirpated)</i>					X	X								X				X				X		X	
Guadalupe southern pocket gopher <i>Thomomys umbrinus guadalupensis</i>						X																			
Jones' pocket gopher <i>Geomys knoxjonesi</i>				X																					X
Llano pocket gopher <i>Geomys texensis texensis</i>			X							X				X	X										
Long-legged myotis bat <i>Myotis volans</i>						X																			

Table 4H-1. (Continued)

Species of Concern	Austin	Bastrop	Blanco	Crane	Crockett	Culberson	Ector	El Paso	Fayette	Gillespie	Harris	Hays	Hudspeth	Kimble	Mason	Menard	Pecos	Reagan	Reeves	Schleicher	Travis	Upton	Waller	Ward
Occult little brown bat <i>Myotis lucifugus occultus</i>													X											
Pecos River muskrat <i>Ondatra zibethicus ripensis</i>								X											X					
Plains spotted skunk <i>Spilogale putorius interrupta</i>									X	X	X										X		X	
Rafinesque's big-eared bat <i>Corynorhinus rafinesquii</i>											X													
Red wolf <i>Canis rufus (extirpated)</i>	X										X				X					X				
Southeastern myotis <i>Myotis austroriparius</i>											X													
Swift fox <i>Vulpes velox</i>				X	X		X									X								
Yuma myotis bat <i>Myotis yumanensis</i>								X																
Reptiles																								
Alligator snapping turtle <i>Macrolemys temmincki</i>											X												X	
American alligator <i>Alligator mississippiensis</i>											X													
Atlantic hawksbill sea turtle <i>Eretmochelys imbricata</i>											X													
Big Bend slider <i>Trachemys gaigeae</i>								X					X											
Cagle's map turtle <i>Graptemys caglei</i>												X												
Dunes sagebrush lizard <i>Sceloporus arenicolus</i>				X																				X

Table 4H-1. (Continued)

Species of Concern	Austin	Bastrop	Blanco	Crane	Crockett	Culberson	Ector	El Paso	Fayette	Gillespie	Harris	Hays	Hudspeth	Kimble	Mason	Menard	Pecos	Reagan	Reeves	Schleicher	Travis	Upton	Waller	Ward
Green sea turtle <i>Chelonia mydas</i>											X													
Gulf saltmarsh snake <i>Nerodia clarkii</i>											X													
Keeled earless lizard <i>Holbrookia propinqua</i>												X												
Kemp's ridley sea turtle <i>Lepidochelys kempii</i>											X													
Leatherback sea turtle <i>Dermochelys coriacea</i>											X													
Loggerhead sea turtle <i>Caretta caretta</i>											X													
Mountain short-horned lizard <i>Phrynosoma hernandesi</i>						X		X					X											
New Mexico garter snake <i>Thamnophis sirtalis dorsalis</i>								X																
Smooth green snake <i>Liochlorophis vernalis</i>	X										X												X	
Spot-tailed earless lizard <i>Holbrookia lacerata</i>		X	X		X					X		X		X		X		X		X	X			X
Texas diamondback terrapin <i>Malaclemys terrapin littoralis</i>											X													
Texas garter snake <i>Thamnophis sirtalis annectans</i>	X	X	X								X	X									X		X	
Texas horned lizard <i>Phrynosoma cornutum</i>	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Texas lyre snake <i>Trimorphodon biscutatus</i>								X					X											
Timber/canebrake rattlesnake <i>Crotalus horridus</i>	X	X									X												X	

Table 4H-1. (Continued)

Species of Concern	Austin	Bastrop	Blanco	Crane	Crockett	Culberson	Ector	El Paso	Fayette	Gillespie	Harris	Hays	Hudspeth	Kimble	Mason	Menard	Pecos	Reagan	Reeves	Schleicher	Travis	Upton	Waller	Ward
Amphibians																								
Barton Springs salamander <i>Eurycea sosorum</i>																					X			
Blanco blind salamander <i>Eurycea robusta</i>												X												
Blanco River Springs salamander <i>Eurycea pterophila</i>												X												
Edwards Plateau Springs salamander <i>Eurycea sp. 7</i>										X		X									X			
Houston toad <i>Bufo houstonensis</i>	X	X									X													
Jollyville Plateau salamander <i>Eurycea sp.</i>																					X			
Northern leopard frog <i>Rana pipiens</i>								X																
Pedernales River springs salamander <i>Eurycea sp. 6</i>										X											X			
San Marcos salamander <i>Eurycea nana</i>												X												
Texas blind salamander <i>Typhlomolge rathbuni</i>												X												
Texas salamander <i>Eurycea neotenes</i>			X							X		X												
Invertebrates																								
A cave spider <i>Cicurina cueva</i>																					X			
An amphipod <i>Stygobromus russelli</i>																					X			
Balcones cave amphipod <i>Stygobromus balconis</i>																					X			

Table 4H-1. (Continued)

Species of Concern	Austin	Bastrop	Blanco	Crane	Crockett	Culberson	Ector	El Paso	Fayette	Gillespie	Harris	Hays	Hudspeth	Kimble	Mason	Menard	Pecos	Reagan	Reeves	Schleicher	Travis	Upton	Waller	Ward
Balmorhea damselfly <i>Argia</i> sp.																			X					
Balmorhea saddle-case caddisfly <i>Protophila balmorhea</i>																			X					
Bandit cave spider <i>Cicurina bandida</i>																					X			
Barbara Ann tiger beetle <i>Cicindela politula barbarannae</i>													X											
Bee Creek cave harvestman <i>Texella reddelli</i>																					X			
Bifurcated cave amphipod <i>Stygobromus bifurcatus</i>																					X			
Blue sucker <i>Cycleptus elongatus</i>		X										X									X			
Bone Cave harvestman <i>Texella reyesi</i>																					X			
Clear Creek amphipod <i>Hyaella texana</i>																X								
Comal Springs dryopid beetle <i>Stygoparnus comalensis</i>												X												
Comal Springs riffle beetle <i>Heterelmis comalensis</i>												X												
Edward's Aquifer diving beetle <i>Haidesporus texana</i>												X												
Ezell's Cave amphipod <i>Stygobromus flagellatus</i>												X												
Flint's net-spinning caddisfly <i>Cheumatopsyche flinti</i>												X												
Franklin Mountain talus snail <i>Sonorella metcalfi</i>								X																

Table 4H-1. (Continued)

Species of Concern	Austin	Bastrop	Blanco	Crane	Crockett	Culberson	Ector	El Paso	Fayette	Gillespie	Harris	Hays	Hudspeth	Kimble	Mason	Menard	Pecos	Reagan	Reeves	Schleicher	Travis	Upton	Waller	Ward
Franklin Mountain wood snail <i>Ashmunella pasonis</i>								X																
Gonzales Spring tryonia (snail) <i>Tryonia stocktonensis</i>																	X							
Guadalupe cave pseudoscorpion <i>Archeolarca guadalupensis</i>						X																		
Guadalupe Mountains tiger beetle <i>Cicindela politula petrophila</i>						X																		
Horseshoe liptooth <i>Polygyra hippocrepis</i>												X												
Kretschmarr Cave mold beetle <i>Texamaurops reddelli</i>																					X			
Pecos amphipod <i>Gammarus pecos</i>																	X							
Pecos assiminea snail <i>Assiminea pecos</i>																	X							
Phantom cave spring tryonia (Cheatum's snail) <i>Tryonia cheatumi</i>																			X					
Phantom Lake cave snail <i>Cochliopa texana</i>																			X					
San Marcos saddle-case caddisfly <i>Protophila arca</i>												X												
Texas cave diving beetle <i>Haideoporus texanus</i>												X												
Texas cave shrimp <i>Palaemonetes antrorum</i>												X												
Texas hornshell (mussel) <i>Popenaias popei</i>																	X							

Table 4H-1. (Continued)

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Texas minute moss beetle <i>Limnebius texanus</i>						X																		
Tooth Cave blind rove beetle <i>Cylindropsis sp. 1</i>																					X			
Tooth Cave ground beetle <i>Rhadine persephone</i>																					X			
Tooth Cave pseudoscorpion <i>Tartarocreagris texana</i>																					X			
Tooth Cave Spider <i>Neoleptoneta myopica</i>																					X			
Western diamond springsnail <i>Tryonia adamantina</i>																	X							
Wharton's cave spider <i>Cicurina wartoni</i>																					X			
Fish																								
Bluntnose shiner <i>Notropis simus (extirpated)</i>								X																
Clear Creek gambusia <i>Gambusia heterochir</i>																X								
Comanche Springs pupfish <i>Cyprinodon elegans</i>																			X					
Creek chubsucker <i>Erimyzon oblongus</i>											X												X	
Guadalupe bass <i>Micropterus treculi</i>			X							X		X		X	X	X				X	X			
Fountain darter <i>Etheostoma fonticola</i>												X												
Headwater catfish <i>Ictalurus lupus</i>																X								

Table 4H-1. (Continued)

Species of Concern	Austin	Bastrop	Blanco	Crane	Crockett	Culberson	Ector	El Paso	Fayette	Gillespie	Harris	Hays	Hudspeth	Kimble	Mason	Menard	Pecos	Reagan	Reeves	Schleicher	Travis	Upton	Waller	Ward
Leon Springs pupfish <i>Cyprinodon bovinus</i>																	X							
Pecos gambusia <i>Gambusia nobilis</i>																			X					
Pecos pupfish <i>Cyprinodon pecosensis</i>				X	X	X											X		X					X
Proserpine shiner <i>Cyprinella proserpina</i>				X	X												X		X					
Rio Grande darter <i>Etheostoma grahami</i>					X																			
San Marcos gambusia <i>Gambusia georgei (extirpated)</i>												X												
Smalleye shiner <i>Notropis buccula</i>																					X			

Source: Compiled from Annotated County List of Rare Species, Texas Parks and Wildlife Department, and county lists provided by the U.S. Fish and Wildlife Service.