

APPENDIX 1A

*THREATENED AND ENDANGERED SPECIES IN THE LOWER
COLORADO REGIONAL WATER PLANNING AREA
(Texas Parks and Wildlife Department Special Species Lists and Annotated
County Lists of Rare Species)*

KEY: COUNTY THREATENED OR ENDANGERED SPECIES

LE,LT Federally Listed Endangered/Threatened
 PE,PT Federally Proposed Endangered/Threatened
 SAE, SAT Federally Endangered/Threatened by Similarity of Appearance
 C1 Federal Candidate for Listing, formerly Category 1 Candidate

DL,PDL Federally Delisted/Proposed for Delisting
 NL Not Federally Listed
 E,T State Listed Endangered/Threatened
 NT Not tracked or no longer tracked by the State
 “blank” Rare, but with no regulatory listing status

Species appearing on these lists do not all share the same probability of occurrence. Some species are migrants or wintering residents only, or may be historic or considered extirpated.

Source: Texas Parks and Wildlife Department Special Species Lists and Annotated County Lists of Rare Species (current as of November 2014)

TABLE 1A-1: THREATENED OR ENDANGERED SPECIES OF BASTROP COUNTY

Common Name	Scientific Name	Description	Federal Status	State Status
AMPHIBIANS				
Houston Toad	<i>Anaxyrus houstonensis</i>	endemic; sandy substrate, water in pools, ephemeral pools, stock tanks; breeds in spring especially after rains; burrows in soil of adjacent uplands when inactive; breeds February-June; associated with soils of the Sparta, Carrizo, Goliad, Queen City, Recklaw, Weches, and Willis geologic formations	LE	E
BIRDS				
American Peregrine Falcon	<i>Falco peregrinus anatum</i>	year-round resident and local breeder in west Texas, nests in tall cliff eyries; also, migrant across state from more northern breeding areas in US and Canada, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.	DL	T
Arctic Peregrine Falcon	<i>Falco peregrinus tundrius</i>	migrant throughout state from subspecies' far northern breeding range, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.	DL	
Bald Eagle	<i>Haliaeetus leucocephalus</i>	found primarily near rivers and large lakes; nests in tall trees or on cliffs near water; communally roosts, especially in winter; hunts live prey, scavenges, and pirates food from other birds	DL	T
Henslow's Sparrow	<i>Ammodramus henslowii</i>	wintering individuals (not flocks) found in weedy fields or cut-over areas where lots of bunch grasses occur along with vines and brambles; a key component is bare ground for running/walking		
Interior Least Tern	<i>Sterna antillarum athalassos</i>	subspecies is listed only when inland (more than 50 miles from a coastline); nests along sand and gravel bars within braided streams, rivers; also know to nest on man-made structures (inland beaches, wastewater treatment plants, gravel mines, etc); eats small fish and crustaceans, when breeding forages within a few hundred feet of colony	LE	E
Mountain Plover	<i>Charadrius montanus</i>	breeding: nests on high plains or shortgrass prairie, on ground in shallow depression; nonbreeding: shortgrass plains and bare, dirt (plowed) fields; primarily insectivorous		
Peregrine Falcon	<i>Falco peregrinus</i>	both subspecies migrate across the state from more northern breeding areas in US and Canada to winter along coast and farther south; subspecies (F. p. anatum) is also a resident breeder in west Texas; the two subspecies' listing statuses differ, F.p. tundrius is no longer listed in Texas; but because the subspecies are not easily distinguishable at a distance, reference is generally made only to the species level; see subspecies for habitat.	DL	T
Sprague's Pipit	<i>Anthus spragueii</i>	only in Texas during migration and winter, mid September to early April; short to medium distance, diurnal migrant; strongly tied to native upland prairie, can be locally common in coastal grasslands, uncommon to rare further west; sensitive to patch size and avoids edges.	C	
Western Burrowing Owl	<i>Athene cunicularia hypugaea</i>	open grasslands, especially prairie, plains, and savanna, sometimes in open areas such as vacant lots near human habitation or airports; nests and roosts in abandoned burrows		
Whooping Crane	<i>Grus americana</i>	potential migrant via plains throughout most of state to coast; winters in coastal marshes of Aransas, Calhoun, and Refugio counties	LE	E
Wood Stork	<i>Mycteria americana</i>	forages in prairie ponds, flooded pastures or fields, ditches, and other shallow standing water, including salt-water; usually roosts communally in tall snags, sometimes in association with other wading birds (i.e. active heronries); breeds in Mexico and birds move into Gulf States in search of mud flats and other wetlands, even those associated with forested areas; formerly nested in Texas,		T

Common Name	Scientific Name	Description	Federal Status	State Status
		but no breeding records since 1960		
CRUSTACEANS				
A crayfish	<i>Procambarus texanus</i>	ponds		
FISHES				
Blue sucker	<i>Cycleptus elongatus</i>	larger portions of major rivers in Texas; usually in channels and flowing pools with a moderate current; bottom type usually of exposed bedrock, perhaps in combination with hard clay, sand, and gravel; adults winter in deep pools and move upstream in spring to spawn on riffles		T
Guadalupe bass	<i>Micropterus treculii</i>	endemic to perennial streams of the Edward's Plateau region; introduced in Nueces River system		
MAMMALS				
Cave myotis bat	<i>Myotis velifer</i>	colonial and cave-dwelling; also roosts in rock crevices, old buildings, carports, under bridges, and even in abandoned Cliff Swallow (<i>Hirundo pyrrhonota</i>) nests; roosts in clusters of up to thousands of individuals; hibernates in limestone caves of Edwards Plateau and gypsum cave of Panhandle during winter; opportunistic insectivore		
Elliot's short-tailed shrew	<i>Blarina hylophaga hylophaga</i>	sandy areas in live oak mottes, grassy areas with a Loblolly pine (<i>Pinus taeda</i>) overstory, and grassy areas near Post oak (<i>Quercus stellata</i>) stands; burrows extensively under leaf litter, logs, and into soil, but ground cover is not required; needs soft damp soils for ease of burrowing		
Plains spotted skunk	<i>Spilogale putorius interrupta</i>	catholic; open fields, prairies, croplands, fence rows, farmyards, forest edges, and woodlands; prefers wooded, brushy areas and tallgrass prairie		
Red wolf	<i>Canis rufus</i>	extirpated; formerly known throughout eastern half of Texas in brushy and forested areas, as well as coastal prairies	LE	E
MOLLUSKS				
Creeper (squawfoot)	<i>Strophitus undulatus</i>	small to large streams, prefers gravel or gravel and mud in flowing water; Colorado, Guadalupe, San Antonio, Neches (historic), and Trinity (historic) River basins		
False spike mussel	<i>Quadrula mitchelli</i>	possibly extirpated in Texas; probably medium to large rivers; substrates varying from mud through mixtures of sand, gravel and cobble; one study indicated water lilies were present at the site; Rio Grande, Brazos, Colorado, and Guadalupe (historic) river basins		T
Smooth pimpleback	<i>Quadrula houstonensis</i>	small to moderate streams and rivers as well as moderate size reservoirs; mixed mud, sand, and fine gravel, tolerates very slow to moderate flow rates, appears not to tolerate dramatic water level fluctuations, scoured bedrock substrates, or shifting sand bottoms, lower Trinity (questionable), Brazos, and Colorado River basins	C	T
Texas fawnsfoot	<i>Truncilla macrodon</i>	little known; possibly rivers and larger streams, and intolerant of impoundment; flowing rice irrigation canals, possibly sand, gravel, and perhaps sandy-mud bottoms in moderate flows; Brazos and Colorado River basins	C	T
Texas pimpleback	<i>Quadrula petrina</i>	mud, gravel and sand substrates, generally in areas with slow flow rates; Colorado and Guadalupe river basins	C	T
REPTILES				
Texas garter snake	<i>Thamnophis sirtalis annectens</i>	wet or moist microhabitats are conducive to the species occurrence, but is not necessarily restricted to them; hibernates underground or in or under surface cover; breeds March-August		
Texas horned lizard	<i>Phrynosoma cornutum</i>	open, arid and semi-arid regions with sparse vegetation, including grass, cactus, scattered brush or scrubby trees; soil may vary in texture from sandy to rocky; burrows into soil, enters rodent burrows, or hides under rock when inactive; breeds March-September		T
Timber rattlesnake	<i>Crotalus horridus</i>	swamps, floodplains, upland pine and deciduous woodlands, riparian zones, abandoned farmland; limestone bluffs, sandy soil or black		T

Common Name	Scientific Name	Description	Federal Status	State Status
clay; prefers dense ground cover, i.e. grapevines or palmetto				
PLANTS				
Green beebalm	<i>Monarda viridissima</i>	Endemic perennial herb of the Carrizo Sands; deep, well-drained sandy soils in openings of post oak woodlands; flowers white.		
Navasota ladies'-tresses	<i>Spiranthes parksii</i>	Texas endemic; openings in post oak woodlands in sandy loams along upland drainages or intermittent streams, often in areas with suitable hydrologic factors, such as a perched water table associated with the underlying claypan; flowering populations fluctuate widely from year to year, an individual plant does not flower every year; flowering late October-early November (-early December)	LE	E
Sandhill woollywhite	<i>Hymenopappus carrizoanus</i>	Texas endemic; disturbed or open areas in grasslands and post oak woodlands on deep sands derived from the Carrizo Sand and similar Eocene formations; flowering April-June		
Shinner's sunflower	<i>Helianthus occidentalis</i> ssp <i>plantagineus</i>	mostly in prairies on the Coastal Plain, with several slightly disjunct populations in the Pineywoods and South Texas Brush Country		

TABLE 1A-2: THREATENED OR ENDANGERED SPECIES OF BLANCO COUNTY

Common Name	Scientific Name	Description	Federal Status	State Status
AMPHIBIANS				
Blanco River Springs Salamander	<i>Eurycea pterophila</i>	subaquatic; springs and caves in the Blanco River drainage		
BIRDS				
American Peregrine Falcon	<i>Falco peregrinus anatum</i>	year-round resident and local breeder in west Texas, nests in tall cliff eyries; also, migrant across state from more northern breeding areas in US and Canada, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.	DL	T
Arctic Peregrine Falcon	<i>Falco peregrinus tundrius</i>	migrant throughout state from subspecies' far northern breeding range, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.	DL	
Bald Eagle	<i>Haliaeetus leucocephalus</i>	found primarily near rivers and large lakes; nests in tall trees or on cliffs near water; communally roosts, especially in winter; hunts live prey, scavenges, and pirates food from other birds	DL	T
Black-capped Vireo	<i>Vireo atricapilla</i>	oak-juniper woodlands with distinctive patchy, two-layered aspect; shrub and tree layer with open, grassy spaces; requires foliage reaching to ground level for nesting cover; return to same territory, or one nearby, year after year; deciduous & broad-leaved shrubs & trees provide insects for feeding; species composition less important than presence of adequate broad-leaved shrubs, foliage to ground level, and required structure; nesting season March-late summer	LE	E
Golden-cheeked Warbler	<i>Setophaga chrysoparia</i>	juniper-oak woodlands; dependent on Ashe juniper (also known as cedar) for long fine bark strips, only available from mature trees, used in nest construction; nests are placed in various trees other than Ashe juniper; only a few mature junipers or nearby cedar brakes can provide the necessary nest material; forage for insects in broad-leaved trees and shrubs; nesting late March-early summer	LE	E
Mountain Plover	<i>Charadrius montanus</i>	breeding: nests on high plains or shortgrass prairie, on ground in shallow depression; nonbreeding: shortgrass plains and bare, dirt (plowed) fields; primarily insectivorous		
Peregrine Falcon	<i>Falco peregrinus</i>	both subspecies migrate across the state from more northern breeding areas in US and Canada to winter along coast and farther south; subspecies (F. p. anatum) is also a resident breeder in west Texas; the two subspecies' listing statuses differ, F.p. tundrius is no longer listed in Texas; but because the subspecies are not easily distinguishable at a distance, reference is generally made only to the species level; see subspecies for habitat.	DL	T
Sprague's Pipit	<i>Anthus spragueii</i>	only in Texas during migration and winter, mid September to early April; short to medium distance, diurnal migrant; strongly tied to native upland prairie, can be locally common in coastal grasslands, uncommon to rare further west; sensitive to patch size and avoids edges.	C	
Western Burrowing Owl	<i>Athene cunicularia hypugaea</i>	open grasslands, especially prairie, plains, and savanna, sometimes in open areas such as vacant lots near human habitation or airports; nests and roosts in abandoned burrows		
Whooping Crane	<i>Grus americana</i>	potential migrant via plains throughout most of state to coast; winters in coastal marshes of Aransas, Calhoun, and Refugio counties	LE	E
Zone-tailed Hawk	<i>Buteo albonotatus</i>	arid open country, including open deciduous or pine-oak woodland, mesa or mountain county, often near watercourses, and wooded canyons and tree-lined rivers along middle-slopes of desert mountains; nests in various habitats and sites, ranging from small trees in lower desert, giant cottonwoods in riparian areas, to mature conifers in high mountain regions		T
FISHES				
Guadalupe Bass	<i>Micropterus treculii</i>	endemic to perennial streams of the Edward's Plateau region; introduced in Nueces River system		

Common Name	Scientific Name	Description	Federal Status	State Status
Headwater catfish	<i>Ictalurus lupus</i>	originally throughout streams of the Edwards Plateau and the Rio Grande basin, currently limited to Rio Grande drainage, including Pecos River basin; springs, and sandy and rocky riffles, runs, and pools of clear creeks and small rivers		
INSECTS				
A mayfly	<i>Allenhyphes michaeli</i>	TX Hill Country; mayflies distinguished by aquatic larval stage; adult stage generally found in shoreline vegetation		
Disjunct crawling water beetle	<i>Halipilus nitens</i>	unknown, maybe shallow water		
MAMMALS				
Black Bear	<i>Ursus americanus</i>	bottomland hardwoods and large tracts of inaccessible forested areas; due to field characteristics similar to Louisiana Black Bear (LT, T), treat all east Texas black bears as federal and state listed Threatened	T/SA; NL	T
Cave Myotis Bat	<i>Myotis velifer</i>	colonial and cave-dwelling; also roosts in rock crevices, old buildings, carports, under bridges, and even in abandoned Cliff Swallow (<i>Hirundo pyrrhonota</i>) nests; roosts in clusters of up to thousands of individuals; hibernates in limestone caves of Edwards Plateau and gypsum cave of Panhandle during winter; opportunistic insectivore		
Gray wolf	<i>Canis lupus</i>	extirpated; formerly known throughout the western two-thirds of the state in forests, brushlands, or grasslands	LE	E
Llano pocket gopher	<i>Geomys texensis texensis</i>	found in deep, brown loamy sands or gravelly sandy loams and is isolated from other species of pocket gophers by intervening shallow stony to gravelly clayey soils		
Plains spotted skunk	<i>Spilogale putorius interrupta</i>	catholic; open fields, prairies, croplands, fence rows, farmyards, forest edges, and woodlands; prefers wooded, brushy areas and tallgrass prairie		
Red wolf	<i>Canis rufus</i>	extirpated; formerly known throughout eastern half of Texas in brushy and forested areas, as well as coastal prairies	LE	E
MOLLUSKS				
Creeper (squawfoot)	<i>Strophitus undulatus</i>	small to large streams, prefers gravel or gravel and mud in flowing water; Colorado, Guadalupe, San Antonio, Neches (historic), and Trinity (historic) River basins		
False spike mussel	<i>Quadrula mitchelli</i>	possibly extirpated in Texas; probably medium to large rivers; substrates varying from mud through mixtures of sand, gravel and cobble; one study indicated water lilies were present at the site; Rio Grande, Brazos, Colorado, and Guadalupe (historic) river basins		T
Golden orb	<i>Quadrula aurea</i>	sand and gravel in some locations and mud at others; found in lentic and lotic; Guadalupe, San Antonio, Lower San Marcos, and Nueces River basins	C	T
Smooth pimpleback	<i>Quadrula houstonensis</i>	small to moderate streams and rivers as well as moderate size reservoirs; mixed mud, sand, and fine gravel, tolerates very slow to moderate flow rates, appears not to tolerate dramatic water level fluctuations, scoured bedrock substrates, or shifting sand bottoms, lower Trinity (questionable), Brazos, and Colorado River basins	C	T
Texas fatmucket	<i>Lampsilis bracteata</i>	streams and rivers on sand, mud, and gravel substrates; intolerant of impoundment; broken bedrock and coarse gravel or sand in moderately flowing water; Colorado and Guadalupe River basins	C	T
Texas fawnsfoot	<i>Truncilla macrodon</i>	little known; possibly rivers and larger streams, and intolerant of impoundment; flowing rice irrigation canals, possibly sand, gravel, and perhaps sandy-mud bottoms in moderate flows; Brazos and Colorado River basins	C	T
Texas pimpleback	<i>Quadrula petrina</i>	mud, gravel and sand substrates, generally in areas with slow flow rates; Colorado and Guadalupe river basins	C	T
REPTILES				
Spot-tailed earless lizard	<i>Holbrookia lacerata</i>	central and southern Texas and adjacent Mexico; moderately open prairie-brushland; fairly flat areas free of vegetation or other obstructions, including disturbed areas; eats small invertebrates; eggs laid underground		
Texas garter snake	<i>Thamnophis sirtalis annectens</i>	wet or moist microhabitats are conducive to the species occurrence, but is not necessarily restricted to them; hibernates underground or in or under surface cover; breeds March-August		
Texas horned lizard	<i>Phrynosoma cornutum</i>	open, arid and semi-arid regions with sparse vegetation, including grass, cactus, scattered brush or scrubby trees; soil may vary in texture from sandy to rocky; burrows into soil, enters rodent burrows, or hides under rock when inactive;		T

Common Name	Scientific Name	Description	Federal Status	State Status
		breeds March-September		
PLANTS				
Granite spiderwort	<i>Tradescantia pedicellata</i>	Texas endemic; mostly in fractures on outcrops of granite, gneiss, and similar igneous and metamorphic rocks, or in early successional grasslands or forb-dominated assemblages on well-drained, sandy to gravelly soils derived from same; flowering at least April-May		
Hill Country wild-mercury	<i>Argythamnia aphyroides</i>	Texas endemic; mostly in bluestem-grama grasslands associated with plateau live oak woodlands on shallow to moderately deep clays and clay loams over limestone on rolling uplands, also in partial shade of oak-juniper woodlands in gravelly soils on rocky limestone slopes; flowering April-May with fruit persisting until midsummer		
Llano butterweed	<i>Packera texensis</i>	Endemic to Llano Uplift of Edwards Plateau; granite sands; arises quickly from evergreen winter rosettes during January rains; flowers Feb-Mar.		

TABLE 1A-3: THREATENED OR ENDANGERED SPECIES OF BURNET COUNTY

Common Name	Scientific Name	Description	Federal Status	State Status
ARACHNIDS				
Bee Creek Cave harvestman	<i>Texella reddelli</i>	small, blind, cave-adapted harvestman endemic to a few caves in Travis and Williamson counties	LE	
BIRDS				
American Peregrine Falcon	<i>Falco peregrinus anatum</i>	year-round resident and local breeder in west Texas, nests in tall cliff eyries; also, migrant across state from more northern breeding areas in US and Canada, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.	DL	T
Arctic Peregrine Falcon	<i>Falco peregrinus tundrius</i>	migrant throughout state from subspecies' far northern breeding range, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.	DL	
Bald Eagle	<i>Haliaeetus leucocephalus</i>	found primarily near rivers, and large lakes; nests in tall trees or on cliffs near water; communally roosts, especially in winter, hunts live prey, scavenges, and pirates food from other birds	DL	T
Black-capped Vireo	<i>Vireo atricapilla</i>	oak-juniper woodlands with distinctive patchy, two-layered aspect; shrub and tree layer with open, grassy spaces; requires foliage reaching to ground level for nesting cover; return to same territory, or one nearby, year after year; deciduous and broad-leaved shrubs and trees provide insects for feeding; species composition less important than presence of adequate broad-leaved shrubs, foliage to ground level, and required structure; nesting season March-late summer	LE	E
Golden-cheeked Warbler	<i>Setophaga chrysoparia</i>	juniper-oak woodlands; dependent on Ashe juniper (also known as cedar) for long fine bark strips, only available from mature trees, used in nest construction; nests are placed in various trees other than Ashe juniper; only a few mature junipers or nearby cedar brakes can provide the necessary nest material; forage for insects in broad-leaved trees and shrubs; nesting late March-early summer	LE	E
Interior Least Tern	<i>Sterna antillarum athalassos</i>	subspecies is listed only when inland (more than 50 miles from a coastline); nests along sand and gravel bars within braided streams, rivers; also know to nest on man-made structures (inland beaches, wastewater treatment plants, gravel mines, etc); eats small fish and crustaceans, when breeding forages within a few hundred feet of colony	LE	E
Mountain Plover	<i>Charadrius montanus</i>	breeding: nests on high plains or shortgrass prairie, on ground in shallow depression; nonbreeding: shortgrass plains and bare, dirt (plowed) fields; primarily insectivorous		
Peregrine Falcon	<i>Falco peregrinus</i>	both subspecies migrate across the state from more northern breeding areas in US and Canada to winter along coast and farther south; subspecies (F. p. anatum) is also a resident breeder in west Texas; the two subspecies' listing statuses differ, F.p. tundrius is no longer listed in Texas; but because the subspecies are not easily distinguishable at a distance, reference is generally made only to the species level; see subspecies for habitat.	DL	T
Sprague's Pipit	<i>Anthus spragueii</i>	only in Texas during migration and winter, mid September to early April; short to medium distance, diurnal migrant; strongly tied to native upland prairie, can be locally common in coastal grasslands, uncommon to rare further west; sensitive to patch size and avoids edges.	C	
Western Burrowing Owl	<i>Athene cunicularia hypugaea</i>	open grasslands, especially prairie, plains, and savanna, sometimes in open areas such as vacant lots near human habitation or airports; nests and roosts in abandoned burrows		
Whooping Crane	<i>Grus americana</i>	potential migrant via plains throughout most of state to coast; winters in coastal marshes of Aransas, Calhoun, and Refugio	LE	E

Common Name	Scientific Name	Description	Federal Status	State Status
		counties		
CRUSTACEANS				
An amphipod	<i>Stygobromus russelli</i>	subterranean waters, usually in caves and limestone aquifers; resident of numerous caves in ca. 10 counties of the Edwards Plateau		
Bifurcated cave amphipod	<i>Stygobromus bifurcatus</i>	found in cave pools		
FISHES				
Guadalupe Bass	<i>Micropterus treculii</i>	endemic to perennial streams of the Edward's Plateau region; introduced in Nueces River system		
Headwater catfish	<i>Ictalurus lupus</i>	originally throughout streams of the Edwards Plateau and the Rio Grande basin, currently limited to Rio Grande drainage, including Pecos River basin; springs, and sandy and rocky riffles, runs, and pools of clear creeks and small rivers		
INSECTS				
Disjunct crawling water beetle	<i>Haliphus nitens</i>	unknown, maybe shallow water		
Leonora's dancer damselfly	<i>Argia leonora</i>	south central and western Texas; small streams and seepages		
Cave myotis bat	<i>Myotis velifer</i>	colonial and cave-dwelling; also roosts in rock crevices, old buildings, carports, under bridges, and even in abandoned Cliff Swallow (<i>Hirundo pyrrhonota</i>) nests; roosts in clusters of up to thousands of individuals; hibernates in limestone caves of Edwards Plateau and gypsum cave of Panhandle during winter; opportunistic insectivore		
Gray wolf	<i>Canis lupus</i>	extirpated; formerly known throughout the western two-thirds of the state in forests, brushlands, or grasslands	LE	E
Llano pocket gopher	<i>Geomys texensis texensis</i>	found in deep, brown loamy sands or gravelly sandy loams and is isolated from other species of pocket gophers by intervening shallow stony to gravelly clayey soils		
Plains spotted skunk	<i>Spilogale putorius interrupta</i>	catholic; open fields, prairies, croplands, fence rows, farmyards, forest edges, and woodlands; prefers wooded, brushy areas and tallgrass prairie		
Red wolf	<i>Canis rufus</i>	extirpated; formerly known throughout eastern half of Texas in brushy and forested areas, as well as coastal prairies	LE	E
MOLLUSKS				
Creeper (squawfoot)	<i>Strophitus undulatus</i>	small to large streams, prefers gravel or gravel and mud in flowing water; Colorado, Guadalupe, San Antonio, Neches (historic), and Trinity (historic) River basins		
False spike mussel	<i>Quadrula mitchelli</i>	possibly extirpated in Texas; probably medium to large rivers; substrates varying from mud through mixtures of sand, gravel and cobble; one study indicated water lilies were present at the site; Rio Grande, Brazos, Colorado, and Guadalupe (historic) river basins		T
Smooth pimpleback	<i>Quadrula houstonensis</i>	small to moderate streams and rivers as well as moderate size reservoirs; mixed mud, sand, and fine gravel, tolerates very slow to moderate flow rates, appears not to tolerate dramatic water level fluctuations, scoured bedrock substrates, or shifting sand bottoms, lower Trinity (questionable), Brazos, and Colorado River basins	C	T
Texas fawnsfoot	<i>Truncilla macrodon</i>	little known; possibly rivers and larger streams, and intolerant of impoundment; flowing rice irrigation canals, possibly sand, gravel, and perhaps sandy-mud bottoms in moderate flows; Brazos and Colorado River basins	C	T
Texas pimpleback	<i>Quadrula petrina</i>	mud, gravel and sand substrates, generally in areas with slow flow rates; Colorado and Guadalupe river basins	C	T
REPTILES				
Concho water snake	<i>Nerodia paucimaculata</i>	Texas endemic; Concho and Colorado river systems; shallow fast-flowing water with a rocky or gravelly substrate preferred; adults can be found in deep water with mud bottoms; breeding March-October	DL	
Spot-tailed earless lizard	<i>Holbrookia lacerata</i>	central and southern Texas and adjacent Mexico; moderately open prairie-brushland; fairly flat areas free of vegetation or other		

Common Name	Scientific Name	Description	Federal Status	State Status
		obstructions, including disturbed areas; eats small invertebrates; eggs laid underground		
Texas garter snake	<i>Thamnophis sirtalis annectens</i>	wet or moist microhabitats are conducive to the species occurrence, but is not necessarily restricted to them; hibernates underground or in or under surface cover; breeds March-August		
Texas horned lizard	<i>Phrynosoma cornutum</i>	open, arid and semi-arid regions with sparse vegetation, including grass, cactus, scattered brush or scrubby trees; soil may vary in texture from sandy to rocky; burrows into soil, enters rodent burrows, or hides under rock when inactive; breeds March-September		T
PLANTS				
Basin bellflower	<i>Campanula reverchonii</i>	Texas endemic; among scattered vegetation on loose gravel, gravelly sand, and rock outcrops on open slopes with exposures of igneous and metamorphic rocks; may also occur on sandbars and other alluvial deposits along major rivers; flowering May-July		
Edwards Plateau cornsalad	<i>Valerianella texana</i>	very shallow, well-drained, but seasonally moist gravelly-sandy soils derived from igneous or metamorphic rocks, often along the downslope margin of rock outcrops, in full sun or in partial shade of oak-juniper woodlands; more likely encountered in early successional areas; population numbers fluctuate considerably from year to year, with higher numbers following winters with higher rains and/or moderate temperatures; peak flowering/fruiting mid-March-late April, stems wither and disappear by the beginning of May		
Enquist's sandmint	<i>Brazoria enquistii</i>	Texas endemic; primarily on sand banks in and along beds of streams that drain granitic or gneissic landscapes; flowering/fruiting April-June		
Granite spiderwort	<i>Tradescantia pedicellata</i>	Texas endemic; mostly in fractures on outcrops of granite, gneiss, and similar igneous and metamorphic rocks, or in early successional grasslands or forb-dominated assemblages on well-drained, sandy to gravelly soils derived from same; flowering at least April-May		
Rock quillwort	<i>Isoetes lithophila</i>	Texas endemic; rooted in sand and gravel under shallow water of seasonal pools (vernal pools) that develop during rainy seasons in small, shallow, unshaded basins on barren outcrops of granite and gneiss; sporulating in late winter and spring, and opportunistically in other seasons following heavy rainfall		

TABLE 1A-4: THREATENED OR ENDANGERED SPECIES OF COLORADO COUNTY

Common Name	Scientific Name	Description	Federal Status	State Status
AMPHIBIANS				
Houston Toad	<i>Anaxyrus houstonensis</i>	endemic; sandy substrate, water in pools, ephemeral pools, stock tanks; breeds in spring especially after rains; burrows in soil of adjacent uplands when inactive; breeds February-June; associated with soils of the Sparta, Carrizo, Goliad, Queen City, Recklaw, Weches, and Willis geologic formations	LE	E
Southern Crawfish Frog	<i>Lithobates areolatus areolatus</i>	The Southern Crawfish Frog can be found in abandoned crawfish holes and small mammal burrows. This species inhabits moist meadows, pasturelands, pine scrub, and river flood plains. This species spends nearly all of its time in burrows and only leaves the burrow area to breed. Although this species can be difficult to detect due to its reclusive nature, the call of breeding males can be heard over great distances. Eggs are laid and larvae develop in temporary water such as flooded fields, ditches, farm ponds and small lakes. Habitat: Shallow water, Herbaceous Wetland, Riparian, Temporary Pool, Cropland/hedgerow, Grassland/herbaceous, Suburban/orchard, Woodland – Conifer.		
BIRDS				
American Peregrine Falcon	<i>Falco peregrinus anatum</i>	year-round resident and local breeder in west Texas, nests in tall cliff eyries; also, migrant across state from more northern breeding areas in US and Canada, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.	DL	T
Arctic Peregrine Falcon	<i>Falco peregrinus tundrius</i>	migrant throughout state from subspecies' far northern breeding range, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.	DL	
Attwater's Greater Prairie-chicken	<i>Tympanuchus cupido attwateri</i>	this county within historic range; endemic; open prairies of mostly thick grass one to three feet tall; from near sea level to 200 feet along coastal plain on upper two-thirds of Texas coast; males form communal display flocks during late winter-early spring; booming grounds important; breeding February-July	LE	E
Bald Eagle	<i>Haliaeetus leucocephalus</i>	found primarily near rivers and large lakes; nests in tall trees or on cliffs near water; communally roosts, especially in winter; hunts live prey, scavenges, and pirates food from other birds	DL	T
Henslow's Sparrow	<i>Ammodramus henslowii</i>	wintering individuals (not flocks) found in weedy fields or cut-over areas where lots of bunch grasses occur along with vines and brambles; a key component is bare ground for running/walking		
Interior Least Tern	<i>Sterna antillarum athalassos</i>	subspecies is listed only when inland (more than 50 miles from a coastline); nests along sand and gravel bars within braided streams, rivers; also know to nest on man-made structures (inland beaches, wastewater treatment plants, gravel mines, etc); eats small fish and crustaceans, when breeding forages within a few hundred feet of colony	LE	E
Mountain Plover	<i>Charadrius montanus</i>	breeding: nests on high plains or shortgrass prairie, on ground in shallow depression; nonbreeding: shortgrass plains and bare, dirt (plowed) fields; primarily insectivorous		
Peregrine Falcon	<i>Falco peregrinus</i>	both subspecies migrate across the state from more northern breeding areas in US and Canada to winter along coast and farther south; subspecies (F. p. anatum) is also a resident breeder in west Texas; the two subspecies' listing statuses differ, F.p. tundrius is no longer listed in Texas; but because the subspecies are not easily distinguishable at a distance, reference is generally made only to the species level; see subspecies for habitat.	DL	T
Sprague's Pipit	<i>Anthus spragueii</i>	only in Texas during migration and winter, mid September to early April; short to medium distance, diurnal migrant; strongly tied to native upland prairie, can be locally common in coastal grasslands, uncommon to rare further west; sensitive to patch size and avoids edges.	C	
Western Burrowing Owl	<i>Athene cunicularia hypugaea</i>	open grasslands, especially prairie, plains, and savanna, sometimes in open areas such as vacant lots near human habitation or airports; nests and roosts in abandoned burrows		
White-faced Ibis	<i>Plegadis chihi</i>	prefers freshwater marshes, sloughs, and irrigated rice fields, but will attend brackish and saltwater habitats; nests in marshes, in low trees, on the ground in bulrushes or reeds, or on floating mats		T

Common Name	Scientific Name	Description	Federal Status	State Status
White-tailed Hawk	<i>Buteo albicaudatus</i>	near coast on prairies, cordgrass flats, and scrub-live oak; further inland on prairies, mesquite and oak savannas, and mixed savanna-chaparral; breeding March-May		T
Whooping Crane	<i>Grus americana</i>	potential migrant via plains throughout most of state to coast; winters in coastal marshes of Aransas, Calhoun, and Refugio counties	LE	E
Wood Stork	<i>Mycteria americana</i>	forages in prairie ponds, flooded pastures or fields, ditches, and other shallow standing water, including salt-water; usually roosts communally in tall snags, sometimes in association with other wading birds (i.e. active heronries); breeds in Mexico and birds move into Gulf States in search of mud flats and other wetlands, even those associated with forested areas; formerly nested in Texas, but no breeding records since 1960		T
FISHES				
Blue sucker	<i>Cycleptus elongatus</i>	larger portions of major rivers in Texas; usually in channels and flowing pools with a moderate current; bottom type usually of exposed bedrock, perhaps in combination with hard clay, sand, and gravel; adults winter in deep pools and move upstream in spring to spawn on riffles		T
Guadalupe bass	<i>Micropterus treculii</i>	endemic to perennial streams of the Edward's Plateau region; introduced in Nueces River system		
INSECTS				
Texas asaphomyian tabanid fly	<i>Asaphomyia texensis</i>	globally historic; adults of tabanid spp. found near slow-moving water; eggs laid in masses on leaves or other objects near or over water; larvae are aquatic and predaceous; females of tabanid spp. bite, while males chiefly feed on pollen and nectar; using sight, carbon dioxide, and odor for selection, tabanid spp. lie in wait in shady areas under bushes and trees for a host to happen by		
MAMMALS				
Louisiana Black Bear	<i>Ursus americanus luteolus</i>	possible as transient; bottomland hardwoods and large tracts of inaccessible forested areas	LT	T
Plains spotted skunk	<i>Spilogale putorius interrupta</i>	catholic; open fields, prairies, croplands, fence rows, farmyards, forest edges, and woodlands; prefers wooded, brushy areas and tallgrass prairie		
Red wolf	<i>Canis rufus</i>	extirpated; formerly known throughout eastern half of Texas in brushy and forested areas, as well as coastal prairies	LE	E
MOLLUSKS				
Creeper (squawfoot)	<i>Strophitus undulatus</i>	small to large streams, prefers gravel or gravel and mud in flowing water; Colorado, Guadalupe, San Antonio, Neches (historic), and Trinity (historic) River basins		
False spike mussel	<i>Quadrula mitchelli</i>	possibly extirpated in Texas; probably medium to large rivers; substrates varying from mud through mixtures of sand, gravel and cobble; one study indicated water lilies were present at the site; Rio Grande, Brazos, Colorado, and Guadalupe (historic) river basins		T
Smooth pimpleback	<i>Quadrula houstonensis</i>	small to moderate streams and rivers as well as moderate size reservoirs; mixed mud, sand, and fine gravel, tolerates very slow to moderate flow rates, appears not to tolerate dramatic water level fluctuations, scoured bedrock substrates, or shifting sand bottoms, lower Trinity (questionable), Brazos, and Colorado River basins	C	T
Texas fawnsfoot	<i>Truncilla macrondon</i>	little known; possibly rivers and larger streams, and intolerant of impoundment; flowing rice irrigation canals, possibly sand, gravel, and perhaps sandy-mud bottoms in moderate flows; Brazos and Colorado River basins	C	T
Texas pimpleback	<i>Quadrula petrina</i>	mud, gravel and sand substrates, generally in areas with slow flow rates; Colorado and Guadalupe river basins	C	T
REPTILES				
Texas horned lizard	<i>Phrynosoma cornutum</i>	open, arid and semi-arid regions with sparse vegetation, including grass, cactus, scattered brush or scrubby trees; soil may vary in texture from sandy to rocky; burrows into soil, enters rodent burrows, or hides under rock when inactive; breeds March-September		T
Timber rattlesnake	<i>Crotalus horridus</i>	swamps, floodplains, upland pine and deciduous woodlands, riparian zones, abandoned farmland; limestone bluffs, sandy soil or black clay; prefers dense ground cover, i.e. grapevines or palmetto		T

Common Name	Scientific Name	Description	Federal Status	State Status
PLANTS				
Coastal gay-feather	<i>Liatis bracteata</i>	Texas endemic; coastal prairie grasslands of various types, from salty prairie on low-lying somewhat saline clay loams to upland prairie on nonsaline clayey to sandy loams; flowering in fall		
Shinner's sunflower	<i>Helianthus occidentalis</i> <i>ssp</i> <i>plantagineus</i>	mostly in prairies on the Coastal Plain, with several slightly disjunct populations in the Pineywoods and South Texas Brush Country		

TABLE 1A-5: THREATENED OR ENDANGERED SPECIES OF FAYETTE COUNTY

Common Name	Scientific Name	Description	Federal Status	State Status
BIRDS				
American Peregrine Falcon	<i>Falco peregrinus anatum</i>	year-round resident and local breeder in west Texas, nests in tall cliff eyries; also, migrant across state from more northern breeding areas in US and Canada, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.	DL	T
Arctic Peregrine Falcon	<i>Falco peregrinus tundrius</i>	migrant throughout state from subspecies' far northern breeding range, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.	DL	
Bald Eagle	<i>Haliaeetus leucocephalus</i>	found primarily near rivers and large lakes; nests in tall trees or on cliffs near water; communally roosts, especially in winter; hunts live prey, scavenges, and pirates food from other birds	DL	T
Henslow's Sparrow	<i>Ammodramus henslowii</i>	wintering individuals (not flocks) found in weedy fields or cut-over areas where lots of bunch grasses occur along with vines and brambles; a key component is bare ground for running/walking		
Interior Least Tern	<i>Sterna antillarum athalassos</i>	subspecies is listed only when inland (more than 50 miles from a coastline); nests along sand and gravel bars within braided streams, rivers; also know to nest on man-made structures (inland beaches, wastewater treatment plants, gravel mines, etc); eats small fish and crustaceans, when breeding forages within a few hundred feet of colony	LE	E
Mountain Plover	<i>Charadrius montanus</i>	breeding: nests on high plains or shortgrass prairie, on ground in shallow depression; nonbreeding: shortgrass plains and bare, dirt (plowed) fields; primarily insectivorous		
Peregrine Falcon	<i>Falco peregrinus</i>	both subspecies migrate across the state from more northern breeding areas in US and Canada to winter along coast and farther south; subspecies (F. p. anatum) is also a resident breeder in west Texas; the two subspecies' listing statuses differ, F.p. tundrius is no longer listed in Texas; but because the subspecies are not easily distinguishable at a distance, reference is generally made only to the species level; see subspecies for habitat.	DL	T
Sprague's Pipit	<i>Anthus spragueii</i>	only in Texas during migration and winter, mid September to early April; short to medium distance, diurnal migrant; strongly tied to native upland prairie, can be locally common in coastal grasslands, uncommon to rare further west; sensitive to patch size and avoids edges.	C	
Western Burrowing Owl	<i>Athene cunicularia hypugaea</i>	open grasslands, especially prairie, plains, and savanna, sometimes in open areas such as vacant lots near human habitation or airports; nests and roosts in abandoned burrows		
Whooping Crane	<i>Grus americana</i>	potential migrant via plains throughout most of state to coast; winters in coastal marshes of Aransas, Calhoun, and Refugio counties	LE	E
Wood Stork	<i>Mycteria americana</i>	forages in prairie ponds, flooded pastures or fields, ditches, and other shallow standing water, including salt-water; usually roosts communally in tall snags, sometimes in association with other wading birds (i.e. active heronries); breeds in Mexico and birds move into Gulf States in search of mud flats and other wetlands, even those associated with forested areas; formerly nested in Texas, but no breeding records since 1960		T
FISHES				
Blue sucker	<i>Cycleptus elongatus</i>	larger portions of major rivers in Texas; usually in channels and flowing pools with a moderate current; bottom type usually of exposed bedrock, perhaps in combination with hard clay, sand, and gravel; adults winter in deep pools and move upstream in spring to spawn on riffles		T
Guadalupe bass	<i>Micropterus treculii</i>	endemic to perennial streams of the Edward's Plateau region; introduced in Nueces River system		
MAMMALS				
Cave Myotis Bat	<i>Myotis velifer</i>	colonial and cave-dwelling; also roosts in rock crevices, old buildings, carports, under bridges, and even in abandoned Cliff Swallow (<i>Hirundo pyrrhonota</i>) nests; roosts in clusters of up to thousands of individuals; hibernates in limestone caves of Edwards Plateau and gypsum cave of Panhandle during winter; opportunistic insectivore		

Plains Spotted Skunk	<i>Spilogale putorius interrupta</i>	catholic; open fields, prairies, croplands, fence rows, farmyards, forest edges, and woodlands; prefers wooded, brushy areas and tallgrass prairie		
Red Wolf	<i>Canis rufus</i>	extirpated; formerly known throughout eastern half of Texas in brushy and forested areas, as well as coastal prairies	LE	E
MOLLUSKS				
Creeper (squawfoot)	<i>Strophitus undulatus</i>	small to large streams, prefers gravel or gravel and mud in flowing water; Colorado, Guadalupe, San Antonio, Neches (historic), and Trinity (historic) River basins		
False spike mussel	<i>Quadrula mitchelli</i>	possibly extirpated in Texas; probably medium to large rivers; substrates varying from mud through mixtures of sand, gravel and cobble; one study indicated water lilies were present at the site; Rio Grande, Brazos, Colorado, and Guadalupe (historic) river basins		T
Smooth pimpleback	<i>Quadrula houstonensis</i>	small to moderate streams and rivers as well as moderate size reservoirs; mixed mud, sand, and fine gravel, tolerates very slow to moderate flow rates, appears not to tolerate dramatic water level fluctuations, scoured bedrock substrates, or shifting sand bottoms, lower Trinity (questionable), Brazos, and Colorado River basins	C	T
Texas fawnsfoot	<i>Truncilla macrodon</i>	little known; possibly rivers and larger streams, and intolerant of impoundment; flowing rice irrigation canals, possibly sand, gravel, and perhaps sandy-mud bottoms in moderate flows; Brazos and Colorado River basins	C	T
Texas pimpleback	<i>Quadrula petrina</i>	mud, gravel and sand substrates, generally in areas with slow flow rates; Colorado and Guadalupe river basins	C	T
REPTILES				
Texas horned lizard	<i>Phrynosoma cornutum</i>	open, arid and semi-arid regions with sparse vegetation, including grass, cactus, scattered brush or scrubby trees; soil may vary in texture from sandy to rocky; burrows into soil, enters rodent burrows, or hides under rock when inactive; breeds March-September		T
Timber rattlesnake	<i>Crotalus horridus</i>	swamps, floodplains, upland pine and deciduous woodlands, riparian zones, abandoned farmland; limestone bluffs, sandy soil or black clay; prefers dense ground cover, i.e. grapevines or palmetto		T
PLANTS				
Bristle nailwort	<i>Paronychia setacea</i>	Flowering vascular plant endemic to eastern southcentral Texas, occurring in sandy soils		
Navasota ladies'-tresses	<i>Spiranthes parksii</i>	Texas endemic; openings in post oak woodlands in sandy loams along upland drainages or intermittent streams, often in areas with suitable hydrologic factors, such as a perched water table associated with the underlying claypan; flowering populations fluctuate widely from year to year, an individual plant does not flower every year; flowering late October-early November (-early December)	LE	E
Shinner's sunflower	<i>Helianthus occidentalis ssp plantagineus</i>	mostly in prairies on the Coastal Plain, with several slightly disjunct populations in the Pineywoods and South Texas Brush Country		
Texas meadow-rue	<i>Thalictrum texanum</i>	Texas endemic; mostly found in woodlands and woodland margins on soils with a surface layer of sandy loam, but it also occurs on prairie pimple mounds; both on uplands and creek terraces, but perhaps most common on claypan savannas; soils are very moist during its active growing season; flowering/fruiting (January-) February-May, withering by midsummer, foliage reappears in late fall(November) and may persist through the winter		

TABLE 1A-6: THREATENED OR ENDANGERED SPECIES OF GILLESPIE COUNTY

Common Name	Scientific Name	Description	Federal Status	State Status
AMPHIBIANS				
Valdina Farms sinkhole salamander	<i>Eurycea troglodytes complex</i>	isolated, intermittent pools of a subterranean streams and sinkhole in Nueces, Frio, Guadalupe, and Pedernales watersheds within Edwards Aquifer area		
BIRDS				
American Peregrine Falcon	<i>Falco peregrinus anatum</i>	year-round resident and local breeder in west Texas, nests in tall cliff eyries; also, migrant across state from more northern breeding areas in US and Canada, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.	DL	T
Arctic Peregrine Falcon	<i>Falco peregrinus tundrius</i>	migrant throughout state from subspecies' far northern breeding range, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.	DL	
Baird's Sparrow	<i>Ammodramus bairdii</i>	shortgrass prairie with scattered low bushes and matted vegetation; mostly migratory in western half of State, though winters in Mexico and just across Rio Grande into Texas from Brewster through Hudspeth counties		
Bald Eagle	<i>Haliaeetus leucocephalus</i>	found primarily near rivers and large lakes; nests in tall trees or on cliffs near water; communally roosts, especially in winter; hunts live prey, scavenges, and pirates food from other birds	DL	T
Black-capped Vireo	<i>Vireo atricapilla</i>	oak-juniper woodlands with distinctive patchy, two-layered aspect; shrub and tree layer with open, grassy spaces; requires foliage reaching to ground level for nesting cover; return to same territory, or one nearby, year after year; deciduous and broad-leaved shrubs and trees provide insects for feeding; species composition less important than presence of adequate broad-leaved shrubs, foliage to ground level, and required structure; nesting season March-late summer	LE	E
Golden-cheeked Warbler	<i>Setophaga chrysoparia</i>	juniper-oak woodlands; dependent on Ashe juniper (also known as cedar) for long fine bark strips, only available from mature trees, used in nest construction; nests are placed in various trees other than Ashe juniper; only a few mature junipers or nearby cedar brakes can provide the necessary nest material; forage for insects in broad-leaved trees and shrubs; nesting late March-early summer	LE	E
Mountain Plover	<i>Charadrius montanus</i>	breeding: nests on high plains or shortgrass prairie, on ground in shallow depression; nonbreeding: shortgrass plains and bare, dirt (plowed) fields; primarily insectivorous		
Peregrine Falcon	<i>Falco peregrinus</i>	both subspecies migrate across the state from more northern breeding areas in US and Canada to winter along coast and farther south; subspecies (F. p. anatum) is also a resident breeder in west Texas; the two subspecies' listing statuses differ, F.p. tundrius is no longer listed in Texas; but because the subspecies are not easily distinguishable at a distance, reference is generally made only to the species level; see subspecies for habitat.	DL	T
Sprague's Pipit	<i>Anthus spragueii</i>	only in Texas during migration and winter, mid September to early April; short to medium distance, diurnal migrant; strongly tied to native upland prairie, can be locally common in coastal grasslands, uncommon to rare further west; sensitive to patch size and avoids edges.	C	
Western Burrowing Owl	<i>Athene cucularia hypugaea</i>	open grasslands, especially prairie, plains, and savanna, sometimes in open areas such as vacant lots near human habitation or airports; nests and roosts in abandoned burrows		
Whooping Crane	<i>Grus americana</i>	potential migrant via plains throughout most of state to coast; winters in coastal marshes of Aransas, Calhoun, and Refugio counties	LE	E
Zone-tailed Hawk	<i>Buteo albonotatus</i>	arid open country, including open deciduous or pine-oak woodland, mesa or mountain county, often near watercourses, and wooded canyons and tree-lined rivers along middle-slopes of desert mountains; nests in various habitats and sites, ranging from small trees in lower desert, giant cottonwoods in riparian areas, to mature conifers in high mountain regions		T

Common Name	Scientific Name	Description	Federal Status	State Status
FISHES				
Guadalupe Bass	<i>Micropterus treculii</i>	endemic to perennial streams of the Edward's Plateau region; introduced in Nueces River system		
Headwater catfish	<i>Ictalurus lupus</i>	originally throughout streams of the Edwards Plateau and the Rio Grande basin, currently limited to Rio Grande drainage, including Pecos River basin; springs, and sandy and rocky riffles, runs, and pools of clear creeks and small rivers		
MAMMALS				
Black Bear	<i>Ursus americanus</i>	bottomland hardwoods and large tracts of inaccessible forested areas; due to field characteristics similar to Louisiana Black Bear (LT, T), treat all east Texas black bears as federal and state listed Threatened	T/SA; NL	T
Cave Myotis Bat	<i>Myotis velifer</i>	colonial and cave-dwelling; also roosts in rock crevices, old buildings, carports, under bridges, and even in abandoned Cliff Swallow (<i>Hirundo pyrrhonota</i>) nests; roosts in clusters of up to thousands of individuals; hibernates in limestone caves of Edwards Plateau and gypsum cave of Panhandle during winter; opportunistic insectivore		
Gray Wolf	<i>Canis lupus</i>	extirpated; formerly known throughout the western two-thirds of the state in forests, brushlands, or grasslands	LE	E
Llano Pocket Gopher	<i>Geomys texensis texensis</i>	found in deep, brown loamy sands or gravelly sandy loams and is isolated from other species of pocket gophers by intervening shallow stony to gravelly clayey soils		
Plains spotted skunk	<i>Spilogale putorius interrupta</i>	catholic; open fields, prairies, croplands, fence rows, farmyards, forest edges, and woodlands; prefers wooded, brushy areas and tallgrass prairie		
Red wolf	<i>Canis rufus</i>	extirpated; formerly known throughout eastern half of Texas in brushy and forested areas, as well as coastal prairies	LE	E
MOLLUSKS				
Creeper (squawfoot)	<i>Strophitus undulatus</i>	small to large streams, prefers gravel or gravel and mud in flowing water; Colorado, Guadalupe, San Antonio, Neches (historic), and Trinity (historic) River basins		
False spike mussel	<i>Quadrula mitchelli</i>	possibly extirpated in Texas; probably medium to large rivers; substrates varying from mud through mixtures of sand, gravel and cobble; one study indicated water lilies were present at the site; Rio Grande, Brazos, Colorado, and Guadalupe (historic) river basins		T
Golden orb	<i>Quadrula aurea</i>	sand and gravel in some locations and mud at others; found in lentic and lotic; Guadalupe, San Antonio, Lower San Marcos, and Nueces River basins	C	T
Texas fatmucket	<i>Lampsilis bracteata</i>	streams and rivers on sand, mud, and gravel substrates; intolerant of impoundment; broken bedrock and coarse gravel or sand in moderately flowing water; Colorado and Guadalupe River basins	C	T
Texas pimpleback	<i>Quadrula petrina</i>	mud, gravel and sand substrates, generally in areas with slow flow rates; Colorado and Guadalupe river basins	C	T
REPTILES				
Spot-tailed earless lizard	<i>Holbrookia lacerata</i>	central and southern Texas and adjacent Mexico; moderately open prairie-brushland; fairly flat areas free of vegetation or other obstructions, including disturbed areas; eats small invertebrates; eggs laid underground		
Texas horned lizard	<i>Phrynosoma cornutum</i>	open, arid and semi-arid regions with sparse vegetation, including grass, cactus, scattered brush or scrubby trees; soil may vary in texture from sandy to rocky; burrows into soil, enters rodent burrows, or hides under rock when inactive; breeds March-September		T
PLANTS				
Basin bellflower	<i>Campanula reverchonii</i>	Texas endemic; among scattered vegetation on loose gravel, gravelly sand, and rock outcrops on open slopes with exposures of igneous and metamorphic rocks; may also occur on sandbars and other alluvial deposits along major rivers; flowering May-July		
Big red sage	<i>Salvia pentstemonoides</i>	Texas endemic; moist to seasonally wet, steep limestone outcrops on seeps within canyons or along creek banks; occasionally on clayey to silty soils of creek banks and terraces, in partial shade to full sun; basal leaves conspicuous for much of the year; flowering June-October		

Common Name	Scientific Name	Description	Federal Status	State Status
Canyon rattlesnake-root	<i>Prenanthes carrii</i>	Texas endemic; rich humus soils over limestone in upper woodland canyon drainages, upper small spring fed drainages, typically near springs in deep soils around the springs and on limestone shelves, honeycomb rock (porous rock); flowering and fruiting late August-November		
Correll's false dragon-head	<i>Physostegia correllii</i>	wet, silty clay loams on streamsides, in creek beds, irrigation channels and roadside drainage ditches; or seepy, mucky, sometimes gravelly soils along riverbanks or small islands in the Rio Grande; or underlain by Austin Chalk limestone along gently flowing spring-fed creek in central Texas; flowering May-September		
Edwards Plateau cornsalad	<i>Valerianella texana</i>	very shallow, well-drained, but seasonally moist gravelly-sandy soils derived from igneous or metamorphic rocks, often along the downslope margin of rock outcrops, in full sun or in partial shade of oak-juniper woodlands; more likely encountered in early successional areas; population numbers fluctuate considerably from year to year, with higher numbers following winters with higher rains and/or moderate temperatures; peak flowering/fruiting mid-March-late April, stems wither and disappear by the beginning of May		
Hill Country wild-mercury	<i>Argythamnia apheroides</i>	Texas endemic; mostly in bluestem-grama grasslands associated with plateau live oak woodlands on shallow to moderately deep clays and clay loams over limestone on rolling uplands, also in partial shade of oak-juniper woodlands in gravelly soils on rocky limestone slopes; flowering April-May with fruit persisting until midsummer		
Llano butterweed	<i>Packera texensis</i>	Endemic to Llano Uplift of Edwards Plateau; granite sands; arises quickly from evergreen winter rosettes during January rains; flowers Feb-Mar.		
Rock quillwort	<i>Isoetes lithophila</i>	Texas endemic; rooted in sand and gravel under shallow water of seasonal pools (vernal pools) that develop during rainy seasons in small, shallow, unshaded basins on barren outcrops of granite and gneiss; sporulating in late winter and spring, and opportunistically in other seasons following heavy rainfall		
Small-headed pipewort	<i>Eriocaulon koernickianum</i>	in East Texas, post-oak woodlands and xeric sandhill openings on permanently wet acid sands of upland seeps and hillside seepage bogs, usually in patches of bare sand rather than among dense vegetation or on muck; in Gillespie County, on permanently wet or moist hillside seep on decomposing granite gravel and sand among granite outcrops; flowering/fruiting late May-late June		
Warnock's coral-root	<i>Hexalectris warnockii</i>	in leaf litter and humus in oak-juniper woodlands on shaded slopes and intermittent, rocky creekbeds in canyons; in the Trans Pecos in oak-pinyon-juniper woodlands in higher mesic canyons (to 2000 m [6550 ft]), primarily on igneous substrates; in Terrell County under <i>Quercus fusiformis</i> mottes on terraces of spring-fed perennial streams, draining an otherwise rather xeric limestone landscape; on the Callahan Divide (Taylor County), the White Rock Escarpment (Dallas County), and the Edwards Plateau in oak-juniper woodlands on limestone slopes; in Gillespie County on igneous substrates of the Llano Uplift; flowering June-September; individual plants do not usually bloom in successive years		

TABLE 1A-7: THREATENED OR ENDANGERED SPECIES OF HAYS COUNTY

Common Name	Scientific Name	Description	Federal Status	State Status
AMPHIBIANS				
Barton Springs salamander	<i>Eurycea sosorum</i>	dependent upon water flow/quality from the Barton Springs pool of the Edwards Aquifer; known from the outlets of Barton Springs and subterranean water-filled caverns; found under rocks, in gravel, or among aquatic vascular plants and algae, as available; feeds primarily on amphipods	LE	E
Blanco Blind Salamander	<i>Eurycea robusta</i>	troglobitic; water-filled subterranean caverns; may inhabit deep levels of the Balcones aquifer to the north and east of the Blanco River		T
Blanco River Springs Salamander	<i>Eurycea pterophila</i>	subaquatic; springs and caves in the Blanco River drainage		
San Marcos Salamander	<i>Eurycea nana</i>	headwaters of the San Marcos River downstream to ca. ½ mile past IH-35; water over gravelly substrate characterized by dense mats of algae (<i>Lyng bya</i>) and aquatic moss (<i>Leptodictym riparium</i>), and water temperatures of 21-22 °C; diet includes amphipods, midge larve, and aquatic snails	LT	T
Texas Blind Salamander	<i>Eurycea rathbuni</i>	troglobitic; water-filled subterranean caverns along a six mile stretch of the San Marcos Spring Fault, in the vicinity of San Marcos; eats small invertebrates, including snails, copepods, amphipods, and shrimp	LE	E
ARACHNIDS				
Bandit Cave spider	<i>Cicurina bandida</i>	very small, subterrestrial, subterranean obligate		
BIRDS				
American Peregrine Falcon	<i>Falco peregrinus anatum</i>	year-round resident and local breeder in west Texas, nests in tall cliff eyries; also, migrant across state from more northern breeding areas in US and Canada, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.	DL	T
Arctic Peregrine Falcon	<i>Falco peregrinus tundrius</i>	migrant throughout state from subspecies' far northern breeding range, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.	DL	
Bald Eagle	<i>Haliaeetus leucocephalus</i>	found primarily near rivers and large lakes; nests in tall trees or on cliffs near water; communally roosts, especially in winter; hunts live prey, scavenges, and pirates food from other birds	DL	T
Black-capped Vireo	<i>Vireo atricapilla</i>	oak-juniper woodlands with distinctive patchy, two-layered aspect; shrub and tree layer with open, grassy spaces; requires foliage reaching to ground level for nesting cover; return to same territory, or one nearby, year after year; deciduous and broad-leaved shrubs and trees provide insects for feeding; species composition less important than presence of adequate broad-leaved shrubs, foliage to ground level, and required structure; nesting season March-late summer	LE	E
Golden-cheeked Warbler	<i>Setophaga chrysoparia</i>	juniper-oak woodlands; dependent on Ashe juniper (also known as cedar) for long fine bark strips, only available from mature trees, used in nest construction; nests are placed in various trees other than Ashe juniper; only a few mature junipers or nearby cedar brakes can provide the necessary nest material; forage for insects in broad-leaved trees and shrubs; nesting late March-early summer	LE	E
Mountain Plover	<i>Charadrius montanus</i>	breeding: nests on high plains or shortgrass prairie, on ground in shallow depression; nonbreeding: shortgrass plains and bare, dirt (plowed) fields; primarily insectivorous		
Peregrine Falcon	<i>Falco peregrinus</i>	both subspecies migrate across the state from more northern breeding areas in US and Canada to winter along coast and farther south; subspecies (F. p. anatum) is also a resident breeder in west Texas; the two subspecies' listing statuses differ, F.p. tundrius is no longer listed in Texas; but because the subspecies are not easily distinguishable at a distance, reference is generally made only to the species level; see subspecies for habitat.	DL	T

Common Name	Scientific Name	Description	Federal Status	State Status
Sprague's Pipit	<i>Anthus spragueii</i>	only in Texas during migration and winter, mid September to early April; short to medium distance, diurnal migrant; strongly tied to native upland prairie, can be locally common in coastal grasslands, uncommon to rare further west; sensitive to patch size and avoids edges.	C	
Western Burrowing Owl	<i>Athene cunicularia hypugaea</i>	open grasslands, especially prairie, plains, and savanna, sometimes in open areas such as vacant lots near human habitation or airports; nests and roosts in abandoned burrows		
Whooping Crane	<i>Grus americana</i>	potential migrant via plains throughout most of state to coast; winters in coastal marshes of Aransas, Calhoun, and Refugio counties	LE	E
Zone-tailed Hawk	<i>Buteo albonotatus</i>	arid open country, including open deciduous or pine-oak woodland, mesa or mountain county, often near watercourses, and wooded canyons and tree-lined rivers along middle-slopes of desert mountains; nests in various habitats and sites, ranging from small trees in lower desert, giant cottonwoods in riparian areas, to mature conifers in high mountain regions		T
CRUSTACEANS				
A cave obligate crustacean	<i>Monodella texana</i>	subaquatic, subterranean obligate; underground freshwater aquifers		
Balcones Cave amphipod	<i>Stygobromus balconis</i>	subaquatic, subterranean obligate amphipod		
Ezell's Cave Amphipod	<i>Stygobromus flagellatus</i>	known only from artesian wells		
Texas Cave Shrimp	<i>Palaemonetes antrorum</i>	subterranean sluggish streams and pools		
Texas troglobitic water slater	<i>Lirceolus smithii</i>	subaquatic, subterranean obligate, aquifer		
FISHES				
Fountain Darter	<i>Etheostoma fonticola</i>	known only from the San Marcos and Comal rivers; springs and spring-fed streams in dense beds of aquatic plants growing close to bottom, which is normally mucky; feeding mostly diurnal; spawns year-round with August and late winter to early spring peaks	LE	E
Guadalupe Bass	<i>Micropterus treculii</i>	endemic to perennial streams of the Edward's Plateau region; introduced in Nueces River system		
Guadalupe Darter	<i>Percina sciera apristis</i>	Guadalupe River basin; most common over gravel or gravel and sand raceways of large streams and rivers		
Ironcolor shiner	<i>Notropis chalybaeus</i>	Big Cypress Bayou and Sabine River basins; spawns April-September, eggs sink to bottom of pool; pools and slow runs of low gradient small acidic streams with sandy substrate and clear well vegetated water; feeds mainly on small insects, ingested plant material not digested		
San Marcos Gambusia	<i>Gambusia georgei</i>	extinct; endemic; formerly known from upper San Marcos River; restricted to shallow, quiet, mud-bottomed shoreline areas without dense vegetation in thermally constant main channel	LE	E
INSECTS				
Comal Springs dryopid beetle	<i>Stygoparnus comalensis</i>	dryopids usually cling to objects in a stream; dryopids are sometimes found crawling on stream bottoms or along shores; adults may leave the stream and fly about, especially at night; most dryopid larvae are vermiform and live in soil or decaying wood	LE	E
Comal Springs Riffle Beetle	<i>Heterelmis comalensis</i>	Comal and San Marcos Springs	LE	E
Edwards Aquifer Diving Beetle	<i>Haideoporus texanus</i>	habitat poorly known; known from an artesian well in Hays County		
Flint's net-spinning caddisfly	<i>Cheumatopsyche flinti</i>	very poorly known species with habitat description limited to 'a spring'		
Leonora's dancer damselfly	<i>Argia leonora</i>	south central and western Texas; small streams and seepages		
Rawson's metalmark	<i>Calephelis rawsoni</i>	moist areas in shaded limestone outcrops in central Texas, desert scrub or oak woodland in foothills, or along rivers elsewhere; larval hosts are <i>Eupatorium havanense</i> , <i>E. greggii</i> .		
San Marcos Saddle-case Caddisfly	<i>Protoptila arca</i>	known from an artesian well in Hays County; locally very abundant; swift, well-oxygenated warm water about 1-2 m deep; larvae and pupal cases abundant on rocks		

Common Name	Scientific Name	Description	Federal Status	State Status
Texas austrotinodes caddisfly	<i>Austrotinodes texensis</i>	appears endemic to the karst springs and spring runs of the Edwards Plateau region; flow in type locality swift but may drop significantly during periods of little drought; substrate coarse and ranges from cobble and gravel to limestone bedrock; many limestone outcroppings also found along the streams		
MAMMALS				
Cave Myotis Bat	<i>Myotis velifer</i>	colonial and cave-dwelling; also roosts in rock crevices, old buildings, carpports, under bridges, and even in abandoned Cliff Swallow (<i>Hirundo pyrrhonota</i>) nests; roosts in clusters of up to thousands of individuals; hibernates in limestone caves of Edwards Plateau and gypsum cave of Panhandle during winter; opportunistic insectivore		
Plains Spotted Skunk	<i>Spilogale putorius interrupta</i>	catholic; open fields, prairies, croplands, fence rows, farmyards, forest edges, and woodlands; prefers wooded, brushy areas and tallgrass prairie		
Red wolf	<i>Canis rufus</i>	extirpated; formerly known throughout eastern half of Texas in brushy and forested areas, as well as coastal prairies	LE	E
MOLLUSKS				
Creeper (squawfoot)	<i>Strophitus undulatus</i>	small to large streams, prefers gravel or gravel and mud in flowing water; Colorado, Guadalupe, San Antonio, Neches (historic), and Trinity (historic) River basins		
False spike mussel	<i>Quadrula mitchelli</i>	possibly extirpated in Texas; probably medium to large rivers; substrates varying from mud through mixtures of sand, gravel and cobble; one study indicated water lilies were present at the site; Rio Grande, Brazos, Colorado, and Guadalupe (historic) river basins		T
Golden orb	<i>Quadrula aurea</i>	sand and gravel in some locations and mud at others; found in lentic and lotic; Guadalupe, San Antonio, Lower San Marcos, and Nueces River basins	C	T
Texas fatmucket	<i>Lampsilis bracteata</i>	streams and rivers on sand, mud, and gravel substrates; intolerant of impoundment; broken bedrock and coarse gravel or sand in moderately flowing water; Colorado and Guadalupe River basins	C	T
Texas pimpleback	<i>Quadrula petrina</i>	mud, gravel and sand substrates, generally in areas with slow flow rates; Colorado and Guadalupe river basins	C	T
REPTILES				
Cagle's Map Turtle	<i>Graptemys caglei</i>	endemic; Guadalupe River System; shallow water with swift to moderate flow and gravel or cobble bottom, connected by deeper pools with a slower flow rate and a silt or mud bottom; gravel bar riffles and transition areas between riffles and pools especially important in providing insect prey items; nests on gently sloping sand banks within ca. 30 feet of water's edge		T
Spot-tailed Earless Lizard	<i>Holbrookia lacerata</i>	central and southern Texas and adjacent Mexico; moderately open prairie-brushland; fairly flat areas free of vegetation or other obstructions, including disturbed areas; eats small invertebrates; eggs laid underground		
Texas Garter Snake	<i>Thamnophis sirtalis annectens</i>	wet or moist microhabitats are conducive to the species occurrence, but is not necessarily restricted to them; hibernates underground or in or under surface cover; breeds March-August		
Texas Horned Lizard	<i>Phrynosoma cornutum</i>	open, arid and semi-arid regions with sparse vegetation, including grass, cactus, scattered brush or scrubby trees; soil may vary in texture from sandy to rocky; burrows into soil, enters rodent burrows, or hides under rock when inactive; breeds March-September		T
PLANTS				
Bracted twistflower	<i>Streptanthus bracteatus</i>	Texas endemic; shallow, well-drained gravelly clays and clay loams over limestone in oak juniper woodlands and associated openings, on steep to moderate slopes and in canyon bottoms; several known soils include Tarrant, Brackett, or Speck over Edwards, Glen Rose, and Walnut geologic formations; populations fluctuate widely from year to year, depending on winter rainfall; flowering mid April-late May, fruit matures and foliage withers by early summer	C	
Hill country wild-mercury	<i>Argythamnia aphoroides</i>	Texas endemic; mostly in bluestem-grama grasslands associated with plateau live oak woodlands on shallow to moderately deep clays and clay loams over limestone on rolling uplands, also in partial shade of		

Common Name	Scientific Name	Description	Federal Status	State Status
Texas wild-rice	<i>Zizania texana</i>	oak-juniper woodlands in gravelly soils on rocky limestone slopes; flowering April-May with fruit persisting until midsummer Texas endemic; spring-fed river, in clear, cool, swift water mostly less than 1 m deep, with coarse sandy soils rather than finer clays; flowering year-round, peaking March-June	LE	E
Warnock's coral root	<i>Hexalectris warnockii</i>	in leaf litter and humus in oak-juniper woodlands on shaded slopes and intermittent, rocky creekbeds in canyons; in the Trans Pecos in oak-pinyon-juniper woodlands in higher mesic canyons (to 2000 m [6550 ft]), primarily on igneous substrates; in Terrell County under Quercus fusiformis mottes on terraces of spring-fed perennial streams, draining an otherwise rather xeric limestone landscape; on the Callahan Divide (Taylor County), the White Rock Escarpment (Dallas County), and the Edwards Plateau in oak-juniper woodlands on limestone slopes; in Gillespie County on igneous substrates of the Llano Uplift; flowering June-September; individual plants do not usually bloom in successive years		

TABLE 1A-8: THREATENED OR ENDANGERED SPECIES OF LLANO COUNTY

Common Name	Scientific Name	Description	Federal Status	State Status
BIRDS				
American Peregrine Falcon	<i>Falco peregrinus anatum</i>	year-round resident and local breeder in west Texas, nests in tall cliff eyries; also, migrant across state from more northern breeding areas in US and Canada, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.	DL	T
Arctic Peregrine Falcon	<i>Falco peregrinus tundrius</i>	migrant throughout state from subspecies' far northern breeding range, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.	DL	
Bald Eagle	<i>Haliaeetus leucocephalus</i>	found primarily near rivers and large lakes; nests in tall trees or on cliffs near water; communally roosts, especially in winter; hunts live prey, scavenges, and pirates food from other birds	DL	T
Black-capped Vireo	<i>Vireo atricapillus</i>	oak-juniper woodlands with distinctive patchy, two-layered aspect; shrub and tree layer with open, grassy spaces; requires foliage reaching to ground level for nesting cover; return to same territory, or one nearby, year after year; deciduous & broad-leaved shrubs & trees provide insects for feeding; species composition less important than presence of adequate broad-leaved shrubs, foliage to ground level, and required structure; nesting season March-late summer	LE	E
Golden-cheeked Warbler	<i>Setophaga chrysoparia</i>	juniper-oak woodlands; dependent on Ashe juniper (also known as cedar) for long fine bark strips, only available from mature trees, used in nest construction; nests are placed in various trees other than Ashe juniper; only a few mature junipers or nearby cedar brakes can provide the necessary nest material; forage for insects in broad-leaved trees and shrubs; nesting late March-early summer	LE	E
Interior Least Tern	<i>Sterna antillarum athalassos</i>	subspecies is listed only when inland (more than 50 miles from a coastline); nests along sand and gravel bars within braided streams, rivers; also know to nest on man-made structures (inland beaches, wastewater treatment plants, gravel mines, etc); eats small fish and crustaceans, when breeding forages within a few hundred feet of colony	LE	E
Mountain Plover	<i>Charadrius montanus</i>	breeding: nests on high plains or shortgrass prairie, on ground in shallow depression; nonbreeding: shortgrass plains and bare, dirt (plowed) fields; primarily insectivorous		
Peregrine Falcon	<i>Falco peregrinus</i>	both subspecies migrate across the state from more northern breeding areas in US and Canada to winter along coast and farther south; subspecies (F. p. anatum) is also a resident breeder in west Texas; the two subspecies' listing statuses differ, F.p. tundrius is no longer listed in Texas; but because the subspecies are not easily distinguishable at a distance, reference is generally made only to the species level; see subspecies for habitat.	DL	T
Sprague's Pipit	<i>Anthus spragueii</i>	only in Texas during migration and winter, mid September to early April; short to medium distance, diurnal migrant; strongly tied to native upland prairie, can be locally common in coastal grasslands, uncommon to rare further west; sensitive to patch size and avoids edges.	C	
Western Burrowing Owl	<i>Athene cunicularia hypugaea</i>	open grasslands, especially prairie, plains, and savanna, sometimes in open areas such as vacant lots near human habitation or airports; nests and roosts in abandoned burrows		
Whooping Crane	<i>Grus americana</i>	potential migrant via plains throughout most of state to coast; winters in coastal marshes of Aransas, Calhoun, and Refugio counties	LE	E

Common Name	Scientific Name	Description	Federal Status	State Status
Zone-tailed Hawk	<i>Buteo albonotatus</i>	arid open country, including open deciduous or pine-oak woodland, mesa or mountain county, often near watercourses, and wooded canyons and tree-lined rivers along middle-slopes of desert mountains; nests in various habitats and sites, ranging from small trees in lower desert, giant cottonwoods in riparian areas, to mature conifers in high mountain regions		T
FISHES				
Guadalupe Bass	<i>Micropterus treculii</i>	endemic to perennial streams of the Edward's Plateau region; introduced in Nueces River system		
Headwater catfish	<i>Ictalurus lupus</i>	originally throughout streams of the Edwards Plateau and the Rio Grande basin, currently limited to Rio Grande drainage, including Pecos River basin; springs, and sandy and rocky riffles, runs, and pools of clear creeks and small rivers		
MAMMALS				
Black Bear	<i>Ursus americanus</i>	bottomland hardwoods and large tracts of inaccessible forested areas; due to field characteristics similar to Louisiana Black Bear (LT, T), treat all east Texas black bears as federal and state listed Threatened	T/SA; NL	T
Cave Myotis Bat	<i>Myotis velifer</i>	colonial and cave-dwelling; also roosts in rock crevices, old buildings, carports, under bridges, and even in abandoned Cliff Swallow (<i>Hirundo pyrrhonota</i>) nests; roosts in clusters of up to thousands of individuals; hibernates in limestone caves of Edwards Plateau and gypsum cave of Panhandle during winter; opportunistic insectivore		
Gray Wolf	<i>Canis lupus</i>	extirpated; formerly known throughout the western two-thirds of the state in forests, brushlands, or grasslands	LE	E
Llano Pocket Gopher	<i>Geomys texensis texensis</i>	found in deep, brown loamy sands or gravelly sandy loams and is isolated from other species of pocket gophers by intervening shallow stony to gravelly clayey soils		
Plains Spotted Skunk	<i>Spilogale putorius interrupta</i>	catholic; open fields, prairies, croplands, fence rows, farmyards, forest edges, and woodlands; prefers wooded, brushy areas and tallgrass prairie		
Red Wolf	<i>Canis Rufus</i>	extirpated; formerly known throughout eastern half of Texas in brushy and forested areas, as well as coastal prairies	LE	E
MOLLUSKS				
Creeper (squawfoot)	<i>Strophitus undulatus</i>	small to large streams, prefers gravel or gravel and mud in flowing water; Colorado, Guadalupe, San Antonio, Neches (historic), and Trinity (historic) River basins		
False spike mussel	<i>Quadrula mitchelli</i>	possibly extirpated in Texas; probably medium to large rivers; substrates varying from mud through mixtures of sand, gravel and cobble; one study indicated water lilies were present at the site; Rio Grande, Brazos, Colorado, and Guadalupe (historic) river basins		T
Smooth pimpleback	<i>Quadrula houstonensis</i>	small to moderate streams and rivers as well as moderate size reservoirs; mixed mud, sand, and fine gravel, tolerates very slow to moderate flow rates, appears not to tolerate dramatic water level fluctuations, scoured bedrock substrates, or shifting sand bottoms, lower Trinity (questionable), Brazos, and Colorado River basins	C	T
Texas fatmucket	<i>Lampsilis bracteata</i>	streams and rivers on sand, mud, and gravel substrates; intolerant of impoundment; broken bedrock and coarse gravel or sand in moderately flowing water; Colorado and Guadalupe River basins	C	T
Texas fawnsfoot	<i>Truncilla macrodon</i>	little known; possibly rivers and larger streams, and intolerant of impoundment; flowing rice irrigation canals, possibly sand, gravel, and perhaps sandy-mud bottoms in moderate flows; Brazos and Colorado River basins	C	T
Texas pimpleback	<i>Quadrula petrina</i>	mud, gravel and sand substrates, generally in areas with slow flow rates; Colorado and Guadalupe river basins	C	T

Common Name	Scientific Name	Description	Federal Status	State Status
REPTILES				
Spot-tailed Earless Lizard	<i>Holbrookia lacerata</i>	central & southern Texas & adjacent Mexico; moderately open prairie-brushland; fairly flat areas free of vegetation or other obstructions, including disturbed areas; eats small invertebrates; eggs laid underground		
Texas Garter Snake	<i>Thamnophis sirtalis annectens</i>	wet or moist microhabitats are conducive to the species occurrence, but is not necessarily restricted to them; hibernates underground or in or under surface cover; breeds March-August		
Texas Horned Lizard	<i>Phrynosoma cornutum</i>	open, arid and semi-arid regions with sparse vegetation, including grass, cactus, scattered brush or scrubby trees; soil may vary in texture from sandy to rocky; burrows into soil, enters rodent burrows, or hides under rock when inactive; breeds March-September		T
PLANTS				
Basin bellflower	<i>Campanula reverchonii</i>	Texas endemic; among scattered vegetation on loose gravel, gravelly sand, and rock outcrops on open slopes with exposures of igneous and metamorphic rocks; may also occur on sandbars and other alluvial deposits along major rivers; flowering May-July		
Edwards Plateau Cornsalad	<i>Valerianella texana</i>	very shallow, well-drained, but seasonally moist gravelly-sandy soils derived from igneous or metamorphic rocks, often along the downslope margin of rock outcrops, in full sun or in partial shade of oak-juniper woodlands; more likely encountered in early successional areas; population numbers fluctuate considerably from year to year, with higher numbers following winters with higher rains and/or moderate temperatures; peak flowering/fruitletting mid-March-late April, stems wither and disappear by the beginning of May		
Elmendorf's Onion	<i>Allium elmendorffii</i>	Texas endemic; grassland openings in oak woodlands on deep, loose, well-drained sands; in Coastal Bend, on Pleistocene barrier island ridges and Holocene Sand Sheet that support live oak woodlands; to the north it occurs in post oak-black hickory-live oak woodlands over Queen City and similar Eocene formations; one anomalous specimen found on Llano Uplift in wet pockets of granitic loam; flowering March-April, May		
Enquist's sandmint	<i>Brazoria enquistii</i>	Texas endemic ; primarily on sand banks in and along beds of streams that drain granitic or gneissic landscapes; flowering/fruitletting April-June		
Granite spiderwort	<i>Tradescantia pedicellata</i>	Texas endemic; mostly in fractures on outcrops of granite, gneiss, and similar igneous and metamorphic rocks, or in early successional grasslands or forb-dominated assemblages on well-drained, sandy to gravelly soils derived from same; flowering at least April-May		
Llano butterweed	<i>Packera texensis</i>	Endemic to Llano Uplift of Edwards Plateau; granite sands; arises quickly from evergreen winter rosettes during January rains; flowers Feb-March.		
Rock quillwort	<i>Isoetes lithophila</i>	Texas endemic; rooted in sand and gravel under shallow water of seasonal pools (vernal pools) that develop during rainy seasons in small, shallow, unshaded basins on barren outcrops of granite and gneiss; sporulating in late winter and spring, and opportunistically in other seasons following heavy rainfall.		

TABLE 1A-9: THREATENED OR ENDANGERED SPECIES OF MATAGORDA COUNTY

Common Name	Scientific Name	Description	Federal Status	State Status
BIRDS				
American Peregrine Falcon	<i>Falco peregrinus anatum</i>	year-round resident and local breeder in west Texas, nests in tall cliff eyries; also, migrant across state from more northern breeding areas in US and Canada, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.	DL	T
Arctic Peregrine Falcon	<i>Falco peregrinus tundrius</i>	migrant throughout state from subspecies' far northern breeding range, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.	DL	
Bald Eagle	<i>Haliaeetus leucocephalus</i>	found primarily near seacoasts, rivers, and large lakes; nests in tall trees or on cliffs near water; communally roosts, especially in winter; hunts live prey, scavenges, and pirates food from other birds	DL	T
Black Rail	<i>Laterallus jamaicensis</i>	salt, brackish, and freshwater marshes, pond borders, wet meadows, and grassy swamps; nests in or along edge of marsh, sometimes on damp ground, but usually on mat of previous year's dead grasses; nest usually hidden in marsh grass or at base of Salicornia		
Brown Pelican	<i>Pelecanus occidentalis</i>	largely coastal and near shore areas, where it roosts and nests on islands and spoil banks	DL	
Eskimo Curlew	<i>Numenius borealis</i>	historic; nonbreeding; grasslands, pastures, plowed fields, and less frequently, marshes and mudflats	LE	E
Henslow's Sparrow	<i>Ammodramus henslowii</i>	wintering individuals (not flocks) found in weedy fields or cut-over areas where lots of bunch grasses occur along with vines and brambles; a key component is bare ground for running/walking		
Northern Aplomado Falcon	<i>Falco femoralis septentrionalis</i>	open country, especially savanna and open woodland, and sometimes in very barren areas; grassy plains and valleys with scattered mesquite, yucca, and cactus; nests in old stick nests of other bird species	LE	E
Peregrine Falcon	<i>Falco peregrinus</i>	both subspecies migrate across the state from more northern breeding areas in US and Canada to winter along coast and farther south; subspecies (F. p. anatum) is also a resident breeder in west Texas; the two subspecies' listing statuses differ, F.p. tundrius is no longer listed in Texas; but because the subspecies are not easily distinguishable at a distance, reference is generally made only to the species level; see subspecies for habitat.	DL	T
Piping Plover	<i>Charadrius melodus</i>	wintering migrant along the Texas Gulf Coast; beaches and bayside mud or salt flats	LT	T
Reddish Egret	<i>Egretta rufescens</i>	resident of the Texas Gulf Coast; brackish marshes and shallow salt ponds and tidal flats; nests on ground or in trees or bushes, on dry coastal islands in brushy thickets of yucca and prickly pear		T
Snowy Plover	<i>Charadrius alexandrinus</i>	formerly an uncommon breeder in the Panhandle; potential migrant; winter along coast		
Sooty Tern	<i>Sterna fuscata</i>	predominately 'on the wing'; does not dive, but snatches small fish and squid with bill as it flies or hovers over water; breeding April-July		T
Southeastern Snowy Plover	<i>Charadrius alexandrinus tenuirostris</i>	wintering migrant along the Texas Gulf Coast beaches and bayside mud or salt flats		
Sprague's Pipit	<i>Anthus spragueii</i>	only in Texas during migration and winter, mid September to early April; short to medium distance, diurnal migrant; strongly tied to native upland prairie, can be locally common in coastal grasslands, uncommon to rare further west; sensitive to patch size and avoids edges.	C	
Western Burrowing Owl	<i>Athene cunicularia hypugaea</i>	open grasslands, especially prairie, plains, and savanna, sometimes in open areas such as vacant lots near human habitation or airports; nests and roosts in abandoned burrows		
Western Snowy Plover	<i>Charadrius alexandrinus nivosus</i>	uncommon breeder in the Panhandle; potential migrant; winter along coast		

Common Name	Scientific Name	Description	Federal Status	State Status
White-faced Ibis	<i>Plegadis chihi</i>	prefers freshwater marshes, sloughs, and irrigated rice fields, but will attend brackish and saltwater habitats; nests in marshes, in low trees, on the ground in bulrushes or reeds, or on floating mats		T
White-tailed Hawk	<i>Buteo albicaudatus</i>	near coast on prairies, cordgrass flats, and scrub-live oak; further inland on prairies, mesquite and oak savannas, and mixed savanna-chaparral; breeding March-May		T
Whooping Crane	<i>Grus americana</i>	potential migrant via plains throughout most of state to coast; winters in coastal marshes of Aransas, Calhoun, and Refugio counties	LE	E
Wood Stork	<i>Mycteria americana</i>	forages in prairie ponds, flooded pastures or fields, ditches, and other shallow standing water, including salt-water; usually roosts communally in tall snags, sometimes in association with other wading birds (i.e. active heronries); breeds in Mexico and birds move into Gulf States in search of mud flats and other wetlands, even those associated with forested areas; formerly nested in Texas, but no breeding records since 1960		T
CRUSTACEANS				
A crayfish	<i>Cambarellus texanus</i>	shallow water; benthic, burrowing in or using soil; apparently tolerant of warmer waters; prefers standing water of ditches in which there is emergent vegetation; will burrow in dry periods; detritivore		
FISHES				
American Eel	<i>Anguilla rostrata</i>	coastal waterways below reservoirs to gulf; spawns January to February in ocean, larva move to coastal waters, metamorphose, then females move into freshwater; most aquatic habitats with access to ocean, muddy bottoms, still waters, large streams, lakes; can travel overland in wet areas; males in brackish estuaries; diet varies widely, geographically, and seasonally		
Blue sucker	<i>Cycleptus elongatus</i>	larger portions of major rivers in Texas; usually in channels and flowing pools with a moderate current; bottom type usually of exposed bedrock, perhaps in combination with hard clay, sand, and gravel; adults winter in deep pools and move upstream in spring to spawn on riffles		T
Smalltooth sawfish	<i>Pristis pectinata</i>	different life history stages have different patterns of habitat use; young found very close to shore in muddy and sandy bottoms, seldom descending to depths greater than 32 ft (10 m); in sheltered bays, on shallow banks, and in estuaries or river mouths; adult sawfish are encountered in various habitat types (mangrove, reef, seagrass, and coral), in varying salinity regimes and temperatures, and at various water depths, feed on a variety of fish species and crustaceans	LE	E
INSECTS				
Gulf Coast clubtail	<i>Gomphus modestus</i>	medium river, moderate gradient, and streams with silty sand or rocky bottoms; adults forage in trees, males perch near riffles to wait for females, larvae overwinter; flight season late Apr - late Jun		
MAMMALS				
Louisiana Black Bear	<i>Ursus americanus luteolus</i>	possible as transient; bottomland hardwoods and large tracts of inaccessible forested areas	LT	T
Ocelot	<i>Leopardus pardalis</i>	dense chaparral thickets; mesquite-thorn scrub and live oak mottes; avoids open areas; breeds and raises young June-November	LE	E
Plains Spotted Skunk	<i>Spilogale putorius interrupta</i>	catholic; open fields, prairies, croplands, fence rows, farmyards, forest edges, and woodlands; prefers wooded, brushy areas and tallgrass prairie		
Red Wolf	<i>Canis rufus</i>	extirpated; formerly known throughout eastern half of Texas in brushy and forested areas, as well as coastal prairies	LE	E
West Indian Manatee	<i>Trichechus manatus</i>	Gulf and bay system; opportunistic, aquatic herbivore	LE	E
MOLLUSKS				
Creeper (squawfoot)	<i>Strophitus undulatus</i>	small to large streams, prefers gravel or gravel and mud in flowing water; Colorado, Guadalupe, San Antonio, Neches (historic), and Trinity (historic) River basins		
Smooth pimpleback	<i>Quadrula houstonensis</i>	small to moderate streams and rivers as well as moderate size reservoirs; mixed mud, sand, and fine gravel, tolerates very slow to moderate flow rates, appears not to tolerate dramatic water level fluctuations, scoured bedrock substrates, or shifting sand bottoms, lower Trinity (questionable), Brazos, and Colorado River basins	C	T

Common Name	Scientific Name	Description	Federal Status	State Status
Texas fawnsfoot	<i>Truncilla macronon</i>	little known; possibly rivers and larger streams, and intolerant of impoundment; flowing rice irrigation canals, possibly sand, gravel, and perhaps sandy-mud bottoms in moderate flows; Brazos and Colorado River basins	C	T
REPTILES				
Atlantic Hawksbill Sea Turtle	<i>Eretmochelys imbricata</i>	Gulf and bay system, warm shallow waters especially in rocky marine environments, such as coral reefs and jetties, juveniles found in floating mats of sea plants; feed on sponges, jellyfish, sea urchins, molluscs, and crustaceans, nests April through November	LE	E
Green sea turtle	<i>Chelonia mydas</i>	Gulf and bay system; shallow water seagrass beds, open water between feeding and nesting areas, barrier island beaches; adults are herbivorous feeding on sea grass and seaweed; juveniles are omnivorous feeding initially on marine invertebrates, then increasingly on sea grasses and seaweeds; nesting behavior extends from March to October, with peak activity in May and June	LT	T
Gulf Saltmarsh Snake	<i>Nerodia clarkii</i>	saline flats, coastal bays, & brackish river mouths		
Kemp's Ridley Sea Turtle	<i>Lepidochelys kempii</i>	Gulf and bay system, adults stay within the shallow waters of the Gulf of Mexico; feed primarily on crabs, but also snails, clams, other crustaceans and plants, juveniles feed on sargassum and its associated fauna; nests April through August	LE	E
Leatherback Sea Turtle	<i>Dermochelys coriacea</i>	Gulf and bay systems, and widest ranging open water reptile; omnivorous, shows a preference for jellyfish; in the US portion of their western Atlantic nesting territories, nesting season ranges from March to August	LE	E
Loggerhead Sea Turtle	<i>Caretta caretta</i>	Gulf and bay system primarily for juveniles, adults are most pelagic of the sea turtles; omnivorous, shows a preference for mollusks, crustaceans, and coral; nests from April through November	LT	T
Smooth Green Snake	<i>Liophorophis vernalis</i>	Gulf Coastal Plain; mesic coastal shortgrass prairie vegetation; prefers dense vegetation		T
Texas Diamondback Terrapin	<i>Malaclemys terrapin littoralis</i>	coastal marshes, tidal flats, coves, estuaries, and lagoons behind barrier beaches; brackish and salt water; burrows into mud when inactive; may venture into lowlands at high tide		
Texas Horned Lizard	<i>Phrynosoma cornutum</i>	open, arid and semi-arid regions with sparse vegetation, including grass, cactus, scattered brush or scrubby trees; soil may vary in texture from sandy to rocky; burrows into soil, enters rodent burrows, or hides under rock when inactive; breeds March-September		T
Texas scarlet snake	<i>Cemophora coccinea lineri</i>	mixed hardwood scrub on sandy soils; feeds on reptile eggs; semi-fossorial; active April-September		T
Texas Tortoise	<i>Gopherus berlandieri</i>	open brush with a grass understory is preferred; open grass and bare ground are avoided; when inactive occupies shallow depressions at base of bush or cactus, sometimes in underground burrows or under objects; longevity greater than 50 years; active March-November; breeds April-November		T
Timber Rattlesnake	<i>Crotalus horridus</i>	swamps, floodplains, upland pine and deciduous woodlands, riparian zones, abandoned farmland; limestone bluffs, sandy soil or black clay; prefers dense ground cover, i.e. grapevines or palmetto		T
*** PLANTS ***				
Coastal Gay-Feather	<i>Liatris bracteata</i>	Texas endemic; coastal prairie grasslands of various types, from salty prairie on low-lying somewhat saline clay loams to upland prairie on nonsaline clayey to sandy loams; flowering in fall		
Shinner's sunflower	<i>Helianthus occidentalis ssp plantagineus</i>	mostly in prairies on the Coastal Plain, with several slightly disjunct populations in the Pineywoods and South Texas Brush Country		
Threeflower broomweed	<i>Thurovia triflora</i>	Texas endemic; near coast in sparse, low vegetation on a veneer of light colored silt or fine sand over saline clay along drier upper margins of ecotone between between salty prairies and tidal flats; further inland associated with vegetated slick spots on prairie mima mounds; flowering September-November		

TABLE 1A-10: THREATENED OR ENDANGERED SPECIES OF MILLS COUNTY

Common Name	Scientific Name	Description	Federal Status	State Status
BIRDS				
American Peregrine Falcon	<i>Falco peregrinus anatum</i>	year-round resident and local breeder in west Texas, nests in tall cliff eyries; also, migrant across state from more northern breeding areas in US and Canada, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.	DL	T
Arctic Peregrine Falcon	<i>Falco peregrinus tundrius</i>	migrant throughout state from subspecies' far northern breeding range, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.	DL	
Bald Eagle	<i>Haliaeetus leucocephalus</i>	found primarily near rivers and large lakes; nests in tall trees or on cliffs near water; communally roosts, especially in winter; hunts live prey, scavenges, and pirates food from other birds	DL	T
Black-capped Vireo	<i>Vireo atricapilla</i>	oak-juniper woodlands with distinctive patchy, two-layered aspect; shrub and tree layer with open, grassy spaces; requires foliage reaching to ground level for nesting cover; return to same territory, or one nearby, year after year; deciduous and broad-leaved shrubs and trees provide insects for feeding; species composition less important than presence of adequate broad-leaved shrubs, foliage to ground level, and required structure; nesting season March-late summer	LE	E
Golden-cheeked Warbler	<i>Setophaga chrysoparia</i>	juniper-oak woodlands; dependent on Ashe juniper (also known as cedar) for long fine bark strips, only available from mature trees, used in nest construction; nests are placed in various trees other than Ashe juniper; only a few mature junipers or nearby cedar brakes can provide the necessary nest material; forage for insects in broad-leaved trees and shrubs; nesting late March-early summer	LE	E
Interior Least Tern	<i>Sterna antillarum athalassos</i>	subspecies is listed only when inland (more than 50 miles from a coastline); nests along sand and gravel bars within braided streams, rivers; also know to nest on man-made structures (inland beaches, wastewater treatment plants, gravel mines, etc); eats small fish and crustaceans, when breeding forages within a few hundred feet of colony	LE	E
Mountain Plover	<i>Charadrius montanus</i>	breeding: nests on high plains or shortgrass prairie, on ground in shallow depression; nonbreeding: shortgrass plains and bare, dirt (plowed) fields; primarily insectivorous		
Peregrine Falcon	<i>Falco peregrinus</i>	both subspecies migrate across the state from more northern breeding areas in US and Canada to winter along coast and farther south; subspecies (F. p. anatum) is also a resident breeder in west Texas; the two subspecies' listing statuses differ, F.p. tundrius is no longer listed in Texas; but because the subspecies are not easily distinguishable at a distance, reference is generally made only to the species level; see subspecies for habitat.	DL	T
Sprague's Pipit	<i>Anthus spragueii</i>	only in Texas during migration and winter, mid September to early April; short to medium distance, diurnal migrant; strongly tied to native upland prairie, can be locally common in coastal grasslands, uncommon to rare further west; sensitive to patch size and avoids edges.	C	
Western Burrowing Owl	<i>Athene cunicularia hypugaea</i>	open grasslands, especially prairie, plains, and savanna, sometimes in open areas such as vacant lots near human habitation or airports; nests and roosts in abandoned burrows		
Whooping Crane	<i>Grus americana</i>	potential migrant via plains throughout most of state to coast; winters in coastal marshes of Aransas, Calhoun, and Refugio counties	LE	E
FISHES				
Guadalupe Bass	<i>Micropterus treculii</i>	endemic to perennial streams of the Edward's Plateau region; introduced in Nueces River system		
MAMMALS				
Cave Myotis Bat	<i>Myotis velifer</i>	colonial and cave-dwelling; also roosts in rock crevices, old buildings, carpools, under bridges, and even in abandoned Cliff Swallow (<i>Hirundo pyrrhonota</i>) nests; roosts in clusters of up to thousands of individuals; hibernates in limestone caves of Edwards Plateau and gypsum cave of		

		Panhandle during winter; opportunistic insectivore		
Gray Wolf	<i>Canis lupus</i>	extirpated; formerly known throughout the western two-thirds of the state in forests, brushlands, or grasslands	LE	E
Llano pocket gopher	<i>Geomys texensis texensis</i>	found in deep, brown loamy sands or gravelly sandy loams and is isolated from other species of pocket gophers by intervening shallow stony to gravelly clayey soils		
Red Wolf	<i>Canis rufus</i>	extirpated; formerly known throughout eastern half of Texas in brushy and forested areas, as well as coastal prairies	LE	E
MOLLUSKS				
Creeper (squawfoot)	<i>Strophitus undulatus</i>	small to large streams, prefers gravel or gravel and mud in flowing water; Colorado, Guadalupe, San Antonio, Neches (historic), and Trinity (historic) River basins		
False spike mussel	<i>Quadrula mitchelli</i>	possibly extirpated in Texas; probably medium to large rivers; substrates varying from mud through mixtures of sand, gravel and cobble; one study indicated water lilies were present at the site; Rio Grande, Brazos, Colorado, and Guadalupe (historic) river basins		T
Smooth pimpleback	<i>Quadrula houstonensis</i>	small to moderate streams and rivers as well as moderate size reservoirs; mixed mud, sand, and fine gravel, tolerates very slow to moderate flow rates, appears not to tolerate dramatic water level fluctuations, scoured bedrock substrates, or shifting sand bottoms, lower Trinity (questionable), Brazos, and Colorado River basins	C	T
Texas fawnsfoot	<i>Truncilla macrodon</i>	little known; possibly rivers and larger streams, and intolerant of impoundment; flowing rice irrigation canals, possibly sand, gravel, and perhaps sandy-mud bottoms in moderate flows; Brazos and Colorado River basins	C	T
Texas pimpleback	<i>Quadrula petrina</i>	mud, gravel and sand substrates, generally in areas with slow flow rates; Colorado and Guadalupe river basins	C	T
REPTILES				
Concho Water Snake	<i>Nerodia paucimaculata</i>	Texas endemic; Concho and Colorado river systems; shallow fast-flowing water with a rocky or gravelly substrate preferred; adults can be found in deep water with mud bottoms; breeding March-October	DL	
Texas Horned Lizard	<i>Phrynosoma cornutum</i>	open, arid and semi-arid regions with sparse vegetation, including grass, cactus, scattered brush or scrubby trees; soil may vary in texture from sandy to rocky; burrows into soil, enters rodent burrows, or hides under rock when inactive; breeds March-September		T
VASCULAR PLANTS				
Hill Country Wild-Mercury	<i>Argythamnia aphoroides</i>	Texas endemic; mostly in bluestem-grama grasslands associated with plateau live oak woodlands on shallow to moderately deep clays and clay loams over limestone on rolling uplands, also in partial shade of oak-juniper woodlands in gravelly soils on rocky limestone slopes; flowering April-May with fruit persisting until midsummer		

TABLE 1A-11: THREATENED OR ENDANGERED SPECIES OF SAN SABA COUNTY

Common Name	Scientific Name	Description	Federal Status	State Status
BIRDS				
American Peregrine Falcon	<i>Falco peregrinus anatum</i>	year-round resident and local breeder in west Texas, nests in tall cliff eyries; also, migrant across state from more northern breeding areas in US and Canada, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.	DL	T
Arctic Peregrine Falcon	<i>Falco peregrinus tundrius</i>	migrant throughout state from subspecies' far northern breeding range, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.	DL	
Baird's Sparrow	<i>Ammodramus bairdii</i>	shortgrass prairie with scattered low bushes and matted vegetation; mostly migratory in western half of State, though winters in Mexico and just across Rio Grande into Texas from Brewster through Hudspeth counties		
Bald Eagle	<i>Haliaeetus leucocephalus</i>	found primarily near rivers and large lakes; nests in tall trees or on cliffs near water; communally roosts, especially in winter; hunts live prey, scavenges, and pirates food from other birds	DL	T
Black-capped Vireo	<i>Vireo atricapilla</i>	oak-juniper woodlands with distinctive patchy, two-layered aspect; shrub and tree layer with open, grassy spaces; requires foliage reaching to ground level for nesting cover; return to same territory, or one nearby, year after year; deciduous and broad-leaved shrubs and trees provide insects for feeding; species composition less important than presence of adequate broad-leaved shrubs, foliage to ground level, and required structure; nesting season March-late summer	LE	E
Golden-cheeked Warbler	<i>Setophaga chrysoparia</i>	juniper-oak woodlands; dependent on Ashe juniper (also known as cedar) for long fine bark strips, only available from mature trees, used in nest construction; nests are placed in various trees other than Ashe juniper; only a few mature junipers or nearby cedar brakes can provide the necessary nest material; forage for insects in broad-leaved trees and shrubs; nesting late March-early summer	LE	E
Interior Least Tern	<i>Sterna Antillarum Athalassos</i>	subspecies is listed only when inland (more than 50 miles from a coastline); nests along sand and gravel bars within braided streams, rivers; also know to nest on man-made structures (inland beaches, wastewater treatment plants, gravel mines, etc); eats small fish and crustaceans, when breeding forages within a few hundred feet of colony	LE	E
Mountain Plover	<i>Charadrius montanus</i>	breeding: nests on high plains or shortgrass prairie, on ground in shallow depression; nonbreeding: shortgrass plains and bare, dirt (plowed) fields; primarily insectivorous		
Peregrine Falcon	<i>Falco peregrinus</i>	both subspecies migrate across the state from more northern breeding areas in US and Canada to winter along coast and farther south; subspecies (F. p. anatum) is also a resident breeder in west Texas; the two subspecies' listing statuses differ, F.p. tundrius is no longer listed in Texas; but because the subspecies are not easily distinguishable at a distance, reference is generally made only to the species level; see subspecies for habitat.	DL	T
Sprague's Pipit	<i>Anthus spragueii</i>	only in Texas during migration and winter, mid September to early April; short to medium distance, diurnal migrant; strongly tied to native upland prairie, can be locally common in coastal grasslands, uncommon to rare further west; sensitive to patch size and avoids edges.	C	
Western Burrowing Owl	<i>Athene cunicularia hypugaea</i>	open grasslands, especially prairie, plains, and savanna, sometimes in open areas such as vacant lots near human habitation or airports; nests and roosts in abandoned burrows		
Whooping Crane	<i>Grus americana</i>	potential migrant via plains throughout most of state to coast; winters in coastal marshes of Aransas, Calhoun, and Refugio counties	LE	E
Zone-tailed Hawk	<i>Buteo albonotatus</i>	arid open country, including open deciduous or pine-oak woodland, mesa or mountain country, often near watercourses, and wooded canyons and tree-lined rivers along middle-slopes of desert mountains; nests in various habitats and sites, ranging from small trees in lower desert, giant cottonwoods in riparian areas, to mature conifers in high mountain regions		T

Common Name	Scientific Name	Description	Federal Status	State Status
CRUSTACEANS				
Reddell's cave amphipod	<i>Stygobromus reddelli</i>	subterranean obligate; small cave streams		
FISHES				
Guadalupe Bass	<i>Micropterus treculii</i>	endemic to perennial streams of the Edward's Plateau region; introduced in Nueces River system		
Headwater catfish	<i>Ictalurus lupus</i>	originally throughout streams of the Edwards Plateau and the Rio Grande basin, currently limited to Rio Grande drainage, including Pecos River basin; springs, and sandy and rocky riffles, runs, and pools of clear creeks and small rivers		
Sharpnose shiner	<i>Notropis oxyrhynchus</i>	endemic to Brazos River drainage; also, apparently introduced into adjacent Colorado River drainage; large turbid river, with bottom a combination of sand, gravel, and clay-mud	E	
MAMMALS				
Cave Myotis Bat	<i>Myotis velifer</i>	colonial and cave-dwelling; also roosts in rock crevices, old buildings, carports, under bridges, and even in abandoned Cliff Swallow (<i>Hirundo pyrrhonota</i>) nests; roosts in clusters of up to thousands of individuals; hibernates in limestone caves of Edwards Plateau and gypsum cave of Panhandle during winter; opportunistic insectivore		
Gray Wolf	<i>Canis lupus</i>	extirpated; formerly known throughout the western two-thirds of the state in forests, brushlands, or grasslands	LE	E
Llano Pocket Gopher	<i>Geomys texensis texensis</i>	found in deep, brown loamy sands or gravelly sandy loams and is isolated from other species of pocket gophers by intervening shallow stony to gravelly clayey soils		
Red Wolf	<i>Canis rufus</i>	extirpated; formerly known throughout eastern half of Texas in brushy and forested areas, as well as coastal prairies	LE	E
MOLLUSKS				
Creeper (squawfoot)	<i>Strophitus undulatus</i>	small to large streams, prefers gravel or gravel and mud in flowing water; Colorado, Guadalupe, San Antonio, Neches (historic), and Trinity (historic) River basins		
False spike mussel	<i>Quincuncina mitchelli</i>	possibly extirpated in Texas; probably medium to large rivers; substrates varying from mud through mixtures of sand, gravel and cobble; one study indicated water lilies were present at the site; Rio Grande, Brazos, Colorado, and Guadalupe (historic) river basins		T
Smooth pimpleback	<i>Quadrula houstonensis</i>	small to moderate streams and rivers as well as moderate size reservoirs; mixed mud, sand, and fine gravel, tolerates very slow to moderate flow rates, appears not to tolerate dramatic water level fluctuations, scoured bedrock substrates, or shifting sand bottoms, lower Trinity (questionable), Brazos, and Colorado River basins	C	T
Texas fatmucket	<i>Lampsilis bracteata</i>	streams and rivers on sand, mud, and gravel substrates; intolerant of impoundment; broken bedrock and coarse gravel or sand in moderately flowing water; Colorado and Guadalupe River basins	C	T
Texas fawnsfoot	<i>Truncilla macrodon</i>	little known; possibly rivers and larger streams, and intolerant of impoundment; flowing rice irrigation canals, possibly sand, gravel, and perhaps sandy-mud bottoms in moderate flows; Brazos and Colorado River basins	C	T
Texas pimpleback	<i>Quadrula petrina</i>	mud, gravel and sand substrates, generally in areas with slow flow rates; Colorado and Guadalupe river basins	C	T
REPTILES				
Concho water snake	<i>Nerodia paucimaculata</i>	Texas endemic; Concho and Colorado river systems; shallow fast-flowing water with a rocky or gravelly substrate preferred; adults can be found in deep water with mud bottoms; breeding March-October	DL	
Spot-tailed earless lizard	<i>Holbrookia lacerata</i>	central and southern Texas and adjacent Mexico; moderately open prairie-brushland; fairly flat areas free of vegetation or other obstructions, including disturbed areas; eats small invertebrates; eggs laid underground		
Texas horned lizard	<i>Phrynosoma cornutum</i>	open, arid and semi-arid regions with sparse vegetation, including grass, cactus, scattered brush or scrubby trees; soil may vary in texture from sandy to rocky; burrows into soil, enters rodent burrows, or hides under rock when inactive; breeds March-September		T

Common Name	Scientific Name	Description	Federal Status	State Status
PLANTS				
Basin bellflower	<i>Campanula reverchonii</i>	Texas endemic; among scattered vegetation on loose gravel, gravelly sand, and rock outcrops on open slopes with exposures of igneous and metamorphic rocks; may also occur on sandbars and other alluvial deposits along major rivers; flowering May-July		

TABLE 1A-12: THREATENED OR ENDANGERED SPECIES OF TRAVIS COUNTY

Common Name	Scientific Name	Description	Federal Status	State Status
AMPHIBIANS				
Austin Blind Salamander	<i>Eurycea waterlooensis</i>	mostly restricted to subterranean cavities of the Edwards Aquifer; dependent upon water flow/quality from the Barton Springs segment of the Edwards Aquifer; only known from the outlets of Barton Springs (Sunken Gardens (Old Mill) Spring, Eliza Spring, and Parthenia (Main) Spring which forms Barton Springs Pool); feeds on amphipods, ostracods, copepods, plant material, and (in captivity) a wide variety of small aquatic invertebrates	E	
Barton Springs Salamander	<i>Eurycea sosorum</i>	dependent upon water flow/quality from the Barton Springs pool of the Edwards Aquifer; known from the outlets of Barton Springs and subterranean water-filled caverns; found under rocks, in gravel, or among aquatic vascular plants and algae, as available; feeds primarily on amphipods	LE	E
Jollyville Plateau Salamander	<i>Eurycea tonkawae</i>	known from springs and waters of some caves north of the Colorado River	T	
Pedernales River Springs Salamander	<i>Eurycea sp. 6</i>	endemic; known only from springs		
ARACHNIDS				
Bandit Cave Spider	<i>Cicurina bandida</i>	very small, subterrestrial, subterranean obligate		
Bee Creek Cave harvestman	<i>Texella reddelli</i>	small, blind, cave-adapted harvestman endemic to a few caves in Travis and Williamson counties	LE	
Bone Cave Harvestman	<i>Texella reyesi</i>	small, blind, cave-adapted harvestman endemic to a few caves in Travis and Williamson counties; weakly differentiated from <i>Texella reddelli</i>	LE	
Tooth Cave Pseudoscorpion	<i>Tartarocreagris texana</i>	small, cave-adapted pseudoscorpion known from small limestone caves of the Edwards Plateau	LE	
Tooth Cave Spider	<i>Neoleptoneta myopica</i>	very small, cave-adapted, sedentary spider	LE	
Warton's cave meshweaver	<i>Cicurina wartoni</i>	very small, cave-adapted spider	C	
BIRDS				
American Peregrine Falcon	<i>Falco peregrinus anatum</i>	year-round resident and local breeder in west Texas, nests in tall cliff eyries; also, migrant across state from more northern breeding areas in US and Canada, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.	DL	T
Arctic Peregrine Falcon	<i>Falco peregrinus tundrius</i>	migrant throughout state from subspecies' far northern breeding range, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.	DL	
Bald Eagle	<i>Haliaeetus leucocephalus</i>	found primarily near rivers and large lakes; nests in tall trees or on cliffs near water; communally roosts, especially in winter; hunts live prey, scavenges, and pirates food from other birds	DL	T
Black-capped Vireo	<i>Vireo atricapillus</i>	oak-juniper woodlands with distinctive patchy, two-layered aspect; shrub and tree layer with open, grassy spaces; requires foliage reaching to ground level for nesting cover; return to same territory, or one nearby, year after year; deciduous and broad-leaved shrubs and trees provide insects for feeding; species composition less important than presence of adequate broad-leaved shrubs, foliage to ground level, and required structure; nesting season March-late summer	LE	E
Golden-cheeked Warbler	<i>Setophaga chrysoparia</i>	juniper-oak woodlands; dependent on Ashe juniper (also known as cedar) for long fine bark strips, only available from mature trees, used in nest construction; nests are placed in various trees other than Ashe juniper; only a few mature junipers or nearby cedar brakes can provide the necessary nest material; forage for insects in broad-	LE	E

Common Name	Scientific Name	Description	Federal Status	State Status
		leaved trees and shrubs; nesting late March-early summer		
Interior Least Tern	<i>Sterna antillarum athalassos</i>	subspecies is listed only when inland (more than 50 miles from a coastline); nests along sand and gravel bars within braided streams, rivers; also know to nest on man-made structures (inland beaches, wastewater treatment plants, gravel mines, etc); eats small fish and crustaceans, when breeding forages within a few hundred feet of colony	LE	E
Mountain Plover	<i>Charadrius montanus</i>	breeding: nests on high plains or shortgrass prairie, on ground in shallow depression; nonbreeding: shortgrass plains and bare, dirt (plowed) fields; primarily insectivorous		
Peregrine Falcon	<i>Falco peregrinus</i>	both subspecies migrate across the state from more northern breeding areas in US and Canada to winter along coast and farther south; subspecies (F. p. anatum) is also a resident breeder in west Texas; the two subspecies' listing statuses differ, F.p. tundrius is no longer listed in Texas; but because the subspecies are not easily distinguishable at a distance, reference is generally made only to the species level; see subspecies for habitat.	DL	T
Sprague's Pipit	<i>Anthus spragueii</i>	only in Texas during migration and winter, mid September to early April; short to medium distance, diurnal migrant; strongly tied to native upland prairie, can be locally common in coastal grasslands, uncommon to rare further west; sensitive to patch size and avoids edges.	C	
Western Burrowing Owl	<i>Athene cunicularia hypugaea</i>	open grasslands, especially prairie, plains, and savanna, sometimes in open areas such as vacant lots near human habitation or airports; nests and roosts in abandoned burrows		
Whooping Crane	<i>Grus americana</i>	potential migrant via plains throughout most of state to coast; winters in coastal marshes of Aransas, Calhoun, and Refugio counties	LE	E
CRUSTACEANS				
An Amphipod	<i>Stygobromus russelli</i>	subterranean waters, usually in caves & limestone aquifers; resident of numerous caves in ca. 10 counties of the Edwards Plateau		
Balcones Cave amphipod	<i>Stygobromus balconis</i>	subaquatic, subterranean obligate amphipod		
Bifurcated Cave Amphipod	<i>Stygobromus bifurcatus</i>	found in cave pools		
FISHES				
Guadalupe Bass	<i>Micropterus treculii</i>	endemic to perennial streams of the Edward's Plateau region; introduced in Nueces River system		
Smalleye shiner	<i>Notropis buccula</i>	endemic to upper Brazos River system and its tributaries (Clear Fork and Bosque); apparently introduced into adjacent Colorado River drainage; medium to large prairie streams with sandy substrate and turbid to clear warm water; presumably eats small aquatic invertebrates	E	
INSECTS				
Kretschmarr Cave Mold Beetle	<i>Texamaurops reddelli</i>	small, cave-adapted beetle found under rocks buried in silt; small, Edwards Limestone caves in of the Jollyville Plateau, a division of the Edwards Plateau	LE	
Leonora's dancer damselfly	<i>Argia leonorae</i>	south central and western Texas; small streams and seepages		
Rawson's metalmark	<i>Calephelis rawsoni</i>	moist areas in shaded limestone outcrops in central Texas, desert scrub or oak woodland in foothills, or along rivers elsewhere; larval hosts are Eupatorium havanense, E. greggi.		
Tooth Cave Blind Rove Beetle	<i>Cylindropsis sp. 1</i>	one specimen collected from Tooth Cave; only known North American collection of this genus		
Tooth Cave Ground Beetle	<i>Rhadine persephone</i>	resident, small, cave-adapted beetle found in small Edwards Limestone caves in Travis and Williamson counties	LE	
MAMMALS				

Common Name	Scientific Name	Description	Federal Status	State Status
Cave Myotis Bat	<i>Myotis velifer</i>	colonial and cave-dwelling; also roosts in rock crevices, old buildings, carports, under bridges, and even in abandoned Cliff Swallow (<i>Hirundo pyrrhonota</i>) nests; roosts in clusters of up to thousands of individuals; hibernates in limestone caves of Edwards Plateau and gypsum cave of Panhandle during winter; opportunistic insectivore		
Plains Spotted Skunk	<i>Spilogale putorius interrupta</i>	catholic; open fields, prairies, croplands, fence rows, farmyards, forest edges, and woodlands; prefers wooded, brushy areas and tallgrass prairie		
Red Wolf	<i>Canis rufus</i>	extirpated; formerly known throughout eastern half of Texas in brushy and forested areas, as well as coastal prairies	LE	E
MOLLUSKS				
Creeper (squawfoot)	<i>Strophitus undulatus</i>	small to large streams, prefers gravel or gravel and mud in flowing water; Colorado, Guadalupe, San Antonio, Neches (historic), and Trinity (historic) River basins		
False spike mussel	<i>Quadrula mitchelli</i>	possibly extirpated in Texas; probably medium to large rivers; substrates varying from mud through mixtures of sand, gravel and cobble; one study indicated water lilies were present at the site; Rio Grande, Brazos, Colorado, and Guadalupe (historic) river basins		T
Smooth pimpleback	<i>Quadrula houstonensis</i>	small to moderate streams and rivers as well as moderate size reservoirs; mixed mud, sand, and fine gravel, tolerates very slow to moderate flow rates, appears not to tolerate dramatic water level fluctuations, scoured bedrock substrates, or shifting sand bottoms, lower Trinity (questionable), Brazos, and Colorado River basins	C	T
Texas fatmucket	<i>Lampsilis bracteata</i>	streams and rivers on sand, mud, and gravel substrates; intolerant of impoundment; broken bedrock and coarse gravel or sand in moderately flowing water; Colorado and Guadalupe River basins	C	T
Texas fawnsfoot	<i>Truncilla macrondon</i>	little known; possibly rivers and larger streams, and intolerant of impoundment; flowing rice irrigation canals, possibly sand, gravel, and perhaps sandy-mud bottoms in moderate flows; Brazos and Colorado River basins	C	T
Texas pimpleback	<i>Quadrula petrina</i>	mud, gravel and sand substrates, generally in areas with slow flow rates; Colorado and Guadalupe river basins	C	T
REPTILES				
Spot-tailed Earless Lizard	<i>Holbrookia lacerata</i>	central and southern Texas and adjacent Mexico; moderately open prairie-brushland; fairly flat areas free of vegetation or other obstructions, including disturbed areas; eats small invertebrates; eggs laid underground		
Texas Garter Snake	<i>Thamnophis sirtalis annectens</i>	wet or moist microhabitats are conducive to the species occurrence, but is not necessarily restricted to them; hibernates underground or in or under surface cover; breeds March-August		
Texas Horned Lizard	<i>Phrynosoma cornutum</i>	open, arid and semi-arid regions with sparse vegetation, including grass, cactus, scattered brush or scrubby trees; soil may vary in texture from sandy to rocky; burrows into soil, enters rodent burrows, or hides under rock when inactive; breeds March-September		T
*** PLANTS***				
Basin bellflower	<i>Campanula reverchonii</i>	Texas endemic; among scattered vegetation on loose gravel, gravelly sand, and rock outcrops on open slopes with exposures of igneous and metamorphic rocks; may also occur on sandbars and other alluvial deposits along major rivers; flowering May-July		
Boerne bean	<i>Phaseolus texensis</i>	Narrowly endemic to rocky canyons in eastern and southern Edwards Plateau occurring on limestone soils in mixed woodlands, on limestone cliffs and outcrops, frequently along creeks.		
Bracted twistflower	<i>Streptanthus bracteatus</i>	Texas endemic; shallow, well-drained gravelly clays and clay loams over limestone in oak juniper woodlands and associated openings, on steep to moderate slopes and in canyon bottoms; several known soils include Tarrant, Brackett, or Speck over Edwards, Glen Rose, and Walnut geologic formations; populations fluctuate widely from year to year, depending on winter rainfall; flowering mid April-late May, fruit matures and foliage withers by early summer	C	

Common Name	Scientific Name	Description	Federal Status	State Status
Correll's false dragon-head	<i>Physostegia correllii</i>	wet, silty clay loams on streamsides, in creek beds, irrigation channels and roadside drainage ditches; or seepy, mucky, sometimes gravelly soils along riverbanks or small islands in the Rio Grande; or underlain by Austin Chalk limestone along gently flowing spring-fed creek in central Texas; flowering May-September		
Texabama croton	<i>Croton alabamensis</i> <i>var. texensis</i>	Texas endemic; in duff-covered loamy clay soils on rocky slopes in forested, mesic limestone canyons; locally abundant on deeper soils on small terraces in canyon bottoms, often forming large colonies and dominating the shrub layer; scattered individuals are occasionally on sunny margins of such forests; also found in contrasting habitat of deep, friable soils of limestone uplands, mostly in the shade of evergreen woodland mottes; flowering late February-March; fruit maturing and dehiscing by early June		
Warnock's coral-root	<i>Hexalectris warnockii</i>	in leaf litter and humus in oak-juniper woodlands on shaded slopes and intermittent, rocky creekbeds in canyons; in the Trans Pecos in oak-pinyon-juniper woodlands in higher mesic canyons (to 2000 m [6550 ft]), primarily on igneous substrates; in Terrell County under <i>Quercus fusiformis</i> mottes on terraces of spring-fed perennial streams, draining an otherwise rather xeric limestone landscape; on the Callahan Divide (Taylor County), the White Rock Escarpment (Dallas County), and the Edwards Plateau in oak-juniper woodlands on limestone slopes; in Gillespie County on igneous substrates of the Llano Uplift; flowering June-September; individual plants do not usually bloom in successive years		

TABLE 1A-13: THREATENED OR ENDANGERED SPECIES OF WHARTON COUNTY

Common Name	Scientific Name	Description	Federal Status	State Status
AMPHIBIANS				
Southern Crawfish Frog	<i>Lithobates areolatus areolatus</i>	The Southern Crawfish Frog can be found in abandoned crawfish holes and small mammal burrows. This species inhabits moist meadows, pasturelands, pine scrub, and river flood plains. This species spends nearly all of its time in burrows and only leaves the burrow area to breed. Although this species can be difficult to detect due to its reclusive nature, the call of breeding males can be heard over great distances. Eggs are laid and larvae develop in temporary water such as flooded fields, ditches, farm ponds and small lakes. Habitat: Shallow water, Herbaceous Wetland, Riparian, Temporary Pool, Cropland/hedgerow, Grassland/herbaceous, Suburban/orchard, Woodland – Conifer.		
BIRDS				
American Peregrine Falcon	<i>Falco peregrinus anatum</i>	year-round resident and local breeder in west Texas, nests in tall cliff eyries; also, migrant across state from more northern breeding areas in US and Canada, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.	DL	T
Arctic Peregrine Falcon	<i>Falco peregrinus tundrius</i>	migrant throughout state from subspecies' far northern breeding range, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.	DL	
Attwater's Greater Prairie-chicken	<i>Tympanuchus cupido attwateri</i>	this county within historic range; endemic; open prairies of mostly thick grass one to three feet tall; from near sea level to 200 feet along coastal plain on upper two-thirds of Texas coast; males form communal display flocks during late winter-early spring; booming grounds important; breeding February-July	LE	E
Bald Eagle	<i>Haliaeetus leucocephalus</i>	found primarily near rivers and large lakes; nests in tall trees or on cliffs near water; communally roosts, especially in winter; hunts live prey, scavenges, and pirates food from other birds	DL	T
Henslow's Sparrow	<i>Ammodramus henslowii</i>	wintering individuals (not flocks) found in weedy fields or cut-over areas where lots of bunch grasses occur along with vines and brambles; a key component is bare ground for running/walking		
Interior Least Tern	<i>Sterna antillarum athalassos</i>	subspecies is listed only when inland (more than 50 miles from a coastline); nests along sand and gravel bars within braided streams, rivers; also know to nest on man-made structures (inland beaches, wastewater treatment plants, gravel mines, etc); eats small fish and crustaceans, when breeding forages within a few hundred feet of colony	LE	E
Peregrine Falcon	<i>Falco peregrinus</i>	both subspecies migrate across the state from more northern breeding areas in US and Canada to winter along coast and farther south; subspecies (F. p. anatum) is also a resident breeder in west Texas; the two subspecies' listing statuses differ, F.p. tundrius is no longer listed in Texas; but because the subspecies are not easily distinguishable at a distance, reference is generally made only to the species level; see subspecies for habitat.	DL	T
Sprague's Pipit	<i>Anthus spragueii</i>	only in Texas during migration and winter, mid September to early April; short to medium distance, diurnal migrant; strongly tied to native upland prairie, can be locally common in coastal grasslands, uncommon to rare further west; sensitive to patch size and avoids edges.	C	
Western Burrowing Owl	<i>Athene cunicularia hypugaea</i>	open grasslands, especially prairie, plains, and savanna, sometimes in open areas such as vacant lots near human habitation or airports; nests and roosts in abandoned burrows		
White-faced Ibis	<i>Plegadis chihi</i>	prefers freshwater marshes, sloughs, and irrigated rice fields, but will attend brackish and saltwater habitats; nests in marshes, in low trees, on the ground in bulrushes or reeds, or on floating mats		T
White-tailed Hawk	<i>Buteo albicaudatus</i>	near coast on prairies, cordgrass flats, and scrub-live oak; further inland on prairies, mesquite and oak savannas, and mixed savanna-chaparral; breeding March-May		T
Whooping Crane	<i>Grus americana</i>	potential migrant via plains throughout most of state to coast; winters in coastal marshes of Aransas, Calhoun, and Refugio counties	LE	E

Common Name	Scientific Name	Description	Federal Status	State Status
Wood Stork	<i>Mycteria americana</i>	forages in prairie ponds, flooded pastures or fields, ditches, and other shallow standing water, including salt-water; usually roosts communally in tall snags, sometimes in association with other wading birds (i.e. active heronries); breeds in Mexico and birds move into Gulf States in search of mud flats and other wetlands, even those associated with forested areas; formerly nested in Texas, but no breeding records since 1960		T
CRUSTACEANS				
A crayfish	<i>Cambarellus texanus</i>	shallow water; benthic, burrowing in or using soil; apparently tolerant of warmer waters; prefers standing water of ditches in which there is emergent vegetation; will burrow in dry periods; detritivore		
FISHES				
American Eel	<i>Anguilla rostrata</i>	coastal waterways below reservoirs to gulf; spawns January to February in ocean, larva move to coastal waters, metamorphose, then females move into freshwater; most aquatic habitats with access to ocean, muddy bottoms, still waters, large streams, lakes; can travel overland in wet areas; males in brackish estuaries; diet varies widely, geographically, and seasonally		
Blue sucker	<i>Cycleptus elongatus</i>	larger portions of major rivers in Texas; usually in channels and flowing pools with a moderate current; bottom type usually of exposed bedrock, perhaps in combination with hard clay, sand, and gravel; adults winter in deep pools and move upstream in spring to spawn on riffles		T
Sharpnose shiner	<i>Notropis oxyrhynchus</i>	endemic to Brazos River drainage; also, apparently introduced into adjacent Colorado River drainage; large turbid river, with bottom a combination of sand, gravel, and clay-mud	E	
MAMMALS				
Louisiana Black Bear	<i>Ursus americanus luteolus</i>	possible as transient; bottomland hardwoods and large tracts of inaccessible forested areas	LT	T
Plains Spotted Skunk	<i>Spilogale putorius interrupta</i>	catholic; open fields, prairies, croplands, fence rows, farmyards, forest edges, and woodlands; prefers wooded, brushy areas and tallgrass prairie		
Red wolf	<i>Canis rufus</i>	extirpated; formerly known throughout eastern half of Texas in brushy and forested areas, as well as coastal prairies	LE	E
MOLLUSKS				
Creepers (squawfoot)	<i>Strophitus undulatus</i>	small to large streams, prefers gravel or gravel and mud in flowing water; Colorado, Guadalupe, San Antonio, Neches (historic), and Trinity (historic) River basins		
False spike mussel	<i>Quadrula mitchelli</i>	possibly extirpated in Texas; probably medium to large rivers; substrates varying from mud through mixtures of sand, gravel and cobble; one study indicated water lilies were present at the site; Rio Grande, Brazos, Colorado, and Guadalupe (historic) river basins		T
Smooth pimpleback	<i>Quadrula houstonensis</i>	small to moderate streams and rivers as well as moderate size reservoirs; mixed mud, sand, and fine gravel, tolerates very slow to moderate flow rates, appears not to tolerate dramatic water level fluctuations, scoured bedrock substrates, or shifting sand bottoms, lower Trinity (questionable), Brazos, and Colorado River basins	C	T
Texas fawnsfoot	<i>Truncilla macrodon</i>	little known; possibly rivers and larger streams, and intolerant of impoundment; flowing rice irrigation canals, possibly sand, gravel, and perhaps sandy-mud bottoms in moderate flows; Brazos and Colorado River basins	C	T
Texas pimpleback	<i>Quadrula petrina</i>	mud, gravel and sand substrates, generally in areas with slow flow rates; Colorado and Guadalupe river basins	C	T
REPTILES				
Texas Horned Lizard	<i>Phrynosoma cornutum</i>	open, arid and semi-arid regions with sparse vegetation, including grass, cactus, scattered brush or scrubby trees; soil may vary in texture from sandy to rocky; burrows into soil, enters rodent burrows, or hides under rock when inactive; breeds March-September		T

Common Name	Scientific Name	Description	Federal Status	State Status
Timber Rattlesnake	<i>Crotalus horridus</i>	swamps, floodplains, upland pine and deciduous woodlands, riparian zones, abandoned farmland; limestone bluffs, sandy soil or black clay; prefers dense ground cover, i.e. grapevines or palmetto		T

TABLE 1A-14: THREATENED OR ENDANGERED SPECIES OF WILLIAMSON COUNTY

Common Name	Scientific Name	Description	Federal Status	State Status
AMPHIBIANS				
Georgetown Salamander	<i>Eurycea naufragia</i>	endemic; known from springs and waters in and around town of Georgetown in Williamson County	T	
Jollyville Plateau Salamander	<i>Eurycea tonkawae</i>	known from springs and waters of some caves north of the Colorado River	T	
Salado Springs salamander	<i>Eurycea chisholmensis</i>	endemic; surface springs and subterranean waters of the Salado Springs system along Salado Creek	T	
Southern Crawfish Frog	<i>Lithobates areolatus areolatus</i>	The Southern Crawfish Frog can be found in abandoned crawfish holes and small mammal burrows. This species inhabits moist meadows, pasturelands, pine scrub, and river flood plains. This species spends nearly all of its time in burrows and only leaves the burrow area to breed. Although this species can be difficult to detect due to its reclusive nature, the call of breeding males can be heard over great distances. Eggs are laid and larvae develop in temporary water such as flooded fields, ditches, farm ponds and small lakes. Habitat: Shallow water, Herbaceous Wetland, Riparian, Temporary Pool, Cropland/hedgerow, Grassland/herbaceous, Suburban/orchard, Woodland – Conifer.		
ARACHNIDS				
Bandit Cave spider	<i>Cicurina bandida</i>	very small, subterrestrial, subterranean obligate		
Bone Cave Harvestman	<i>Texella reyesi</i>	small, blind, cave-adapted harvestman endemic to a few caves in Travis and Williamson counties; weakly differentiated from <i>Texella reddelli</i>	LE	
BIRDS				
American Peregrine Falcon	<i>Falco peregrinus anatum</i>	year-round resident and local breeder in west Texas, nests in tall cliff eyries; also, migrant across state from more northern breeding areas in US and Canada, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.	DL	T
Arctic Peregrine Falcon	<i>Falco peregrinus tundrius</i>	migrant throughout state from subspecies' far northern breeding range, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.	DL	
Bald Eagle	<i>Haliaeetus leucocephalus</i>	found primarily near rivers and large lakes; nests in tall trees or on cliffs near water; communally roosts, especially in winter; hunts live prey, scavenges, and pirates food from other birds	DL	T
Black-capped Vireo	<i>Vireo atricapilla</i>	oak-juniper woodlands with distinctive patchy, two-layered aspect; shrub and tree layer with open, grassy spaces; requires foliage reaching to ground level for nesting cover; return to same territory, or one nearby, year after year; deciduous and broad-leaved shrubs and trees provide insects for feeding; species composition less important than presence of adequate broad-leaved shrubs, foliage to ground level, and required structure; nesting season March-late summer	LE	E
Golden-cheeked Warbler	<i>Setophaga chrysoparia</i>	juniper-oak woodlands; dependent on Ashe juniper (also known as cedar) for long fine bark strips, only available from mature trees, used in nest construction; nests are placed in various trees other than Ashe juniper; only a few mature junipers or nearby cedar brakes can provide the necessary nest material; forage for insects in broad-leaved trees and shrubs; nesting late March-early summer	LE	E
Mountain Plover	<i>Charadrius montanus</i>	breeding: nests on high plains or shortgrass prairie, on ground in shallow depression; nonbreeding: shortgrass plains and bare, dirt (plowed) fields; primarily insectivorous		
Peregrine Falcon	<i>Falco peregrinus</i>	both subspecies migrate across the state from more northern breeding areas in US and Canada to winter along coast and farther south; subspecies (<i>F. p. anatum</i>) is also a resident breeder in west Texas; the two subspecies' listing statuses differ, <i>F.p. tundrius</i> is no longer listed	DL	T

Common Name	Scientific Name	Description	Federal Status	State Status
		in Texas; but because the subspecies are not easily distinguishable at a distance, reference is generally made only to the species level; see subspecies for habitat.		
Sprague's Pipit	<i>Anthus spragueii</i>	only in Texas during migration and winter, mid September to early April; short to medium distance, diurnal migrant; strongly tied to native upland prairie, can be locally common in coastal grasslands, uncommon to rare further west; sensitive to patch size and avoids edges.	C	
Western Burrowing Owl	<i>Athene cunicularia hypugaea</i>	open grasslands, especially prairie, plains, and savanna, sometimes in open areas such as vacant lots near human habitation or airports; nests and roosts in abandoned burrows		
Whooping Crane	<i>Grus americana</i>	potential migrant via plains throughout most of state to coast; winters in coastal marshes of Aransas, Calhoun, and Refugio counties	LE	E
CRUSTACEANS				
An amphipod	<i>Stygobromus russelli</i>	subterranean waters, usually in caves and limestone aquifers; resident of numerous caves in ca. 10 counties of the Edwards Plateau		
Bifurcated cave amphipod	<i>Stygobromus bifurcatus</i>	found in cave pools		
Ezell's cave amphipod	<i>Stygobromus flagellatus</i>	known only from artesian wells		
FISHES				
Guadalupe Bass	<i>Micropterus treculii</i>	endemic to perennial streams of the Edward's Plateau region; introduced in Nueces River system		
Sharpnose Shiner	<i>Notropis oxyrhynchus</i>	endemic to Brazos River drainage; also, apparently introduced into adjacent Colorado River drainage; large turbid river, with bottom a combination of sand, gravel, and clay-mud	E	
Smalleye Shiner	<i>Notropis buccula</i>	endemic to upper Brazos River system and its tributaries (Clear Fork and Bosque); apparently introduced into adjacent Colorado River drainage; medium to large prairie streams with sandy substrate and turbid to clear warm water; presumably eats small aquatic invertebrates	E	
INSECTS				
A mayfly	<i>Pseudocentropiloides morihari</i>	mayflies distinguished by aquatic larval stage; adult stage generally found in shoreline vegetation		
Coffin Cave Mold Beetle	<i>Batrissodes texanus</i>	resident, small, cave-adapted beetle found in small Edwards Limestone caves in Travis and Williamson counties	LE	
Leonora's dancer damselfly	<i>Argia leonora</i>	south central and western Texas; small streams and seepages		
Tooth Cave Ground Beetle	<i>Rhadine persephone</i>	resident, small, cave-adapted beetle found in small Edwards Limestone caves in Travis and Williamson counties	LE	
MAMMALS				
Cave Myotis Bat	<i>Myotis velifer</i>	colonial and cave-dwelling; also roosts in rock crevices, old buildings, carports, under bridges, and even in abandoned Cliff Swallow (<i>Hirundo pyrrhonota</i>) nests; roosts in clusters of up to thousands of individuals; hibernates in limestone caves of Edwards Plateau and gypsum cave of Panhandle during winter; opportunistic insectivore		
Plains Spotted Skunk	<i>Spilogale putorius interrupta</i>	catholic; open fields, prairies, croplands, fence rows, farmyards, forest edges, and woodlands; prefers wooded, brushy areas and tallgrass prairie		
Red wolf	<i>Canis rufus</i>	extirpated; formerly known throughout eastern half of Texas in brushy and forested areas, as well as coastal prairies	LE	E
MOLLUSKS				
Creepers (squawfoot)	<i>Strophitus undulatus</i>	small to large streams, prefers gravel or gravel and mud in flowing water; Colorado, Guadalupe, San Antonio, Neches (historic), and Trinity (historic) River basins		
False spike mussel	<i>Quadrula mitchelli</i>	possibly extirpated in Texas; probably medium to large rivers; substrates varying from mud through mixtures of sand, gravel and cobble; one study indicated water lilies were present at the site; Rio		T

Common Name	Scientific Name	Description	Federal Status	State Status
Smooth pimpleback	<i>Quadrula houstonensis</i>	Grande, Brazos, Colorado, and Guadalupe (historic) river basins small to moderate streams and rivers as well as moderate size reservoirs; mixed mud, sand, and fine gravel, tolerates very slow to moderate flow rates, appears not to tolerate dramatic water level fluctuations, scoured bedrock substrates, or shifting sand bottoms, lower Trinity (questionable), Brazos, and Colorado River basins	C	T
Texas fawnsfoot	<i>Truncilla macrodon</i>	little known; possibly rivers and larger streams, and intolerant of impoundment; flowing rice irrigation canals, possibly sand, gravel, and perhaps sandy-mud bottoms in moderate flows; Brazos and Colorado River basins	C	T
REPTILES				
Spot-tailed Earless Lizard	<i>Holbrookia lacerata</i>	central and southern Texas and adjacent Mexico; moderately open prairie-brushland; fairly flat areas free of vegetation or other obstructions, including disturbed areas; eats small invertebrates; eggs laid underground		
Texas Garter Snake	<i>Thamnophis sirtalis annectens</i>	wet or moist microhabitats are conducive to the species occurrence, but is not necessarily restricted to them; hibernates underground or in or under surface cover; breeds March-August		
Texas Horned Lizard	<i>Phrynosoma cornutum</i>	open, arid and semi-arid regions with sparse vegetation, including grass, cactus, scattered brush or scrubby trees; soil may vary in texture from sandy to rocky; burrows into soil, enters rodent burrows, or hides under rock when inactive; breeds March-September		T
Timber Rattlesnake	<i>Crotalus horridus</i>	swamps, floodplains, upland pine and deciduous woodlands, riparian zones, abandoned farmland; limestone bluffs, sandy soil or black clay; prefers dense ground cover, i.e. grapevines or palmetto		T
VASCULAR PLANTS				
Elmendorf's onion	<i>Allium elmendorfi</i>	Texas endemic; grassland openings in oak woodlands on deep, loose, well-drained sands; in Coastal Bend, on Pleistocene barrier island ridges and Holocene Sand Sheet that support live oak woodlands; to the north it occurs in post oak-black hickory-live oak woodlands over Queen City and similar Eocene formations; one anomalous specimen found on Llano Uplift in wet pockets of granitic loam; flowering March-April, May		

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APPENDIX 1B

***THE HIGHLAND LAKES: HISTORY AND
SOCIAL AND ECONOMIC IMPORTANCE***

This Appendix was developed by the Central Texas Water Coalition, Inc. using the following reference materials: “Lake Travis Economic Impact Report” prepared by Robert Charles Lesser & Co. for Travis County and the Lake Travis Economic Stakeholders Committee (Sept. 2011); “The Economic Impact of the Upper Highland Lakes of the Colorado River” prepared by TXP, Inc., Concept Development & Planning, LLC, and Diverse Planning and Development for Burnet and Llano Counties (Fall 2012); Multiple Listing Service reports on property sales; and County Appraisal District data on property valuations.

Brief History of the Highland Lakes System

The Highland Lakes system is comprised of two water storage reservoirs, Lakes Buchanan and Travis, and four pass-through reservoirs, Lakes Inks, LBJ, Marble Falls and Austin. During the construction of the dams and development of the Highland Lakes system, the Lower Colorado River Authority (LCRA) acquired large tracts of land that surround the reservoir system. LCRA is authorized to develop, manage, and promote the use of these lands for parks, recreational facilities and natural science laboratories and to promote the preservation of fish and wildlife. LCRA must also provide public access to, and use of, its lakes and lands for recreation.

In the early years of LCRA's existence, the predominant priorities in water resources management were to moderate and control the floods and droughts in the Lower Colorado River Basin. This was accomplished through the construction of dams in the Texas Hill Country west of Austin, which created the Highland Lakes. Due to the Highland Lakes, the ravages of floodwaters on the lower Colorado River have largely been controlled. The Highland Lakes have historically also provided a dependable source of water supply for municipal, industrial, agricultural, and mining uses. Additionally, the Highland Lakes provided the source of inexpensive, renewable electrical energy, and recreational opportunities for the citizens and communities of Central Texas. In sum, the work of LCRA in its early years provided the foundation on which much of the present day population and economy of Central Texas now depend. The rapidly-increasing population of Austin and surrounding Central Texas communities requires additional water resources for drinking water and to sustain business and industry. Tourism and recreation became significant industries, both on the Highland Lakes and lower Colorado River.

Tourism and Recreational Demands

The use of water for recreation and tourism is closely linked to the population of an area, location of the recreational opportunity and ease of access, and the value of the resource to recreational users. Recreational users are interested in qualities including: full lakes, flowing rivers, clean water, and aesthetics. In many areas, recreational uses of the waterways are increasing steadily. The entire Highland Lakes area, from Lake Austin to Lake Buchanan, receives a great deal of recreational use from boaters, park visitors, swimmers and anglers from all over Texas and the Southwestern United States.

Recreation and tourism in the Highland Lakes area are important contributors to local economies. The recreation industry associated with the Highland Lakes experienced phenomenal growth from 2000-2010 and became the major economic stability factor in many of the counties surrounding the Highland Lakes. However, the viability of this recreational industry is strongly tied to the level of water in the reservoirs. In recognition of the effect of lake levels on the recreational economy of the Highland Lakes, LCRA's 1989 Water Management Plan

recommended not selling additional interruptible water if such sales would draw Lake Travis below 660 feet above mean sea level (msl) or Lake Buchanan below 1,012 feet above msl. [See *Water Management Plan for the Lower Colorado River, Vol. I (Policy and Operations)*; prepared by the Lower Colorado River Authority for Submission to the Texas Water Commission; pages 19, 45 (1989).] . In the pass through lakes—Inks, LBJ, Marble Falls, and Austin—little impact is felt from variations in the levels of Lakes Buchanan and Travis.

An expected annual cycle includes the filling of the conservation storage space in the winter and spring months of the year to be drawn down by water uses during the summer months. The recreational users of these reservoirs are accustomed to a certain amount of variation in the lake levels. However, extreme variations can have an adverse impact on recreational and tourism interests.

Lake Travis

Lake Travis is a 19,000-acre lake with over 270 miles of shoreline located in Texas within Travis and Burnet Counties. Formed in 1937 with the creation of the Marshall Ford Dam, Lake Travis has been and continues to be an important force in the economic growth and sustainability of the region. Lake Travis is the source of most of the water and some of the electricity for its surrounding communities, including but not limited to the municipalities of Briarcliff, Lakeway, Lago Vista, Jonestown, Point Venture, The Hills of Lakeway, Volente, and Austin (currently, 23 municipalities rely on Lake Travis for water). The lake is a recreational destination for boaters and other water enthusiasts throughout the state, and is an important component of the region's tourism economy. Businesses of all sizes depend upon Lake Travis for their operations, including restaurants, hotels, boat rentals, marinas, golf courses, scuba operators, and real estate brokers and developers. Companies, including Samsung, Freescale, AMD, and 3M, rely upon the City of Austin for their water supply and Austin obtains its water from the Highland Lakes. Finally, the lake is an amenity to the surrounding households. Since 1990, the size of the population living within 30 miles of Lake Travis has more than doubled to over 1.5 million people according to the U.S. Census. Communities such as Lakeway, Lago Vista, Jonestown, Point Venture, Briarcliff, and Village of the Hills were founded around Lake Travis in the 1960s and have grown to a total population of almost 22,000 as of 2010.

Lake Travis is a conservation and flood control lake, with water coming in through rainfall and inflows from area creeks, rivers, and streams, and water going out to serve the demand of surrounding cities, water utilities, irrigation needs for the downstream industrial and agricultural users, and flows sufficient to maintain downstream instream flow needs and bay and estuary health. The lake is considered full at an elevation of 681 feet (“full pool”) above mean sea level (msl), and lake levels have fluctuated from a low of 614 feet in 1951 to a high of 710 feet in 1991. In addition to its use for flood control, hydroelectric power, water supply, and water quality, Lake Travis supports broad recreational tourism and diverse fish and wildlife habitats. Drought, increased water use, downstream demands, and reduced inflows all cause water levels in Lake Travis to fall. Conversely, during flood events, businesses surrounding the lake may be forced to close for extended periods of time.

An economic impact study by consulting firm RCLCO in 2011 used historical data and econometric models to assess the financial impact low lake levels or poor water quality have on the region. This study established a baseline to measure the fiscal and economic impacts associated with Lake Travis in 2010, and found that a full Lake Travis generates revenues from property, sales, hotel and mixed beverage taxes that buys ambulances, maintains schools and provides state government with needed funding.

Some key data defining the 2010 baseline of the Lake Travis economic engine include:

- \$207.2 million in revenue for state and local governments from property taxes (\$158.4 million), sales taxes (\$45.2 million), hotel occupancy and mixed beverage taxes;
- \$8.4 billion in assessed property value (\$4.353 billion in lake-related homes and land property value in 2010 from Travis County Appraisal District);
- \$3.6 million in hotel and mixed beverage taxes;
- 3,900 commercial businesses in study area, which contribute \$45.2 million in sales taxes; and
- Lake related activity in 2010 base case:
 - Total visitor-related spending creates 1,607 jobs, \$34.6 million in direct wages, and \$90.5 million in value added to the local economy; and
 - Boat sales spending creates 309 jobs, \$12.2 million in direct wages and \$22.1 million in total value added to the economy.

The study found that adverse economic impacts begin when lake levels remain below 660 feet, and significant economic impacts occur when lake levels fall below 650 feet. Some specific effects that the study predicted include:

- 350,000 – 375,000 fewer park visits;
- 29 lost jobs for each 10% drop in park visits;
- \$23.6 million to \$38.8 million reductions in visitor spending; and
- Up to 241 lost jobs and \$6.1 million in lost wages.

The study also found significant annual fiscal impacts could occur, including:

- \$21.9 million in total fiscal revenues lost versus the 2010 base case; and
- \$1.7 million lost sales tax revenues.

As a result of the extended severe drought that began in 2008 and large interruptible water releases under the Water Management Plan during the severe drought in 2011, Lake Travis lake levels fell to the 620-630 foot elevation and remained there from 2011 until May of 2015. As a result, many of the predicted impacts became reality. Public access to Lake Travis was severely impaired below 630 feet, and the lake also became much more dangerous to navigate as the lake levels fell. With loss of access, tourism greatly declined and many lake-related businesses and restaurants closed, and continue to close, including high-profile ones that have been in business for many years. Marina businesses struggled, as occupancy rates and jobs declined by 35-40%, and profitability was severely impacted.

Low lake levels also impacted the real estate sector of the economy. While the Austin metropolitan area enjoyed significant growth and increased property values, lake-related property values greatly suffered, both with homes and unimproved land values. The following results have been compiled by the real estate industry for the 2009-2014 timeframe:

- Median sales price decline of waterfront/view homes down 29.5% since 2011
- \$/sq. ft. average price decline 33.9% since 2009
- Median undeveloped waterfront/view land price down 36.8% since 2009
- Real estate inventory levels are a very strong indicator of the health of a real estate market. While the residential market across the 5-county Austin metropolitan area had less than three months' supply as of December 2014, active listing inventory for homes with Lake Travis frontage will last more than two years at the Dec. 2014 pace of sales.

These declines in water-related home and land values have a significant aggregate effect, both on the homeowners and on the taxing districts that rely on property taxes. According to data provided by the Travis County Appraisal District, waterfront market values on Lake Travis were about \$2.428 billion in 2010, and related subdivisions that were not waterfront accounted for about \$1.925 billion in market values, or a total of \$4.353 billion. Based on analysis from real estate sales data, property value declines since 2010 are in the 10-30%+ range, and as such, the total impact on lake-related properties on Lake Travis in Travis County could be in the \$400 million to over \$1 billion range, as of the end of 2014.

At the same time, a real estate analysis of the Austin metropolitan area shows that it has enjoyed about 40% appreciation in residential values and 50% in lot values over the past six years, in stark contrast to property with Lake Travis views and/or frontage, which have actually lost approximately 10-30% in value since 2010. As such, property tax appraisals from TCAD have not increased and the associated tax base has lost tax receipts that could have occurred on a lost potential basis, had these lake-related properties appreciated in a similar manner as the rest of the Austin area. By again utilizing the 2010 appraised value for these lake-related properties of \$4.353 billion, this likely represents as much as another \$1.5 to 2 billion in lost taxable appreciation values on lake-related properties, and the associated loss in tax base revenues. Combining both the loss in value and the lack of appreciation on these lake-related properties creates a total adverse property value estimated impact from very low lake levels of \$2-3 billion, and the associated loss of annual property tax revenues that support schools and county services. Given the very strong and on-going population growth in the area, and the magnitude of the lost tax revenues from lake-related properties, the shortfalls will likely have to be borne by the rest of the taxpayers to meet required service needs.

Upper Highland Lakes and Burnet and Llano Counties

Located along the Colorado River, both Burnet and Llano counties have strong agricultural and ranching sectors combined with tourists seeking water-related recreational opportunities. The tourism sector is the largest employer in the region with visitors spending millions of dollars each year at hotels, restaurants, and shops. In addition, the price premium waterfront properties command creates local property tax revenue. However, in 2014, responding to the multiple years of low lake levels in Lake Buchanan and its negative impact on property values, the Burnet

County Appraisal District took action to reduce the market value of properties on Lake Buchanan by approximately \$33,000,000 [Source: Chief Appraiser, Burnet County Appraisal District; March 2015].

In 2011, in a joint effort to measure the contribution of the upper Highland Lakes to the regional and state economies, Burnet and Llano Counties retained a project team to perform an economic impact analysis. The project team of TXP, Inc., Concept Development and Planning, LLC, and Diverse Planning and Development conducted the assessment for Burnet and Llano Counties that was completed in the fall of 2012. The study area for the project included Burnet and Llano Counties as well as the properties at nearby Lake Buchanan, Inks Lake, Lake LBJ, Lake Marble Falls, and Lake Travis (only the portion in Burnet County).

Over the past two decades, communities adjacent to the lakes have been the fastest growing in the two-county area. Since 2000, the majority of new homes built in the Upper Highland Lakes Region have been lake-adjacent. Nearly three-quarters of all homes built in the two counties in the past decade were within two miles of the lakes. Hotel occupancy tax revenue generated by properties in the Upper Highland Lakes Region has more than doubled since 2000. Over 81.1 percent of Burnet and Llano Counties' accommodation and lodging businesses are within two miles of the lakes.

In 2011, direct spending by all visitors to Burnet and Llano Counties resulted in the following:

- \$161.3 million in direct economic activity;
- \$58.9 million in earnings for employees and business owners;
- 3,125 jobs (or 25.9 percent of total regional employment);
- \$3.46 million in local tax revenue excluding property taxes; and
- \$9.2 million in state tax revenue.

Economic Activity & Tax Revenue Attributable to the Upper Highland Lakes

In the Upper Highland Lakes Region, the properties around the lakes are among the most valuable in the area. Lake-related properties in this region account for just 1.9 percent of the geographic area of the counties, but a disproportionately large 46.7 percent of their total taxable value. The average taxable value of a home on the lakes is substantially greater than the countywide averages – ranging from approximately 70 percent higher around Lake Buchanan to more than 3.5 times the average home price in Burnet and Llano Counties around Lake LBJ and Lake Marble Falls.

The proportion of taxable hotel room revenue attributable to lake-related hotel properties is approximately 75 percent of total Upper Highland Lakes Region hotel sector activity. Lake-related hotel activity generates about \$1 million in tax revenues for the State of Texas each year.

In 2011, direct purchases (based on room capacity and hotel occupancy tax receipts) by lake-related visitors to Burnet and Llano Counties resulted in the following:

- \$122.5 million in direct economic activity;
- \$45.3 million in earnings for employees and businesses owners;
- 2,454 jobs;
- \$2.6 million in local tax revenue excluding property taxes; and
- \$7.0 million in state tax revenue.

The total economic impact in 2011 of lake-related visitor spending in the Upper Highland Lakes, including indirect positive effects on support services and businesses, were described as follows:

- \$185.5 million in total economic activity;
- \$81.7 million in earnings for employees and businesses owners; and
- 3,648 jobs.

Long-term Low Lake Level Implications for the Upper Highland Lakes Region

Some of the key findings from the study include:

- The Highland Lakes community's overwhelming concern is that overall economic activity in the region will not return to its pre-drought growth rate because of the prolonged low lake levels.
- Low lake levels could adversely impact development of 5,799 undeveloped, lake-related acres, with an additional 1,180 underdeveloped acres that have a potential taxable property value of \$1.4 billion around the lakes. Low lake levels correspond to a significant decline in tourism and visitor spending, with the decline increasing as levels further decline.

Since the drought began in 2008, Lake Buchanan has primarily been at levels below the conservation level of 1,020 feet above msl. The situation worsened significantly in the summer of 2011, when lake levels fell below 995 feet. At these low levels, lake access was very restricted and public boat ramps were closed, and tourism around the lake was adversely impacted. Numerous tourism-related businesses suffered or closed, such as restaurants, grocery stores and resorts, and associated job losses have been significant. For example, at the time of the study, charter fishing trips were down over 80%.

2016 LCRWPG WATER PLAN

APPENDIX 1C

TWDB DB17 REPORTS

Water User Group (WUG) Category Summary

REGION K	2020	2030	2040	2050	2060	2070
MUNICIPAL						
POPULATION	1,514,759	1,824,168	2,130,512	2,395,084	2,656,986	2,961,084
DEMANDS (acre-feet per year)	276,690	327,589	379,309	424,868	470,315	522,746
EXISTING SUPPLIES (acre-feet per year)	405,910	393,647	380,645	373,001	364,946	354,801
NEEDS (acre-feet per year)*	(7,111)	(27,130)	(44,014)	(63,984)	(115,080)	(175,892)
COUNTY-OTHER						
POPULATION	222,468	240,354	251,437	263,408	271,414	282,043
DEMANDS (acre-feet per year)	29,870	31,605	32,452	33,720	34,694	36,203
EXISTING SUPPLIES (acre-feet per year)	52,051	52,776	52,649	52,541	52,367	52,521
NEEDS (acre-feet per year)*	(770)	(1,046)	(1,869)	(3,375)	(4,808)	(6,281)
MANUFACTURING						
DEMANDS (acre-feet per year)	56,019	70,050	86,259	96,283	106,487	117,851
EXISTING SUPPLIES (acre-feet per year)	61,383	74,303	89,451	98,584	107,374	117,223
NEEDS (acre-feet per year)*	(570)	(692)	(810)	(913)	(1,059)	(1,216)
MINING						
DEMANDS (acre-feet per year)	20,848	26,104	27,991	29,757	31,893	34,961
EXISTING SUPPLIES (acre-feet per year)	17,428	18,263	19,159	19,992	20,916	21,974
NEEDS (acre-feet per year)*	(4,260)	(8,618)	(9,747)	(10,719)	(12,153)	(14,164)
STEAM ELECTRIC POWER						
DEMANDS (acre-feet per year)	178,453	185,235	187,410	194,802	200,413	207,319
EXISTING SUPPLIES (acre-feet per year)	168,968	168,954	168,930	164,731	158,201	152,692
NEEDS (acre-feet per year)*	(25,363)	(26,751)	(26,775)	(31,974)	(42,212)	(54,627)
LIVESTOCK						
DEMANDS (acre-feet per year)	14,012	14,012	14,012	14,012	14,012	14,012
EXISTING SUPPLIES (acre-feet per year)	16,232	16,232	16,232	16,232	16,232	16,232
NEEDS (acre-feet per year)*	0	0	0	0	0	0
IRRIGATION						
DEMANDS (acre-feet per year)	607,433	590,740	574,530	558,789	543,507	528,715
EXISTING SUPPLIES (acre-feet per year)	276,895	276,785	276,692	276,608	276,535	276,486
NEEDS (acre-feet per year)*	(335,489)	(319,584)	(304,106)	(289,044)	(274,387)	(260,124)
REGION TOTALS						
POPULATION	1,737,227	2,064,522	2,381,949	2,658,492	2,928,400	3,243,127
DEMANDS (acre-feet per year)	1,183,325	1,245,335	1,301,963	1,352,231	1,401,321	1,461,807
EXISTING SUPPLIES (acre-feet per year)	998,867	1,000,960	1,003,758	1,001,689	996,571	991,929
NEEDS (acre-feet per year)*	(373,563)	(383,821)	(387,321)	(400,009)	(449,699)	(512,304)

*WUG supplies and projected demands are entered for each of a WUG's region-county-basin divisions. The needs shown in the WUG Category Summary report are calculated by first deducting the WUG split's projected demand from its total existing water supply volume. If the WUG split has a greater existing supply volume than projected demand in any given decade, this amount is considered a surplus volume. Before aggregating the difference between supplies and demands to the WUG category level, calculated surpluses are updated to zero so that only the WUGs with needs in the decade are included with the Needs totals.

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Water User Group (WUG) Population

REGION K	WUG POPULATION					
	2020	2030	2040	2050	2060	2070
BASTROP COUNTY						
BRAZOS BASIN						
AQUA WSC	551	724	949	1,255	1,667	2,216
LEE COUNTY WSC	342	450	590	780	1,037	1,378
COUNTY-OTHER	128	169	222	293	389	516
BRAZOS BASIN TOTAL POPULATION	1,021	1,343	1,761	2,328	3,093	4,110
COLORADO BASIN						
AQUA WSC	55,253	72,656	95,275	125,920	167,313	222,345
BASTROP	9,653	13,088	17,553	23,603	31,775	42,640
BASTROP COUNTY WCID #2	3,943	5,867	8,368	11,757	16,334	22,420
CREEDMOOR-MAHA WSC	208	262	333	429	559	732
ELGIN	9,247	12,099	15,806	20,828	27,612	36,631
LEE COUNTY WSC	465	611	801	1,059	1,407	1,870
POLONIA WSC	232	296	379	491	643	845
SMITHVILLE	4,913	6,461	8,473	11,198	14,879	19,774
COUNTY-OTHER	9,974	12,180	15,049	18,936	24,183	31,159
COLORADO BASIN TOTAL POPULATION	93,888	123,520	162,037	214,221	284,705	378,416
GUADALUPE BASIN						
AQUA WSC	390	512	672	888	1,180	1,568
COUNTY-OTHER	188	184	178	171	162	150
GUADALUPE BASIN TOTAL POPULATION	578	696	850	1,059	1,342	1,718
BASTROP COUNTY TOTAL POPULATION	95,487	125,559	164,648	217,608	289,140	384,244
BLANCO COUNTY						
COLORADO BASIN						
JOHNSON CITY	2,053	2,441	2,668	2,787	2,867	2,914
COUNTY-OTHER	4,650	5,529	6,045	6,315	6,494	6,600
COLORADO BASIN TOTAL POPULATION	6,703	7,970	8,713	9,102	9,361	9,514
GUADALUPE BASIN						
BLANCO	2,156	2,563	2,802	2,927	3,010	3,060
CANYON LAKE WATER SERVICE COMPANY	1,020	1,213	1,326	1,385	1,424	1,448
COUNTY-OTHER	3,136	3,729	4,076	4,258	4,380	4,450
GUADALUPE BASIN TOTAL POPULATION	6,312	7,505	8,204	8,570	8,814	8,958
BLANCO COUNTY TOTAL POPULATION	13,015	15,475	16,917	17,672	18,175	18,472
BURNET COUNTY						
BRAZOS BASIN						
BERTRAM	1,681	2,034	2,331	2,616	2,866	3,083
BURNET	30	36	41	46	51	55
CHISHOLM TRAIL SUD	372	451	517	580	635	683
KEMPNER WSC	769	930	1,066	1,196	1,311	1,410
COUNTY-OTHER	7,599	9,195	10,542	11,829	12,959	13,939
BRAZOS BASIN TOTAL POPULATION	10,451	12,646	14,497	16,267	17,822	19,170

Water User Group (WUG) Population

REGION K	WUG POPULATION					
	2020	2030	2040	2050	2060	2070
BURNET COUNTY						
COLORADO BASIN						
BURNET	7,408	8,964	10,276	11,531	12,633	13,589
COTTONWOOD SHORES	1,395	1,688	1,935	2,171	2,379	2,559
GRANITE SHOALS	6,100	7,381	8,461	9,494	10,402	11,189
HORSESHOE BAY	1,192	1,683	2,097	2,493	2,841	3,142
KINGSLAND WSC	419	508	582	653	716	770
MARBLE FALLS	8,702	12,785	18,509	21,509	23,509	24,509
MEADOWLAKES	2,207	2,671	3,062	3,436	3,764	4,049
COUNTY-OTHER	15,240	15,942	14,254	15,114	16,505	18,449
COLORADO BASIN TOTAL POPULATION	42,663	51,622	59,176	66,401	72,749	78,256
BURNET COUNTY TOTAL POPULATION	53,114	64,268	73,673	82,668	90,571	97,426
COLORADO COUNTY						
BRAZOS-COLORADO BASIN						
EAGLE LAKE	1,164	1,215	1,252	1,307	1,353	1,398
COUNTY-OTHER	1,249	1,303	1,344	1,404	1,454	1,501
BRAZOS-COLORADO BASIN TOTAL POPULATION	2,413	2,518	2,596	2,711	2,807	2,899
COLORADO BASIN						
COLUMBUS	3,832	3,999	4,123	4,305	4,457	4,604
EAGLE LAKE	2,652	2,767	2,853	2,979	3,084	3,186
WEIMAR	740	772	796	831	860	889
COUNTY-OTHER	8,107	8,460	8,722	9,106	9,427	9,741
COLORADO BASIN TOTAL POPULATION	15,331	15,998	16,494	17,221	17,828	18,420
LAVACA BASIN						
WEIMAR	1,516	1,582	1,631	1,703	1,763	1,821
COUNTY-OTHER	2,624	2,738	2,823	2,947	3,051	3,153
LAVACA BASIN TOTAL POPULATION	4,140	4,320	4,454	4,650	4,814	4,974
COLORADO COUNTY TOTAL POPULATION	21,884	22,836	23,544	24,582	25,449	26,293
FAYETTE COUNTY						
COLORADO BASIN						
AQUA WSC	24	27	30	31	33	34
FAYETTE WSC	5,174	5,906	6,402	6,811	7,134	7,381
LA GRANGE	5,362	6,120	6,635	7,059	7,393	7,650
LEE COUNTY WSC	1,161	1,325	1,436	1,528	1,601	1,656
COUNTY-OTHER	7,745	8,840	9,584	10,197	10,678	11,049
COLORADO BASIN TOTAL POPULATION	19,466	22,218	24,087	25,626	26,839	27,770
GUADALUPE BASIN						
FAYETTE WSC	335	382	415	441	462	478
FLATONIA	302	345	374	397	416	431
COUNTY-OTHER	335	382	413	441	461	477
GUADALUPE BASIN TOTAL POPULATION	972	1,109	1,202	1,279	1,339	1,386

Water User Group (WUG) Population

REGION K	WUG POPULATION					
	2020	2030	2040	2050	2060	2070
FAYETTE COUNTY						
LAVACA BASIN						
FAYETTE WSC	607	692	751	799	836	866
FLATONIA	1,296	1,479	1,603	1,706	1,787	1,848
SCHULENBURG	3,295	3,761	4,077	4,338	4,543	4,701
COUNTY-OTHER	2,737	3,125	3,388	3,603	3,775	3,905
LAVACA BASIN TOTAL POPULATION	7,935	9,057	9,819	10,446	10,941	11,320
FAYETTE COUNTY TOTAL POPULATION	28,373	32,384	35,108	37,351	39,119	40,476
GILLESPIE COUNTY						
COLORADO BASIN						
FREDERICKSBURG	11,318	12,146	12,829	13,630	14,367	15,083
COUNTY-OTHER	14,910	16,095	17,072	18,217	19,270	20,294
COLORADO BASIN TOTAL POPULATION	26,228	28,241	29,901	31,847	33,637	35,377
GUADALUPE BASIN						
COUNTY-OTHER	567	611	647	689	728	765
GUADALUPE BASIN TOTAL POPULATION	567	611	647	689	728	765
GILLESPIE COUNTY TOTAL POPULATION	26,795	28,852	30,548	32,536	34,365	36,142
HAYS COUNTY						
COLORADO BASIN						
AUSTIN	71	760	1,489	3,776	9,100	16,468
BUDA	9,831	14,132	19,369	25,916	33,315	41,735
CIMARRON PARK WATER COMPANY	2,150	2,150	2,150	2,150	2,150	2,150
DRIPPING SPRINGS	2,031	2,311	2,652	3,078	3,560	4,108
DRIPPING SPRINGS WSC	3,037	3,938	5,035	6,407	7,957	9,721
GOFORTH SUD	789	1,246	1,803	2,499	3,285	4,180
MOUNTAIN CITY	490	490	490	490	490	490
PLUM CREEK WATER COMPANY	2,416	3,922	4,208	4,450	4,641	4,791
WEST TRAVIS COUNTY PUBLIC UTILITY AGENCY	9,514	13,449	18,241	24,231	31,000	38,704
COUNTY-OTHER	25,255	30,845	39,310	48,632	56,509	64,232
COLORADO BASIN TOTAL POPULATION	55,584	73,243	94,747	121,629	152,007	186,579
HAYS COUNTY TOTAL POPULATION	55,584	73,243	94,747	121,629	152,007	186,579
LLANO COUNTY						
COLORADO BASIN						
HORSESHOE BAY	2,958	3,119	3,115	3,061	3,165	3,272
KINGSLAND WSC	8,302	9,581	9,546	9,119	9,938	10,786
LLANO	3,565	3,759	3,754	3,689	3,814	3,943
SUNRISE BEACH VILLAGE	720	724	723	721	723	726
COUNTY-OTHER	5,746	5,270	5,284	5,445	5,139	4,822
COLORADO BASIN TOTAL POPULATION	21,291	22,453	22,422	22,035	22,779	23,549
LLANO COUNTY TOTAL POPULATION	21,291	22,453	22,422	22,035	22,779	23,549

Water User Group (WUG) Population

REGION K	WUG POPULATION					
	2020	2030	2040	2050	2060	2070
MATAGORDA COUNTY						
BRAZOS-COLORADO BASIN						
BAY CITY	18,759	19,746	20,379	20,869	21,216	21,465
COUNTY-OTHER	7,991	8,411	8,681	8,889	9,038	9,143
BRAZOS-COLORADO BASIN TOTAL POPULATION	26,750	28,157	29,060	29,758	30,254	30,608
COLORADO BASIN						
BAY CITY	38	40	41	42	43	43
COUNTY-OTHER	1,636	1,722	1,777	1,820	1,850	1,872
COLORADO BASIN TOTAL POPULATION	1,674	1,762	1,818	1,862	1,893	1,915
COLORADO-LAVACA BASIN						
PALACIOS	5,035	5,300	5,470	5,601	5,695	5,761
COUNTY-OTHER	5,707	6,007	6,200	6,349	6,454	6,531
COLORADO-LAVACA BASIN TOTAL POPULATION	10,742	11,307	11,670	11,950	12,149	12,292
MATAGORDA COUNTY TOTAL POPULATION	39,166	41,226	42,548	43,570	44,296	44,815
MILLS COUNTY						
BRAZOS BASIN						
GOLDTHWAITE	49	50	52	54	56	58
COUNTY-OTHER	1,117	1,155	1,185	1,232	1,279	1,333
BRAZOS BASIN TOTAL POPULATION	1,166	1,205	1,237	1,286	1,335	1,391
COLORADO BASIN						
BROOKESMITH SUD	47	49	50	52	54	56
GOLDTHWAITE	1,820	1,882	1,932	2,008	2,085	2,172
COUNTY-OTHER	1,879	1,940	1,994	2,071	2,151	2,240
COLORADO BASIN TOTAL POPULATION	3,746	3,871	3,976	4,131	4,290	4,468
MILLS COUNTY TOTAL POPULATION	4,912	5,076	5,213	5,417	5,625	5,859
SAN SABA COUNTY						
COLORADO BASIN						
RICHLAND SUD	1,179	1,235	1,242	1,222	1,251	1,280
SAN SABA	3,277	3,433	3,453	3,397	3,477	3,557
COUNTY-OTHER	2,028	2,125	2,138	2,103	2,151	2,202
COLORADO BASIN TOTAL POPULATION	6,484	6,793	6,833	6,722	6,879	7,039
SAN SABA COUNTY TOTAL POPULATION	6,484	6,793	6,833	6,722	6,879	7,039
TRAVIS COUNTY						
COLORADO BASIN						
AQUA WSC	6,628	7,653	8,620	9,702	10,658	11,546
AUSTIN	930,842	1,096,053	1,258,060	1,377,379	1,477,455	1,596,216
BARTON CREEK WEST WSC	1,456	1,456	1,456	1,456	1,456	1,456
BEE CAVE	4,740	5,473	6,165	6,939	7,622	8,258
BRIARCLIFF	1,736	2,005	2,258	2,542	2,792	3,025
CEDAR PARK	9,551	10,188	10,958	10,958	10,958	10,958
CREEDMOOR-MAHA WSC	5,093	5,881	6,624	7,456	8,190	8,873

Water User Group (WUG) Population

REGION K	WUG POPULATION					
	2020	2030	2040	2050	2060	2070
TRAVIS COUNTY						
COLORADO BASIN						
ELGIN	1,788	2,578	3,323	4,157	4,893	5,578
JONESTOWN	1,987	2,125	2,255	2,400	2,528	2,647
LAGO VISTA	7,580	8,964	10,269	11,730	13,020	14,220
LAKEWAY	19,000	25,000	25,000	25,000	25,000	25,000
LEANDER	9,491	24,827	43,093	46,640	48,403	50,610
LOOP 360 WSC	1,998	2,086	2,169	2,262	2,344	2,420
LOST CREEK MUD	4,369	4,369	4,369	4,369	4,369	4,369
MANOR	8,884	12,343	15,605	19,258	22,482	25,480
MANVILLE WSC	19,152	23,593	27,780	32,469	36,607	40,456
MUSTANG RIDGE	336	353	368	385	400	414
NORTH AUSTIN MUD #1	780	780	780	780	780	780
NORTHTOWN MUD	10,272	11,860	13,359	15,036	16,517	17,894
PFLUGERVILLE	77,054	104,405	130,195	159,073	184,561	208,268
POINT VENTURE	1,181	1,524	1,847	2,209	2,528	2,825
ROLLINGWOOD	1,421	1,429	1,436	1,444	1,451	1,458
ROUND ROCK	1,649	1,907	2,150	2,422	2,662	2,885
SHADY HOLLOW MUD	4,889	4,889	4,889	4,889	4,889	4,889
SUNSET VALLEY	1,134	1,480	1,806	2,171	2,494	2,794
THE HILLS	3,000	3,000	3,000	3,000	3,000	3,000
TRAVIS COUNTY MUD #4	3,113	3,595	4,049	4,557	5,006	5,424
TRAVIS COUNTY WCID #10	6,139	7,088	7,984	8,986	9,871	10,694
TRAVIS COUNTY WCID #17	33,117	39,741	43,715	44,473	45,671	47,125
TRAVIS COUNTY WCID #18	6,657	7,686	8,657	9,745	10,704	11,597
TRAVIS COUNTY WCID #19	716	716	716	716	716	716
TRAVIS COUNTY WCID #20	1,140	1,140	1,140	1,140	1,140	1,140
VOLENTE	677	818	951	1,100	1,232	1,354
WELLS BRANCH MUD	14,989	14,989	14,989	14,989	14,989	14,989
WEST LAKE HILLS	3,699	3,699	3,699	3,699	3,699	3,699
WEST TRAVIS COUNTY PUBLIC UTILITY AGENCY	5,501	6,352	7,154	8,053	8,846	9,583
WILLIAMSON-TRAVIS COUNTY MUD #1	1,173	1,173	1,173	1,173	1,173	1,173
COUNTY-OTHER	59,713	54,696	49,962	42,096	31,032	21,041
COLORADO BASIN TOTAL POPULATION	1,272,645	1,507,914	1,732,023	1,896,853	2,032,138	2,184,854
GUADALUPE BASIN						
CREEDMOOR-MAHA WSC	240	277	312	351	386	418
GOFORTH SUD	77	89	100	113	124	134
MUSTANG RIDGE	123	128	134	140	146	151
COUNTY-OTHER	175	234	291	312	326	352
GUADALUPE BASIN TOTAL POPULATION	615	728	837	916	982	1,055
TRAVIS COUNTY TOTAL POPULATION	1,273,260	1,508,642	1,732,860	1,897,769	2,033,120	2,185,909

Water User Group (WUG) Population

REGION K	WUG POPULATION					
	2020	2030	2040	2050	2060	2070
WHARTON COUNTY						
BRAZOS-COLORADO BASIN						
EAST BERNARD	2,411	2,566	2,690	2,797	2,896	2,983
WHARTON	6,186	6,583	6,900	7,174	7,428	7,652
COUNTY-OTHER	9,329	9,927	10,405	10,820	11,202	11,541
BRAZOS-COLORADO BASIN TOTAL POPULATION	17,926	19,076	19,995	20,791	21,526	22,176
COLORADO BASIN						
EL CAMPO	27	29	30	31	32	33
WHARTON	3,186	3,391	3,554	3,696	3,826	3,942
COUNTY-OTHER	4,471	4,757	4,987	5,186	5,369	5,531
COLORADO BASIN TOTAL POPULATION	7,684	8,177	8,571	8,913	9,227	9,506
COLORADO-LAVACA BASIN						
COUNTY-OTHER	1,434	1,526	1,599	1,663	1,722	1,774
COLORADO-LAVACA BASIN TOTAL POPULATION	1,434	1,526	1,599	1,663	1,722	1,774
LAVACA BASIN						
COUNTY-OTHER	140	149	157	162	168	173
LAVACA BASIN TOTAL POPULATION	140	149	157	162	168	173
WHARTON COUNTY TOTAL POPULATION	27,184	28,928	30,322	31,529	32,643	33,629
WILLIAMSON COUNTY						
BRAZOS BASIN						
AUSTIN	45,505	57,164	70,943	85,781	102,609	121,072
NORTH AUSTIN MUD #1	7,442	7,442	7,442	7,442	7,442	7,442
WELLS BRANCH MUD	1,073	1,073	1,073	1,073	1,073	1,073
COUNTY-OTHER	16,658	23,108	23,108	23,108	23,108	23,108
BRAZOS BASIN TOTAL POPULATION	70,678	88,787	102,566	117,404	134,232	152,695
WILLIAMSON COUNTY TOTAL POPULATION	70,678	88,787	102,566	117,404	134,232	152,695
REGION K TOTAL POPULATION	1,737,227	2,064,522	2,381,949	2,658,492	2,928,400	3,243,127

Water User Group (WUG) Demand

REGION K	WUG DEMAND (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
COLORADO COUNTY						
COLORADO BASIN						
IRRIGATION	28,073	27,318	26,583	25,868	25,172	24,495
COLORADO BASIN TOTAL DEMAND	36,584	35,922	35,266	34,691	34,141	33,610
LAVACA BASIN						
WEIMAR	373	382	388	402	416	429
COUNTY-OTHER	323	326	326	336	346	358
MANUFACTURING	368	393	416	435	469	507
MINING	266	269	272	274	277	280
LIVESTOCK	465	465	465	465	465	465
IRRIGATION	88,248	85,874	83,564	81,316	79,129	77,000
LAVACA BASIN TOTAL DEMAND	90,043	87,709	85,431	83,228	81,102	79,039
COLORADO COUNTY TOTAL DEMAND	176,833	172,508	168,281	164,251	160,361	156,585
FAYETTE COUNTY						
COLORADO BASIN						
AQUA WSC	4	5	5	5	6	6
FAYETTE WSC	639	709	755	795	831	860
LA GRANGE	865	959	1,020	1,075	1,123	1,162
LEE COUNTY WSC	148	164	174	184	192	198
COUNTY-OTHER	885	968	1,021	1,070	1,117	1,156
MINING	2,046	1,646	1,187	744	291	284
STEAM ELECTRIC POWER	35,702	35,702	37,802	44,102	48,602	53,402
LIVESTOCK	1,903	1,903	1,903	1,903	1,903	1,903
IRRIGATION	380	355	332	311	292	276
COLORADO BASIN TOTAL DEMAND	42,572	42,411	44,199	50,189	54,357	59,247
GUADALUPE BASIN						
FAYETTE WSC	42	46	49	52	54	56
FLATONIA	64	71	76	80	83	86
COUNTY-OTHER	38	41	43	46	48	50
MINING	126	102	73	45	18	17
LIVESTOCK	108	108	108	108	108	108
IRRIGATION	62	58	55	51	48	45
GUADALUPE BASIN TOTAL DEMAND	440	426	404	382	359	362
LAVACA BASIN						
FAYETTE WSC	76	83	89	94	98	101
FLATONIA	270	301	321	339	356	368
SCHULENBURG	735	821	878	927	970	1,003
COUNTY-OTHER	313	343	361	379	396	409
MANUFACTURING	358	395	431	462	501	543
MINING	354	284	205	129	50	49
LIVESTOCK	386	386	386	386	386	386
IRRIGATION	181	170	158	149	140	132
LAVACA BASIN TOTAL DEMAND	2,673	2,783	2,829	2,865	2,897	2,991
FAYETTE COUNTY TOTAL DEMAND	45,685	45,620	47,432	53,436	57,613	62,600
GILLESPIE COUNTY						
COLORADO BASIN						
FREDERICKSBURG	3,146	3,327	3,476	3,672	3,866	4,058
COUNTY-OTHER	1,756	1,829	1,891	1,990	2,098	2,208
MANUFACTURING	1,049	1,102	1,151	1,192	1,276	1,366

Water User Group (WUG) Demand

REGION K	WUG DEMAND (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
GILLESPIE COUNTY						
COLORADO BASIN						
MINING	4	4	4	4	4	4
LIVESTOCK	1,030	1,030	1,030	1,030	1,030	1,030
IRRIGATION	2,058	2,031	2,003	1,978	1,953	1,928
COLORADO BASIN TOTAL DEMAND	9,043	9,323	9,555	9,866	10,227	10,594
GUADALUPE BASIN						
COUNTY-OTHER	67	69	71	75	79	83
LIVESTOCK	32	32	32	32	32	32
GUADALUPE BASIN TOTAL DEMAND	99	101	103	107	111	115
GILLESPIE COUNTY TOTAL DEMAND	9,142	9,424	9,658	9,973	10,338	10,709
HAYS COUNTY						
COLORADO BASIN						
AUSTIN	13	127	249	631	1,519	2,749
BUDA	1,769	2,508	3,420	4,564	5,860	7,338
CIMARRON PARK WATER COMPANY	249	241	234	230	229	229
DRIPPING SPRINGS	479	537	610	704	813	938
DRIPPING SPRINGS WSC	533	680	861	1,091	1,353	1,652
GOFORTH SUD	85	130	185	255	334	425
MOUNTAIN CITY	57	56	54	54	54	54
PLUM CREEK WATER COMPANY	163	264	283	300	312	322
WEST TRAVIS COUNTY PUBLIC UTILITY AGENCY	4,093	5,758	7,795	10,343	13,226	16,508
COUNTY-OTHER	3,107	3,696	4,620	5,677	6,579	7,472
MANUFACTURING	347	398	449	495	537	583
MINING	845	1,075	1,361	1,445	1,654	1,893
LIVESTOCK	220	220	220	220	220	220
IRRIGATION	107	107	107	107	107	107
COLORADO BASIN TOTAL DEMAND	12,067	15,797	20,448	26,116	32,797	40,490
HAYS COUNTY TOTAL DEMAND	12,067	15,797	20,448	26,116	32,797	40,490
LLANO COUNTY						
COLORADO BASIN						
HORSESHOE BAY	1,854	1,943	1,934	1,897	1,960	2,026
KINGSLAND WSC	906	1,018	1,001	949	1,031	1,118
LLANO	862	892	878	856	884	913
SUNRISE BEACH VILLAGE	74	72	70	68	68	68
COUNTY-OTHER	610	554	553	567	533	500
MANUFACTURING	3	3	3	3	3	3
MINING	3	3	3	3	3	3
STEAM ELECTRIC POWER	2,500	2,500	2,500	2,500	2,500	2,500
LIVESTOCK	751	751	751	751	751	751
IRRIGATION	1,936	1,902	1,870	1,840	1,810	1,781
COLORADO BASIN TOTAL DEMAND	9,499	9,638	9,563	9,434	9,543	9,663
LLANO COUNTY TOTAL DEMAND	9,499	9,638	9,563	9,434	9,543	9,663
MATAGORDA COUNTY						
BRAZOS-COLORADO BASIN						
BAY CITY	2,837	2,889	2,904	2,949	2,990	3,025
COUNTY-OTHER	834	837	832	835	846	856
MANUFACTURING	650	680	707	730	771	814
MINING	53	55	41	30	19	12

Water User Group (WUG) Demand

REGION K	WUG DEMAND (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
MATAGORDA COUNTY						
BRAZOS-COLORADO BASIN						
LIVESTOCK	664	664	664	664	664	664
IRRIGATION	92,540	90,015	87,558	85,167	82,840	80,576
BRAZOS-COLORADO BASIN TOTAL DEMAND	97,578	95,140	92,706	90,375	88,130	85,947
COLORADO BASIN						
BAY CITY	6	6	6	6	7	7
COUNTY-OTHER	171	172	171	172	174	176
MANUFACTURING	15,440	16,141	16,802	17,346	18,304	19,325
MINING	8	9	7	5	3	2
STEAM ELECTRIC POWER	105,000	105,000	105,000	105,000	105,000	105,000
LIVESTOCK	131	131	131	131	131	131
IRRIGATION	13,217	12,856	12,505	12,164	11,832	11,508
COLORADO BASIN TOTAL DEMAND	133,973	134,315	134,622	134,824	135,451	136,149
COLORADO-LAVACA BASIN						
PALACIOS	679	691	694	700	710	718
COUNTY-OTHER	596	598	595	597	605	612
MANUFACTURING	163	170	177	183	192	203
MINING	35	36	27	20	13	8
LIVESTOCK	708	708	708	708	708	708
IRRIGATION	103,330	100,511	97,767	95,097	92,499	89,971
COLORADO-LAVACA BASIN TOTAL DEMAND	105,511	102,714	99,968	97,305	94,727	92,220
MATAGORDA COUNTY TOTAL DEMAND	337,062	332,169	327,296	322,504	318,308	314,316
MILLS COUNTY						
BRAZOS BASIN						
GOLDTHWAITE	10	10	10	10	11	11
COUNTY-OTHER	144	143	142	146	151	157
MINING	2	2	2	2	2	2
LIVESTOCK	321	321	321	321	321	321
IRRIGATION	1,415	1,385	1,355	1,326	1,297	1,270
BRAZOS BASIN TOTAL DEMAND	1,892	1,861	1,830	1,805	1,782	1,761
COLORADO BASIN						
BROOKESMITH SUD	8	8	8	8	8	8
GOLDTHWAITE	351	354	356	367	379	396
COUNTY-OTHER	241	239	237	244	253	263
MANUFACTURING	2	2	2	2	2	2
MINING	2	2	2	2	2	2
LIVESTOCK	623	623	623	623	623	623
IRRIGATION	1,659	1,623	1,588	1,553	1,520	1,489
COLORADO BASIN TOTAL DEMAND	2,886	2,851	2,816	2,799	2,787	2,783
MILLS COUNTY TOTAL DEMAND	4,778	4,712	4,646	4,604	4,569	4,544
SAN SABA COUNTY						
COLORADO BASIN						
RICHLAND SUD	168	172	169	165	168	172
SAN SABA	1,138	1,178	1,174	1,149	1,175	1,202
COUNTY-OTHER	316	320	314	309	315	322
MANUFACTURING	8	8	8	8	8	8
MINING	1,088	1,093	944	900	864	838

Water User Group (WUG) Demand

REGION K	WUG DEMAND (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
SAN SABA COUNTY						
COLORADO BASIN						
LIVESTOCK	1,191	1,191	1,191	1,191	1,191	1,191
IRRIGATION	5,539	5,361	5,188	5,018	4,856	4,709
COLORADO BASIN TOTAL DEMAND	9,448	9,323	8,988	8,740	8,577	8,442
SAN SABA COUNTY TOTAL DEMAND	9,448	9,323	8,988	8,740	8,577	8,442
TRAVIS COUNTY						
COLORADO BASIN						
AQUA WSC	1,089	1,226	1,363	1,524	1,672	1,810
AUSTIN	157,445	182,933	209,973	229,887	246,590	266,411
BARTON CREEK WEST WSC	432	427	424	423	422	422
BEE CAVE	1,777	2,043	2,297	2,582	2,834	3,070
BRIARCLIFF	260	295	328	368	403	436
CEDAR PARK	2,432	2,579	2,767	2,763	2,761	2,760
CREEDMOOR-MAHA WSC	565	623	681	756	828	896
ELGIN	251	352	447	556	653	744
JONESTOWN	408	428	448	473	497	521
LAGO VISTA	1,868	2,185	2,488	2,832	3,140	3,428
LAKEWAY	6,977	9,115	9,093	9,081	9,076	9,075
LEANDER	1,134	2,908	5,020	5,422	5,623	5,878
LOOP 360 WSC	1,174	1,220	1,264	1,316	1,363	1,407
LOST CREEK MUD	1,092	1,072	1,057	1,056	1,054	1,054
MANOR	1,141	1,559	1,959	2,410	2,810	3,183
MANVILLE WSC	2,984	3,604	4,201	4,885	5,499	6,074
MUSTANG RIDGE	45	46	47	48	50	51
NORTH AUSTIN MUD #1	82	79	77	75	75	75
NORTHTOWN MUD	691	798	898	1,011	1,111	1,203
PFLUGERVILLE	12,775	17,105	21,243	25,896	30,012	33,851
POINT VENTURE	347	443	534	638	729	815
ROLLINGWOOD	384	379	376	375	376	378
ROUND ROCK	265	301	336	377	414	448
SHADY HOLLOW MUD	779	758	741	731	730	730
SUNSET VALLEY	386	499	606	727	834	934
THE HILLS	1,449	1,444	1,441	1,439	1,438	1,438
TRAVIS COUNTY MUD #4	2,611	3,010	3,387	3,810	4,184	4,533
TRAVIS COUNTY WCID #10	2,128	2,428	2,715	3,044	3,341	3,619
TRAVIS COUNTY WCID #17	8,451	10,053	11,017	11,187	11,479	11,842
TRAVIS COUNTY WCID #18	1,123	1,267	1,407	1,573	1,725	1,867
TRAVIS COUNTY WCID #19	498	496	494	493	493	493
TRAVIS COUNTY WCID #20	590	587	584	583	582	582
VOLENTE	76	89	101	116	130	142
WELLS BRANCH MUD	1,638	1,602	1,577	1,563	1,559	1,558
WEST LAKE HILLS	1,564	1,550	1,539	1,533	1,532	1,532
WEST TRAVIS COUNTY PUBLIC UTILITY AGENCY	2,367	2,720	3,057	3,438	3,774	4,088
WILLIAMSON-TRAVIS COUNTY MUD #1	153	149	147	147	146	146
COUNTY-OTHER	8,370	7,608	6,925	5,811	4,256	2,879
MANUFACTURING	35,790	48,710	63,858	72,991	81,781	91,630
MINING	3,467	4,067	4,714	5,320	5,986	6,749

Water User Group (WUG) Demand

REGION K	WUG DEMAND (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
TRAVIS COUNTY						
COLORADO BASIN						
STEAM ELECTRIC POWER	18,500	22,500	22,500	23,500	24,500	26,500
LIVESTOCK	680	680	680	680	680	680
IRRIGATION	4,322	3,975	3,657	3,364	3,097	2,885
COLORADO BASIN TOTAL DEMAND	290,560	345,912	398,468	436,804	470,239	508,817
GUADALUPE BASIN						
CREEDMOOR-MAHA WSC	27	30	33	36	40	43
GOFORTH SUD	9	10	11	12	13	14
MUSTANG RIDGE	17	17	17	18	19	20
COUNTY-OTHER	25	33	41	44	45	49
MINING	35	41	48	54	60	68
LIVESTOCK	24	24	24	24	24	24
GUADALUPE BASIN TOTAL DEMAND	137	155	174	188	201	218
TRAVIS COUNTY TOTAL DEMAND	290,697	346,067	398,642	436,992	470,440	509,035
WHARTON COUNTY						
BRAZOS-COLORADO BASIN						
EAST BERNARD	380	395	406	418	432	445
WHARTON	1,103	1,140	1,169	1,205	1,246	1,283
COUNTY-OTHER	1,209	1,234	1,255	1,301	1,345	1,384
MANUFACTURING	503	537	572	601	648	699
MINING	39	41	30	23	14	9
STEAM ELECTRIC POWER	351	413	488	580	691	797
LIVESTOCK	371	371	371	371	371	371
IRRIGATION	114,604	111,520	108,521	105,602	102,761	99,997
BRAZOS-COLORADO BASIN TOTAL DEMAND	118,560	115,651	112,812	110,101	107,508	104,985
COLORADO BASIN						
EL CAMPO	6	6	6	6	6	6
WHARTON	568	588	603	622	642	661
COUNTY-OTHER	580	592	603	625	645	665
MINING	26	27	20	15	10	6
STEAM ELECTRIC POWER	2,400	2,400	2,400	2,400	2,400	2,400
LIVESTOCK	277	277	277	277	277	277
IRRIGATION	61,546	59,891	58,280	56,712	55,186	53,702
COLORADO BASIN TOTAL DEMAND	65,403	63,781	62,189	60,657	59,166	57,717
COLORADO-LAVACA BASIN						
COUNTY-OTHER	186	190	194	201	207	213
MINING	6	6	5	3	2	2
LIVESTOCK	80	80	80	80	80	80
IRRIGATION	36,079	35,109	34,164	33,245	32,351	31,480
COLORADO-LAVACA BASIN TOTAL DEMAND	36,351	35,385	34,443	33,529	32,640	31,775
LAVACA BASIN						
COUNTY-OTHER	18	18	19	20	20	21
LAVACA BASIN TOTAL DEMAND	18	18	19	20	20	21
WHARTON COUNTY TOTAL DEMAND	220,332	214,835	209,463	204,307	199,334	194,498
WILLIAMSON COUNTY						
BRAZOS BASIN						
AUSTIN	7,697	9,541	11,841	14,317	17,126	20,208

Water User Group (WUG) Demand

REGION K	WUG DEMAND (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
WILLIAMSON COUNTY						
BRAZOS BASIN						
NORTH AUSTIN MUD #1	774	748	726	714	711	711
WELLS BRANCH MUD	118	115	113	112	112	112
COUNTY-OTHER	2,586	3,504	3,467	3,451	3,444	3,441
MINING	5	3	3	3	3	3
LIVESTOCK	1	1	1	1	1	1
BRAZOS BASIN TOTAL DEMAND	11,181	13,912	16,151	18,598	21,397	24,476
WILLIAMSON COUNTY TOTAL DEMAND	11,181	13,912	16,151	18,598	21,397	24,476
REGION K TOTAL DEMAND	1,183,325	1,245,335	1,301,963	1,352,231	1,401,321	1,461,807

Source Availability

REGION K									
GROUNDWATER	COUNTY	BASIN	SALINITY	SOURCE AVAILABILITY (ACRE-FEET PER YEAR)					
				2020	2030	2040	2050	2060	2070
GULF COAST AQUIFER	MATAGORDA	COLORADO-LAVACA	FRESH	18,662	18,662	18,662	18,662	18,662	18,662
GULF COAST AQUIFER	WHARTON	BRAZOS-COLORADO	FRESH	34,020	34,020	34,020	34,020	34,020	34,020
GULF COAST AQUIFER	WHARTON	COLORADO	FRESH	31,406	31,406	31,406	31,406	31,406	31,406
GULF COAST AQUIFER	WHARTON	COLORADO-LAVACA	FRESH	11,624	11,624	11,624	11,624	11,624	11,624
GULF COAST AQUIFER	WHARTON	LAVACA	FRESH	1,690	1,690	1,690	1,690	1,690	1,690
HICKORY AQUIFER	BLANCO	COLORADO	FRESH	1,162	1,162	1,162	1,162	1,162	1,162
HICKORY AQUIFER	BLANCO	GUADALUPE	FRESH	1	1	1	1	1	1
HICKORY AQUIFER	BURNET	BRAZOS	FRESH	0	0	0	0	0	0
HICKORY AQUIFER	BURNET	COLORADO	FRESH	2,148	2,148	2,148	2,148	2,148	2,148
HICKORY AQUIFER	GILLESPIE	COLORADO	FRESH	1,659	1,659	1,659	1,659	1,659	1,659
HICKORY AQUIFER	GILLESPIE	GUADALUPE	FRESH	0	0	0	0	0	0
HICKORY AQUIFER	LLANO	COLORADO	FRESH	2,018	2,018	2,018	2,018	2,018	2,018
HICKORY AQUIFER	MILLS	BRAZOS	FRESH	1	1	1	1	1	1
HICKORY AQUIFER	MILLS	COLORADO	FRESH	35	35	35	35	35	35
HICKORY AQUIFER	SAN SABA	COLORADO	FRESH	1,479	1,479	1,479	1,479	1,479	1,479
HICKORY AQUIFER	TRAVIS	BRAZOS	FRESH	0	0	0	0	0	0
HICKORY AQUIFER	TRAVIS	COLORADO	FRESH	22	22	22	22	22	22
MARBLE FALLS AQUIFER	BLANCO	COLORADO	FRESH	261	261	261	261	261	261
MARBLE FALLS AQUIFER	BURNET	BRAZOS	FRESH	93	93	93	93	93	93
MARBLE FALLS AQUIFER	BURNET	COLORADO	FRESH	1,885	1,885	1,885	1,885	1,885	1,885
MARBLE FALLS AQUIFER	SAN SABA	COLORADO	FRESH	11,063	11,063	11,063	11,063	11,063	11,063
OTHER AQUIFER	BURNET	BRAZOS	FRESH	2,053	2,053	2,053	2,053	2,053	2,053
OTHER AQUIFER	TRAVIS	GUADALUPE	FRESH	112	112	112	112	112	112
OTHER AQUIFER ALLUVIUM	BURNET	COLORADO	FRESH	3,672	3,672	3,672	3,672	3,672	3,672
OTHER AQUIFER ALLUVIUM	LLANO	COLORADO	FRESH	629	629	629	629	629	629
OTHER AQUIFER CITY OF BASTROP	BASTROP	COLORADO	FRESH	5,340	5,340	5,340	5,340	5,340	5,340
OTHER AQUIFER COUNTY-OTHER, IRRIGATION	TRAVIS	COLORADO	FRESH	1,453	1,453	1,453	1,453	1,453	1,453
OTHER AQUIFER FAYETTE WSC, COUNTY-OTHER	FAYETTE	COLORADO	FRESH	834	834	834	834	834	834
QUEEN CITY AQUIFER	BASTROP	BRAZOS	FRESH	244	598	219	216	216	216
QUEEN CITY AQUIFER	BASTROP	COLORADO	FRESH	659	1,626	599	591	590	590
QUEEN CITY AQUIFER	BASTROP	GUADALUPE	FRESH	192	541	213	216	216	216
QUEEN CITY AQUIFER	FAYETTE	COLORADO	FRESH	436	478	513	565	570	570
QUEEN CITY AQUIFER	FAYETTE	GUADALUPE	FRESH	0	0	0	0	0	0
SPARTA AQUIFER	BASTROP	BRAZOS	FRESH	65	170	58	55	55	55
SPARTA AQUIFER	BASTROP	COLORADO	FRESH	1,761	4,606	1,538	1,460	1,453	1,453
SPARTA AQUIFER	BASTROP	GUADALUPE	FRESH	87	228	79	76	75	75
SPARTA AQUIFER	FAYETTE	COLORADO	FRESH	3,161	3,206	3,226	3,278	3,294	3,294

Source Availability

REGION K									
GROUNDWATER	COUNTY	BASIN	SALINITY	SOURCE AVAILABILITY (ACRE-FEET PER YEAR)					
				2020	2030	2040	2050	2060	2070
SPARTA AQUIFER	FAYETTE	GUADALUPE	FRESH	431	431	430	433	435	435
TRINITY AQUIFER	BLANCO	COLORADO	FRESH	1,322	1,322	1,322	1,322	1,322	1,322
TRINITY AQUIFER	BLANCO	GUADALUPE	FRESH	1,251	1,251	1,251	1,251	1,251	1,251
TRINITY AQUIFER	BURNET	BRAZOS	FRESH	2,723	2,723	2,723	2,723	2,723	2,723
TRINITY AQUIFER	BURNET	COLORADO	FRESH	823	823	823	823	823	823
TRINITY AQUIFER	GILLESPIE	COLORADO	FRESH	2,482	2,482	2,482	2,482	2,482	2,482
TRINITY AQUIFER	GILLESPIE	GUADALUPE	FRESH	46	46	46	46	46	46
TRINITY AQUIFER	HAYS	COLORADO	FRESH	5,665	5,662	5,661	5,661	5,661	5,661
TRINITY AQUIFER	MILLS	BRAZOS	FRESH	1,273	1,273	1,273	1,273	1,273	1,273
TRINITY AQUIFER	MILLS	COLORADO	FRESH	1,128	1,128	1,128	1,128	1,128	1,128
TRINITY AQUIFER	TRAVIS	BRAZOS	FRESH	8	8	8	8	8	8
TRINITY AQUIFER	TRAVIS	COLORADO	FRESH	13,188	13,171	13,159	13,143	13,114	13,114
TRINITY AQUIFER	TRAVIS	GUADALUPE	FRESH	7	7	7	7	7	7
TRINITY AQUIFER	WILLIAMSON	BRAZOS	FRESH	157	157	157	157	157	157
TRINITY AQUIFER	WILLIAMSON	COLORADO	FRESH	61	61	61	61	61	61
YEGUA-JACKSON AQUIFER	FAYETTE	COLORADO	FRESH	5,065	5,065	5,065	5,065	5,065	5,065
YEGUA-JACKSON AQUIFER	FAYETTE	GUADALUPE	FRESH	650	650	650	650	650	650
YEGUA-JACKSON AQUIFER	FAYETTE	LAVACA	FRESH	47	47	47	47	47	47
GROUNDWATER TOTAL SOURCE AVAILABILITY				322,366	327,713	326,848	330,023	330,458	330,458
REGION K									
REUSE	COUNTY	BASIN	SALINITY	SOURCE AVAILABILITY (ACRE-FEET PER YEAR)					
				2020	2030	2040	2050	2060	2070
DIRECT REUSE	LLANO	COLORADO	FRESH	516	516	516	516	516	516
DIRECT REUSE	TRAVIS	COLORADO	FRESH	19,500	33,457	45,648	55,598	60,848	60,848
DIRECT REUSE CITY OF BUDA WWTP/SUNFIELD SUBDIVISION	HAYS	COLORADO	FRESH	2,240	2,240	2,240	2,240	2,240	2,240
DIRECT REUSE CITY OF MARBLE FALLS WWTP/ CITY PARKS ; CITY OF BURNET WWTP/ REC CENTER	BURNET	COLORADO	FRESH	1,270	1,270	1,270	1,270	1,270	1,270
REUSE TOTAL SOURCE AVAILABILITY				23,526	37,483	49,674	59,624	64,874	64,874
REGION K									
SURFACE WATER	COUNTY	BASIN	SALINITY	SOURCE AVAILABILITY (ACRE-FEET PER YEAR)					
				2020	2030	2040	2050	2060	2070
BLANCO LAKE/RESERVOIR	RESERVOIR	GUADALUPE	FRESH	596	596	596	596	596	596
BRAZOS LIVESTOCK LOCAL SUPPLY	BASTROP	BRAZOS	FRESH	94	94	94	94	94	94
BRAZOS LIVESTOCK LOCAL SUPPLY	BURNET	BRAZOS	FRESH	311	311	311	311	311	311
BRAZOS LIVESTOCK LOCAL SUPPLY	MILLS	BRAZOS	FRESH	321	321	321	321	321	321

Source Availability

REGION K									
SURFACE WATER	COUNTY	BASIN	SALINITY	SOURCE AVAILABILITY (ACRE-FEET PER YEAR)					
				2020	2030	2040	2050	2060	2070
COLORADO RUN-OF-RIVER	BASTROP	COLORADO	FRESH	786	786	786	786	786	786
COLORADO RUN-OF-RIVER	BLANCO	COLORADO	FRESH	67	67	67	67	67	67
COLORADO RUN-OF-RIVER	BURNET	COLORADO	FRESH	3,521	3,521	3,521	3,521	3,521	3,521
COLORADO RUN-OF-RIVER	COLORADO	COLORADO	FRESH	132,514	132,514	132,514	132,514	132,514	132,514
COLORADO RUN-OF-RIVER	FAYETTE	COLORADO	FRESH	534	534	534	534	534	534
COLORADO RUN-OF-RIVER	GILLESPIE	COLORADO	FRESH	880	880	880	880	880	880
COLORADO RUN-OF-RIVER	HAYS	COLORADO	FRESH	41	41	41	41	41	41
COLORADO RUN-OF-RIVER	LLANO	COLORADO	FRESH	440	440	440	440	440	440
COLORADO RUN-OF-RIVER	MATAGORDA	COLORADO	FRESH	93,821	93,821	93,821	93,821	93,821	93,821
COLORADO RUN-OF-RIVER	MILLS	COLORADO	FRESH	2,378	2,378	2,378	2,378	2,378	2,378
COLORADO RUN-OF-RIVER	SAN SABA	COLORADO	FRESH	8,800	8,800	8,800	8,800	8,800	8,800
COLORADO RUN-OF-RIVER	TRAVIS	COLORADO	FRESH	207,971	207,971	207,971	207,971	207,984	208,038
COLORADO RUN-OF-RIVER	WHARTON	COLORADO	FRESH	10,562	10,562	10,562	10,562	10,562	10,562
COLORADO-LAVACA LIVESTOCK LOCAL SUPPLY	MATAGORDA	COLORADO-LAVACA	FRESH	708	708	708	708	708	708
COLORADO-LAVACA LIVESTOCK LOCAL SUPPLY	WHARTON	COLORADO-LAVACA	FRESH	80	80	80	80	80	80
COLORADO-LAVACA RUN-OF-RIVER	MATAGORDA	COLORADO-LAVACA	FRESH	4,000	4,000	4,000	4,000	4,000	4,000
GOLDTHWAITE LAKE/RESERVOIR	RESERVOIR	COLORADO	FRESH	0	0	0	0	0	0
GUADALUPE LIVESTOCK LOCAL SUPPLY	BASTROP	GUADALUPE	FRESH	72	72	72	72	72	72
GUADALUPE LIVESTOCK LOCAL SUPPLY	BLANCO	GUADALUPE	FRESH	129	129	129	129	129	129
GUADALUPE LIVESTOCK LOCAL SUPPLY	FAYETTE	GUADALUPE	FRESH	108	108	108	108	108	108
GUADALUPE LIVESTOCK LOCAL SUPPLY	GILLESPIE	GUADALUPE	FRESH	32	32	32	32	32	32
GUADALUPE LIVESTOCK LOCAL SUPPLY	TRAVIS	GUADALUPE	FRESH	24	24	24	24	24	24
GUADALUPE RUN-OF-RIVER	BLANCO	GUADALUPE	FRESH	9	9	9	9	9	9
HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	RESERVOIR	COLORADO	FRESH	418,812	413,298	407,774	401,744	395,201	389,125
LAVACA LIVESTOCK LOCAL SUPPLY	COLORADO	LAVACA	FRESH	465	465	465	465	465	465
LAVACA LIVESTOCK LOCAL SUPPLY	FAYETTE	LAVACA	FRESH	386	386	386	386	386	386

Source Availability

REGION K									
SURFACE WATER	COUNTY	BASIN	SALINITY	SOURCE AVAILABILITY (ACRE-FEET PER YEAR)					
				2020	2030	2040	2050	2060	2070
LAVACA RUN-OF-RIVER	COLORADO	LAVACA	FRESH	4,002	4,002	4,002	4,002	4,002	4,002
LAVACA RUN-OF-RIVER	FAYETTE	LAVACA	FRESH	20	20	20	20	20	20
LLANO LAKE/RESERVOIR	RESERVOIR	COLORADO	FRESH	417	417	417	417	417	417
SURFACE WATER TOTAL SOURCE AVAILABILITY				941,906	936,392	930,868	924,838	918,308	912,286
REGION K TOTAL SOURCE AVAILABILITY				1,287,798	1,301,588	1,307,390	1,314,485	1,313,640	1,307,618

Water User Group (WUG) Existing Water Supply

REGION K	SOURCE REGION SOURCE NAME	EXISTING SUPPLY (ACRE-FEET PER YEAR)					
		2020	2030	2040	2050	2060	2070
BASTROP COUNTY							
BRAZOS BASIN							
AQUA WSC	K CARRIZO-WILCOX AQUIFER BASTROP COUNTY	350	350	350	350	350	350
LEE COUNTY WSC	G CARRIZO-WILCOX AQUIFER LEE COUNTY	138	158	189	234	292	362
LEE COUNTY WSC	G QUEEN CITY AQUIFER LEE COUNTY	2	2	4	3	4	6
LEE COUNTY WSC	G SPARTA AQUIFER LEE COUNTY	6	7	7	9	10	14
COUNTY-OTHER	K CARRIZO-WILCOX AQUIFER BASTROP COUNTY	91	91	91	91	91	91
MINING		0	0	0	0	0	0
LIVESTOCK	K BRAZOS LIVESTOCK LOCAL SUPPLY	94	94	94	94	94	94
IRRIGATION	K QUEEN CITY AQUIFER BASTROP COUNTY	50	50	50	50	50	50
BRAZOS BASIN TOTAL EXISTING SUPPLY		731	752	785	831	891	967
COLORADO BASIN							
AQUA WSC	K CARRIZO-WILCOX AQUIFER BASTROP COUNTY	4,775	5,218	6,147	6,805	6,805	6,805
AQUA WSC	L CARRIZO-WILCOX AQUIFER CALDWELL COUNTY	1,764	1,764	1,764	1,764	1,764	1,764
BASTROP	K OTHER AQUIFER BASTROP COUNTY	1,927	1,927	1,927	1,927	1,927	1,927
BASTROP COUNTY WCID #2	K CARRIZO-WILCOX AQUIFER BASTROP COUNTY	659	715	834	917	917	917
BASTROP COUNTY WCID #2	K OTHER AQUIFER BASTROP COUNTY	472	472	472	472	472	472
CREEDMOOR-MAHA WSC	K CARRIZO-WILCOX AQUIFER BASTROP COUNTY	40	40	40	40	40	40
CREEDMOOR-MAHA WSC	K EDWARDS-BFZ AQUIFER TRAVIS COUNTY	0	0	0	4	17	34
ELGIN	K CARRIZO-WILCOX AQUIFER BASTROP COUNTY	826	919	1,112	1,249	1,249	1,249
LEE COUNTY WSC	G CARRIZO-WILCOX AQUIFER LEE COUNTY	184	211	255	317	396	489
LEE COUNTY WSC	G QUEEN CITY AQUIFER LEE COUNTY	4	4	4	5	6	7
LEE COUNTY WSC	G SPARTA AQUIFER LEE COUNTY	8	8	10	12	15	18
POLONIA WSC	L CARRIZO-WILCOX AQUIFER CALDWELL COUNTY	29	36	45	58	75	99
SMITHVILLE	K CARRIZO-WILCOX AQUIFER BASTROP COUNTY	1,848	2,006	2,338	2,480	2,480	2,480
COUNTY-OTHER	K CARRIZO-WILCOX AQUIFER BASTROP COUNTY	709	922	1,198	1,709	2,382	3,282
COUNTY-OTHER	K HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	744	744	744	744	744	744
MANUFACTURING	K CARRIZO-WILCOX AQUIFER BASTROP COUNTY	81	81	81	81	81	81
MANUFACTURING	K COLORADO OTHER LOCAL SUPPLY	48	48	48	48	48	48
MINING	K COLORADO OTHER LOCAL SUPPLY	8	7	7	9	9	9
MINING	K OTHER AQUIFER BASTROP COUNTY	2,110	2,110	2,110	2,110	2,110	2,110
STEAM ELECTRIC POWER	K CARRIZO-WILCOX AQUIFER BASTROP COUNTY	4,500	4,886	5,694	6,149	6,149	6,149
STEAM ELECTRIC POWER	K HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	12,220	11,834	11,026	10,571	10,571	10,571
LIVESTOCK	K COLORADO LIVESTOCK LOCAL SUPPLY	696	696	696	696	696	696
LIVESTOCK	K QUEEN CITY AQUIFER BASTROP COUNTY	218	218	218	218	218	218
LIVESTOCK	K SPARTA AQUIFER BASTROP COUNTY	442	442	442	442	442	442
IRRIGATION	K HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	852	742	649	565	492	443

Water User Group (WUG) Existing Water Supply

REGION K	SOURCE REGION SOURCE NAME	EXISTING SUPPLY (ACRE-FEET PER YEAR)					
		2020	2030	2040	2050	2060	2070
BASTROP COUNTY							
COLORADO BASIN							
IRRIGATION	K QUEEN CITY AQUIFER BASTROP COUNTY	197	197	197	197	197	197
IRRIGATION	K SPARTA AQUIFER BASTROP COUNTY	147	147	147	147	147	147
COLORADO BASIN TOTAL EXISTING SUPPLY		35,508	36,394	38,205	39,736	40,449	41,438
GUADALUPE BASIN							
AQUA WSC	L CARRIZO-WILCOX AQUIFER CALDWELL COUNTY	250	250	250	250	250	250
COUNTY-OTHER	K QUEEN CITY AQUIFER BASTROP COUNTY	35	35	35	35	35	35
MANUFACTURING	K CARRIZO-WILCOX AQUIFER BASTROP COUNTY	12	12	12	12	12	12
MANUFACTURING	L CARRIZO-WILCOX AQUIFER CALDWELL COUNTY	5	5	5	5	5	5
MINING	K SPARTA AQUIFER BASTROP COUNTY	34	34	34	34	34	34
LIVESTOCK	K GUADALUPE LIVESTOCK LOCAL SUPPLY	72	72	72	72	72	72
IRRIGATION	K QUEEN CITY AQUIFER BASTROP COUNTY	41	41	41	41	41	41
GUADALUPE BASIN TOTAL EXISTING SUPPLY		449	449	449	449	449	449
BASTROP COUNTY TOTAL EXISTING SUPPLY		36,688	37,595	39,439	41,016	41,789	42,854
BLANCO COUNTY							
COLORADO BASIN							
JOHNSON CITY	K TRINITY AQUIFER BLANCO COUNTY	306	306	306	306	306	306
COUNTY-OTHER	K COLORADO OTHER LOCAL SUPPLY	49	55	57	56	56	56
COUNTY-OTHER	K ELLENBURGER-SAN SABA AQUIFER BLANCO COUNTY	249	249	249	249	249	249
COUNTY-OTHER	K HICKORY AQUIFER BLANCO COUNTY	76	76	76	76	76	76
COUNTY-OTHER	K TRINITY AQUIFER BLANCO COUNTY	332	332	332	332	332	332
MANUFACTURING	K TRINITY AQUIFER BLANCO COUNTY	15	15	15	15	15	15
MINING	K ELLENBURGER-SAN SABA AQUIFER BLANCO COUNTY	5	5	5	5	5	5
LIVESTOCK	K COLORADO LIVESTOCK LOCAL SUPPLY	101	101	101	101	101	101
LIVESTOCK	K ELLENBURGER-SAN SABA AQUIFER BLANCO COUNTY	255	255	255	255	255	255
LIVESTOCK	K TRINITY AQUIFER BLANCO COUNTY	82	82	82	82	82	82
IRRIGATION	K ELLENBURGER-SAN SABA AQUIFER BLANCO COUNTY	208	208	208	208	208	208
COLORADO BASIN TOTAL EXISTING SUPPLY		1,678	1,684	1,686	1,685	1,685	1,685
GUADALUPE BASIN							
BLANCO	K BLANCO LAKE/RESERVOIR	596	596	596	596	596	596
BLANCO	L CANYON LAKE/RESERVOIR	600	600	600	600	600	600
CANYON LAKE WATER SERVICE COMPANY	L CANYON LAKE/RESERVOIR	128	150	163	169	174	177
COUNTY-OTHER	K TRINITY AQUIFER BLANCO COUNTY	873	873	873	873	873	873
COUNTY-OTHER	L CANYON LAKE/RESERVOIR	60	60	60	60	60	60
MANUFACTURING	K TRINITY AQUIFER BLANCO COUNTY	5	5	5	5	5	5
LIVESTOCK	K GUADALUPE LIVESTOCK LOCAL SUPPLY	101	101	101	101	101	101
LIVESTOCK	K TRINITY AQUIFER BLANCO COUNTY	62	62	62	62	62	62
IRRIGATION	K GUADALUPE RUN-OF-RIVER	9	9	9	9	9	9
IRRIGATION	K TRINITY AQUIFER BLANCO COUNTY	107	107	107	107	107	107

Water User Group (WUG) Existing Water Supply

REGION K	SOURCE REGION SOURCE NAME	EXISTING SUPPLY (ACRE-FEET PER YEAR)					
		2020	2030	2040	2050	2060	2070
COLORADO COUNTY							
LAVACA BASIN							
WEIMAR	K GULF COAST AQUIFER COLORADO COUNTY	429	429	429	429	429	429
COUNTY-OTHER	K GULF COAST AQUIFER COLORADO COUNTY	938	938	938	938	938	938
MANUFACTURING	K GULF COAST AQUIFER COLORADO COUNTY	816	816	816	816	816	816
MINING	K GULF COAST AQUIFER COLORADO COUNTY	280	280	280	280	280	280
LIVESTOCK	K GULF COAST AQUIFER COLORADO COUNTY	288	288	288	288	288	288
LIVESTOCK	K LAVACA LIVESTOCK LOCAL SUPPLY	177	177	177	177	177	177
IRRIGATION	K COLORADO RUN-OF-RIVER	32,366	32,366	32,366	32,366	32,366	32,366
IRRIGATION	K GULF COAST AQUIFER COLORADO COUNTY	19,680	19,680	19,680	19,680	19,680	19,680
IRRIGATION	K LAVACA RUN-OF-RIVER	4,002	4,002	4,002	4,002	4,002	4,002
LAVACA BASIN TOTAL EXISTING SUPPLY		58,976	58,976	58,976	58,976	58,976	58,976
COLORADO COUNTY TOTAL EXISTING SUPPLY		119,440	119,440	119,440	119,440	119,440	119,440
FAYETTE COUNTY							
COLORADO BASIN							
AQUA WSC	L CARRIZO-WILCOX AQUIFER CALDWELL COUNTY	6	6	6	6	6	6
FAYETTE WSC	K OTHER AQUIFER FAYETTE COUNTY	675	675	675	675	675	675
FAYETTE WSC	K SPARTA AQUIFER FAYETTE COUNTY	230	230	230	230	230	230
LA GRANGE	K YEGUA-JACKSON AQUIFER FAYETTE COUNTY	1,294	1,294	1,294	1,294	1,294	1,294
LEE COUNTY WSC	G CARRIZO-WILCOX AQUIFER LEE COUNTY	463	462	458	459	450	434
LEE COUNTY WSC	G QUEEN CITY AQUIFER LEE COUNTY	9	8	7	7	7	6
LEE COUNTY WSC	G SPARTA AQUIFER LEE COUNTY	19	18	18	17	17	16
COUNTY-OTHER	K GULF COAST AQUIFER FAYETTE COUNTY	526	526	526	526	526	526
COUNTY-OTHER	K HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	102	102	102	102	102	102
COUNTY-OTHER	K OTHER AQUIFER FAYETTE COUNTY	159	159	159	159	159	159
COUNTY-OTHER	K SPARTA AQUIFER FAYETTE COUNTY	24	24	24	24	24	24
MINING	K GULF COAST AQUIFER FAYETTE COUNTY	103	103	103	103	103	103
MINING	K SPARTA AQUIFER FAYETTE COUNTY	367	367	367	367	367	367
STEAM ELECTRIC POWER	K COLORADO RUN-OF-RIVER	871	871	871	871	871	871
STEAM ELECTRIC POWER	K HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	45,117	45,117	45,117	45,117	45,117	45,117
LIVESTOCK	K COLORADO LIVESTOCK LOCAL SUPPLY	1,746	1,746	1,746	1,746	1,746	1,746
LIVESTOCK	K GULF COAST AQUIFER FAYETTE COUNTY	140	140	140	140	140	140
LIVESTOCK	K SPARTA AQUIFER FAYETTE COUNTY	733	733	733	733	733	733
IRRIGATION	K GULF COAST AQUIFER FAYETTE COUNTY	775	775	775	775	775	775
IRRIGATION	K SPARTA AQUIFER FAYETTE COUNTY	172	172	172	172	172	172
COLORADO BASIN TOTAL EXISTING SUPPLY		53,531	53,528	53,523	53,523	53,514	53,496
GUADALUPE BASIN							
FAYETTE WSC	K SPARTA AQUIFER FAYETTE COUNTY	57	57	57	57	57	57
FLATONIA	K CARRIZO-WILCOX AQUIFER FAYETTE COUNTY	61	61	61	61	60	60
FLATONIA	K YEGUA-JACKSON AQUIFER FAYETTE COUNTY	31	31	31	31	30	30
COUNTY-OTHER	K YEGUA-JACKSON AQUIFER FAYETTE COUNTY	76	76	76	76	76	76

Water User Group (WUG) Existing Water Supply

REGION K	SOURCE REGION SOURCE NAME	EXISTING SUPPLY (ACRE-FEET PER YEAR)					
		2020	2030	2040	2050	2060	2070
GILLESPIE COUNTY							
COLORADO BASIN							
LIVESTOCK	K HICKORY AQUIFER GILLESPIE COUNTY	266	266	266	266	266	266
LIVESTOCK	K TRINITY AQUIFER GILLESPIE COUNTY	211	211	211	211	211	211
IRRIGATION	K EDWARDS-TRINITY-PLATEAU AQUIFER GILLESPIE COUNTY	163	163	163	163	163	163
IRRIGATION	K ELLENBURGER-SAN SABA AQUIFER GILLESPIE COUNTY	652	652	652	652	652	652
IRRIGATION	K HICKORY AQUIFER GILLESPIE COUNTY	210	210	210	210	210	210
IRRIGATION	K TRINITY AQUIFER GILLESPIE COUNTY	1,477	1,477	1,477	1,477	1,477	1,477
COLORADO BASIN TOTAL EXISTING SUPPLY		11,006	11,006	11,006	11,006	11,006	11,006
GUADALUPE BASIN							
COUNTY-OTHER	K EDWARDS-TRINITY-PLATEAU AQUIFER GILLESPIE COUNTY	90	90	90	90	90	90
COUNTY-OTHER	K TRINITY AQUIFER GILLESPIE COUNTY	5	5	5	5	5	5
LIVESTOCK	K GUADALUPE LIVESTOCK LOCAL SUPPLY	13	13	13	13	13	13
LIVESTOCK	K TRINITY AQUIFER GILLESPIE COUNTY	41	41	41	41	41	41
GUADALUPE BASIN TOTAL EXISTING SUPPLY		149	149	149	149	149	149
GILLESPIE COUNTY TOTAL EXISTING SUPPLY		11,155	11,155	11,155	11,155	11,155	11,155
HAYS COUNTY							
COLORADO BASIN							
AUSTIN	K COLORADO RUN-OF-RIVER	13	127	249	631	1,519	2,749
BUDA	K EDWARDS-BFZ AQUIFER HAYS COUNTY	549	549	549	549	549	549
BUDA	L CANYON LAKE/RESERVOIR	1,381	1,292	1,181	1,041	882	701
CIMARRON PARK WATER COMPANY	K EDWARDS-BFZ AQUIFER HAYS COUNTY	249	249	249	249	249	249
DRIPPING SPRINGS	K HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	506	506	506	506	506	506
DRIPPING SPRINGS WSC	K HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	133	280	461	691	953	1,126
DRIPPING SPRINGS WSC	K TRINITY AQUIFER HAYS COUNTY	400	400	400	400	400	400
MOUNTAIN CITY	K EDWARDS-BFZ AQUIFER HAYS COUNTY	57	56	54	54	54	54
PLUM CREEK WATER COMPANY	L TRINITY AQUIFER HAYS COUNTY	163	264	283	300	312	322
GOFORTH SUD	K EDWARDS-BFZ AQUIFER TRAVIS COUNTY	0	0	1	1	1	1
GOFORTH SUD	L EDWARDS-BFZ AQUIFER HAYS COUNTY	6	7	8	10	10	10
GOFORTH SUD	L TRINITY AQUIFER HAYS COUNTY	79	123	176	244	323	414
WEST TRAVIS COUNTY PUBLIC UTILITY AGENCY	K DIRECT REUSE	300	300	300	300	300	300
WEST TRAVIS COUNTY PUBLIC UTILITY AGENCY	K HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	4,521	4,521	4,521	4,521	4,521	4,521
COUNTY-OTHER	K EDWARDS-BFZ AQUIFER HAYS COUNTY	829	829	829	829	829	829
COUNTY-OTHER	K HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	1,401	1,401	1,401	1,401	1,401	1,401
COUNTY-OTHER	K TRINITY AQUIFER HAYS COUNTY	1,860	1,860	1,860	1,860	1,860	1,860
MANUFACTURING	K EDWARDS-BFZ AQUIFER HAYS COUNTY	583	583	583	583	583	583
MINING	K TRINITY AQUIFER HAYS COUNTY	314	314	314	314	314	314
LIVESTOCK	K COLORADO LIVESTOCK LOCAL SUPPLY	192	192	192	192	192	192
LIVESTOCK	K TRINITY AQUIFER HAYS COUNTY	30	30	30	30	30	30

Water User Group (WUG) Existing Water Supply

REGION K	SOURCE REGION SOURCE NAME	EXISTING SUPPLY (ACRE-FEET PER YEAR)					
		2020	2030	2040	2050	2060	2070
HAYS COUNTY							
COLORADO BASIN							
IRRIGATION	K EDWARDS-BFZ AQUIFER HAYS COUNTY	10	10	10	10	10	10
IRRIGATION	K TRINITY AQUIFER HAYS COUNTY	430	430	430	430	430	430
COLORADO BASIN TOTAL EXISTING SUPPLY		14,006	14,323	14,587	15,146	16,228	17,551
HAYS COUNTY TOTAL EXISTING SUPPLY		14,006	14,323	14,587	15,146	16,228	17,551
LLANO COUNTY							
COLORADO BASIN							
KINGSLAND WSC	K HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	1,094	1,092	1,083	1,073	1,072	1,070
KINGSLAND WSC	K OTHER AQUIFER LLANO COUNTY	49	49	49	49	49	49
LLANO	K LLANO LAKE/RESERVOIR	417	417	417	417	417	417
SUNRISE BEACH VILLAGE	K ELLENBURGER-SAN SABA AQUIFER LLANO COUNTY	69	69	69	69	69	69
SUNRISE BEACH VILLAGE	K HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	200	200	200	200	200	200
HORSESHOE BAY	K DIRECT REUSE	368	368	368	368	368	368
HORSESHOE BAY	K HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	1,525	1,525	1,525	1,525	1,525	1,525
COUNTY-OTHER	K ELLENBURGER-SAN SABA AQUIFER LLANO COUNTY	115	115	115	115	115	115
COUNTY-OTHER	K HICKORY AQUIFER LLANO COUNTY	143	143	143	143	143	143
COUNTY-OTHER	K HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	3,586	3,586	3,586	3,586	3,586	3,586
COUNTY-OTHER	K OTHER AQUIFER LLANO COUNTY	412	412	412	412	412	412
MANUFACTURING	K HICKORY AQUIFER LLANO COUNTY	3	3	3	3	3	3
MINING	K ELLENBURGER-SAN SABA AQUIFER LLANO COUNTY	3	3	3	3	3	3
STEAM ELECTRIC POWER	K HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	2,500	2,500	2,500	2,500	2,500	2,500
LIVESTOCK	K COLORADO LIVESTOCK LOCAL SUPPLY	414	414	414	414	414	414
LIVESTOCK	K ELLENBURGER-SAN SABA AQUIFER LLANO COUNTY	20	20	20	20	20	20
LIVESTOCK	K HICKORY AQUIFER LLANO COUNTY	179	179	179	179	179	179
LIVESTOCK	K OTHER AQUIFER LLANO COUNTY	138	138	138	138	138	138
IRRIGATION	K COLORADO RUN-OF-RIVER	439	439	439	439	439	439
IRRIGATION	K HICKORY AQUIFER LLANO COUNTY	400	400	400	400	400	400
IRRIGATION	K HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	1,514	1,514	1,514	1,514	1,514	1,514
COLORADO BASIN TOTAL EXISTING SUPPLY		13,588	13,586	13,577	13,567	13,566	13,564
LLANO COUNTY TOTAL EXISTING SUPPLY		13,588	13,586	13,577	13,567	13,566	13,564
MATAGORDA COUNTY							
BRAZOS-COLORADO BASIN							
BAY CITY	K GULF COAST AQUIFER MATAGORDA COUNTY	4,715	4,715	4,715	4,715	4,714	4,714
COUNTY-OTHER	K GULF COAST AQUIFER MATAGORDA COUNTY	980	980	980	980	980	980
MANUFACTURING	K GULF COAST AQUIFER MATAGORDA COUNTY	823	823	823	823	823	823
MINING	K GULF COAST AQUIFER MATAGORDA COUNTY	55	55	55	55	55	55
LIVESTOCK	K BRAZOS-COLORADO LIVESTOCK LOCAL SUPPLY	329	329	329	329	329	329
LIVESTOCK	K GULF COAST AQUIFER MATAGORDA COUNTY	335	335	335	335	335	335

Water User Group (WUG) Existing Water Supply

REGION K	SOURCE REGION SOURCE NAME	EXISTING SUPPLY (ACRE-FEET PER YEAR)					
		2020	2030	2040	2050	2060	2070
MATAGORDA COUNTY							
BRAZOS-COLORADO BASIN							
IRRIGATION	K BRAZOS-COLORADO RUN-OF-RIVER	4,000	4,000	4,000	4,000	4,000	4,000
IRRIGATION	K COLORADO RUN-OF-RIVER	2,053	2,053	2,053	2,053	2,053	2,053
IRRIGATION	K GULF COAST AQUIFER MATAGORDA COUNTY	16,000	16,000	16,000	16,000	16,000	16,000
BRAZOS-COLORADO BASIN TOTAL EXISTING SUPPLY		29,290	29,290	29,290	29,290	29,289	29,289
COLORADO BASIN							
BAY CITY	K GULF COAST AQUIFER MATAGORDA COUNTY	10	10	10	10	11	11
COUNTY-OTHER	K GULF COAST AQUIFER MATAGORDA COUNTY	503	503	503	503	503	503
MANUFACTURING	K COLORADO RUN-OF-RIVER	3,960	3,960	3,960	3,960	3,960	3,960
MANUFACTURING	K GULF COAST AQUIFER MATAGORDA COUNTY	1,143	1,143	1,143	1,143	1,143	1,143
MANUFACTURING	K HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	14,222	14,222	14,222	14,222	14,222	14,222
MINING	K GULF COAST AQUIFER MATAGORDA COUNTY	9	9	9	9	9	9
STEAM ELECTRIC POWER	K COLORADO RUN-OF-RIVER	44,397	44,397	44,397	44,397	44,397	44,397
STEAM ELECTRIC POWER	K GULF COAST AQUIFER MATAGORDA COUNTY	3,000	3,000	3,000	3,000	3,000	3,000
STEAM ELECTRIC POWER	K HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	32,240	32,226	32,202	32,172	32,142	32,120
LIVESTOCK	K COLORADO LIVESTOCK LOCAL SUPPLY	25	25	25	25	25	25
LIVESTOCK	K GULF COAST AQUIFER MATAGORDA COUNTY	106	106	106	106	106	106
IRRIGATION	K COLORADO RUN-OF-RIVER	1,193	1,193	1,193	1,193	1,193	1,193
COLORADO BASIN TOTAL EXISTING SUPPLY		100,808	100,794	100,770	100,740	100,711	100,689
COLORADO-LAVACA BASIN							
PALACIOS	K GULF COAST AQUIFER MATAGORDA COUNTY	1,064	1,064	1,064	1,064	1,064	1,064
COUNTY-OTHER	K GULF COAST AQUIFER MATAGORDA COUNTY	681	681	681	681	681	681
MANUFACTURING	K GULF COAST AQUIFER MATAGORDA COUNTY	203	203	203	203	203	203
MINING	K GULF COAST AQUIFER MATAGORDA COUNTY	36	36	36	36	36	36
LIVESTOCK	K COLORADO-LAVACA LIVESTOCK LOCAL SUPPLY	215	215	215	215	215	215
LIVESTOCK	K GULF COAST AQUIFER MATAGORDA COUNTY	493	493	493	493	493	493
IRRIGATION	K COLORADO RUN-OF-RIVER	2,293	2,293	2,293	2,293	2,293	2,293
IRRIGATION	K COLORADO-LAVACA RUN-OF-RIVER	4,000	4,000	4,000	4,000	4,000	4,000
IRRIGATION	K GULF COAST AQUIFER MATAGORDA COUNTY	13,000	13,000	13,000	13,000	13,000	13,000
COLORADO-LAVACA BASIN TOTAL EXISTING SUPPLY		21,985	21,985	21,985	21,985	21,985	21,985
MATAGORDA COUNTY TOTAL EXISTING SUPPLY		152,083	152,069	152,045	152,015	151,985	151,963
MILLS COUNTY							
BRAZOS BASIN							
GOLDTHWAITE	K TRINITY AQUIFER MILLS COUNTY	10	10	10	10	11	11
COUNTY-OTHER	K TRINITY AQUIFER MILLS COUNTY	128	128	128	128	128	128
MINING	K TRINITY AQUIFER MILLS COUNTY	2	2	2	2	2	2
LIVESTOCK	K BRAZOS LIVESTOCK LOCAL SUPPLY	321	321	321	321	321	321

Water User Group (WUG) Existing Water Supply

REGION K	SOURCE REGION SOURCE NAME	EXISTING SUPPLY (ACRE-FEET PER YEAR)					
		2020	2030	2040	2050	2060	2070
MILLS COUNTY							
BRAZOS BASIN							
IRRIGATION	K TRINITY AQUIFER MILLS COUNTY	810	810	810	810	810	810
BRAZOS BASIN TOTAL EXISTING SUPPLY		1,271	1,271	1,271	1,271	1,272	1,272
COLORADO BASIN							
BROOKESMITH SUD	F BROWNWOOD LAKE/RESERVOIR	8	8	8	8	8	8
GOLDTHWAITE	K MARBLE FALLS AQUIFER SAN SABA COUNTY	245	245	245	245	245	245
GOLDTHWAITE	K TRINITY AQUIFER MILLS COUNTY	58	58	58	58	57	57
COUNTY-OTHER	K TRINITY AQUIFER MILLS COUNTY	331	331	331	331	331	331
MANUFACTURING	K TRINITY AQUIFER MILLS COUNTY	2	2	2	2	2	2
MINING	K TRINITY AQUIFER MILLS COUNTY	2	2	2	2	2	2
LIVESTOCK	K COLORADO LIVESTOCK LOCAL SUPPLY	360	360	360	360	360	360
LIVESTOCK	K ELLENBURGER-SAN SABA AQUIFER MILLS COUNTY	94	94	94	94	94	94
LIVESTOCK	K TRINITY AQUIFER MILLS COUNTY	169	169	169	169	169	169
IRRIGATION	K COLORADO RUN-OF-RIVER	2,377	2,377	2,377	2,377	2,377	2,377
IRRIGATION	K TRINITY AQUIFER MILLS COUNTY	76	76	76	76	76	76
COLORADO BASIN TOTAL EXISTING SUPPLY		3,722	3,722	3,722	3,722	3,721	3,721
MILLS COUNTY TOTAL EXISTING SUPPLY		4,993	4,993	4,993	4,993	4,993	4,993
SAN SABA COUNTY							
COLORADO BASIN							
RICHLAND SUD	K ELLENBURGER-SAN SABA AQUIFER SAN SABA COUNTY	112	113	112	111	112	113
RICHLAND SUD	K MARBLE FALLS AQUIFER SAN SABA COUNTY	187	188	188	185	187	189
SAN SABA	K COLORADO RUN-OF-RIVER	10	10	10	10	10	10
SAN SABA	K ELLENBURGER-SAN SABA AQUIFER SAN SABA COUNTY	1,040	1,040	1,040	1,040	1,040	1,040
COUNTY-OTHER	K ELLENBURGER-SAN SABA AQUIFER SAN SABA COUNTY	322	322	322	322	322	322
COUNTY-OTHER	K HICKORY AQUIFER SAN SABA COUNTY	165	165	165	165	165	165
COUNTY-OTHER	K HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	20	20	20	20	20	20
COUNTY-OTHER	K MARBLE FALLS AQUIFER SAN SABA COUNTY	24	24	24	24	24	24
MANUFACTURING	K MARBLE FALLS AQUIFER SAN SABA COUNTY	8	8	8	8	8	8
MINING	K HICKORY AQUIFER SAN SABA COUNTY	301	301	301	301	301	301
MINING	K MARBLE FALLS AQUIFER SAN SABA COUNTY	1,238	1,238	1,238	1,238	1,238	1,238
LIVESTOCK	K COLORADO LIVESTOCK LOCAL SUPPLY	900	900	900	900	900	900
LIVESTOCK	K ELLENBURGER-SAN SABA AQUIFER SAN SABA COUNTY	198	198	198	198	198	198
LIVESTOCK	K HICKORY AQUIFER SAN SABA COUNTY	111	111	111	111	111	111
LIVESTOCK	K MARBLE FALLS AQUIFER SAN SABA COUNTY	9	9	9	9	9	9
IRRIGATION	K COLORADO RUN-OF-RIVER	2,000	2,000	2,000	2,000	2,000	2,000
IRRIGATION	K MARBLE FALLS AQUIFER SAN SABA COUNTY	4,000	4,000	4,000	4,000	4,000	4,000
COLORADO BASIN TOTAL EXISTING SUPPLY		10,645	10,647	10,646	10,642	10,645	10,648
SAN SABA COUNTY TOTAL EXISTING SUPPLY		10,645	10,647	10,646	10,642	10,645	10,648

Water User Group (WUG) Existing Water Supply

REGION K	SOURCE REGION SOURCE NAME	EXISTING SUPPLY (ACRE-FEET PER YEAR)					
		2020	2030	2040	2050	2060	2070
TRAVIS COUNTY							
COLORADO BASIN							
AUSTIN	K COLORADO RUN-OF-RIVER	137,829	129,682	112,223	100,459	88,585	75,600
AUSTIN	K DIRECT REUSE	4,571	4,571	4,571	4,571	4,571	4,571
AUSTIN	K HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	123,626	123,626	123,626	123,626	123,613	123,046
CEDAR PARK	K HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	1,927	1,638	1,646	1,776	1,677	1,566
ROUND ROCK	G BRAZOS RIVER AUTHORITY LITTLE RIVER LAKE/RESERVOIR SYSTEM	225	203	177	146	123	102
ROUND ROCK	G CARRIZO-WILCOX AQUIFER LEE COUNTY	1	1	1	1	1	1
ROUND ROCK	G DIRECT REUSE	41	37	32	28	25	22
ROUND ROCK	G EDWARDS-BFZ AQUIFER WILLIAMSON COUNTY	1	0	0	0	0	0
ROUND ROCK	K HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	0	0	0	0	0	0
AQUA WSC	L CARRIZO-WILCOX AQUIFER CALDWELL COUNTY	1,810	1,810	1,810	1,810	1,810	1,810
BARTON CREEK WEST WSC	K HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	760	760	760	760	760	760
CREEDMOOR-MAHA WSC	K COLORADO RUN-OF-RIVER	241	241	241	241	241	241
CREEDMOOR-MAHA WSC	K EDWARDS-BFZ AQUIFER TRAVIS COUNTY	484	441	397	344	278	210
ELGIN	K CARRIZO-WILCOX AQUIFER BASTROP COUNTY	251	251	251	251	251	251
JONESTOWN	K HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	315	315	315	315	315	315
LAGO VISTA	K DIRECT REUSE	574	574	574	574	574	574
LAGO VISTA	K HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	3,451	3,451	3,451	3,451	3,451	3,451
LAKEWAY	K DIRECT REUSE	896	896	896	896	896	896
LAKEWAY	K HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	4,249	4,249	4,249	4,249	4,249	4,249
LAKEWAY	K TRINITY AQUIFER TRAVIS COUNTY	363	363	363	363	363	363
LEANDER	K HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	1,202	1,684	1,738	1,269	1,079	941
LOOP 360 WSC	K HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	1,250	1,250	1,250	1,250	1,250	1,250
LOST CREEK MUD	K COLORADO RUN-OF-RIVER	1,092	1,072	1,057	1,056	1,054	1,054
MANOR	G CARRIZO-WILCOX AQUIFER BURLESON COUNTY	1,200	1,200	1,200	1,200	1,200	1,200
MANOR	K COLORADO RUN-OF-RIVER	1,141	0	0	0	0	0
MANOR	K HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	159	159	159	159	159	159
MANOR	K OTHER AQUIFER TRAVIS COUNTY	661	661	661	661	661	661
MANOR	K TRINITY AQUIFER TRAVIS COUNTY	296	296	296	296	296	296
MANVILLE WSC	G CARRIZO-WILCOX AQUIFER BURLESON COUNTY	753	748	733	722	705	689
MANVILLE WSC	G CARRIZO-WILCOX AQUIFER LEE COUNTY	2,660	2,641	2,583	2,544	2,481	2,036
MANVILLE WSC	G OTHER AQUIFER WILLIAMSON COUNTY	188	186	183	180	176	172
MANVILLE WSC	K COLORADO RUN-OF-RIVER	2,240	0	0	0	0	0
MANVILLE WSC	K EDWARDS-BFZ AQUIFER TRAVIS COUNTY	293	291	285	281	275	268
MANVILLE WSC	K HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	307	305	299	295	288	281
MANVILLE WSC	K TRINITY AQUIFER TRAVIS COUNTY	308	306	300	295	288	282
MUSTANG RIDGE	K EDWARDS-BFZ AQUIFER TRAVIS COUNTY	22	24	26	29	32	34
MUSTANG RIDGE	L CARRIZO-WILCOX AQUIFER CALDWELL COUNTY	13	12	12	11	10	9

Water User Group (WUG) Existing Water Supply

REGION K	SOURCE REGION SOURCE NAME	EXISTING SUPPLY (ACRE-FEET PER YEAR)					
		2020	2030	2040	2050	2060	2070
TRAVIS COUNTY							
COLORADO BASIN							
MUSTANG RIDGE	L EDWARDS-BFZ AQUIFER HAYS COUNTY	10	10	9	8	8	8
NORTH AUSTIN MUD #1	K COLORADO RUN-OF-RIVER	82	79	77	75	75	75
PFLUGERVILLE	K EDWARDS-BFZ AQUIFER TRAVIS COUNTY	1,856	1,856	1,856	1,856	1,856	1,856
PFLUGERVILLE	K HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	10,314	10,314	10,314	10,313	10,284	10,254
ROLLINGWOOD	K COLORADO RUN-OF-RIVER	384	0	0	0	0	0
SHADY HOLLOW MUD	K COLORADO RUN-OF-RIVER	779	758	741	731	730	730
THE HILLS	K HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	1,533	1,533	1,533	1,533	1,533	1,533
TRAVIS COUNTY WCID #17	K DIRECT REUSE	122	122	122	122	122	122
TRAVIS COUNTY WCID #17	K HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	8,027	8,027	8,027	8,027	8,027	8,027
TRAVIS COUNTY WCID #18	K HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	1,736	1,736	1,736	1,736	1,736	1,736
TRAVIS COUNTY WCID #19	K HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	498	496	494	493	493	493
TRAVIS COUNTY WCID #20	K HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	1,135	1,135	1,135	1,135	1,135	1,135
WELLS BRANCH MUD	K COLORADO RUN-OF-RIVER	1,638	1,602	1,577	1,563	1,559	1,558
WEST LAKE HILLS	K COLORADO RUN-OF-RIVER	1,605	0	0	0	0	0
WILLIAMSON-TRAVIS COUNTY MUD #1	K HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	201	201	201	202	201	202
WEST TRAVIS COUNTY PUBLIC UTILITY AGENCY	K DIRECT REUSE	173	173	173	173	173	173
WEST TRAVIS COUNTY PUBLIC UTILITY AGENCY	K HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	2,615	2,615	2,615	2,615	2,615	2,615
NORTHTOWN MUD	K COLORADO RUN-OF-RIVER	691	798	898	1,011	1,111	1,203
NORTHTOWN MUD	K HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	339	339	339	339	339	339
TRAVIS COUNTY MUD #4	K HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	3,818	3,820	3,822	3,823	3,823	3,823
TRAVIS COUNTY WCID #10	K COLORADO RUN-OF-RIVER	2,128	0	0	0	0	0
BEE CAVE	K HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	1,552	1,552	1,552	1,552	1,552	1,552
BRIARCLIFF	K HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	400	400	400	400	400	400
POINT VENTURE	K HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	360	360	360	360	360	360
SUNSET VALLEY	K COLORADO RUN-OF-RIVER	386	499	606	727	834	934
SUNSET VALLEY	K EDWARDS-BFZ AQUIFER TRAVIS COUNTY	27	27	27	27	27	27
VOLENTE	K TRINITY AQUIFER TRAVIS COUNTY	76	76	76	76	76	76
COUNTY-OTHER	K COLORADO RUN-OF-RIVER	4,520	4,108	3,740	3,138	2,298	1,555
COUNTY-OTHER	K HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	14,463	14,463	14,463	14,463	14,463	14,463
MANUFACTURING	K COLORADO RUN-OF-RIVER	35,430	48,350	63,498	72,631	81,421	91,270
MANUFACTURING	K EDWARDS-BFZ AQUIFER TRAVIS COUNTY	78	78	78	78	78	78
MANUFACTURING	K HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	282	282	282	282	282	282
MINING	K COLORADO OTHER LOCAL SUPPLY	2,143	2,743	3,390	3,996	4,662	5,425
MINING	K EDWARDS-BFZ AQUIFER TRAVIS COUNTY	87	87	87	87	87	87

Water User Group (WUG) Existing Water Supply

REGION K	SOURCE REGION SOURCE NAME	EXISTING SUPPLY (ACRE-FEET PER YEAR)					
		2020	2030	2040	2050	2060	2070
WHARTON COUNTY							
BRAZOS-COLORADO BASIN							
IRRIGATION	K GULF COAST AQUIFER WHARTON COUNTY	29,000	29,000	29,000	29,000	29,000	29,000
BRAZOS-COLORADO BASIN TOTAL EXISTING SUPPLY		50,810	50,810	50,810	50,810	50,810	50,810
COLORADO BASIN							
EL CAMPO	P GULF COAST AQUIFER WHARTON COUNTY	6	6	6	6	6	6
WHARTON	K GULF COAST AQUIFER WHARTON COUNTY	661	661	661	661	661	661
COUNTY-OTHER	K GULF COAST AQUIFER WHARTON COUNTY	1,106	1,106	1,106	1,106	1,106	1,106
COUNTY-OTHER	P GULF COAST AQUIFER WHARTON COUNTY	57	57	57	57	57	57
MINING	K GULF COAST AQUIFER WHARTON COUNTY	27	27	27	27	27	27
STEAM ELECTRIC POWER	K GULF COAST AQUIFER WHARTON COUNTY	2,400	2,400	2,400	2,400	2,400	2,400
LIVESTOCK	K COLORADO LIVESTOCK LOCAL SUPPLY	115	115	115	115	115	115
LIVESTOCK	K GULF COAST AQUIFER WHARTON COUNTY	171	171	171	171	171	171
IRRIGATION	K COLORADO RUN-OF-RIVER	15,259	15,259	15,259	15,259	15,259	15,259
IRRIGATION	K GULF COAST AQUIFER WHARTON COUNTY	27,000	27,000	27,000	27,000	27,000	27,000
COLORADO BASIN TOTAL EXISTING SUPPLY		46,802	46,802	46,802	46,802	46,802	46,802
COLORADO-LAVACA BASIN							
COUNTY-OTHER	K GULF COAST AQUIFER WHARTON COUNTY	274	274	274	274	274	274
MINING	K GULF COAST AQUIFER WHARTON COUNTY	6	6	6	6	6	6
LIVESTOCK	K COLORADO-LAVACA LIVESTOCK LOCAL SUPPLY	74	74	74	74	74	74
LIVESTOCK	K GULF COAST AQUIFER WHARTON COUNTY	113	113	113	113	113	113
IRRIGATION	K COLORADO RUN-OF-RIVER	4,460	4,460	4,460	4,460	4,460	4,460
IRRIGATION	K GULF COAST AQUIFER WHARTON COUNTY	11,060	11,060	11,060	11,060	11,060	11,060
COLORADO-LAVACA BASIN TOTAL EXISTING SUPPLY		15,987	15,987	15,987	15,987	15,987	15,987
LAVACA BASIN							
COUNTY-OTHER	K GULF COAST AQUIFER WHARTON COUNTY	21	21	21	21	21	21
LAVACA BASIN TOTAL EXISTING SUPPLY		21	21	21	21	21	21
WHARTON COUNTY TOTAL EXISTING SUPPLY		113,620	113,620	113,620	113,620	113,620	113,620
WILLIAMSON COUNTY							
BRAZOS BASIN							
AUSTIN	K COLORADO RUN-OF-RIVER	7,697	9,691	12,161	14,834	17,693	20,208
NORTH AUSTIN MUD #1	K COLORADO RUN-OF-RIVER	774	748	726	714	711	711
WELLS BRANCH MUD	K COLORADO RUN-OF-RIVER	118	115	113	112	112	112
COUNTY-OTHER	K COLORADO RUN-OF-RIVER	2,586	3,504	3,467	3,451	3,444	3,441
MINING	K TRINITY AQUIFER WILLIAMSON COUNTY	5	5	5	5	5	5
LIVESTOCK	K TRINITY AQUIFER WILLIAMSON COUNTY	1	1	1	1	1	1
BRAZOS BASIN TOTAL EXISTING SUPPLY		11,181	14,064	16,473	19,117	21,966	24,478
WILLIAMSON COUNTY TOTAL EXISTING SUPPLY		11,181	14,064	16,473	19,117	21,966	24,478
REGION K TOTAL EXISTING SUPPLY		998,867	1,000,960	1,003,758	1,001,689	996,571	991,929

Source Water Balance (Availability- WUG Supply)

REGION K									
GROUNDWATER	COUNTY	BASIN	SALINITY	SOURCE WATER BALANCE (ACRE-FEET PER YEAR)					
				2020	2030	2040	2050	2060	2070
CARRIZO-WILCOX AQUIFER	BASTROP	BRAZOS	FRESH	4,773	3,922	4,406	4,202	4,281	4,281
CARRIZO-WILCOX AQUIFER	BASTROP	COLORADO	FRESH	1,064	1,253	1,590	2,323	2,024	1,124
CARRIZO-WILCOX AQUIFER	BASTROP	GUADALUPE	FRESH	0	0	689	1,359	1,386	1,386
CARRIZO-WILCOX AQUIFER	FAYETTE	COLORADO	FRESH	683	683	683	683	683	683
CARRIZO-WILCOX AQUIFER	FAYETTE	GUADALUPE	FRESH	0	0	0	0	0	0
EDWARDS-BFZ AQUIFER	HAYS	COLORADO	FRESH	0	0	0	0	0	0
EDWARDS-BFZ AQUIFER	HAYS	COLORADO	SALINE	9	9	9	9	9	9
EDWARDS-BFZ AQUIFER	TRAVIS	BRAZOS	FRESH	140	140	140	140	140	140
EDWARDS-BFZ AQUIFER	TRAVIS	COLORADO	FRESH	2,256	2,256	2,256	2,256	2,256	2,256
EDWARDS-BFZ AQUIFER	TRAVIS	COLORADO	SALINE	699	699	699	699	699	699
EDWARDS-BFZ AQUIFER	TRAVIS	GUADALUPE	SALINE	39	39	39	39	39	39
EDWARDS-BFZ AQUIFER	WILLIAMSON	BRAZOS	FRESH	6	6	6	6	6	6
EDWARDS-BFZ AQUIFER	WILLIAMSON	COLORADO	FRESH	4	4	4	4	4	4
EDWARDS-TRINITY-PLATEAU AQUIFER	GILLESPIE	COLORADO	FRESH	913	913	913	913	913	913
EDWARDS-TRINITY-PLATEAU AQUIFER	GILLESPIE	GUADALUPE	FRESH	46	46	46	46	46	46
ELLENBURGER-SAN SABA AQUIFER	BLANCO	COLORADO	FRESH	1,938	1,938	1,938	1,938	1,938	1,938
ELLENBURGER-SAN SABA AQUIFER	BLANCO	GUADALUPE	FRESH	6	6	6	6	6	6
ELLENBURGER-SAN SABA AQUIFER	BURNET	BRAZOS	FRESH	0	0	0	0	0	0
ELLENBURGER-SAN SABA AQUIFER	BURNET	COLORADO	FRESH	1,785	1,785	1,785	1,785	1,785	1,785
ELLENBURGER-SAN SABA AQUIFER	GILLESPIE	COLORADO	FRESH	1,238	1,238	1,238	1,238	1,238	1,238
ELLENBURGER-SAN SABA AQUIFER	GILLESPIE	GUADALUPE	FRESH	1	1	1	1	1	1
ELLENBURGER-SAN SABA AQUIFER	LLANO	COLORADO	FRESH	1,850	1,850	1,850	1,850	1,850	1,850
ELLENBURGER-SAN SABA AQUIFER	MILLS	BRAZOS	FRESH	5	5	5	5	5	5
ELLENBURGER-SAN SABA AQUIFER	MILLS	COLORADO	FRESH	400	400	400	400	400	400
ELLENBURGER-SAN SABA AQUIFER	SAN SABA	COLORADO	FRESH	9,104	9,104	9,104	9,104	9,104	9,104
GULF COAST AQUIFER	COLORADO	BRAZOS-COLORADO	FRESH	0	0	0	0	0	0
GULF COAST AQUIFER	COLORADO	COLORADO	FRESH	226	226	226	226	226	226
GULF COAST AQUIFER	COLORADO	LAVACA	FRESH	0	0	0	0	0	0
GULF COAST AQUIFER	FAYETTE	BRAZOS	FRESH	17	17	17	17	17	17
GULF COAST AQUIFER	FAYETTE	COLORADO	FRESH	4,579	4,417	4,412	4,408	4,380	4,380
GULF COAST AQUIFER	FAYETTE	LAVACA	FRESH	1,593	1,587	1,582	1,577	1,575	1,575
GULF COAST AQUIFER	MATAGORDA	BRAZOS-COLORADO	FRESH	137	137	137	137	137	137
GULF COAST AQUIFER	MATAGORDA	COLORADO	FRESH	2,418	2,418	2,418	2,418	2,418	2,418

Source Water Balance (Availability- WUG Supply)

REGION K									
GROUNDWATER	COUNTY	BASIN	SALINITY	SOURCE WATER BALANCE (ACRE-FEET PER YEAR)					
				2020	2030	2040	2050	2060	2070
GULF COAST AQUIFER	MATAGORDA	COLORADO-LAVACA	FRESH	185	185	185	185	185	185
GULF COAST AQUIFER	WHARTON	BRAZOS-COLORADO	FRESH	603	603	603	603	603	603
GULF COAST AQUIFER	WHARTON	COLORADO	FRESH	162	162	162	162	162	162
GULF COAST AQUIFER	WHARTON	COLORADO-LAVACA	FRESH	171	171	171	171	171	171
GULF COAST AQUIFER	WHARTON	LAVACA	FRESH	1,669	1,669	1,669	1,669	1,669	1,669
HICKORY AQUIFER	BLANCO	COLORADO	FRESH	1,086	1,086	1,086	1,086	1,086	1,086
HICKORY AQUIFER	BLANCO	GUADALUPE	FRESH	1	1	1	1	1	1
HICKORY AQUIFER	BURNET	BRAZOS	FRESH	0	0	0	0	0	0
HICKORY AQUIFER	BURNET	COLORADO	FRESH	1,862	1,862	1,862	1,862	1,862	1,862
HICKORY AQUIFER	GILLESPIE	COLORADO	FRESH	183	183	183	183	183	183
HICKORY AQUIFER	GILLESPIE	GUADALUPE	FRESH	0	0	0	0	0	0
HICKORY AQUIFER	LLANO	COLORADO	FRESH	1,293	1,293	1,293	1,293	1,293	1,293
HICKORY AQUIFER	MILLS	BRAZOS	FRESH	1	1	1	1	1	1
HICKORY AQUIFER	MILLS	COLORADO	FRESH	35	35	35	35	35	35
HICKORY AQUIFER	SAN SABA	COLORADO	FRESH	902	902	902	902	902	902
HICKORY AQUIFER	TRAVIS	BRAZOS	FRESH	0	0	0	0	0	0
HICKORY AQUIFER	TRAVIS	COLORADO	FRESH	22	22	22	22	22	22
MARBLE FALLS AQUIFER	BLANCO	COLORADO	FRESH	261	261	261	261	261	261
MARBLE FALLS AQUIFER	BURNET	BRAZOS	FRESH	93	93	93	93	93	93
MARBLE FALLS AQUIFER	BURNET	COLORADO	FRESH	1,711	1,711	1,711	1,711	1,711	1,711
MARBLE FALLS AQUIFER	SAN SABA	COLORADO	FRESH	5,156	5,156	5,156	5,156	5,156	5,156
OTHER AQUIFER	BURNET	BRAZOS	FRESH	1,230	1,000	758	539	287	0
OTHER AQUIFER	TRAVIS	GUADALUPE	FRESH	0	0	0	0	0	0
OTHER AQUIFER ALLUVIUM	BURNET	COLORADO	FRESH	363	363	363	363	363	363
OTHER AQUIFER ALLUVIUM	LLANO	COLORADO	FRESH	30	30	30	30	30	30
OTHER AQUIFER CITY OF BASTROP	BASTROP	COLORADO	FRESH	831	831	831	831	831	831
OTHER AQUIFER COUNTY-OTHER, IRRIGATION	TRAVIS	COLORADO	FRESH	112	112	112	112	112	112
OTHER AQUIFER FAYETTE WSC, COUNTY-OTHER	FAYETTE	COLORADO	FRESH	0	0	0	0	0	0
QUEEN CITY AQUIFER	BASTROP	BRAZOS	FRESH	194	548	169	166	166	166
QUEEN CITY AQUIFER	BASTROP	COLORADO	FRESH	244	1,211	184	176	175	175
QUEEN CITY AQUIFER	BASTROP	GUADALUPE	FRESH	116	465	137	140	140	140
QUEEN CITY AQUIFER	FAYETTE	COLORADO	FRESH	436	478	513	565	570	570
QUEEN CITY AQUIFER	FAYETTE	GUADALUPE	FRESH	0	0	0	0	0	0
SPARTA AQUIFER	BASTROP	BRAZOS	FRESH	65	170	58	55	55	55
SPARTA AQUIFER	BASTROP	COLORADO	FRESH	1,172	4,017	949	871	864	864
SPARTA AQUIFER	BASTROP	GUADALUPE	FRESH	53	194	45	42	41	41
SPARTA AQUIFER	FAYETTE	COLORADO	FRESH	1,534	1,579	1,599	1,651	1,667	1,667

Source Water Balance (Availability- WUG Supply)

REGION K									
GROUNDWATER	COUNTY	BASIN	SALINITY	SOURCE WATER BALANCE (ACRE-FEET PER YEAR)					
				2020	2030	2040	2050	2060	2070
SPARTA AQUIFER	FAYETTE	GUADALUPE	FRESH	73	73	72	75	77	77
TRINITY AQUIFER	BLANCO	COLORADO	FRESH	587	587	587	587	587	587
TRINITY AQUIFER	BLANCO	GUADALUPE	FRESH	204	204	204	204	204	204
TRINITY AQUIFER	BURNET	BRAZOS	FRESH	207	207	207	207	207	207
TRINITY AQUIFER	BURNET	COLORADO	FRESH	121	121	121	121	121	121
TRINITY AQUIFER	GILLESPIE	COLORADO	FRESH	178	178	178	178	178	178
TRINITY AQUIFER	GILLESPIE	GUADALUPE	FRESH	0	0	0	0	0	0
TRINITY AQUIFER	HAYS	COLORADO	FRESH	2,631	2,628	2,627	2,627	2,627	2,627
TRINITY AQUIFER	MILLS	BRAZOS	FRESH	333	333	333	333	333	333
TRINITY AQUIFER	MILLS	COLORADO	FRESH	480	480	480	480	480	480
TRINITY AQUIFER	TRAVIS	BRAZOS	FRESH	8	8	8	8	8	8
TRINITY AQUIFER	TRAVIS	COLORADO	FRESH	9,956	9,939	9,927	9,911	9,882	9,882
TRINITY AQUIFER	TRAVIS	GUADALUPE	FRESH	0	0	0	0	0	0
TRINITY AQUIFER	WILLIAMSON	BRAZOS	FRESH	151	151	151	151	151	151
TRINITY AQUIFER	WILLIAMSON	COLORADO	FRESH	61	61	61	61	61	61
YEGUA-JACKSON AQUIFER	FAYETTE	COLORADO	FRESH	3,771	3,771	3,771	3,771	3,771	3,771
YEGUA-JACKSON AQUIFER	FAYETTE	GUADALUPE	FRESH	429	429	429	429	429	429
YEGUA-JACKSON AQUIFER	FAYETTE	LAVACA	FRESH	0	0	0	0	0	0
GROUNDWATER TOTAL SOURCE WATER BALANCE				76,895	80,663	76,899	77,869	77,379	76,192

REGION K									
REUSE	COUNTY	BASIN	SALINITY	SOURCE WATER BALANCE (ACRE-FEET PER YEAR)					
				2020	2030	2040	2050	2060	2070
DIRECT REUSE	LLANO	COLORADO	FRESH	0	0	0	0	0	0
DIRECT REUSE	TRAVIS	COLORADO	FRESH	12,864	26,821	39,012	48,962	54,212	54,212
DIRECT REUSE CITY OF BUDA WWTP/SUNFIELD SUBDIVISION	HAYS	COLORADO	FRESH	2,240	2,240	2,240	2,240	2,240	2,240
DIRECT REUSE CITY OF MARBLE FALLS WWTP/ CITY PARKS ; CITY OF BURNET WWTP/ REC CENTER	BURNET	COLORADO	FRESH	0	0	0	0	0	0
REUSE TOTAL SOURCE WATER BALANCE				15,104	29,061	41,252	51,202	56,452	56,452

REGION K									
SURFACE WATER	COUNTY	BASIN	SALINITY	SOURCE WATER BALANCE (ACRE-FEET PER YEAR)					
				2020	2030	2040	2050	2060	2070
BLANCO LAKE/RESERVOIR	RESERVOIR	GUADALUPE	FRESH	0	0	0	0	0	0
BRAZOS LIVESTOCK LOCAL SUPPLY	BASTROP	BRAZOS	FRESH	0	0	0	0	0	0
BRAZOS LIVESTOCK LOCAL SUPPLY	BURNET	BRAZOS	FRESH	0	0	0	0	0	0
BRAZOS LIVESTOCK LOCAL SUPPLY	MILLS	BRAZOS	FRESH	0	0	0	0	0	0
BRAZOS LIVESTOCK LOCAL SUPPLY	WILLIAMSON	BRAZOS	FRESH	1	1	1	1	1	1

Source Water Balance (Availability- WUG Supply)

REGION K									
SURFACE WATER	COUNTY	BASIN	SALINITY	SOURCE WATER BALANCE (ACRE-FEET PER YEAR)					
				2020	2030	2040	2050	2060	2070
BRAZOS-COLORADO LIVESTOCK LOCAL SUPPLY	COLORADO	BRAZOS-COLORADO	FRESH	164	164	164	164	164	164
BRAZOS-COLORADO LIVESTOCK LOCAL SUPPLY	MATAGORDA	BRAZOS-COLORADO	FRESH	335	335	335	335	335	335
BRAZOS-COLORADO LIVESTOCK LOCAL SUPPLY	WHARTON	BRAZOS-COLORADO	FRESH	222	222	222	222	222	222
BRAZOS-COLORADO OTHER LOCAL SUPPLY	WHARTON	BRAZOS-COLORADO	FRESH	0	0	0	0	0	0
BRAZOS-COLORADO RUN-OF-RIVER	MATAGORDA	BRAZOS-COLORADO	FRESH	0	0	0	0	0	0
BRAZOS-COLORADO RUN-OF-RIVER	WHARTON	BRAZOS-COLORADO	FRESH	2,000	2,000	2,000	2,000	2,000	2,000
BRAZOS-COLORADO RUN-OF-RIVER SAN BERNARD	WHARTON	BRAZOS-COLORADO	FRESH	0	0	0	0	0	0
COLORADO LIVESTOCK LOCAL SUPPLY	BASTROP	COLORADO	FRESH	660	660	660	660	660	660
COLORADO LIVESTOCK LOCAL SUPPLY	BLANCO	COLORADO	FRESH	334	334	334	334	334	334
COLORADO LIVESTOCK LOCAL SUPPLY	BURNET	COLORADO	FRESH	314	314	314	314	314	314
COLORADO LIVESTOCK LOCAL SUPPLY	COLORADO	COLORADO	FRESH	62	62	62	62	62	62
COLORADO LIVESTOCK LOCAL SUPPLY	FAYETTE	COLORADO	FRESH	157	157	157	157	157	157
COLORADO LIVESTOCK LOCAL SUPPLY	GILLESPIE	COLORADO	FRESH	515	515	515	515	515	515
COLORADO LIVESTOCK LOCAL SUPPLY	HAYS	COLORADO	FRESH	28	28	28	28	28	28
COLORADO LIVESTOCK LOCAL SUPPLY	LLANO	COLORADO	FRESH	337	337	337	337	337	337
COLORADO LIVESTOCK LOCAL SUPPLY	MATAGORDA	COLORADO	FRESH	106	106	106	106	106	106
COLORADO LIVESTOCK LOCAL SUPPLY	MILLS	COLORADO	FRESH	263	263	263	263	263	263
COLORADO LIVESTOCK LOCAL SUPPLY	SAN SABA	COLORADO	FRESH	291	291	291	291	291	291
COLORADO LIVESTOCK LOCAL SUPPLY	TRAVIS	COLORADO	FRESH	0	0	0	0	0	0
COLORADO LIVESTOCK LOCAL SUPPLY	WHARTON	COLORADO	FRESH	162	162	162	162	162	162
COLORADO OTHER LOCAL SUPPLY	BASTROP	COLORADO	FRESH	2	3	3	1	1	1
COLORADO OTHER LOCAL SUPPLY	BLANCO	COLORADO	FRESH	8	2	0	1	1	1
COLORADO OTHER LOCAL SUPPLY	COLORADO	COLORADO	FRESH	16,883	16,883	16,883	16,883	16,883	16,883
COLORADO OTHER LOCAL SUPPLY	GILLESPIE	COLORADO	FRESH	0	0	0	0	0	0
COLORADO OTHER LOCAL SUPPLY	MATAGORDA	COLORADO	FRESH	5,000	5,000	5,000	5,000	5,000	5,000
COLORADO OTHER LOCAL SUPPLY	TRAVIS	COLORADO	FRESH	4,892	4,286	3,632	3,020	2,348	1,577
COLORADO RUN-OF-RIVER	BASTROP	COLORADO	FRESH	786	786	786	786	786	786

Source Water Balance (Availability- WUG Supply)

REGION K									
SURFACE WATER	COUNTY	BASIN	SALINITY	SOURCE WATER BALANCE (ACRE-FEET PER YEAR)					
				2020	2030	2040	2050	2060	2070
COLORADO RUN-OF-RIVER	BLANCO	COLORADO	FRESH	67	67	67	67	67	67
COLORADO RUN-OF-RIVER	BURNET	COLORADO	FRESH	1,175	1,175	1,175	1,175	1,175	1,175
COLORADO RUN-OF-RIVER	COLORADO	COLORADO	FRESH	37,679	37,679	37,679	37,679	37,679	37,679
COLORADO RUN-OF-RIVER	FAYETTE	COLORADO	FRESH	534	534	534	534	534	534
COLORADO RUN-OF-RIVER	GILLESPIE	COLORADO	FRESH	880	880	880	880	880	880
COLORADO RUN-OF-RIVER	HAYS	COLORADO	FRESH	41	41	41	41	41	41
COLORADO RUN-OF-RIVER	LLANO	COLORADO	FRESH	1	1	1	1	1	1
COLORADO RUN-OF-RIVER	MATAGORDA	COLORADO	FRESH	12,925	12,525	12,125	10,925	11,325	10,925
COLORADO RUN-OF-RIVER	MILLS	COLORADO	FRESH	1	1	1	1	1	1
COLORADO RUN-OF-RIVER	SAN SABA	COLORADO	FRESH	6,790	6,790	6,790	6,790	6,790	6,790
COLORADO RUN-OF-RIVER	TRAVIS	COLORADO	FRESH	1	1	1	1	1	1
COLORADO RUN-OF-RIVER	WHARTON	COLORADO	FRESH	1,175	1,175	1,175	1,175	1,175	1,175
COLORADO-LAVACA LIVESTOCK LOCAL SUPPLY	MATAGORDA	COLORADO-LAVACA	FRESH	493	493	493	493	493	493
COLORADO-LAVACA LIVESTOCK LOCAL SUPPLY	WHARTON	COLORADO-LAVACA	FRESH	6	6	6	6	6	6
COLORADO-LAVACA RUN-OF-RIVER	MATAGORDA	COLORADO-LAVACA	FRESH	0	0	0	0	0	0
GOLDTHWAITE LAKE/RESERVOIR	RESERVOIR	COLORADO	FRESH	0	0	0	0	0	0
GUADALUPE LIVESTOCK LOCAL SUPPLY	BASTROP	GUADALUPE	FRESH	0	0	0	0	0	0
GUADALUPE LIVESTOCK LOCAL SUPPLY	BLANCO	GUADALUPE	FRESH	28	28	28	28	28	28
GUADALUPE LIVESTOCK LOCAL SUPPLY	FAYETTE	GUADALUPE	FRESH	0	0	0	0	0	0
GUADALUPE LIVESTOCK LOCAL SUPPLY	GILLESPIE	GUADALUPE	FRESH	19	19	19	19	19	19
GUADALUPE LIVESTOCK LOCAL SUPPLY	TRAVIS	GUADALUPE	FRESH	0	0	0	0	0	0
GUADALUPE RUN-OF-RIVER	BLANCO	GUADALUPE	FRESH	0	0	0	0	0	0
HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	RESERVOIR	COLORADO	FRESH	58,710	53,546	48,757	47,223	47,023	46,889
LAVACA LIVESTOCK LOCAL SUPPLY	COLORADO	LAVACA	FRESH	288	288	288	288	288	288
LAVACA LIVESTOCK LOCAL SUPPLY	FAYETTE	LAVACA	FRESH	0	0	0	0	0	0
LAVACA RUN-OF-RIVER	COLORADO	LAVACA	FRESH	0	0	0	0	0	0
LAVACA RUN-OF-RIVER	FAYETTE	LAVACA	FRESH	20	20	20	20	20	20

Source Water Balance (Availability- WUG Supply)

REGION K									
SURFACE WATER	COUNTY	BASIN	SALINITY	SOURCE WATER BALANCE (ACRE-FEET PER YEAR)					
				2020	2030	2040	2050	2060	2070
LLANO LAKE/RESERVOIR	RESERVOIR	COLORADO	FRESH	0	0	0	0	0	0
SURFACE WATER TOTAL SOURCE WATER BALANCE				154,355	148,180	142,335	138,988	138,516	137,211
REGION K TOTAL SOURCE WATER BALANCE				246,354	257,904	260,486	268,059	272,347	269,855

Water User Group (WUG) Needs/Surplus

REGION K	WUG (NEEDS)/SURPLUS (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
BASTROP COUNTY						
BRAZOS BASIN						
AQUA WSC	260	234	200	153	89	2
LEE COUNTY WSC	102	111	128	152	182	217
COUNTY-OTHER	67	60	51	38	22	0
MINING	(173)	(409)	(450)	(496)	(545)	(600)
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	6	12	17	21	24
COLORADO BASIN						
AQUA WSC	(2,534)	(4,656)	(7,145)	(11,210)	(17,667)	(26,269)
BASTROP	(30)	(671)	(1,519)	(2,685)	(4,274)	(6,390)
BASTROP COUNTY WCID #2	753	643	541	320	(93)	(644)
CREEDMOOR-MAHA WSC	16	12	5	0	0	0
ELGIN	(472)	(732)	(1,013)	(1,533)	(2,432)	(3,631)
LEE COUNTY WSC	137	148	172	207	248	291
POLONIA WSC	0	0	0	0	0	0
SMITHVILLE	1,006	932	953	663	70	(721)
COUNTY-OTHER	(361)	(519)	(739)	(907)	(1,158)	(1,490)
MANUFACTURING	(55)	(87)	(120)	(151)	(174)	(199)
MINING	(449)	(3,947)	(4,556)	(5,235)	(5,967)	(6,777)
STEAM ELECTRIC POWER	2,720	0	0	0	0	0
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	435	423	413	404	397	391
GUADALUPE BASIN						
AQUA WSC	185	167	143	110	64	4
COUNTY-OTHER	0	1	3	4	6	8
MANUFACTURING	7	6	4	2	1	0
MINING	(110)	(306)	(341)	(379)	(420)	(466)
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	6	10	14	17	20
BLANCO COUNTY						
COLORADO BASIN						
JOHNSON CITY	(48)	(105)	(138)	(155)	(167)	(175)
COUNTY-OTHER	130	49	2	(24)	(42)	(55)
MANUFACTURING	0	0	0	0	0	0
MINING	0	0	0	0	0	0
LIVESTOCK	3	3	3	3	3	3
IRRIGATION	29	40	51	56	59	65
GUADALUPE BASIN						
BLANCO	831	773	740	723	710	702
CANYON LAKE WATER SERVICE COMPANY	0	0	0	0	0	0
COUNTY-OTHER	545	486	454	437	423	415
MANUFACTURING	0	0	0	0	0	0
LIVESTOCK	34	34	34	34	34	34
IRRIGATION	39	44	48	51	52	55
BURNET COUNTY						
BRAZOS BASIN						
BERTRAM	(40)	(118)	(184)	(249)	(307)	(358)
BURNET	6	5	4	2	1	0

Water User Group (WUG) Needs/Surplus

REGION K	WUG (NEEDS)/SURPLUS (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
BURNET COUNTY						
BRAZOS BASIN						
CHISHOLM TRAIL SUD	0	0	0	0	0	0
KEMPNER WSC	0	0	0	0	0	0
COUNTY-OTHER	412	198	20	(158)	(318)	(460)
MINING	0	0	0	0	0	0
LIVESTOCK	205	205	205	205	205	205
IRRIGATION	0	0	0	0	0	0
COLORADO BASIN						
BURNET	2,793	2,440	2,141	1,849	1,586	1,356
COTTONWOOD SHORES	268	226	191	156	124	96
GRANITE SHOALS	177	62	(38)	(137)	(226)	(306)
HORSESHOE BAY	101	(201)	(454)	(697)	(912)	(1,098)
KINGSLAND WSC	10	4	5	9	3	0
MARBLE FALLS	1,418	381	(1,089)	(1,859)	(2,377)	(2,636)
MEADOWLAKES	(207)	(379)	(525)	(665)	(788)	(896)
COUNTY-OTHER	2,981	2,929	3,215	3,104	2,905	2,623
MANUFACTURING	903	764	628	510	376	230
MINING	(1,011)	(1,703)	(2,428)	(3,085)	(3,841)	(4,703)
LIVESTOCK	144	144	144	144	144	144
IRRIGATION	623	623	623	623	623	623
COLORADO COUNTY						
BRAZOS-COLORADO BASIN						
EAGLE LAKE	17	16	16	11	6	0
COUNTY-OTHER	56	55	54	51	45	40
MANUFACTURING	4	4	4	4	3	3
MINING	10	9	7	5	4	2
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	(21,628)	(20,296)	(19,000)	(17,738)	(16,511)	(15,316)
COLORADO BASIN						
COLUMBUS	15	(15)	(36)	(80)	(122)	(163)
EAGLE LAKE	39	36	35	25	12	0
WEIMAR	27	23	20	13	7	0
COUNTY-OTHER	(121)	(127)	(130)	(158)	(191)	(226)
MANUFACTURING	9	8	7	6	5	4
MINING	307	258	208	158	107	57
LIVESTOCK	65	65	65	65	65	65
IRRIGATION	(5,126)	(4,371)	(3,636)	(2,921)	(2,225)	(1,548)
LAVACA BASIN						
WEIMAR	56	47	41	27	13	0
COUNTY-OTHER	615	612	612	602	592	580
MANUFACTURING	448	423	400	381	347	309
MINING	14	11	8	6	3	0
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	(32,200)	(29,826)	(27,516)	(25,268)	(23,081)	(20,952)
FAYETTE COUNTY						
COLORADO BASIN						
AQUA WSC	2	1	1	1	0	0
FAYETTE WSC	266	196	150	110	74	45

Water User Group (WUG) Needs/Surplus

REGION K	WUG (NEEDS)/SURPLUS (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
FAYETTE COUNTY						
COLORADO BASIN						
LA GRANGE	429	335	274	219	171	132
LEE COUNTY WSC	343	324	309	299	282	258
COUNTY-OTHER	(74)	(157)	(210)	(259)	(306)	(345)
MINING	(1,576)	(1,176)	(717)	(274)	179	186
STEAM ELECTRIC POWER	10,286	10,286	8,186	1,886	(2,614)	(7,414)
LIVESTOCK	716	716	716	716	716	716
IRRIGATION	567	592	615	636	655	671
GUADALUPE BASIN						
FAYETTE WSC	15	11	8	5	3	1
FLATONIA	28	21	16	12	7	4
COUNTY-OTHER	38	35	33	30	28	26
MINING	(66)	(42)	(13)	15	42	43
LIVESTOCK	179	179	179	179	179	179
IRRIGATION	0	4	7	11	14	17
LAVACA BASIN						
FAYETTE WSC	25	18	12	7	3	0
FLATONIA	117	86	66	48	33	21
SCHULENBURG	1	(85)	(142)	(191)	(234)	(267)
COUNTY-OTHER	(198)	(228)	(246)	(264)	(281)	(294)
MANUFACTURING	(206)	(243)	(279)	(310)	(349)	(391)
MINING	(344)	(274)	(195)	(119)	(40)	(39)
LIVESTOCK	176	176	176	176	176	176
IRRIGATION	0	11	23	32	41	49
GILLESPIE COUNTY						
COLORADO BASIN						
FREDERICKSBURG	690	509	360	164	(30)	(222)
COUNTY-OTHER	559	486	424	325	217	107
MANUFACTURING	(309)	(362)	(411)	(452)	(536)	(626)
MINING	51	51	51	51	51	51
LIVESTOCK	528	528	528	528	528	528
IRRIGATION	444	471	499	524	549	574
GUADALUPE BASIN						
COUNTY-OTHER	28	26	24	20	16	12
LIVESTOCK	22	22	22	22	22	22
HAYS COUNTY						
COLORADO BASIN						
AUSTIN	0	0	0	0	0	0
BUDA	161	(667)	(1,690)	(2,974)	(4,429)	(6,088)
CIMARRON PARK WATER COMPANY	0	8	15	19	20	20
DRIPPING SPRINGS	27	(31)	(104)	(198)	(307)	(432)
DRIPPING SPRINGS WSC	0	0	0	0	0	(126)
GOFORTH SUD	0	0	0	0	0	0
MOUNTAIN CITY	0	0	0	0	0	0
PLUM CREEK WATER COMPANY	0	0	0	0	0	0
WEST TRAVIS COUNTY PUBLIC UTILITY AGENCY	728	(937)	(2,974)	(5,522)	(8,405)	(11,687)
COUNTY-OTHER	983	394	(530)	(1,587)	(2,489)	(3,382)
MANUFACTURING	236	185	134	88	46	0

Water User Group (WUG) Needs/Surplus

REGION K	WUG (NEEDS)/SURPLUS (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
MILLS COUNTY						
COLORADO BASIN						
GOLDTHWAITE	(48)	(51)	(53)	(64)	(77)	(94)
COUNTY-OTHER	90	92	94	87	78	68
MANUFACTURING	0	0	0	0	0	0
MINING	0	0	0	0	0	0
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	794	830	865	900	933	964
SAN SABA COUNTY						
COLORADO BASIN						
RICHLAND SUD	131	129	131	131	131	130
SAN SABA	(88)	(128)	(124)	(99)	(125)	(152)
COUNTY-OTHER	215	211	217	222	216	209
MANUFACTURING	0	0	0	0	0	0
MINING	451	446	595	639	675	701
LIVESTOCK	27	27	27	27	27	27
IRRIGATION	461	639	812	982	1,144	1,291
TRAVIS COUNTY						
COLORADO BASIN						
AQUA WSC	721	584	447	286	138	0
AUSTIN	108,581	74,946	30,447	(1,231)	(29,821)	(63,194)
BARTON CREEK WEST WSC	328	333	336	337	338	338
BEE CAVE	(225)	(491)	(745)	(1,030)	(1,282)	(1,518)
BRIARCLIFF	140	105	72	32	(3)	(36)
CEDAR PARK	(505)	(941)	(1,121)	(987)	(1,084)	(1,194)
CREEDMOOR-MAHA WSC	160	59	(43)	(171)	(309)	(445)
ELGIN	0	(101)	(196)	(305)	(402)	(493)
JONESTOWN	(93)	(113)	(133)	(158)	(182)	(206)
LAGO VISTA	2,157	1,840	1,537	1,193	885	597
LAKEWAY	(1,469)	(3,607)	(3,585)	(3,573)	(3,568)	(3,567)
LEANDER	68	(1,224)	(3,282)	(4,153)	(4,544)	(4,937)
LOOP 360 WSC	76	30	(14)	(66)	(113)	(157)
LOST CREEK MUD	0	0	0	0	0	0
MANOR	2,316	757	357	(94)	(494)	(867)
MANVILLE WSC	3,765	873	182	(568)	(1,286)	(2,346)
MUSTANG RIDGE	0	0	0	0	0	0
NORTH AUSTIN MUD #1	0	0	0	0	0	0
NORTHTOWN MUD	339	339	339	339	339	339
PFLUGERVILLE	(605)	(4,935)	(9,073)	(13,727)	(17,872)	(21,741)
POINT VENTURE	13	(83)	(174)	(278)	(369)	(455)
ROLLINGWOOD	0	(379)	(376)	(375)	(376)	(378)
ROUND ROCK	3	(60)	(126)	(202)	(265)	(323)
SHADY HOLLOW MUD	0	0	0	0	0	0
SUNSET VALLEY	27	27	27	27	27	27
THE HILLS	84	89	92	94	95	95
TRAVIS COUNTY MUD #4	1,207	810	435	13	(361)	(710)
TRAVIS COUNTY WCID #10	0	(2,428)	(2,715)	(3,044)	(3,341)	(3,619)
TRAVIS COUNTY WCID #17	(302)	(1,904)	(2,868)	(3,038)	(3,330)	(3,693)
TRAVIS COUNTY WCID #18	613	469	329	163	11	(131)

Water User Group (WUG) Needs/Surplus

REGION K	WUG (NEEDS)/SURPLUS (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
TRAVIS COUNTY						
COLORADO BASIN						
TRAVIS COUNTY WCID #19	0	0	0	0	0	0
TRAVIS COUNTY WCID #20	545	548	551	552	553	553
VOLENTE	0	(13)	(25)	(40)	(54)	(66)
WELLS BRANCH MUD	0	0	0	0	0	0
WEST LAKE HILLS	41	(1,550)	(1,539)	(1,533)	(1,532)	(1,532)
WEST TRAVIS COUNTY PUBLIC UTILITY AGENCY	421	68	(269)	(650)	(986)	(1,300)
WILLIAMSON-TRAVIS COUNTY MUD #1	48	52	54	55	55	56
COUNTY-OTHER	10,613	10,963	11,278	11,790	12,505	13,139
MANUFACTURING	0	0	0	0	0	0
MINING	0	0	0	0	0	0
STEAM ELECTRIC POWER	2,626	(1,374)	(1,374)	(6,543)	(14,043)	(21,530)
LIVESTOCK	3	3	3	3	3	3
IRRIGATION	809	1,156	1,474	1,767	2,034	2,246
GUADALUPE BASIN						
CREEDMOOR-MAHA WSC	0	0	0	0	0	0
GOFORTH SUD	0	0	0	0	0	0
MUSTANG RIDGE	0	0	0	0	0	0
COUNTY-OTHER	94	86	78	75	74	70
MINING	0	0	0	0	0	0
LIVESTOCK	0	0	0	0	0	0
WHARTON COUNTY						
BRAZOS-COLORADO BASIN						
EAST BERNARD	77	62	51	39	25	12
WHARTON	590	553	524	488	447	410
COUNTY-OTHER	642	617	596	550	506	467
MANUFACTURING	229	195	160	131	84	33
MINING	2	0	11	18	27	32
STEAM ELECTRIC POWER	246	184	109	17	(94)	(200)
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	(69,536)	(66,452)	(63,453)	(60,534)	(57,693)	(54,929)
COLORADO BASIN						
EL CAMPO	0	0	0	0	0	0
WHARTON	93	73	58	39	19	0
COUNTY-OTHER	583	571	560	538	518	498
MINING	1	0	7	12	17	21
STEAM ELECTRIC POWER	0	0	0	0	0	0
LIVESTOCK	9	9	9	9	9	9
IRRIGATION	(19,287)	(17,632)	(16,021)	(14,453)	(12,927)	(11,443)
COLORADO-LAVACA BASIN						
COUNTY-OTHER	88	84	80	73	67	61
MINING	0	0	1	3	4	4
LIVESTOCK	107	107	107	107	107	107
IRRIGATION	(20,559)	(19,589)	(18,644)	(17,725)	(16,831)	(15,960)
LAVACA BASIN						
COUNTY-OTHER	3	3	2	1	1	0

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Water User Group (WUG) Second-Tier Identified Water Need Summary

REGION K

	2020	2030	2040	2050	2060	2070
MUNICIPAL	959	6,211	9,922	17,295	26,925	42,579
COUNTY-OTHER	151	189	249	1,043	1,893	2,787
MANUFACTURING	570	692	810	913	1,059	1,216
MINING	4,260	8,618	9,247	10,219	11,653	13,664
STEAM ELECTRIC POWER	25,363	25,377	25,401	25,431	32,712	44,127
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	214,375	178,442	141,153	107,636	78,682	54,428

*Second-tier needs are WUG split needs adjusted to include the implementation of recommended demand reduction and direct reuse water management strategies.

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Water User Group (WUG) Second-Tier Identified Water Need

REGION K	WUG SECOND-TIER NEEDS (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
BASTROP COUNTY						
BRAZOS BASIN						
AQUA WSC	0	0	0	0	0	0
LEE COUNTY WSC	0	0	0	0	0	0
COUNTY-OTHER	0	0	0	0	0	0
MINING	173	409	450	496	545	600
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	0	0	0	0	0
COLORADO BASIN						
AQUA WSC	554	2,015	3,927	7,115	12,233	19,000
BASTROP	0	0	14	309	765	2,064
BASTROP COUNTY WCID #2	0	0	0	0	19	542
CREEDMOOR-MAHA WSC	0	0	0	0	0	0
ELGIN	277	484	694	1,116	1,880	2,899
LEE COUNTY WSC	0	0	0	0	0	0
POLONIA WSC	0	0	0	0	0	0
SMITHVILLE	0	0	0	0	0	86
COUNTY-OTHER	0	0	0	0	0	0
MANUFACTURING	55	87	120	151	174	199
MINING	449	3,947	4,556	5,235	5,967	6,777
STEAM ELECTRIC POWER	0	0	0	0	0	0
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	0	0	0	0	0
GUADALUPE BASIN						
AQUA WSC	0	0	0	0	0	0
COUNTY-OTHER	0	0	0	0	0	0
MANUFACTURING	0	0	0	0	0	0
MINING	110	306	341	379	420	466
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	0	0	0	0	0
BLANCO COUNTY						
COLORADO BASIN						
JOHNSON CITY	0	0	19	35	46	53
COUNTY-OTHER	0	0	0	0	0	0
MANUFACTURING	0	0	0	0	0	0
MINING	0	0	0	0	0	0
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	0	0	0	0	0
GUADALUPE BASIN						
BLANCO	0	0	0	0	0	0
CANYON LAKE WATER SERVICE COMPANY	0	0	0	0	0	0
COUNTY-OTHER	0	0	0	0	0	0
MANUFACTURING	0	0	0	0	0	0
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	0	0	0	0	0
BURNET COUNTY						
BRAZOS BASIN						
BERTRAM	0	0	10	30	41	45
BURNET	0	0	0	0	0	0
CHISHOLM TRAIL SUD	0	0	0	0	0	0

Water User Group (WUG) Second-Tier Identified Water Need

REGION K	WUG SECOND-TIER NEEDS (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
BURNET COUNTY						
BRAZOS BASIN						
KEMPNER WSC	0	0	0	0	0	0
COUNTY-OTHER	0	0	0	0	0	60
MINING	0	0	0	0	0	0
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	0	0	0	0	0
COLORADO BASIN						
BURNET	0	0	0	0	0	0
COTTONWOOD SHORES	0	0	0	0	0	0
GRANITE SHOALS	0	0	0	89	173	249
HORSESHOE BAY	0	0	0	0	0	0
KINGSLAND WSC	0	0	0	0	0	0
MARBLE FALLS	0	0	0	0	0	0
MEADOWLAKES	0	0	0	0	0	0
COUNTY-OTHER	0	0	0	0	0	0
MANUFACTURING	0	0	0	0	0	0
MINING	1,011	1,703	2,428	3,085	3,841	4,703
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	0	0	0	0	0
COLORADO COUNTY						
BRAZOS-COLORADO BASIN						
EAGLE LAKE	0	0	0	0	0	0
COUNTY-OTHER	0	0	0	0	0	0
MANUFACTURING	0	0	0	0	0	0
MINING	0	0	0	0	0	0
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	11,086	8,521	5,933	3,653	1,655	0
COLORADO BASIN						
COLUMBUS	0	0	0	0	0	0
EAGLE LAKE	0	0	0	0	0	0
WEIMAR	0	0	0	0	0	0
COUNTY-OTHER	0	0	0	3	31	61
MANUFACTURING	0	0	0	0	0	0
MINING	0	0	0	0	0	0
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	0	0	0	0	0
LAVACA BASIN						
WEIMAR	0	0	0	0	0	0
COUNTY-OTHER	0	0	0	0	0	0
MANUFACTURING	0	0	0	0	0	0
MINING	0	0	0	0	0	0
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	13,921	9,842	5,805	2,300	0	0
FAYETTE COUNTY						
COLORADO BASIN						
AQUA WSC	0	0	0	0	0	0
FAYETTE WSC	0	0	0	0	0	0
LA GRANGE	0	0	0	0	0	0
LEE COUNTY WSC	0	0	0	0	0	0

Water User Group (WUG) Second-Tier Identified Water Need

REGION K	WUG SECOND-TIER NEEDS (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
FAYETTE COUNTY						
COLORADO BASIN						
COUNTY-OTHER	0	12	57	98	138	172
MINING	1,576	1,176	717	274	0	0
STEAM ELECTRIC POWER	0	0	0	0	2,614	7,414
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	0	0	0	0	0
GUADALUPE BASIN						
FAYETTE WSC	0	0	0	0	0	0
FLATONIA	0	0	0	0	0	0
COUNTY-OTHER	0	0	0	0	0	0
MINING	66	42	13	0	0	0
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	0	0	0	0	0
LAVACA BASIN						
FAYETTE WSC	0	0	0	0	0	0
FLATONIA	0	0	0	0	0	0
SCHULENBURG	0	0	0	0	0	0
COUNTY-OTHER	151	177	192	207	222	233
MANUFACTURING	206	243	279	310	349	391
MINING	344	274	195	119	40	39
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	0	0	0	0	0
GILLESPIE COUNTY						
COLORADO BASIN						
FREDERICKSBURG	0	0	0	0	0	0
COUNTY-OTHER	0	0	0	0	0	0
MANUFACTURING	309	362	411	452	536	626
MINING	0	0	0	0	0	0
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	0	0	0	0	0
GUADALUPE BASIN						
COUNTY-OTHER	0	0	0	0	0	0
LIVESTOCK	0	0	0	0	0	0
HAYS COUNTY						
COLORADO BASIN						
AUSTIN	0	0	0	0	0	0
BUDA	0	0	0	226	1,394	2,726
CIMARRON PARK WATER COMPANY	0	0	0	0	0	0
DRIPPING SPRINGS	0	0	0	0	0	0
DRIPPING SPRINGS WSC	0	0	0	0	0	0
GOFORTH SUD	0	0	0	0	0	0
MOUNTAIN CITY	0	0	0	0	0	0
PLUM CREEK WATER COMPANY	0	0	0	0	0	0
WEST TRAVIS COUNTY PUBLIC UTILITY AGENCY	0	0	0	0	412	711
COUNTY-OTHER	0	0	0	735	1,502	2,261
MANUFACTURING	0	0	0	0	0	0
MINING	531	761	547	631	840	1,079
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	0	0	0	0	0

Water User Group (WUG) Second-Tier Identified Water Need

REGION K	WUG SECOND-TIER NEEDS (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
LLANO COUNTY						
COLORADO BASIN						
HORSESHOE BAY	0	0	0	0	0	0
KINGSLAND WSC	0	0	0	0	0	0
LLANO	128	123	86	42	25	7
SUNRISE BEACH VILLAGE	0	0	0	0	0	0
COUNTY-OTHER	0	0	0	0	0	0
MANUFACTURING	0	0	0	0	0	0
MINING	0	0	0	0	0	0
STEAM ELECTRIC POWER	0	0	0	0	0	0
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	0	0	0	0	0
MATAGORDA COUNTY						
BRAZOS-COLORADO BASIN						
BAY CITY	0	0	0	0	0	0
COUNTY-OTHER	0	0	0	0	0	0
MANUFACTURING	0	0	0	0	0	0
MINING	0	0	0	0	0	0
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	48,397	41,244	33,660	26,753	20,594	14,499
COLORADO BASIN						
BAY CITY	0	0	0	0	0	0
COUNTY-OTHER	0	0	0	0	0	0
MANUFACTURING	0	0	0	0	0	0
MINING	0	0	0	0	0	0
STEAM ELECTRIC POWER	25,363	25,377	25,401	25,431	25,461	25,483
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	8,714	7,539	6,279	5,120	4,083	3,045
COLORADO-LAVACA BASIN						
PALACIOS	0	0	0	0	0	0
COUNTY-OTHER	0	0	0	0	0	0
MANUFACTURING	0	0	0	0	0	0
MINING	0	0	0	0	0	0
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	58,948	50,547	41,593	33,413	26,109	18,844
MILLS COUNTY						
BRAZOS BASIN						
GOLDTHWAITE	0	0	0	0	0	0
COUNTY-OTHER	0	0	0	0	0	0
MINING	0	0	0	0	0	0
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	480	480	480	480	480	460
COLORADO BASIN						
BROOKESMITH SUD	0	0	0	0	0	0
GOLDTHWAITE	0	0	0	0	0	0
COUNTY-OTHER	0	0	0	0	0	0
MANUFACTURING	0	0	0	0	0	0
MINING	0	0	0	0	0	0
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	0	0	0	0	0

Water User Group (WUG) Second-Tier Identified Water Need

REGION K	WUG SECOND-TIER NEEDS (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
SAN SABA COUNTY						
COLORADO BASIN						
RICHLAND SUD	0	0	0	0	0	0
SAN SABA	0	0	0	0	0	0
COUNTY-OTHER	0	0	0	0	0	0
MANUFACTURING	0	0	0	0	0	0
MINING	0	0	0	0	0	0
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	0	0	0	0	0
TRAVIS COUNTY						
COLORADO BASIN						
AQUA WSC	0	0	0	0	0	0
AUSTIN	0	0	0	0	0	0
BARTON CREEK WEST WSC	0	0	0	0	0	0
BEE CAVE	0	0	0	0	0	0
BRIARCLIFF	0	0	0	0	0	0
CEDAR PARK	0	0	0	0	0	0
CREEDMOOR-MAHA WSC	0	0	9	133	268	400
ELGIN	0	48	129	222	304	381
JONESTOWN	0	0	0	0	0	0
LAGO VISTA	0	0	0	0	0	0
LAKEWAY	0	132	0	0	0	0
LEANDER	0	788	2,529	3,340	3,701	4,055
LOOP 360 WSC	0	0	0	0	0	0
LOST CREEK MUD	0	0	0	0	0	0
MANOR	0	0	0	0	72	390
MANVILLE WSC	0	0	0	0	461	1,435
MUSTANG RIDGE	0	0	0	0	0	0
NORTH AUSTIN MUD #1	0	0	0	0	0	0
NORTHTOWN MUD	0	0	0	0	0	0
PFLUGERVILLE	0	0	0	2,224	2,855	5,312
POINT VENTURE	0	0	0	0	19	32
ROLLINGWOOD	0	255	241	228	216	203
ROUND ROCK	0	27	82	144	187	223
SHADY HOLLOW MUD	0	0	0	0	0	0
SUNSET VALLEY	0	0	0	0	0	0
THE HILLS	0	0	0	0	0	0
TRAVIS COUNTY MUD #4	0	0	0	0	0	0
TRAVIS COUNTY WCID #10	0	1,376	1,329	1,287	1,190	1,181
TRAVIS COUNTY WCID #17	0	0	0	0	0	0
TRAVIS COUNTY WCID #18	0	0	0	0	0	0
TRAVIS COUNTY WCID #19	0	0	0	0	0	0
TRAVIS COUNTY WCID #20	0	0	0	0	0	0
VOLENTE	0	9	20	34	47	59
WELLS BRANCH MUD	0	0	0	0	0	0
WEST LAKE HILLS	0	954	833	721	617	526
WEST TRAVIS COUNTY PUBLIC UTILITY AGENCY	0	0	0	0	0	0
WILLIAMSON-TRAVIS COUNTY MUD #1	0	0	0	0	0	0
COUNTY-OTHER	0	0	0	0	0	0
MANUFACTURING	0	0	0	0	0	0

Water User Group (WUG) Second-Tier Identified Water Need

REGION K	WUG SECOND-TIER NEEDS (ACRE-FEET PER YEAR)					
	2020	2030	2040	2050	2060	2070
TRAVIS COUNTY						
COLORADO BASIN						
MINING	0	0	0	0	0	0
STEAM ELECTRIC POWER	0	0	0	0	4,543	11,030
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	0	0	0	0	0	0
GUADALUPE BASIN						
CREEDMOOR-MAHA WSC	0	0	0	0	0	0
GOFORTH SUD	0	0	0	0	0	0
MUSTANG RIDGE	0	0	0	0	0	0
COUNTY-OTHER	0	0	0	0	0	0
MINING	0	0	0	0	0	0
LIVESTOCK	0	0	0	0	0	0
WHARTON COUNTY						
BRAZOS-COLORADO BASIN						
EAST BERNARD	0	0	0	0	0	0
WHARTON	0	0	0	0	0	0
COUNTY-OTHER	0	0	0	0	0	0
MANUFACTURING	0	0	0	0	0	0
MINING	0	0	0	0	0	0
STEAM ELECTRIC POWER	0	0	0	0	94	200
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	48,964	41,369	33,470	26,349	20,024	13,875
COLORADO BASIN						
EL CAMPO	0	0	0	0	0	0
WHARTON	0	0	0	0	0	0
COUNTY-OTHER	0	0	0	0	0	0
MINING	0	0	0	0	0	0
STEAM ELECTRIC POWER	0	0	0	0	0	0
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	9,676	6,999	4,397	2,157	211	0
COLORADO-LAVACA BASIN						
COUNTY-OTHER	0	0	0	0	0	0
MINING	0	0	0	0	0	0
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	14,189	11,901	9,536	7,411	5,526	3,705
LAVACA BASIN						
COUNTY-OTHER	0	0	0	0	0	0
WILLIAMSON COUNTY						
BRAZOS BASIN						
AUSTIN	0	0	0	0	0	0
NORTH AUSTIN MUD #1	0	0	0	0	0	0
WELLS BRANCH MUD	0	0	0	0	0	0
COUNTY-OTHER	0	0	0	0	0	0
MINING	0	0	0	0	0	0
LIVESTOCK	0	0	0	0	0	0

Water User Group (WUG) Management Supply Factor

REGION K	WUG MANAGEMENT SUPPLY FACTOR					
	2020	2030	2040	2050	2060	2070
AQUA WSC	1.3	1.1	1.4	1.1	1.1	1.0
AUSTIN	2.4	2.1	1.9	1.8	1.7	1.6
BARTON CREEK WEST WSC	2.0	2.1	2.2	2.2	2.3	2.3
BASTROP	1.4	1.2	1.1	1.5	1.3	1.1
BASTROP COUNTY WCID #2	3.0	2.2	1.8	1.3	1.4	1.0
BAY CITY	2.0	1.9	1.9	1.8	1.8	1.8
BEE CAVE	1.3	1.3	1.4	1.4	1.4	1.4
BERTRAM	2.8	3.2	2.9	2.7	2.5	2.4
BLANCO	3.5	3.1	2.8	2.7	2.7	2.6
BRIARCLIFF	1.6	1.5	1.3	1.2	1.1	1.0
BUDA	2.3	2.3	1.9	1.6	1.3	1.1
BURNET	3.4	3.3	3.0	2.8	2.6	2.5
CIMARRON PARK WATER COMPANY	1.0	1.0	1.1	1.1	1.1	1.1
COLUMBUS	1.3	1.3	1.4	1.4	1.4	1.4
COTTONWOOD SHORES	4.1	4.7	4.2	3.8	3.5	3.3
COUNTY-OTHER, BASTROP	1.1	1.1	1.0	1.0	1.0	1.0
COUNTY-OTHER, BLANCO	2.3	2.0	1.9	1.9	1.9	1.8
COUNTY-OTHER, BURNET	2.9	3.1	3.2	3.0	2.8	2.5
COUNTY-OTHER, COLORADO	1.7	1.7	1.7	1.6	1.6	1.5
COUNTY-OTHER, FAYETTE	1.5	1.4	1.3	1.2	1.2	1.2
COUNTY-OTHER, GILLESPIE	1.7	1.6	1.6	1.5	1.5	1.4
COUNTY-OTHER, HAYS	2.7	2.9	1.9	1.6	1.3	1.2
COUNTY-OTHER, LLANO	7.7	8.5	8.5	8.3	8.8	9.4
COUNTY-OTHER, MATAGORDA	1.4	1.4	1.4	1.4	1.4	1.4
COUNTY-OTHER, MILLS	2.5	2.5	2.5	2.5	2.4	2.3
COUNTY-OTHER, SAN SABA	3.2	3.1	3.2	3.2	3.2	3.1
COUNTY-OTHER, TRAVIS	2.3	2.5	2.7	3.1	4.0	5.7
COUNTY-OTHER, WHARTON	1.7	1.6	1.6	1.5	1.5	1.4
CREEDMOOR-MAHA WSC	1.3	1.9	1.7	1.5	1.4	1.2
DRIPPING SPRINGS	1.4	1.3	1.4	1.4	1.4	1.5
DRIPPING SPRINGS WSC	1.3	2.9	2.5	2.3	2.0	1.7
EAGLE LAKE	1.3	1.2	1.2	1.2	1.2	1.2
EAST BERNARD	1.4	1.4	1.4	1.4	1.4	1.4
ELGIN	1.0	2.6	2.0	1.6	1.3	1.0
FAYETTE WSC	1.6	1.4	1.3	1.3	1.2	1.2
FLATONIA	2.3	2.2	2.1	2.1	2.1	2.1
FREDERICKSBURG	1.5	1.5	1.5	1.4	1.4	1.4
GOLDTHWAITE	1.0	1.0	1.1	1.1	1.1	1.1
GRANITE SHOALS	1.3	1.1	1.0	1.2	1.1	1.0
HORSESHOE BAY	1.4	1.5	1.6	1.6	1.7	1.7
IRRIGATION, BASTROP	1.5	1.6	1.7	1.8	1.9	2.0
IRRIGATION, BLANCO	1.3	1.4	1.4	1.5	1.5	1.6
IRRIGATION, BURNET	1.4	1.4	1.4	1.4	1.4	1.4
IRRIGATION, COLORADO	1.0	1.0	1.0	1.0	1.0	1.1
IRRIGATION, FAYETTE	1.9	2.0	2.2	2.3	2.5	2.6
IRRIGATION, GILLESPIE	1.2	1.2	1.2	1.3	1.3	1.3
IRRIGATION, LLANO	1.2	1.2	1.3	1.3	1.3	1.3
IRRIGATION, MATAGORDA	0.7	0.7	0.7	0.8	0.8	0.9
IRRIGATION, MILLS	1.3	1.3	1.3	1.3	1.3	1.4
IRRIGATION, SAN SABA	1.1	1.1	1.2	1.2	1.2	1.3

Water User Group (WUG) Management Supply Factor

REGION K	WUG MANAGEMENT SUPPLY FACTOR					
	2020	2030	2040	2050	2060	2070
IRRIGATION, TRAVIS	1.2	1.3	1.4	1.5	1.7	1.8
IRRIGATION, WHARTON	0.9	0.9	0.9	1.0	1.0	1.0
JOHNSON CITY	1.6	1.4	1.4	1.3	1.3	1.3
JONESTOWN	1.0	1.0	1.0	1.0	1.0	1.0
KINGSLAND WSC	1.3	1.2	1.2	1.2	1.1	1.1
LA GRANGE	1.7	1.5	1.4	1.4	1.3	1.3
LAGO VISTA	2.5	2.2	2.0	1.8	1.7	1.7
LAKEWAY	1.3	1.2	1.2	1.3	1.4	1.4
LIVESTOCK, BASTROP	1.0	1.0	1.0	1.0	1.0	1.0
LIVESTOCK, BLANCO	1.1	1.1	1.1	1.1	1.1	1.1
LIVESTOCK, BURNET	1.4	1.4	1.4	1.4	1.4	1.4
LIVESTOCK, COLORADO	1.0	1.0	1.0	1.0	1.0	1.0
LIVESTOCK, FAYETTE	1.4	1.4	1.4	1.4	1.4	1.4
LIVESTOCK, GILLESPIE	1.5	1.5	1.5	1.5	1.5	1.5
LIVESTOCK, LLANO	1.0	1.0	1.0	1.0	1.0	1.0
LIVESTOCK, MATAGORDA	1.0	1.0	1.0	1.0	1.0	1.0
LIVESTOCK, MILLS	1.0	1.0	1.0	1.0	1.0	1.0
LIVESTOCK, SAN SABA	1.0	1.0	1.0	1.0	1.0	1.0
LIVESTOCK, TRAVIS	1.0	1.0	1.0	1.0	1.0	1.0
LLANO	1.1	1.1	1.1	1.2	1.2	1.2
LOOP 360 WSC	1.3	1.4	1.4	1.4	1.5	1.5
LOST CREEK MUD	1.3	1.3	1.4	1.4	1.4	1.5
MANOR	3.2	2.0	1.6	1.4	1.2	1.1
MANUFACTURING, BASTROP	1.0	1.0	1.0	1.0	1.0	1.0
MANUFACTURING, BLANCO	1.0	1.0	1.0	1.0	1.0	1.0
MANUFACTURING, BURNET	1.8	1.6	1.5	1.3	1.2	1.1
MANUFACTURING, COLORADO	2.2	2.1	1.9	1.9	1.7	1.6
MANUFACTURING, FAYETTE	1.5	1.4	1.3	1.2	1.1	1.0
MANUFACTURING, GILLESPIE	1.3	1.2	1.2	1.1	1.1	1.0
MANUFACTURING, HAYS	2.8	2.4	2.2	2.0	1.8	1.7
MANUFACTURING, LLANO	1.0	1.0	1.0	1.0	1.0	1.0
MANUFACTURING, MATAGORDA	1.3	1.2	1.2	1.1	1.1	1.0
MANUFACTURING, MILLS	1.0	1.0	1.0	1.0	1.0	1.0
MANUFACTURING, SAN SABA	1.0	1.0	1.0	1.0	1.0	1.0
MANUFACTURING, TRAVIS	1.0	1.0	1.0	1.0	1.0	1.0
MANUFACTURING, WHARTON	1.4	1.4	1.3	1.2	1.1	1.0
MANVILLE WSC	2.3	1.5	1.3	1.3	1.3	1.2
MARBLE FALLS	2.1	2.7	2.0	1.8	1.8	1.7
MEADOWLAKES	1.1	1.0	1.0	1.0	1.0	1.1
MINING, BASTROP	0.8	0.4	0.3	0.3	0.3	0.3
MINING, BLANCO	1.0	1.0	1.0	1.0	1.0	1.0
MINING, BURNET	1.1	1.1	1.0	1.0	1.1	1.0
MINING, COLORADO	1.1	1.1	1.0	1.0	1.0	1.0
MINING, FAYETTE	1.0	1.0	1.1	1.3	2.5	2.5
MINING, GILLESPIE	13.8	13.8	13.8	13.8	13.8	13.8
MINING, HAYS	1.0	1.1	1.4	1.4	1.2	1.0
MINING, LLANO	1.0	1.0	1.0	1.0	1.0	1.0
MINING, MATAGORDA	1.0	1.0	1.3	1.8	2.9	4.5
MINING, MILLS	1.0	1.0	1.0	1.0	1.0	1.0
MINING, SAN SABA	1.4	1.4	1.6	1.7	1.8	1.8

Water User Group (WUG) Management Supply Factor

REGION K	WUG MANAGEMENT SUPPLY FACTOR					
	2020	2030	2040	2050	2060	2070
MINING, TRAVIS	1.0	1.0	1.0	1.0	1.0	1.0
MINING, WHARTON	1.0	1.0	1.3	1.8	2.8	4.4
MOUNTAIN CITY	1.8	2.2	2.1	1.9	1.7	1.5
NORTH AUSTIN MUD #1	1.1	1.1	1.2	1.1	1.2	1.2
NORTHTOWN MUD	1.6	1.6	1.5	1.5	1.5	1.4
PALACIOS	1.7	1.7	1.7	1.7	1.6	1.6
PFLUGERVILLE	1.3	1.1	1.1	1.1	1.0	1.0
POINT VENTURE	1.3	1.4	1.3	1.5	1.4	1.3
ROLLINGWOOD	1.3	1.4	1.4	1.5	1.5	1.5
SAN SABA	1.2	1.3	1.4	1.4	1.5	1.5
SCHULENBURG	1.2	1.1	1.1	1.1	1.1	1.1
SHADY HOLLOW MUD	1.2	1.2	1.1	1.2	1.2	1.2
SMITHVILLE	2.4	2.1	1.9	1.6	1.2	1.0
STEAM ELECTRIC POWER, BASTROP	1.2	1.0	1.0	1.0	1.0	1.0
STEAM ELECTRIC POWER, FAYETTE	1.6	1.6	1.6	1.4	1.3	1.2
STEAM ELECTRIC POWER, LLANO	1.0	1.0	1.0	1.0	1.0	1.0
STEAM ELECTRIC POWER, MATAGORDA	1.0	1.0	1.0	1.0	1.0	1.0
STEAM ELECTRIC POWER, TRAVIS	1.3	1.3	1.3	1.1	1.0	1.0
STEAM ELECTRIC POWER, WHARTON	1.1	1.1	1.0	1.0	1.0	1.0
SUNRISE BEACH VILLAGE	3.7	3.8	3.9	4.0	4.0	4.0
SUNSET VALLEY	1.5	3.4	3.4	3.2	3.0	2.9
THE HILLS	1.3	1.4	1.5	1.6	1.6	1.7
TRAVIS COUNTY MUD #4	1.8	1.7	1.6	1.5	1.5	1.5
TRAVIS COUNTY WCID #10	1.4	1.7	1.6	1.6	1.5	1.5
TRAVIS COUNTY WCID #17	1.3	1.3	1.3	1.3	1.3	1.4
TRAVIS COUNTY WCID #18	1.7	1.6	1.4	1.3	1.2	1.1
TRAVIS COUNTY WCID #19	1.3	1.4	1.5	1.5	1.6	1.7
TRAVIS COUNTY WCID #20	2.2	2.3	2.4	2.5	2.6	2.6
VOLENTE	2.9	2.5	2.2	1.9	1.7	1.6
WEIMAR	1.4	1.4	1.4	1.4	1.4	1.4
WELLS BRANCH MUD	1.1	1.1	1.1	1.1	1.1	1.1
WEST LAKE HILLS	1.3	1.2	1.3	1.4	1.4	1.5
WEST TRAVIS COUNTY PUBLIC UTILITY AGENCY	1.5	1.5	1.5	1.4	1.5	1.4
WHARTON	1.7	1.6	1.6	1.5	1.5	1.5

*WUG supplies and projected demands are entered for each of a WUG's region-county-basin divisions. To calculate the Management Supply Factor for each WUG as a whole, not split by region-county-basin the combined total of existing and future supply is divided by the total projected demand.

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Recommended Water User Group (WUG) Water Management Strategies (WMS)

WUG Entity Primary Region: K

Water Management Strategy Supplies

WUG Entity Name	WMS Sponsor Region	WMS Name	Source Name	2020	2030	2040	2050	2060	2070	Unit Cost 2020	Unit Cost 2070
AQUA WSC	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	1,549	1,960	2,502	3,248	4,254	5,639	\$50	\$50
AQUA WSC	K	EXPANSION OF CURRENT GROUNDWATER SUPPLIES - CARRIZO-WILCOX AQUIFER	K CARRIZO-WILCOX AQUIFER BASTROP COUNTY	2,500	2,500	4,000	4,000	4,000	4,000	\$259	\$259
AQUA WSC	K	LCRA - PRAIRIE SITE RESERVOIR	K LCRA NEW OFF-CHANNEL RESERVOIR (2030 DECADE)	0	0	5,000	5,000	10,000	15,000	N/A	\$1414
AQUA WSC	K	MUNICIPAL CONSERVATION - AQUA WSC	DEMAND REDUCTION	704	1,006	1,066	1,235	1,623	2,130	\$352	\$352
AUSTIN	K	CITY OF AUSTIN - AQUIFER STORAGE AND RECOVERY	K TRINITY AQUIFER ASR TRAVIS COUNTY	10,000	25,000	25,000	50,000	50,000	50,000	\$604	\$604
AUSTIN	K	CITY OF AUSTIN - CAPTURE LOCAL INFLOWS TO LADY BIRD LAKE	K COLORADO RUN-OF-RIVER	1,000	1,000	1,000	1,000	1,000	1,000	\$297	\$297
AUSTIN	K	CITY OF AUSTIN - CONSERVATION	DEMAND REDUCTION	22,969	24,559	28,317	31,220	33,822	36,899	\$342	\$342
AUSTIN	K	CITY OF AUSTIN - DIRECT REUSE	K DIRECT REUSE	5,429	10,429	20,429	22,929	25,429	27,929	\$1347	\$1347
AUSTIN	K	CITY OF AUSTIN - INDIRECT POTABLE REUSE THROUGH LADY BIRD LAKE	K COLORADO INDIRECT REUSE	20,000	20,000	20,000	20,000	20,000	20,000	\$180	\$180
AUSTIN	K	CITY OF AUSTIN - LAKE AUSTIN OPERATIONS	K COLORADO RUN-OF-RIVER	2,500	2,500	2,500	2,500	2,500	2,500	\$10	\$10
AUSTIN	K	CITY OF AUSTIN - LAKE LONG ENHANCED STORAGE	K LAKE LONG/RESERVOIR	20,000	20,000	20,000	20,000	20,000	20,000	\$187	\$187
AUSTIN	K	CITY OF AUSTIN - LONGHORN DAM OPERATION IMPROVEMENTS	K COLORADO RUN-OF-RIVER	3,000	3,000	3,000	3,000	3,000	3,000	\$29	\$29
AUSTIN	K	CITY OF AUSTIN - OTHER REUSE	K DIRECT REUSE	1,000	1,000	1,500	2,000	2,500	3,000	\$1022	\$1022
AUSTIN	K	CITY OF AUSTIN - RAINWATER HARVESTING	K RAINWATER HARVESTING	83	828	4,141	8,282	12,423	16,564	\$3487	\$3487
AUSTIN	K	CITY OF AUSTIN RETURN FLOWS	K COLORADO INDIRECT REUSE - CITY OF AUSTIN RETURN FLOWS	19,258	17,749	22,990	22,874	26,759	30,312	\$0	\$0
AUSTIN	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	16,516	19,260	22,206	24,484	26,524	28,937	\$50	\$50
BARTON CREEK WEST WSC	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	65	64	64	63	63	63	\$50	\$50
BARTON CREEK WEST WSC	K	MUNICIPAL CONSERVATION - BARTON CREEK WEST WSC	DEMAND REDUCTION	42	77	108	122	137	152	\$282	\$282
BASTROP	K	DEVELOPMENT OF NEW GROUNDWATER SUPPLIES - CARRIZO-WILCOX AQUIFER	K CARRIZO-WILCOX AQUIFER BASTROP COUNTY	300	300	300	300	300	0	\$937	N/A
BASTROP	K	DIRECT REUSE - BASTROP	K DIRECT REUSE	0	0	300	600	1,120	1,120	N/A	\$448
BASTROP	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	294	390	517	692	930	1,248	\$50	\$50
BASTROP	K	LCRA - LANE CITY RESERVOIR	K LCRA NEW OFF-CHANNEL RESERVOIRS (2020 DECADE)	0	0	0	2,500	2,500	2,500	N/A	\$2361
BASTROP	K	MUNICIPAL CONSERVATION - BASTROP	DEMAND REDUCTION	195	440	688	1,084	1,459	1,958	\$303	\$303
BASTROP COUNTY WCID #2	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	19	27	38	53	74	102	\$50	\$50
BASTROP COUNTY WCID #2	K	EXPANSION OF CURRENT GROUNDWATER SUPPLIES - CARRIZO-WILCOX AQUIFER	K CARRIZO-WILCOX AQUIFER BASTROP COUNTY	0	0	0	0	550	550	N/A	\$369
BAY CITY	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	568	579	582	591	599	606	\$50	\$50
BAY CITY	K	MUNICIPAL CONSERVATION - BAY CITY	DEMAND REDUCTION	252	199	114	94	95	96	\$336	\$336
BEE CAVE	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	355	409	459	516	567	614	\$50	\$50

Recommended Water User Group (WUG) Water Management Strategies (WMS)

Water Management Strategy Supplies

WUG Entity Name	WMS Sponsor Region	WMS Name	Source Name	2020	2030	2040	2050	2060	2070	Unit Cost 2020	Unit Cost 2070
BEE CAVE	K	LCRA - LANE CITY RESERVOIR	K LCRA NEW OFF-CHANNEL RESERVOIRS (2020 DECADE)	300	300	600	600	800	800	\$0	\$0
BEE CAVE	K	MUNICIPAL CONSERVATION - BEE CAVE VILLAGE	DEMAND REDUCTION	175	374	608	863	1,136	1,323	\$272	\$272
BERTRAM	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	62	73	83	93	102	109	\$50	\$50
BERTRAM	K	EXPANSION OF CURRENT GROUNDWATER SUPPLIES - ELLENBURGER-SAN SABA AQUIFER	K ELLENBURGER-SAN SABA AQUIFER BURNET COUNTY	180	180	180	180	180	180	\$1044	\$1044
BERTRAM	K	LCRA - LANE CITY RESERVOIR	K LCRA NEW OFF-CHANNEL RESERVOIRS (2020 DECADE)	500	884	884	884	884	884	\$952	\$952
BERTRAM	K	MUNICIPAL CONSERVATION - BERTRAM	DEMAND REDUCTION	41	64	91	126	164	204	\$292	\$292
BLANCO	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	55	63	68	71	73	74	\$50	\$50
BLANCO	K	MUNICIPAL CONSERVATION - BLANCO	DEMAND REDUCTION	19	32	28	26	27	27	\$378	\$378
BRIARCLIFF	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	26	30	33	37	40	44	\$50	\$50
BUDA	K	DIRECT REUSE - BUDA	K DIRECT REUSE	2,240	2,240	1,740	1,740	1,740	1,740	\$264	\$264
BUDA	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	177	251	342	456	586	734	\$50	\$50
BUDA	K	EDWARDS / MIDDLE TRINITY ASR	K TRINITY AQUIFER ASR HAYS COUNTY	0	600	600	600	600	600	N/A	\$1291
BUDA	K	HCPUA PIPELINE - REGION K RECOMMENDED	L CARRIZO-WILCOX AQUIFER GONZALES COUNTY	0	667	1,690	2,467	2,467	2,467	N/A	\$1926
BUDA	K	MUNICIPAL CONSERVATION - BUDA	DEMAND REDUCTION	88	206	434	552	709	888	\$374	\$374
BUDA	K	SALINE EDWARDS ASR	K EDWARDS AQUIFER ASR FRESH/BRACKISH TRAVIS COUNTY	0	100	100	100	100	100	N/A	\$2031
BUDA	K	SALINE EDWARDS ASR (SALINE)	K EDWARDS-BFZ AQUIFER SALINE TRAVIS COUNTY	0	400	400	400	400	400	N/A	\$2031
BURNET	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	370	441	500	559	612	658	\$50	\$50
BURNET	K	LCRA - LANE CITY RESERVOIR	K LCRA NEW OFF-CHANNEL RESERVOIRS (2020 DECADE)	1,000	2,000	2,000	2,000	2,000	2,000	\$952	\$952
BURNET	K	MUNICIPAL CONSERVATION - BURNET	DEMAND REDUCTION	184	282	405	571	740	917	\$291	\$291
COLUMBUS	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	170	175	178	185	191	197	\$50	\$50
COLUMBUS	K	MUNICIPAL CONSERVATION - COLUMBUS	DEMAND REDUCTION	112	206	296	347	404	464	\$282	\$282
COTTONWOOD SHORES	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	45	54	61	68	74	80	\$50	\$50
COTTONWOOD SHORES	K	LCRA - LANE CITY RESERVOIR	K LCRA NEW OFF-CHANNEL RESERVOIRS (2020 DECADE)	376	700	700	700	700	700	\$1517	\$1517
COTTONWOOD SHORES	K	MUNICIPAL CONSERVATION - COTTONWOOD SHORES	DEMAND REDUCTION	22	21	20	19	21	23	\$322	\$322
COUNTY-OTHER, BASTROP	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	281	338	413	517	657	845	\$50	\$50
COUNTY-OTHER, BASTROP	K	EXPANSION OF CURRENT GROUNDWATER SUPPLIES - CARRIZO-WILCOX AQUIFER	K CARRIZO-WILCOX AQUIFER BASTROP COUNTY	60	60	60	60	60	0	\$3267	N/A
COUNTY-OTHER, BASTROP	K	MUNICIPAL CONSERVATION - BASTROP COUNTY-OTHER	DEMAND REDUCTION	92	196	344	414	527	677	\$374	\$374
COUNTY-OTHER, BLANCO	K	BRUSH CONTROL	K COLORADO RUN-OF-RIVER	425	425	425	425	425	425	\$500	\$500
COUNTY-OTHER, BLANCO	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	144	166	179	185	190	193	\$50	\$50

Recommended Water User Group (WUG) Water Management Strategies (WMS)

Water Management Strategy Supplies

WUG Entity Name	WMS Sponsor Region	WMS Name	Source Name	2020	2030	2040	2050	2060	2070	Unit Cost 2020	Unit Cost 2070
COUNTY-OTHER, BLANCO	K	EXPANSION OF CURRENT GROUNDWATER SUPPLIES - ELLENBURGER-SAN SABA AQUIFER	K ELLENBURGER-SAN SABA AQUIFER BLANCO COUNTY	0	0	0	55	55	55	N/A	\$1382
COUNTY-OTHER, BLANCO	K	EXPANSION OF CURRENT GROUNDWATER SUPPLIES - HICKORY AQUIFER	K HICKORY AQUIFER BLANCO COUNTY	0	0	0	55	55	55	N/A	\$2182
COUNTY-OTHER, BURNET	K	BRUSH CONTROL	K COLORADO RUN-OF-RIVER	425	425	425	425	425	425	\$500	\$500
COUNTY-OTHER, BURNET	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	526	566	550	593	646	711	\$50	\$50
COUNTY-OTHER, BURNET	K	LCRA - LANE CITY RESERVOIR	K LCRA NEW OFF-CHANNEL RESERVOIRS (2020 DECADE)	2,235	3,813	3,813	3,813	3,813	3,813	\$1308	\$1308
COUNTY-OTHER, BURNET	K	MUNICIPAL CONSERVATION - BURNET COUNTY-OTHER	DEMAND REDUCTION	60	93	83	80	87	94	\$0	\$0
COUNTY-OTHER, COLORADO	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	221	223	223	229	237	245	\$50	\$50
COUNTY-OTHER, COLORADO	K	EXPANSION OF CURRENT GROUNDWATER SUPPLIES - GULF COAST AQUIFER	K GULF COAST AQUIFER COLORADO COUNTY	226	226	226	226	226	226	\$602	\$602
COUNTY-OTHER, FAYETTE	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	186	202	213	225	234	242	\$50	\$50
COUNTY-OTHER, FAYETTE	K	EXPANSION OF CURRENT GROUNDWATER SUPPLIES - GULF COAST AQUIFER	K GULF COAST AQUIFER FAYETTE COUNTY	639	639	639	639	639	639	\$667	\$667
COUNTY-OTHER, GILLESPIE	K	BRUSH CONTROL	K COLORADO RUN-OF-RIVER	425	425	425	425	425	425	\$500	\$500
COUNTY-OTHER, GILLESPIE	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	273	284	295	310	327	343	\$50	\$50
COUNTY-OTHER, HAYS	K	BRUSH CONTROL	K COLORADO RUN-OF-RIVER	425	425	425	425	425	425	\$500	\$500
COUNTY-OTHER, HAYS	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	466	554	693	852	987	1,121	\$50	\$50
COUNTY-OTHER, HAYS	K	EDWARDS / MIDDLE TRINITY ASR	K TRINITY AQUIFER ASR HAYS COUNTY	0	200	200	200	200	200	N/A	\$1291
COUNTY-OTHER, HAYS	K	HAYS COUNTY PIPELINE - REGION K RECOMMENDED	L CARRIZO-WILCOX AQUIFER GONZALES COUNTY	0	2,000	2,000	2,000	2,000	2,000	N/A	\$708
COUNTY-OTHER, HAYS	K	SALINE EDWARDS ASR	K EDWARDS AQUIFER ASR FRESH/BRACKISH TRAVIS COUNTY	0	100	100	100	100	100	N/A	\$2031
COUNTY-OTHER, HAYS	K	SALINE EDWARDS ASR (SALINE)	K EDWARDS-BFZ AQUIFER SALINE TRAVIS COUNTY	0	100	100	100	100	100	N/A	\$2031
COUNTY-OTHER, HAYS	L	GBRA - MBWSP - SURFACE WATER W/ ASR (OPTION 3C)	L GUADALUPE RUN-OF-RIVER	0	0	0	0	2,029	7,220	N/A	\$596
COUNTY-OTHER, HAYS	L	TWA REGIONAL CARRIZO AQUIFER DEVELOPMENT	L CARRIZO-WILCOX AQUIFER GONZALES COUNTY	0	0	0	1,169	4,685	4,388	N/A	\$2490
COUNTY-OTHER, HAYS	L	TWA TRINITY AQUIFER DEVELOPMENT	L TRINITY AQUIFER COMAL COUNTY	0	0	0	0	0	1,263	N/A	\$704
COUNTY-OTHER, HAYS	L	VISTA RIDGE PROJECT	G CARRIZO-WILCOX AQUIFER BURLESON COUNTY	3,781	5,000	5,000	5,000	5,000	5,000	\$680	\$611
COUNTY-OTHER, LLANO	K	BRUSH CONTROL	K COLORADO RUN-OF-RIVER	425	425	425	425	425	425	\$500	\$500
COUNTY-OTHER, LLANO	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	31	28	28	28	27	25	\$50	\$50
COUNTY-OTHER, MATAGORDA	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	81	81	81	81	81	83	\$50	\$50
COUNTY-OTHER, MILLS	K	BRUSH CONTROL	K COLORADO RUN-OF-RIVER	425	425	425	425	425	425	\$500	\$500
COUNTY-OTHER, MILLS	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	77	77	75	78	81	84	\$50	\$50
COUNTY-OTHER, SAN SABA	K	BRUSH CONTROL	K COLORADO RUN-OF-RIVER	425	425	425	425	425	425	\$500	\$500

Recommended Water User Group (WUG) Water Management Strategies (WMS)

Water Management Strategy Supplies

WUG Entity Name	WMS Sponsor Region	WMS Name	Source Name	2020	2030	2040	2050	2060	2070	Unit Cost 2020	Unit Cost 2070
COUNTY-OTHER, SAN SABA	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	47	48	47	46	47	48	\$50	\$50
COUNTY-OTHER, TRAVIS	K	BRUSH CONTROL	K COLORADO RUN-OF-RIVER	425	425	425	425	425	425	\$500	\$500
COUNTY-OTHER, WHARTON	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	299	306	310	322	333	343	\$50	\$50
CREEDMOOR-MAHA WSC	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	30	34	38	42	46	51	\$50	\$50
CREEDMOOR-MAHA WSC	K	LCRA - MID BASIN RESERVOIR	K LCRA NEW OFF-CHANNEL RESERVOIRS (2020 DECADE)	0	400	400	400	400	400	N/A	\$151
CREEDMOOR-MAHA WSC	K	SALINE EDWARDS ASR	K EDWARDS AQUIFER ASR FRESH/BRACKISH TRAVIS COUNTY	0	101	101	101	101	101	N/A	\$2031
CREEDMOOR-MAHA WSC	K	SALINE EDWARDS ASR (SALINE)	K EDWARDS-BFZ AQUIFER SALINE TRAVIS COUNTY	0	199	199	199	199	199	N/A	\$2031
DRIPPING SPRINGS	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	96	107	122	141	163	188	\$50	\$50
DRIPPING SPRINGS	K	HAYS COUNTY PIPELINE - REGION K RECOMMENDED	L CARRIZO-WILCOX AQUIFER GONZALES COUNTY	0	0	0	0	134	407	N/A	\$0
DRIPPING SPRINGS	K	MUNICIPAL CONSERVATION - DRIPPING SPRINGS	DEMAND REDUCTION	48	67	98	141	195	262	\$293	\$293
DRIPPING SPRINGS	K	WATER PURCHASE	K HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	0	31	104	198	173	0	N/A	N/A
DRIPPING SPRINGS WSC	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	107	136	172	218	271	330	\$50	\$50
DRIPPING SPRINGS WSC	K	HAYS COUNTY PIPELINE - REGION K RECOMMENDED	L CARRIZO-WILCOX AQUIFER GONZALES COUNTY	0	1,000	1,000	1,000	866	593	N/A	\$708
DRIPPING SPRINGS WSC	K	MUNICIPAL CONSERVATION - DRIPPING SPRINGS WSC	DEMAND REDUCTION	54	124	152	187	232	283	\$313	\$313
EAGLE LAKE	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	78	79	79	82	85	87	\$50	\$50
EAST BERNARD	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	57	59	61	63	65	67	\$50	\$50
EAST BERNARD	K	MUNICIPAL CONSERVATION - EAST BERNARD	DEMAND REDUCTION	19	29	42	56	78	97	\$395	\$395
ELGIN	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	233	301	386	500	650	844	\$50	\$50
ELGIN	K	EXPANSION OF CURRENT GROUNDWATER SUPPLIES - CARRIZO-WILCOX AQUIFER	K CARRIZO-WILCOX AQUIFER BASTROP COUNTY	300	300	0	0	0	0	\$667	N/A
ELGIN	K	LCRA - LANE CITY RESERVOIR	K LCRA NEW OFF-CHANNEL RESERVOIRS (2020 DECADE)	0	3,500	3,500	3,500	3,500	3,500	N/A	\$2718
FAYETTE WSC	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	113	125	133	141	148	152	\$50	\$50
FLATONIA	K	DIRECT REUSE - FLATONIA	K DIRECT REUSE	134	149	159	168	176	182	\$821	\$821
FLATONIA	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	51	56	59	63	65	68	\$50	\$50
FLATONIA	K	EXPANSION OF CURRENT GROUNDWATER SUPPLIES - GULF COAST AQUIFER	K GULF COAST AQUIFER FAYETTE COUNTY	100	100	100	100	100	100	\$2060	\$2060
FLATONIA	K	MUNICIPAL CONSERVATION - FLATONIA	DEMAND REDUCTION	17	29	43	60	84	105	\$356	\$356
FREDERICKSBURG	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	472	499	521	551	580	609	\$50	\$50
FREDERICKSBURG	K	MUNICIPAL CONSERVATION - FREDERICKSBURG	DEMAND REDUCTION	317	599	733	916	1,094	1,301	\$284	\$284
GOLDTHWAITE	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	53	53	53	55	57	59	\$50	\$50
GOLDTHWAITE	K	MUNICIPAL CONSERVATION - GOLDTHWAITE	DEMAND REDUCTION	10	13	24	38	54	58	\$449	\$449
GRANITE SHOALS	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	33	38	43	48	53	57	\$50	\$50

Recommended Water User Group (WUG) Water Management Strategies (WMS)

Water Management Strategy Supplies

WUG Entity Name	WMS Sponsor Region	WMS Name	Source Name	2020	2030	2040	2050	2060	2070	Unit Cost 2020	Unit Cost 2070
GRANITE SHOALS	K	LCRA - LANE CITY RESERVOIR	K LCRA NEW OFF-CHANNEL RESERVOIRS (2020 DECADE)	0	0	0	250	250	250	N/A	\$151
HORSESHOE BAY	K	DIRECT REUSE - HORSESHOE BAY	K DIRECT REUSE	100	100	100	100	100	100	\$0	\$0
HORSESHOE BAY	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	651	748	810	860	930	994	\$50	\$50
HORSESHOE BAY	K	LCRA - LANE CITY RESERVOIR	K LCRA NEW OFF-CHANNEL RESERVOIRS (2020 DECADE)	0	200	550	550	1,050	1,050	N/A	\$151
HORSESHOE BAY	K	MUNICIPAL CONSERVATION - HORSESHOE BAY	DEMAND REDUCTION	264	554	852	1,157	1,501	1,839	\$257	\$257
IRRIGATION, COLORADO	K	CITY OF AUSTIN RETURN FLOWS	K COLORADO INDIRECT REUSE - CITY OF AUSTIN RETURN FLOWS	0	0	466	336	485	0	N/A	N/A
IRRIGATION, COLORADO	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	29,542	28,746	27,974	27,221	26,489	25,776	\$163	\$163
IRRIGATION, COLORADO	K	IRRIGATION CONSERVATION - ON FARM	DEMAND REDUCTION	3,521	4,441	5,287	6,049	6,717	7,281	\$162	\$162
IRRIGATION, COLORADO	K	IRRIGATION CONSERVATION - OPERATION CONVEYANCE IMPROVEMENTS	DEMAND REDUCTION	916	2,904	4,791	6,527	8,092	9,364	\$200	\$200
IRRIGATION, COLORADO	K	IRRIGATION CONSERVATION - SPRINKLER	DEMAND REDUCTION	251	1,221	2,362	2,845	2,845	2,845	\$36	\$36
IRRIGATION, COLORADO	K	LCRA - INTERRUPTIBLE WATER FOR AGRICULTURE (LCRA WMP AMENDMENTS)	K HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	25,007	18,363	8,775	4,387	0	0	\$50	N/A
IRRIGATION, MATAGORDA	K	CITY OF AUSTIN RETURN FLOWS	K COLORADO INDIRECT REUSE - CITY OF AUSTIN RETURN FLOWS	8,832	9,326	11,356	13,011	14,876	17,560	\$0	\$0
IRRIGATION, MATAGORDA	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	37,244	36,228	35,238	34,276	33,340	32,429	\$649	\$649
IRRIGATION, MATAGORDA	K	IRRIGATION CONSERVATION - ON FARM	DEMAND REDUCTION	9,947	13,109	16,369	19,741	23,234	26,865	\$162	\$162
IRRIGATION, MATAGORDA	K	IRRIGATION CONSERVATION - OPERATION CONVEYANCE IMPROVEMENTS	DEMAND REDUCTION	2,587	8,572	14,836	21,300	27,986	34,548	\$200	\$200
IRRIGATION, MATAGORDA	K	IRRIGATION CONSERVATION - SPRINKLER	DEMAND REDUCTION	711	3,604	7,316	9,286	9,286	9,286	\$36	\$36
IRRIGATION, MATAGORDA	K	LCRA - INTERRUPTIBLE WATER FOR AGRICULTURE (LCRA WMP AMENDMENTS)	K HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	36,997	23,109	9,221	4,611	0	0	\$50	N/A
IRRIGATION, MILLS	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	125	95	65	36	7	0	\$123	N/A
IRRIGATION, MILLS	K	EXPANSION OF CURRENT GROUNDWATER SUPPLIES - TRINITY AQUIFER	K TRINITY AQUIFER MILLS COUNTY	480	480	480	480	480	480	\$1619	\$1619
IRRIGATION, WHARTON	K	CITY OF AUSTIN RETURN FLOWS	K COLORADO INDIRECT REUSE - CITY OF AUSTIN RETURN FLOWS	6,361	6,494	7,216	7,546	7,546	8,484	\$0	\$0
IRRIGATION, WHARTON	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	27,855	27,106	26,376	25,666	24,976	24,305	\$260	\$260
IRRIGATION, WHARTON	K	IRRIGATION CONSERVATION - ON FARM	DEMAND REDUCTION	6,533	8,450	10,343	12,211	14,049	15,853	\$162	\$162
IRRIGATION, WHARTON	K	IRRIGATION CONSERVATION - OPERATION CONVEYANCE IMPROVEMENTS	DEMAND REDUCTION	1,698	5,525	9,374	13,175	16,922	20,388	\$200	\$200
IRRIGATION, WHARTON	K	IRRIGATION CONSERVATION - SPRINKLER	DEMAND REDUCTION	467	2,323	4,622	5,743	5,743	5,743	\$36	\$36
IRRIGATION, WHARTON	K	LCRA - INTERRUPTIBLE WATER FOR AGRICULTURE (LCRA WMP AMENDMENTS)	K HIGHLAND LAKES LAKE/RESERVOIR SYSTEM	15,876	7,192	1,452	726	0	0	\$50	N/A
IRRIGATION, WHARTON	P	IRRIGATION CONSERVATION - ON FARM	DEMAND REDUCTION	41,338	41,338	41,338	41,338	41,338	41,338	\$76	\$76
IRRIGATION, WHARTON	P	IRRIGATION CONSERVATION - TAILWATER RECOVERY	DEMAND REDUCTION	8,429	8,429	8,429	8,429	8,429	8,429	\$423	\$423

Recommended Water User Group (WUG) Water Management Strategies (WMS)

Water Management Strategy Supplies

WUG Entity Name	WMS Sponsor Region	WMS Name	Source Name	2020	2030	2040	2050	2060	2070	Unit Cost 2020	Unit Cost 2070
IRRIGATION, WHARTON	P	LOCAL OFF-CHANNEL RESERVOIR - WHARTON COUNTY (LANE CITY)	K COLORADO RUN-OF-RIVER	12,000	12,000	12,000	12,000	12,000	12,000	\$33	\$33
JOHNSON CITY	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	71	82	89	92	95	96	\$50	\$50
JOHNSON CITY	K	EXPANSION OF CURRENT GROUNDWATER SUPPLIES - ELLENBURGER-SAN SABA AQUIFER	K ELLENBURGER-SAN SABA AQUIFER BLANCO COUNTY	175	175	175	175	175	175	\$800	\$800
JOHNSON CITY	K	MUNICIPAL CONSERVATION - JOHNSON CITY	DEMAND REDUCTION	18	30	30	28	26	26	\$378	\$378
JONESTOWN	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	82	86	90	95	99	104	\$50	\$50
JONESTOWN	K	MUNICIPAL CONSERVATION - JONESTOWN	DEMAND REDUCTION	20	36	51	73	96	122	\$356	\$356
KINGSLAND WSC	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	47	54	53	50	56	60	\$50	\$50
LA GRANGE	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	130	144	153	161	168	174	\$50	\$50
LA GRANGE	K	MUNICIPAL CONSERVATION - LA GRANGE	DEMAND REDUCTION	42	21	0	0	0	0	\$396	N/A
LAGO VISTA	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	374	437	498	566	628	686	\$50	\$50
LAGO VISTA	K	MUNICIPAL CONSERVATION - LAGO VISTA	DEMAND REDUCTION	187	301	426	604	773	972	\$291	\$291
LAKEWAY	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	1,395	1,823	1,819	1,816	1,815	1,815	\$50	\$50
LAKEWAY	K	EXPANSION OF CURRENT GROUNDWATER SUPPLIES - TRINITY AQUIFER	K TRINITY AQUIFER TRAVIS COUNTY	500	500	500	500	500	500	\$570	\$570
LAKEWAY	K	LCRA - LANE CITY RESERVOIR	K LCRA NEW OFF-CHANNEL RESERVOIRS (2020 DECADE)	1,000	1,000	1,000	1,000	1,000	1,000	\$0	\$0
LAKEWAY	K	MUNICIPAL CONSERVATION - LAKEWAY	DEMAND REDUCTION	702	1,652	2,408	3,052	3,640	3,921	\$272	\$272
LLANO	K	DEVELOPMENT OF NEW GROUNDWATER SUPPLIES - HICKORY AQUIFER	K HICKORY AQUIFER LLANO COUNTY	200	200	200	200	200	200	\$1270	\$1270
LLANO	K	DIRECT REUSE - LLANO	K DIRECT REUSE	100	100	100	100	100	100	\$660	\$660
LLANO	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	129	134	132	128	133	137	\$50	\$50
LLANO	K	MUNICIPAL CONSERVATION - LLANO	DEMAND REDUCTION	88	118	143	169	209	252	\$291	\$291
LOOP 360 WSC	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	176	183	190	197	204	211	\$50	\$50
LOOP 360 WSC	K	MUNICIPAL CONSERVATION - LOOP 360 WSC	DEMAND REDUCTION	116	224	333	441	546	648	\$258	\$258
LOST CREEK MUD	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	218	214	211	211	211	211	\$50	\$50
LOST CREEK MUD	K	MUNICIPAL CONSERVATION - LOST CREEK MUD	DEMAND REDUCTION	108	137	171	215	254	294	\$291	\$291
LOWER COLORADO RIVER AUTHORITY - UNASSIGNED WATER VOLUMES	K	CITY OF AUSTIN RETURN FLOWS	K COLORADO INDIRECT REUSE - CITY OF AUSTIN RETURN FLOWS	20,594	18,530	19,919	19,519	19,999	22,526	\$0	\$0
LOWER COLORADO RIVER AUTHORITY - UNASSIGNED WATER VOLUMES	K	CITY OF PFLUGERVILLE - DOWNSTREAM RETURN FLOWS	K COLORADO INDIRECT REUSE - DOWNSTREAM RETURN FLOWS	5,086	5,834	6,784	8,636	8,997	10,453	\$0	\$0
LOWER COLORADO RIVER AUTHORITY - UNASSIGNED WATER VOLUMES	K	LCRA - ACQUIRE ADDITIONAL WATER RIGHTS	K COLORADO RUN-OF-RIVER	250	250	250	250	250	250	\$500	\$0
LOWER COLORADO RIVER AUTHORITY - UNASSIGNED WATER VOLUMES	K	LCRA - EXCESS FLOWS RESERVOIR	K LCRA NEW OFF-CHANNEL RESERVOIRS (2020 DECADE)	15,257	15,543	15,830	16,117	16,404	16,691	\$1446	\$1446
MANOR	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	171	234	294	362	422	477	\$50	\$50
MANOR	K	EXPANSION OF CURRENT GROUNDWATER SUPPLIES - TRINITY AQUIFER	K TRINITY AQUIFER TRAVIS COUNTY	0	600	600	600	600	600	N/A	\$545

Recommended Water User Group (WUG) Water Management Strategies (WMS)**Water Management Strategy Supplies**

WUG Entity Name	WMS Sponsor Region	WMS Name	Source Name	2020	2030	2040	2050	2060	2070	Unit Cost 2020	Unit Cost 2070
MANUFACTURING, BASTROP	K	EXPANSION OF CURRENT GROUNDWATER SUPPLIES - CARRIZO-WILCOX AQUIFER	K CARRIZO-WILCOX AQUIFER BASTROP COUNTY	55	87	120	151	174	199	\$995	\$995
MANUFACTURING, FAYETTE	K	EXPANSION OF CURRENT GROUNDWATER SUPPLIES - GULF COAST AQUIFER	K GULF COAST AQUIFER FAYETTE COUNTY	391	391	391	391	391	391	\$547	\$547
MANUFACTURING, GILLESPIE	K	EXPANSION OF CURRENT GROUNDWATER SUPPLIES - ELLENBURGER-SAN SABA AQUIFER	K ELLENBURGER-SAN SABA AQUIFER GILLESPIE COUNTY	626	626	626	626	626	626	\$594	\$594
MANVILLE WSC	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	448	541	630	733	825	911	\$50	\$50
MANVILLE WSC	K	EXPANSION OF CURRENT GROUNDWATER SUPPLIES - TRINITY AQUIFER	K TRINITY AQUIFER TRAVIS COUNTY	0	0	0	1,000	1,000	1,000	N/A	\$537
MANVILLE WSC	K	LCRA - MID BASIN RESERVOIR	K LCRA NEW OFF-CHANNEL RESERVOIRS (2020 DECADE)	0	0	0	500	2,000	2,000	N/A	\$151
MARBLE FALLS	K	DIRECT REUSE - MARBLE FALLS	K DIRECT REUSE	11	11	11	11	11	11	\$0	\$0
MARBLE FALLS	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	466	674	968	1,122	1,225	1,277	\$50	\$50
MARBLE FALLS	K	LCRA - LANE CITY RESERVOIR	K LCRA NEW OFF-CHANNEL RESERVOIRS (2020 DECADE)	500	4,000	4,000	4,000	4,000	4,000	\$1517	\$1517
MARBLE FALLS	K	MUNICIPAL CONSERVATION - MARBLE FALLS	DEMAND REDUCTION	234	587	1,016	1,397	1,764	2,059	\$286	\$286
MEADOWLAKES	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	170	204	233	261	286	308	\$50	\$50
MEADOWLAKES	K	MUNICIPAL CONSERVATION - MEADOWLAKES	DEMAND REDUCTION	84	188	309	443	573	708	\$271	\$271
MINING, BASTROP	K	DEVELOPMENT OF NEW GROUNDWATER SUPPLIES - CARRIZO-WILCOX AQUIFER	K CARRIZO-WILCOX AQUIFER BASTROP COUNTY	0	0	466	466	466	466	N/A	\$689
MINING, BASTROP	K	DEVELOPMENT OF NEW GROUNDWATER SUPPLIES - QUEEN CITY AQUIFER	K QUEEN CITY AQUIFER BASTROP COUNTY	110	306	0	0	0	0	\$755	N/A
MINING, BURNET	K	EXPANSION OF CURRENT GROUNDWATER SUPPLIES - ELLENBURGER-SAN SABA AQUIFER	K ELLENBURGER-SAN SABA AQUIFER BURNET COUNTY	1,500	1,500	1,500	1,500	1,500	1,500	\$950	\$950
MINING, BURNET	K	EXPANSION OF CURRENT GROUNDWATER SUPPLIES - HICKORY AQUIFER	K HICKORY AQUIFER BURNET COUNTY	0	500	1,000	1,800	1,800	1,800	N/A	\$718
MINING, BURNET	K	EXPANSION OF CURRENT GROUNDWATER SUPPLIES - MARBLE FALLS AQUIFER	K MARBLE FALLS AQUIFER BURNET COUNTY	0	0	0	0	1,000	1,500	N/A	\$469
MINING, FAYETTE	K	EXPANSION OF CURRENT GROUNDWATER SUPPLIES - GULF COAST AQUIFER	K GULF COAST AQUIFER FAYETTE COUNTY	1,920	1,520	1,061	618	344	344	\$388	\$622
MINING, FAYETTE	K	EXPANSION OF CURRENT GROUNDWATER SUPPLIES - SPARTA AQUIFER	K SPARTA AQUIFER FAYETTE COUNTY	66	42	13	0	0	0	\$1030	N/A
MINING, HAYS	K	DIRECT REUSE - BUDA	K DIRECT REUSE	0	0	500	500	500	500	N/A	\$0
MINING, HAYS	K	EDWARDS / MIDDLE TRINITY ASR	K TRINITY AQUIFER ASR HAYS COUNTY	0	100	100	100	100	100	N/A	\$1291
MINING, HAYS	K	EXPANSION OF CURRENT GROUNDWATER SUPPLIES - TRINITY AQUIFER	K TRINITY AQUIFER HAYS COUNTY	531	761	1,047	1,047	1,047	1,047	\$436	\$436
MOUNTAIN CITY	K	EDWARDS / MIDDLE TRINITY ASR	K TRINITY AQUIFER ASR HAYS COUNTY	0	44	44	44	44	44	N/A	\$1291
MOUNTAIN CITY	L	DROUGHT MANAGEMENT - MOUNTAIN CITY	DEMAND REDUCTION	1	0	0	0	0	0	\$14	N/A
MOUNTAIN CITY	L	LOCAL TRINITY AQUIFER DEVELOPMENT	K TRINITY AQUIFER HAYS COUNTY	60	60	60	60	60	60	\$1300	\$1300
MOUNTAIN CITY	L	MUNICIPAL WATER CONSERVATION (RURAL)	DEMAND REDUCTION	0	0	0	0	0	1	N/A	\$770
NORTH AUSTIN MUD #1	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	128	124	121	118	118	118	\$50	\$50
NORTHTOWN MUD	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	104	120	135	152	167	180	\$50	\$50

Recommended Water User Group (WUG) Water Management Strategies (WMS)

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WUG Entity Name	WMS Sponsor Region	WMS Name	Source Name	2020	2030	2040	2050	2060	2070	Unit Cost 2020	Unit Cost 2070
PALACIOS	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	102	104	104	105	107	108	\$50	\$50
PFLUGERVILLE	K	DIRECT REUSE - PFLUGERVILLE	K DIRECT REUSE	500	1,000	2,000	2,000	4,000	4,000	\$228	\$228
PFLUGERVILLE	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	3,194	4,276	5,311	6,474	7,503	8,463	\$50	\$50
PFLUGERVILLE	K	EXPANSION OF CURRENT GROUNDWATER SUPPLIES - EDWARDS-BFZ AQUIFER	K EDWARDS-BFZ AQUIFER TRAVIS COUNTY	0	0	1,000	1,000	1,000	1,000	N/A	\$371
PFLUGERVILLE	K	LCRA - LANE CITY RESERVOIR	K LCRA NEW OFF-CHANNEL RESERVOIRS (2020 DECADE)	0	0	0	3,000	3,000	4,000	N/A	\$151
PFLUGERVILLE	K	LCRA - MID BASIN RESERVOIR	K LCRA NEW OFF-CHANNEL RESERVOIRS (2020 DECADE)	0	0	0	0	0	2,000	N/A	\$151
PFLUGERVILLE	K	MUNICIPAL CONSERVATION - PFLUGERVILLE	DEMAND REDUCTION	604	2,105	2,625	3,029	3,514	3,966	\$295	\$295
POINT VENTURE	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	52	66	80	96	109	122	\$50	\$50
POINT VENTURE	K	LCRA - LANE CITY RESERVOIR	K LCRA NEW OFF-CHANNEL RESERVOIRS (2020 DECADE)	0	100	100	300	300	300	N/A	\$151
POINT VENTURE	K	MUNICIPAL CONSERVATION - POINT VENTURE	DEMAND REDUCTION	34	82	139	191	241	301	\$282	\$282
ROLLINGWOOD	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	58	57	56	56	56	57	\$50	\$50
ROLLINGWOOD	K	LCRA - MID BASIN RESERVOIR	K LCRA NEW OFF-CHANNEL RESERVOIRS (2020 DECADE)	0	400	400	400	400	400	N/A	\$151
ROLLINGWOOD	K	MUNICIPAL CONSERVATION - ROLLINGWOOD	DEMAND REDUCTION	38	67	79	91	104	118	\$286	\$286
SAN SABA	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	228	236	235	230	235	240	\$50	\$50
SAN SABA	K	MUNICIPAL CONSERVATION - SAN SABA	DEMAND REDUCTION	114	211	302	377	463	510	\$275	\$275
SCHULENBURG	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	110	123	132	139	146	150	\$50	\$50
SCHULENBURG	K	MUNICIPAL CONSERVATION - SCHULENBURG	DEMAND REDUCTION	37	63	96	141	188	232	\$343	\$343
SHADY HOLLOW MUD	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	117	114	111	110	110	110	\$50	\$50
SHADY HOLLOW MUD	K	MUNICIPAL CONSERVATION - SHADY HOLLOW MUD	DEMAND REDUCTION	38	16	0	0	0	0	\$397	N/A
SMITHVILLE	K	DEVELOPMENT OF NEW GROUNDWATER SUPPLIES - QUEEN CITY AQUIFER	K QUEEN CITY AQUIFER BASTROP COUNTY	0	0	0	0	0	150	N/A	\$1607
SMITHVILLE	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	126	161	208	273	362	480	\$50	\$50
SMITHVILLE	K	MUNICIPAL CONSERVATION - SMITHVILLE	DEMAND REDUCTION	44	72	76	88	117	155	\$376	\$376
STEAM ELECTRIC POWER, BASTROP	K	LCRA - EXPAND USE OF GROUNDWATER (CARRIZO-WILCOX AQUIFER)	K CARRIZO-WILCOX AQUIFER BASTROP COUNTY	300	300	300	300	300	300	\$1517	\$1517
STEAM ELECTRIC POWER, FAYETTE	K	CITY OF AUSTIN - LAKE LONG ENHANCED STORAGE	K LAKE LONG/RESERVOIR	2,000	2,000	2,000	2,000	2,000	2,000	\$187	\$187
STEAM ELECTRIC POWER, FAYETTE	K	LCRA - GROUNDWATER SUPPLY FOR FPP (OFF-SITE)	K CARRIZO-WILCOX AQUIFER FAYETTE COUNTY	500	500	500	500	500	500	\$1113	\$1113
STEAM ELECTRIC POWER, FAYETTE	K	LCRA - GROUNDWATER SUPPLY FOR FPP (OFF-SITE)	K YEGUA-JACKSON AQUIFER FAYETTE COUNTY	2,000	2,000	2,000	2,000	2,000	2,000	\$1113	\$1113
STEAM ELECTRIC POWER, FAYETTE	K	LCRA - GROUNDWATER SUPPLY FOR FPP (ON-SITE)	K GULF COAST AQUIFER FAYETTE COUNTY	700	700	700	700	700	700	\$496	\$496
STEAM ELECTRIC POWER, FAYETTE	K	LCRA - LANE CITY RESERVOIR	K LCRA NEW OFF-CHANNEL RESERVOIRS (2020 DECADE)	6,000	7,000	9,000	11,000	13,000	15,000	\$151	\$151
STEAM ELECTRIC POWER, MATAGORDA	K	BLEND BRACKISH SURFACE WATER IN STPNOC RESERVOIR	K GULF OF MEXICO SALINE	3,000	3,000	3,000	3,000	3,000	3,000	\$0	\$0

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WUG Entity Name	WMS Sponsor Region	WMS Name	Source Name	2020	2030	2040	2050	2060	2070	Unit Cost 2020	Unit Cost 2070
STEAM ELECTRIC POWER, MATAGORDA	K	CITY OF AUSTIN RETURN FLOWS	K COLORADO INDIRECT REUSE - CITY OF AUSTIN RETURN FLOWS	770	710	766	763	764	859	\$0	\$0
STEAM ELECTRIC POWER, MATAGORDA	K	LCRA - LANE CITY RESERVOIR	K LCRA NEW OFF-CHANNEL RESERVOIRS (2020 DECADE)	22,727	22,727	22,727	22,727	22,727	22,727	\$151	\$151
STEAM ELECTRIC POWER, TRAVIS	K	CITY OF AUSTIN - DIRECT REUSE	K DIRECT REUSE	3,500	7,500	7,500	8,500	9,500	10,500	\$1347	\$1347
STEAM ELECTRIC POWER, TRAVIS	K	LCRA - MID BASIN RESERVOIR	K LCRA NEW OFF-CHANNEL RESERVOIRS (2020 DECADE)	0	0	0	0	4,543	11,030	N/A	\$151
STEAM ELECTRIC POWER, WHARTON	K	DEVELOPMENT OF NEW GROUNDWATER SUPPLIES - GULF COAST AQUIFER	K GULF COAST AQUIFER WHARTON COUNTY	0	0	0	0	200	200	N/A	\$1035
SUNRISE BEACH VILLAGE	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	4	4	4	3	3	3	\$50	\$50
SUNSET VALLEY	K	DEVELOPMENT OF NEW GROUNDWATER SUPPLIES - TRINITY AQUIFER	K TRINITY AQUIFER TRAVIS COUNTY	0	0	200	200	200	200	N/A	\$1035
SUNSET VALLEY	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	116	150	182	218	250	280	\$50	\$50
SUNSET VALLEY	K	EDWARDS / MIDDLE TRINITY ASR	K TRINITY AQUIFER ASR HAYS COUNTY	0	200	200	200	200	200	N/A	\$1291
SUNSET VALLEY	K	LCRA - MID BASIN RESERVOIR	K LCRA NEW OFF-CHANNEL RESERVOIRS (2020 DECADE)	0	715	715	715	715	715	N/A	\$151
SUNSET VALLEY	K	MUNICIPAL CONSERVATION - SUNSET VALLEY	DEMAND REDUCTION	38	90	158	241	305	366	\$276	\$276
THE HILLS	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	217	217	216	216	216	216	\$50	\$50
THE HILLS	K	MUNICIPAL CONSERVATION - THE HILLS	DEMAND REDUCTION	144	272	386	487	581	665	\$263	\$263
TRAVIS COUNTY MUD #4	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	522	602	677	762	837	907	\$50	\$50
TRAVIS COUNTY MUD #4	K	MUNICIPAL CONSERVATION - TRAVIS COUNTY MUD #4	DEMAND REDUCTION	262	564	912	1,302	1,705	2,114	\$251	\$251
TRAVIS COUNTY WCID #10	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	532	607	679	761	835	905	\$50	\$50
TRAVIS COUNTY WCID #10	K	LCRA - LANE CITY RESERVOIR	K LCRA NEW OFF-CHANNEL RESERVOIRS (2020 DECADE)	0	3,000	3,000	3,000	3,000	3,000	N/A	\$151
TRAVIS COUNTY WCID #10	K	MUNICIPAL CONSERVATION - TRAVIS COUNTY WCID #10	DEMAND REDUCTION	213	445	707	996	1,316	1,533	\$275	\$275
TRAVIS COUNTY WCID #17	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	1,268	1,508	1,653	1,678	1,722	1,776	\$50	\$50
TRAVIS COUNTY WCID #17	K	LCRA - LANE CITY RESERVOIR	K LCRA NEW OFF-CHANNEL RESERVOIRS (2020 DECADE)	1,000	2,000	2,000	2,000	2,000	2,000	\$151	\$151
TRAVIS COUNTY WCID #17	K	MUNICIPAL CONSERVATION - TRAVIS COUNTY WCID #17	DEMAND REDUCTION	853	1,825	2,399	2,889	3,325	4,645	\$289	\$289
TRAVIS COUNTY WCID #18	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	168	190	211	236	259	280	\$50	\$50
TRAVIS COUNTY WCID #18	K	MUNICIPAL CONSERVATION - TRAVIS COUNTY WCID #18	DEMAND REDUCTION	60	95	87	87	96	104	\$375	\$375
TRAVIS COUNTY WCID #19	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	100	99	99	99	99	99	\$50	\$50
TRAVIS COUNTY WCID #19	K	MUNICIPAL CONSERVATION - TRAVIS COUNTY WCID #19	DEMAND REDUCTION	50	92	131	166	199	229	\$255	\$255
TRAVIS COUNTY WCID #20	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	118	117	117	117	116	116	\$50	\$50
TRAVIS COUNTY WCID #20	K	MUNICIPAL CONSERVATION - TRAVIS COUNTY WCID #20	DEMAND REDUCTION	59	110	153	197	234	268	\$261	\$261
VOLENTE	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	4	4	5	6	7	7	\$50	\$50
VOLENTE	K	LCRA - LANE CITY RESERVOIR	K LCRA NEW OFF-CHANNEL RESERVOIRS (2020 DECADE)	142	142	142	142	142	142	\$7644	\$7644
WEIMAR	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	83	85	87	90	92	96	\$50	\$50

Recommended Water User Group (WUG) Water Management Strategies (WMS)

Water Management Strategy Supplies

WUG Entity Name	WMS Sponsor Region	WMS Name	Source Name	2020	2030	2040	2050	2060	2070	Unit Cost 2020	Unit Cost 2070
WEIMAR	K	MUNICIPAL CONSERVATION - WEIMAR	DEMAND REDUCTION	56	74	90	117	144	171	\$290	\$290
WELLS BRANCH MUD	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	88	86	85	84	84	84	\$50	\$50
WEST LAKE HILLS	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	313	310	308	307	306	306	\$50	\$50
WEST LAKE HILLS	K	LCRA - MID BASIN RESERVOIR	K LCRA NEW OFF-CHANNEL RESERVOIRS (2020 DECADE)	0	1,300	1,300	1,300	1,300	1,300	N/A	\$151
WEST LAKE HILLS	K	MUNICIPAL CONSERVATION - WEST LAKE HILLS	DEMAND REDUCTION	157	286	398	505	609	700	\$267	\$267
WEST TRAVIS COUNTY PUBLIC UTILITY AGENCY	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	1,292	1,696	2,170	2,757	3,400	4,120	\$50	\$50
WEST TRAVIS COUNTY PUBLIC UTILITY AGENCY	K	HAYS COUNTY PIPELINE - REGION K RECOMMENDED	L CARRIZO-WILCOX AQUIFER GONZALES COUNTY	0	1,000	1,000	1,000	1,000	1,000	N/A	\$708
WEST TRAVIS COUNTY PUBLIC UTILITY AGENCY	K	LCRA - LANE CITY RESERVOIR	K LCRA NEW OFF-CHANNEL RESERVOIRS (2020 DECADE)	0	700	2,900	3,400	6,200	6,200	N/A	\$151
WEST TRAVIS COUNTY PUBLIC UTILITY AGENCY	K	MUNICIPAL CONSERVATION - WEST TRAVIS COUNTY PUA	DEMAND REDUCTION	639	1,575	2,873	4,665	6,874	9,574	\$267	\$267
WHARTON	K	DROUGHT MANAGEMENT	DEMAND REDUCTION	250	259	265	274	283	291	\$50	\$50
WHARTON	K	MUNICIPAL CONSERVATION - WHARTON	DEMAND REDUCTION	168	134	176	171	176	182	\$312	\$312
Region K Total Recommended WMS Supplies				538,369	598,375	649,286	725,008	789,681	866,675		

Recommended Projects Associated with Water Management Strategies

Project Sponsor Region: K

Sponsor Name	Is Sponsor a WWP?	Project Name	Project Description	Capital Cost	Online Decade
AQUA WSC	N	EXPANSION OF CARRIZO-WILCOX AQUIFER SUPPLIES - AQUA WSC	CONVEYANCE/TRANSMISSION PIPELINE; MULTIPLE WELLS/WELL FIELD	\$9,777,000	2020
AQUA WSC	N	MUNICIPAL CONSERVATION - AQUA WSC	METER REPLACEMENT; MUNICIPAL CONSERVATION CAPITAL COST (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); WATER LOSS CONTROL	\$1,384,870	2020
AQUA WSC	N	NEW SURFACE WATER INFRASTRUCTURE - AQUA WSC	CONVEYANCE/TRANSMISSION PIPELINE; NEW SURFACE WATER INTAKE; NEW WATER TREATMENT PLANT; PUMP STATION; STORAGE TANK	\$127,538,000	2040
AUSTIN	Y	CITY OF AUSTIN - AQUIFER STORAGE AND RECOVERY	CONVEYANCE/TRANSMISSION PIPELINE; INJECTION WELL; MULTIPLE WELLS/WELL FIELD; PUMP STATION; WATER TREATMENT PLANT EXPANSION	\$312,316,000	2020
AUSTIN	Y	CITY OF AUSTIN - CAPTURE LOCAL INFLOWS TO LADY BIRD LAKE	CONVEYANCE/TRANSMISSION PIPELINE; NEW SURFACE WATER INTAKE; PUMP STATION	\$2,949,000	2020
AUSTIN	Y	CITY OF AUSTIN - DIRECT REUSE	CONVEYANCE/TRANSMISSION PIPELINE; PUMP STATION; WATER TREATMENT PLANT EXPANSION	\$536,176,000	2020
AUSTIN	Y	CITY OF AUSTIN - INDIRECT POTABLE REUSE THROUGH LADY BIRD LAKE	CONVEYANCE/TRANSMISSION PIPELINE; NEW SURFACE WATER INTAKE; PUMP STATION	\$41,970,000	2020
AUSTIN	Y	CITY OF AUSTIN - LAKE LONG ENHANCED STORAGE	CONVEYANCE/TRANSMISSION PIPELINE; PUMP STATION	\$31,041,000	2020
AUSTIN	Y	CITY OF AUSTIN - LONGHORN DAM OPERATIONS IMPROVEMENTS	WATER LOSS CONTROL	\$1,036,000	2020
AUSTIN	Y	CITY OF AUSTIN - OTHER REUSE	CONVEYANCE/TRANSMISSION PIPELINE; NEW WATER TREATMENT PLANT; PUMP STATION; STORAGE TANK	\$21,772,000	2020
AUSTIN	Y	CITY OF AUSTIN - RAINWATER HARVESTING	MUNICIPAL CONSERVATION CAPITAL COST (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); STORAGE TANK	\$690,167,000	2020
AUSTIN	Y	CITY OF AUSTIN CONSERVATION	METER REPLACEMENT; MUNICIPAL CONSERVATION CAPITAL COST (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); WATER LOSS CONTROL	\$41,434,437	2020
BARTON CREEK WEST WSC	N	MUNICIPAL CONSERVATION - BARTON CREEK WEST WSC	METER REPLACEMENT; MUNICIPAL CONSERVATION CAPITAL COST (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); WATER LOSS CONTROL	\$38,391	2020
BASTROP	N	DEVELOPMENT OF NEW CARRIZO-WILCOX AQUIFER SUPPLIES - BASTROP	CONVEYANCE/TRANSMISSION PIPELINE; MULTIPLE WELLS/WELL FIELD	\$2,976,000	2020
BASTROP	N	DIRECT REUSE - BASTROP	CONVEYANCE/TRANSMISSION PIPELINE; PUMP STATION	\$4,625,000	2040
BASTROP	N	MUNICIPAL CONSERVATION - BASTROP	METER REPLACEMENT; MUNICIPAL CONSERVATION CAPITAL COST (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); WATER LOSS CONTROL	\$224,866	2020
BASTROP	N	NEW SURFACE WATER INFRASTRUCTURE - BASTROP	CONVEYANCE/TRANSMISSION PIPELINE; NEW SURFACE WATER INTAKE; NEW WATER TREATMENT PLANT; PUMP STATION	\$34,858,000	2050
BASTROP COUNTY WCID #2	N	EXPANSION OF CARRIZO-WILCOX AQUIFER SUPPLIES - BASTROP COUNTY WCID #2	CONVEYANCE/TRANSMISSION PIPELINE; MULTIPLE WELLS/WELL FIELD	\$2,150,000	2060
BAY CITY	N	MUNICIPAL CONSERVATION - BAY CITY	METER REPLACEMENT; MUNICIPAL CONSERVATION CAPITAL COST (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); WATER LOSS CONTROL	\$405,403	2020
BEE CAVE	N	MUNICIPAL CONSERVATION - BEE CAVE VILLAGE	METER REPLACEMENT; MUNICIPAL CONSERVATION CAPITAL COST (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); WATER LOSS CONTROL	\$137,097	2020
BERTRAM	N	BUENA VISTA REGIONAL PROJECT	CONVEYANCE/TRANSMISSION PIPELINE; NEW SURFACE WATER INTAKE; PUMP STATION; STORAGE TANK; WATER TREATMENT PLANT EXPANSION	\$4,523,170	2020
BERTRAM	N	EXPANSION OF ELLENBURGER-SAN SABA AQUIFER SUPPLIES - BERTRAM	CONVEYANCE/TRANSMISSION PIPELINE; MULTIPLE WELLS/WELL FIELD	\$2,031,000	2020

Recommended Projects Associated with Water Management Strategies

Sponsor Name	Is Sponsor a WWP?	Project Name	Project Description	Capital Cost	Online Decade
BERTRAM	N	MUNICIPAL CONSERVATION - BERTRAM	METER REPLACEMENT; MUNICIPAL CONSERVATION CAPITAL COST (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); WATER LOSS CONTROL	\$41,421	2020
BLANCO	N	MUNICIPAL CONSERVATION - BLANCO	METER REPLACEMENT; MUNICIPAL CONSERVATION CAPITAL COST (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); WATER LOSS CONTROL	\$47,867	2020
BUDA	N	BS/EACD EDWARDS / MIDDLE TRINITY ASR	CONVEYANCE/TRANSMISSION PIPELINE; INJECTION WELL; MULTIPLE WELLS/WELL FIELD; NEW WATER TREATMENT PLANT; PUMP STATION	\$6,818,182	2030
BUDA	N	BS/EACD SALINE EDWARDS ASR	CONVEYANCE/TRANSMISSION PIPELINE; INJECTION WELL; MULTIPLE WELLS/WELL FIELD; NEW WATER TREATMENT PLANT; PUMP STATION	\$7,500,000	2030
BUDA	N	DIRECT REUSE - BUDA	CONVEYANCE/TRANSMISSION PIPELINE; PUMP STATION	\$6,075,000	2020
BUDA	N	MUNICIPAL CONSERVATION - BUDA	METER REPLACEMENT; MUNICIPAL CONSERVATION CAPITAL COST (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); WATER LOSS CONTROL	\$221,686	2020
BURNET	N	BUENA VISTA REGIONAL PROJECT	CONVEYANCE/TRANSMISSION PIPELINE; NEW SURFACE WATER INTAKE; PUMP STATION; STORAGE TANK; WATER TREATMENT PLANT EXPANSION	\$10,233,415	2020
BURNET	N	MUNICIPAL CONSERVATION - BURNET	METER REPLACEMENT; MUNICIPAL CONSERVATION CAPITAL COST (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); WATER LOSS CONTROL	\$184,386	2020
CEDAR PARK	Y	MUNICIPAL CONSERVATION - CEDAR PARK	METER REPLACEMENT; MUNICIPAL CONSERVATION CAPITAL COST (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); WATER LOSS CONTROL	\$238,695	2020
COLUMBUS	N	MUNICIPAL CONSERVATION - COLUMBUS	METER REPLACEMENT; MUNICIPAL CONSERVATION CAPITAL COST (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); WATER LOSS CONTROL	\$100,974	2020
COTTONWOOD SHORES	N	MARBLE FALLS REGIONAL PROJECT	CONVEYANCE/TRANSMISSION PIPELINE; NEW SURFACE WATER INTAKE; NEW WATER TREATMENT PLANT; PUMP STATION; STORAGE TANK	\$6,099,086	2020
COTTONWOOD SHORES	N	MUNICIPAL CONSERVATION - COTTONWOOD SHORES	METER REPLACEMENT; MUNICIPAL CONSERVATION CAPITAL COST (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); WATER LOSS CONTROL	\$30,672	2020
COUNTY-OTHER, BASTROP	N	EXPANSION OF CARRIZO-WILCOX AQUIFER SUPPLIES - BASTROP COUNTY-OTHER	CONVEYANCE/TRANSMISSION PIPELINE; MULTIPLE WELLS/WELL FIELD	\$2,150,000	2020
COUNTY-OTHER, BASTROP	N	MUNICIPAL CONSERVATION - BASTROP COUNTY OTHER	METER REPLACEMENT; MUNICIPAL CONSERVATION CAPITAL COST (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); WATER LOSS CONTROL	\$232,736	2020
COUNTY-OTHER, BLANCO	N	BRUSH CONTROL	BRUSH CONTROL CAPITAL COST	\$2,137,000	2020
COUNTY-OTHER, BLANCO	N	EXPANSION OF ELLENBURGER-SAN SABA AQUIFER SUPPLIES - BLANCO COUNTY-OTHER	CONVEYANCE/TRANSMISSION PIPELINE; MULTIPLE WELLS/WELL FIELD	\$821,000	2050
COUNTY-OTHER, BLANCO	N	EXPANSION OF HICKORY AQUIFER SUPPLIES - BLANCO COUNTY-OTHER	CONVEYANCE/TRANSMISSION PIPELINE; MULTIPLE WELLS/WELL FIELD	\$1,316,000	2050
COUNTY-OTHER, BURNET	N	BRUSH CONTROL	BRUSH CONTROL CAPITAL COST	\$2,137,000	2020
COUNTY-OTHER, BURNET	N	BUENA VISTA REGIONAL PROJECT	CONVEYANCE/TRANSMISSION PIPELINE; NEW SURFACE WATER INTAKE; PUMP STATION; STORAGE TANK; WATER TREATMENT PLANT EXPANSION	\$10,233,415	2020
COUNTY-OTHER, BURNET	N	EAST LAKE BUCHANAN REGIONAL PROJECT	CONVEYANCE/TRANSMISSION PIPELINE; NEW SURFACE WATER INTAKE; NEW WATER TREATMENT PLANT; PUMP STATION; STORAGE TANK	\$10,337,000	2020
COUNTY-OTHER, BURNET	N	MARBLE FALLS REGIONAL PROJECT	CONVEYANCE/TRANSMISSION PIPELINE; NEW SURFACE WATER INTAKE; NEW WATER TREATMENT PLANT; PUMP STATION; STORAGE TANK	\$7,649,996	2020

Recommended Projects Associated with Water Management Strategies

Sponsor Name	Is Sponsor a WWP?	Project Name	Project Description	Capital Cost	Online Decade
COUNTY-OTHER, BURNET	N	MUNICIPAL CONSERVATION - BURNET COUNTY-OTHER	METER REPLACEMENT; MUNICIPAL CONSERVATION CAPITAL COST (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); WATER LOSS CONTROL	\$164,771	2020
COUNTY-OTHER, COLORADO	N	EXPANSION OF GULF COAST AQUIFER SUPPLIES - COLORADO COUNTY-OTHER	CONVEYANCE/TRANSMISSION PIPELINE; MULTIPLE WELLS/WELL FIELD	\$1,466,000	2020
COUNTY-OTHER, FAYETTE	N	EXPANSION OF GULF COAST AQUIFER SUPPLIES - FAYETTE COUNTY-OTHER	CONVEYANCE/TRANSMISSION PIPELINE; MULTIPLE WELLS/WELL FIELD	\$4,558,000	2020
COUNTY-OTHER, GILLESPIE	N	BRUSH CONTROL	BRUSH CONTROL CAPITAL COST	\$2,137,000	2020
COUNTY-OTHER, HAYS	N	BRUSH CONTROL	BRUSH CONTROL CAPITAL COST	\$2,137,000	2020
COUNTY-OTHER, HAYS	N	BS/EACD EDWARDS / MIDDLE TRINITY ASR	CONVEYANCE/TRANSMISSION PIPELINE; INJECTION WELL; MULTIPLE WELLS/WELL FIELD; NEW WATER TREATMENT PLANT; PUMP STATION	\$2,272,727	2030
COUNTY-OTHER, HAYS	N	BS/EACD SALINE EDWARDS ASR	CONVEYANCE/TRANSMISSION PIPELINE; INJECTION WELL; MULTIPLE WELLS/WELL FIELD; NEW WATER TREATMENT PLANT; PUMP STATION	\$3,000,000	2030
COUNTY-OTHER, HAYS	N	HAYS COUNTY PIPELINE - REGION K PORTION	CONVEYANCE/TRANSMISSION PIPELINE; PUMP STATION	\$11,739,500	2030
COUNTY-OTHER, LLANO	N	BRUSH CONTROL	BRUSH CONTROL CAPITAL COST	\$2,137,000	2020
COUNTY-OTHER, MILLS	N	BRUSH CONTROL	BRUSH CONTROL CAPITAL COST	\$2,137,000	2020
COUNTY-OTHER, SAN SABA	N	BRUSH CONTROL	BRUSH CONTROL CAPITAL COST	\$2,137,000	2020
COUNTY-OTHER, TRAVIS	N	BRUSH CONTROL	BRUSH CONTROL CAPITAL COST	\$2,137,000	2020
CREEDMOOR-MAHA WSC	N	BS/EACD SALINE EDWARDS ASR	CONVEYANCE/TRANSMISSION PIPELINE; INJECTION WELL; MULTIPLE WELLS/WELL FIELD; NEW WATER TREATMENT PLANT; PUMP STATION	\$4,500,000	2030
DRIPPING SPRINGS	N	MUNICIPAL CONSERVATION - DRIPPING SPRINGS	METER REPLACEMENT; MUNICIPAL CONSERVATION CAPITAL COST (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); WATER LOSS CONTROL	\$49,510	2020
DRIPPING SPRINGS WSC	N	HAYS COUNTY PIPELINE - REGION K PORTION	CONVEYANCE/TRANSMISSION PIPELINE; PUMP STATION	\$5,869,750	2030
DRIPPING SPRINGS WSC	N	MUNICIPAL CONSERVATION - DRIPPING SPRINGS WSC	METER REPLACEMENT; MUNICIPAL CONSERVATION CAPITAL COST (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); WATER LOSS CONTROL	\$68,043	2020
EAST BERNARD	N	MUNICIPAL CONSERVATION - EAST BERNARD	METER REPLACEMENT; MUNICIPAL CONSERVATION CAPITAL COST (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); WATER LOSS CONTROL	\$52,607	2020
ELGIN	N	EXPANSION OF CARRIZO-WILCOX AQUIFER SUPPLIES - ELGIN	CONVEYANCE/TRANSMISSION PIPELINE; MULTIPLE WELLS/WELL FIELD	\$2,150,000	2020
ELGIN	N	NEW SURFACE WATER INFRASTRUCTURE - ELGIN	CONVEYANCE/TRANSMISSION PIPELINE; NEW SURFACE WATER INTAKE; NEW WATER TREATMENT PLANT; PUMP STATION; STORAGE TANK	\$61,623,000	2030
FLATONIA	N	DIRECT REUSE - FLATONIA	CONVEYANCE/TRANSMISSION PIPELINE; PUMP STATION	\$1,226,000	2020
FLATONIA	N	EXPANSION OF GULF COAST AQUIFER SUPPLIES - FLATONIA	CONVEYANCE/TRANSMISSION PIPELINE; MULTIPLE WELLS/WELL FIELD	\$2,241,000	2020
FLATONIA	N	MUNICIPAL CONSERVATION - FLATONIA	METER REPLACEMENT; MUNICIPAL CONSERVATION CAPITAL COST (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); WATER LOSS CONTROL	\$37,553	2020
FREDERICKSBURG	N	MUNICIPAL CONSERVATION - FREDERICKSBURG	METER REPLACEMENT; MUNICIPAL CONSERVATION CAPITAL COST (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); WATER LOSS CONTROL	\$291,489	2020
GOLDTHWAITE	N	MUNICIPAL CONSERVATION - GOLDTHWAITE	METER REPLACEMENT; MUNICIPAL CONSERVATION CAPITAL COST (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); WATER LOSS CONTROL	\$41,809	2020

Recommended Projects Associated with Water Management Strategies

Sponsor Name	Is Sponsor a WWP?	Project Name	Project Description	Capital Cost	Online Decade
HORSESHOE BAY	N	MUNICIPAL CONSERVATION - HORSESHOE BAY	METER REPLACEMENT; MUNICIPAL CONSERVATION CAPITAL COST (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); WATER LOSS CONTROL	\$154,204	2020
IRRIGATION, COLORADO	N	IRRIGATION CONSERVATION - ON FARM	ON FARM IRRIGATION CONSERVATION	\$14,210,709	2020
IRRIGATION, COLORADO	N	IRRIGATION CONSERVATION - SPRINKLER	ON FARM IRRIGATION CONSERVATION	\$1,234,855	2020
IRRIGATION, COLORADO	N	IRRIGATION OPERATIONS CONVEYANCE IMPROVEMENTS	CANAL LINING; ON FARM IRRIGATION CONSERVATION	\$22,581,627	2020
IRRIGATION, MATAGORDA	N	IRRIGATION CONSERVATION - ON FARM	ON FARM IRRIGATION CONSERVATION	\$52,428,108	2020
IRRIGATION, MATAGORDA	N	IRRIGATION CONSERVATION - SPRINKLER	ON FARM IRRIGATION CONSERVATION	\$4,030,116	2020
IRRIGATION, MATAGORDA	N	IRRIGATION OPERATIONS CONVEYANCE IMPROVEMENTS	CANAL LINING; ON FARM IRRIGATION CONSERVATION	\$83,311,250	2020
IRRIGATION, MILLS	N	EXPANSION OF TRINITY AQUIFER SUPPLIES - MILLS COUNTY IRRIGATION	CONVEYANCE/TRANSMISSION PIPELINE; MULTIPLE WELLS/WELL FIELD	\$8,289,000	2020
IRRIGATION, WHARTON	N	IRRIGATION CONSERVATION - ON FARM	ON FARM IRRIGATION CONSERVATION	\$30,939,183	2020
IRRIGATION, WHARTON	N	IRRIGATION CONSERVATION - SPRINKLER	ON FARM IRRIGATION CONSERVATION	\$2,492,779	2020
IRRIGATION, WHARTON	N	IRRIGATION OPERATIONS CONVEYANCE IMPROVEMENTS	CANAL LINING; ON FARM IRRIGATION CONSERVATION	\$49,164,123	2020
JOHNSON CITY	N	EXPANSION OF ELLENBURGER-SAN SABA AQUIFER SUPPLIES - JOHNSON CITY	CONVEYANCE/TRANSMISSION PIPELINE; MULTIPLE WELLS/WELL FIELD	\$1,505,000	2020
JOHNSON CITY	N	MUNICIPAL CONSERVATION - JOHNSON CITY	METER REPLACEMENT; MUNICIPAL CONSERVATION CAPITAL COST (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); WATER LOSS CONTROL	\$45,790	2020
JONESTOWN	N	MUNICIPAL CONSERVATION - JONESTOWN	METER REPLACEMENT; MUNICIPAL CONSERVATION CAPITAL COST (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); WATER LOSS CONTROL	\$46,456	2020
LA GRANGE	N	MUNICIPAL CONSERVATION - LA GRANGE	METER REPLACEMENT; MUNICIPAL CONSERVATION CAPITAL COST (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); WATER LOSS CONTROL	\$117,647	2020
LAGO VISTA	N	MUNICIPAL CONSERVATION - LAGO VISTA	METER REPLACEMENT; MUNICIPAL CONSERVATION CAPITAL COST (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); WATER LOSS CONTROL	\$187,406	2020
LAKEWAY	N	EXPANSION OF TRINITY AQUIFER SUPPLIES - LAKEWAY	CONVEYANCE/TRANSMISSION PIPELINE; MULTIPLE WELLS/WELL FIELD	\$2,985,000	2020
LAKEWAY	N	MUNICIPAL CONSERVATION - LAKEWAY	METER REPLACEMENT; MUNICIPAL CONSERVATION CAPITAL COST (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); WATER LOSS CONTROL	\$544,773	2020
LLANO	N	DEVELOPMENT OF NEW HICKORY AQUIFER SUPPLIES - LLANO	CONVEYANCE/TRANSMISSION PIPELINE; MULTIPLE WELLS/WELL FIELD	\$2,743,000	2020
LLANO	N	DIRECT REUSE - LLANO	CONVEYANCE/TRANSMISSION PIPELINE; PUMP STATION	\$689,000	2020
LLANO	N	MUNICIPAL CONSERVATION - LLANO	METER REPLACEMENT; MUNICIPAL CONSERVATION CAPITAL COST (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); WATER LOSS CONTROL	\$87,599	2020
LOOP 360 WSC	N	MUNICIPAL CONSERVATION - LOOP 360	METER REPLACEMENT; MUNICIPAL CONSERVATION CAPITAL COST (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); WATER LOSS CONTROL	\$71,683	2020
LOST CREEK MUD	N	MUNICIPAL CONSERVATION - LOST CREEK MUD	METER REPLACEMENT; MUNICIPAL CONSERVATION CAPITAL COST (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); WATER LOSS CONTROL	\$108,519	2020
LOWER COLORADO RIVER AUTHORITY	Y	EXPANSION OF CARRIZO-WILCOX AQUIFER SUPPLIES - LCRA	CONVEYANCE/TRANSMISSION PIPELINE; MULTIPLE WELLS/WELL FIELD; PUMP STATION; STORAGE TANK	\$4,564,000	2020
LOWER COLORADO RIVER AUTHORITY	Y	LCRA - ACQUIRE ADDITIONAL WATER RIGHTS	WATER RIGHT/PERMIT LEASE OR PURCHASE	\$125,000	2020

Recommended Projects Associated with Water Management Strategies

Sponsor Name	Is Sponsor a WWP?	Project Name	Project Description	Capital Cost	Online Decade
LOWER COLORADO RIVER AUTHORITY	Y	LCRA - ENHANCED MUNICIPAL AND INDUSTRIAL CONSERVATION	MUNICIPAL CONSERVATION CAPITAL COST (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); WATER LOSS CONTROL	\$64,099,000	2020
LOWER COLORADO RIVER AUTHORITY	Y	LCRA - EXCESS FLOWS PERMIT OFF-CHANNEL RESERVOIR	CONVEYANCE/TRANSMISSION PIPELINE; NEW SURFACE WATER INTAKE; PUMP STATION; RESERVOIR CONSTRUCTION	\$298,000,000	2020
LOWER COLORADO RIVER AUTHORITY	Y	LCRA - GROUNDWATER SUPPLY FOR FPP (OFF-SITE)	CONVEYANCE/TRANSMISSION PIPELINE; MULTIPLE WELLS/WELL FIELD; PUMP STATION; STORAGE TANK	\$20,107,000	2020
LOWER COLORADO RIVER AUTHORITY	Y	LCRA - GROUNDWATER SUPPLY FOR FPP (ON-SITE)	CONVEYANCE/TRANSMISSION PIPELINE; MULTIPLE WELLS/WELL FIELD; PUMP STATION	\$2,749,000	2020
LOWER COLORADO RIVER AUTHORITY	Y	LCRA - LANE CITY OFF-CHANNEL RESERVOIR	CONVEYANCE/TRANSMISSION PIPELINE; NEW SURFACE WATER INTAKE; PUMP STATION; RESERVOIR CONSTRUCTION	\$218,593,000	2017
LOWER COLORADO RIVER AUTHORITY	Y	LCRA - MID-BASIN OFF-CHANNEL RESERVOIR	CONVEYANCE/TRANSMISSION PIPELINE; NEW SURFACE WATER INTAKE; PUMP STATION; RESERVOIR CONSTRUCTION	\$298,000,000	2020
LOWER COLORADO RIVER AUTHORITY	Y	LCRA - PRAIRIE SITE OFF-CHANNEL RESERVOIR	CONVEYANCE/TRANSMISSION PIPELINE; NEW SURFACE WATER INTAKE; PUMP STATION; RESERVOIR CONSTRUCTION	\$376,000,000	2030
MANOR	N	EXPANSION OF TRINITY AQUIFER SUPPLIES - MANOR	CONVEYANCE/TRANSMISSION PIPELINE; MULTIPLE WELLS/WELL FIELD	\$3,442,000	2030
MANUFACTURING, BASTROP	N	EXPANSION OF CARRIZO-WILCOX AQUIFER SUPPLIES - BASTROP COUNTY MANUFACTURING	CONVEYANCE/TRANSMISSION PIPELINE; MULTIPLE WELLS/WELL FIELD	\$2,150,000	2020
MANUFACTURING, FAYETTE	N	EXPANSION OF GULF COAST AQUIFER SUPPLIES - FAYETTE COUNTY MANUFACTURING	CONVEYANCE/TRANSMISSION PIPELINE; MULTIPLE WELLS/WELL FIELD	\$2,279,000	2020
MANUFACTURING, GILLESPIE	N	EXPANSION OF ELLENBURGER-SAN SABA AQUIFER SUPPLIES - GILLESPIE COUNTY MANUFACTURING	CONVEYANCE/TRANSMISSION PIPELINE; MULTIPLE WELLS/WELL FIELD	\$3,880,000	2020
MANVILLE WSC	N	EXPANSION OF TRINITY AQUIFER SUPPLIES - MANVILLE WSC	CONVEYANCE/TRANSMISSION PIPELINE; MULTIPLE WELLS/WELL FIELD	\$5,431,000	2050
MARBLE FALLS	N	MARBLE FALLS REGIONAL PROJECT	CONVEYANCE/TRANSMISSION PIPELINE; NEW SURFACE WATER INTAKE; NEW WATER TREATMENT PLANT; PUMP STATION; STORAGE TANK	\$34,851,918	2020
MARBLE FALLS	N	MUNICIPAL CONSERVATION - MARBLE FALLS	METER REPLACEMENT; MUNICIPAL CONSERVATION CAPITAL COST (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); WATER LOSS CONTROL	\$221,276	2020
MEADOWLAKES	N	MUNICIPAL CONSERVATION - MEADOWLAKES	METER REPLACEMENT; MUNICIPAL CONSERVATION CAPITAL COST (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); WATER LOSS CONTROL	\$64,541	2020
MINING, BASTROP	N	DEVELOPMENT OF NEW CARRIZO-WILCOX AQUIFER SUPPLIES - BASTROP COUNTY MINING	CONVEYANCE/TRANSMISSION PIPELINE; MULTIPLE WELLS/WELL FIELD	\$3,391,000	2040
MINING, BASTROP	N	DEVELOPMENT OF NEW QUEEN CITY AQUIFER SUPPLIES - BASTROP COUNTY MINING	CONVEYANCE/TRANSMISSION PIPELINE; MULTIPLE WELLS/WELL FIELD	\$2,446,000	2020
MINING, BURNET	N	EXPANSION OF ELLENBURGER-SAN SABA AQUIFER SUPPLIES - BURNET COUNTY MINING	CONVEYANCE/TRANSMISSION PIPELINE; MULTIPLE WELLS/WELL FIELD	\$13,418,000	2020
MINING, BURNET	N	EXPANSION OF HICKORY AQUIFER SUPPLIES - BURNET COUNTY MINING	CONVEYANCE/TRANSMISSION PIPELINE; MULTIPLE WELLS/WELL FIELD	\$13,437,000	2030
MINING, BURNET	N	EXPANSION OF MARBLE FALLS AQUIFER SUPPLIES - BURNET COUNTY MINING	CONVEYANCE/TRANSMISSION PIPELINE; MULTIPLE WELLS/WELL FIELD	\$7,257,000	2060
MINING, FAYETTE	N	EXPANSION OF GULF COAST AQUIFER SUPPLIES - FAYETTE COUNTY MINING	CONVEYANCE/TRANSMISSION PIPELINE; MULTIPLE WELLS/WELL FIELD	\$7,520,000	2020
MINING, FAYETTE	N	EXPANSION OF SPARTA AQUIFER SUPPLIES - FAYETTE COUNTY MINING	CONVEYANCE/TRANSMISSION PIPELINE; MULTIPLE WELLS/WELL FIELD	\$753,000	2020
MINING, HAYS	N	BS/EACD EDWARDS / MIDDLE TRINITY ASR	CONVEYANCE/TRANSMISSION PIPELINE; INJECTION WELL; MULTIPLE WELLS/WELL FIELD; NEW WATER TREATMENT PLANT; PUMP STATION	\$1,136,364	2030
MINING, HAYS	N	EXPANSION OF TRINITY AQUIFER SUPPLIES - HAYS COUNTY MINING	CONVEYANCE/TRANSMISSION PIPELINE; MULTIPLE WELLS/WELL FIELD	\$4,652,000	2020
MOUNTAIN CITY	N	BS/EACD EDWARDS / MIDDLE TRINITY ASR	CONVEYANCE/TRANSMISSION PIPELINE; INJECTION WELL; MULTIPLE WELLS/WELL FIELD; NEW WATER TREATMENT PLANT; PUMP STATION	\$500,000	2030
PFLUGERVILLE	N	DIRECT REUSE - PFLUGERVILLE	CONVEYANCE/TRANSMISSION PIPELINE; PUMP STATION; STORAGE TANK	\$7,959,000	2020

Recommended Projects Associated with Water Management Strategies

Sponsor Name	Is Sponsor a WWP?	Project Name	Project Description	Capital Cost	Online Decade
PFLUGERVILLE	N	EXPANSION OF EDWARDS (BFZ) AQUIFER SUPPLIES - PFLUGERVILLE	CONVEYANCE/TRANSMISSION PIPELINE; MULTIPLE WELLS/WELL FIELD	\$3,729,000	2040
PFLUGERVILLE	N	MUNICIPAL CONSERVATION - PFLUGERVILLE	METER REPLACEMENT; MUNICIPAL CONSERVATION CAPITAL COST (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); WATER LOSS CONTROL	\$1,701,900	2020
POINT VENTURE	N	MUNICIPAL CONSERVATION - POINT VENTURE	METER REPLACEMENT; MUNICIPAL CONSERVATION CAPITAL COST (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); WATER LOSS CONTROL	\$31,028	2020
ROLLINGWOOD	N	MUNICIPAL CONSERVATION - ROLLINGWOOD	METER REPLACEMENT; MUNICIPAL CONSERVATION CAPITAL COST (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); WATER LOSS CONTROL	\$36,238	2020
ROUND ROCK	Y	MUNICIPAL CONSERVATION - ROUND ROCK	METER REPLACEMENT; MUNICIPAL CONSERVATION CAPITAL COST (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); WATER LOSS CONTROL	\$36,147	2020
SAN SABA	N	MUNICIPAL CONSERVATION - SAN SABA	METER REPLACEMENT; MUNICIPAL CONSERVATION CAPITAL COST (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); WATER LOSS CONTROL	\$91,823	2020
SCHULENBURG	N	MUNICIPAL CONSERVATION - SCHULENBURG	METER REPLACEMENT; MUNICIPAL CONSERVATION CAPITAL COST (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); WATER LOSS CONTROL	\$78,947	2020
SHADY HOLLOW MUD	N	MUNICIPAL CONSERVATION - SHADY HOLLOW MUD	METER REPLACEMENT; MUNICIPAL CONSERVATION CAPITAL COST (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); WATER LOSS CONTROL	\$106,952	2020
SMITHVILLE	N	DEVELOPMENT OF NEW QUEEN CITY AQUIFER SUPPLIES - SMITHVILLE	CONVEYANCE/TRANSMISSION PIPELINE; SINGLE WELL	\$2,620,000	2070
SMITHVILLE	N	MUNICIPAL CONSERVATION - SMITHVILLE	METER REPLACEMENT; MUNICIPAL CONSERVATION CAPITAL COST (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); WATER LOSS CONTROL	\$109,412	2020
STEAM ELECTRIC POWER, MATAGORDA	N	ALTERNATE CANAL DELIVERY - STPNOC	CONVEYANCE/TRANSMISSION PIPELINE	\$7,669,000	2020
STEAM ELECTRIC POWER, WHARTON	N	DEVELOPMENT OF NEW GULF COAST AQUIFER SUPPLIES - WHARTON COUNTY STEAM-ELECTRIC	CONVEYANCE/TRANSMISSION PIPELINE; MULTIPLE WELLS/WELL FIELD	\$2,237,000	2060
SUNSET VALLEY	N	BS/EACD EDWARDS / MIDDLE TRINITY ASR	CONVEYANCE/TRANSMISSION PIPELINE; INJECTION WELL; MULTIPLE WELLS/WELL FIELD; NEW WATER TREATMENT PLANT; PUMP STATION	\$2,272,727	2030
SUNSET VALLEY	N	DEVELOPMENT OF NEW TRINITY AQUIFER SUPPLIES - SUNSET VALLEY	CONVEYANCE/TRANSMISSION PIPELINE; MULTIPLE WELLS/WELL FIELD	\$2,228,000	2040
SUNSET VALLEY	N	MUNICIPAL CONSERVATION - SUNSET VALLEY	METER REPLACEMENT; MUNICIPAL CONSERVATION CAPITAL COST (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); WATER LOSS CONTROL	\$31,520	2020
THE HILLS	N	MUNICIPAL CONSERVATION - THE HILLS	METER REPLACEMENT; MUNICIPAL CONSERVATION CAPITAL COST (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); WATER LOSS CONTROL	\$97,374	2020
TRAVIS COUNTY MUD #4	N	MUNICIPAL CONSERVATION - TRAVIS COUNTY MUD #4	METER REPLACEMENT; MUNICIPAL CONSERVATION CAPITAL COST (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); WATER LOSS CONTROL	\$137,248	2020
TRAVIS COUNTY WCID #10	N	MUNICIPAL CONSERVATION - TRAVIS COUNTY WCID #10	METER REPLACEMENT; MUNICIPAL CONSERVATION CAPITAL COST (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); WATER LOSS CONTROL	\$171,890	2020
TRAVIS COUNTY WCID #17	N	MUNICIPAL CONSERVATION - TRAVIS COUNTY WCID #17	METER REPLACEMENT; MUNICIPAL CONSERVATION CAPITAL COST (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); WATER LOSS CONTROL	\$828,248	2020
TRAVIS COUNTY WCID #18	N	MUNICIPAL CONSERVATION - TRAVIS COUNTY WCID #18	METER REPLACEMENT; MUNICIPAL CONSERVATION CAPITAL COST (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); WATER LOSS CONTROL	\$147,665	2020

Recommended Projects Associated with Water Management Strategies

Sponsor Name	Is Sponsor a WWP?	Project Name	Project Description	Capital Cost	Online Decade
TRAVIS COUNTY WCID #19	N	MUNICIPAL CONSERVATION - TRAVIS COUNTY WCID #19	METER REPLACEMENT; MUNICIPAL CONSERVATION CAPITAL COST (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); WATER LOSS CONTROL	\$28,215	2020
TRAVIS COUNTY WCID #20	N	MUNICIPAL CONSERVATION - TRAVIS COUNTY WCID #20	METER REPLACEMENT; MUNICIPAL CONSERVATION CAPITAL COST (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); WATER LOSS CONTROL	\$38,290	2020
VOLENTE	N	NEW SURFACE WATER INFRASTRUCTURE - VOLENTE	CONVEYANCE/TRANSMISSION PIPELINE; NEW SURFACE WATER INTAKE; NEW WATER TREATMENT PLANT; PUMP STATION; STORAGE TANK	\$8,263,000	2020
WEIMAR	N	MUNICIPAL CONSERVATION - WEIMAR	METER REPLACEMENT; MUNICIPAL CONSERVATION CAPITAL COST (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); WATER LOSS CONTROL	\$55,778	2020
WEST LAKE HILLS	N	MUNICIPAL CONSERVATION - WEST LAKE HILLS	METER REPLACEMENT; MUNICIPAL CONSERVATION CAPITAL COST (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); WATER LOSS CONTROL	\$112,784	2020
WEST TRAVIS COUNTY PUBLIC UTILITY AGENCY	N	HAYS COUNTY PIPELINE - REGION K PORTION	CONVEYANCE/TRANSMISSION PIPELINE; PUMP STATION	\$5,869,750	2030
WEST TRAVIS COUNTY PUBLIC UTILITY AGENCY	N	MUNICIPAL CONSERVATION - WEST TRAVIS COUNTY PUA	METER REPLACEMENT; MUNICIPAL CONSERVATION CAPITAL COST (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); WATER LOSS CONTROL	\$461,454	2020
WHARTON	N	MUNICIPAL CONSERVATION - WHARTON	METER REPLACEMENT; MUNICIPAL CONSERVATION CAPITAL COST (DOES NOT INCLUDE METER REPLACEMENT OR WATER LOSS); WATER LOSS CONTROL	\$210,832	2020
Region K Total Recommended Capital Cost				\$3,772,705,672	

*Projects with a capital cost of zero are excluded from the report list.

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Alternative Water User Group (WUG) Water Management Strategies (WMS)

WUG Entity Primary Region: K

Water Management Strategy Supplies

WUG Entity Name	WMS Sponsor Region	WMS Name	Source Name	2020	2030	2040	2050	2060	2070	Unit Cost 2020	Unit Cost 2070
AUSTIN	K	CITY OF AUSTIN - BRACKISH GROUNDWATER DESALINATION	K EDWARDS-BFZ AQUIFER TRAVIS COUNTY	0	5,000	5,000	5,000	5,000	5,000	N/A	\$1523
AUSTIN	K	CITY OF AUSTIN - RECLAIMED WATER BANK INFILTRATION TO COLORADO ALLUVIUM	K OTHER AQUIFER TRAVIS COUNTY	0	15,000	20,000	25,000	30,000	30,000	N/A	\$424
BUDA	K	DIRECT POTABLE REUSE	K DIRECT REUSE (POTABLE)	2,240	2,240	2,240	2,240	2,240	2,240	\$1440	\$1440
BUDA	K	HCPUA PIPELINE - REGION K ALTERNATIVE	L CARRIZO-WILCOX AQUIFER GONZALES COUNTY	0	667	1,690	2,974	4,033	4,426	N/A	\$1664
IRRIGATION, WHARTON	P	EXPAND USE OF GROUNDWATER	P GULF COAST AQUIFER WHARTON COUNTY	50,285	50,285	50,285	50,285	50,285	50,285	\$44	\$44
LOWER COLORADO RIVER AUTHORITY - UNASSIGNED WATER VOLUMES	K	LCRA - AQUIFER STORAGE AND RECOVERY	K CARRIZO-WILCOX AQUIFER ASR BASTROP COUNTY	0	0	5,048	5,048	5,048	5,048	N/A	\$1076
LOWER COLORADO RIVER AUTHORITY - UNASSIGNED WATER VOLUMES	K	LCRA - BAYLOR CREEK RESERVOIR	K BAYLOR CREEK RESERVOIR	0	0	18,000	18,000	18,000	18,000	N/A	\$900
LOWER COLORADO RIVER AUTHORITY - UNASSIGNED WATER VOLUMES	K	LCRA - BRACKISH GROUNDWATER DESALINATION	K GULF COAST AQUIFER MATAGORDA COUNTY	0	0	22,400	22,400	22,400	22,400	N/A	\$1035
LOWER COLORADO RIVER AUTHORITY - UNASSIGNED WATER VOLUMES	K	LCRA - ENHANCED RECHARGE AND CONJUNCTIVE USE	K GULF COAST AQUIFER WHARTON COUNTY	10,000	10,000	10,000	10,000	10,000	10,000	\$834	\$834
LOWER COLORADO RIVER AUTHORITY - UNASSIGNED WATER VOLUMES	K	LCRA - GROUNDWATER IMPORTATION	G CARRIZO-WILCOX AQUIFER BURLESON COUNTY	0	0	35,000	35,000	35,000	35,000	N/A	\$1470
LOWER COLORADO RIVER AUTHORITY - UNASSIGNED WATER VOLUMES	K	LCRA - IMPORT RETURN FLOWS FROM WILLIAMSON COUNTY	G BRAZOS RUN-OF-RIVER	25,000	25,000	25,000	25,000	25,000	25,000	\$219	\$219
LOWER COLORADO RIVER AUTHORITY - UNASSIGNED WATER VOLUMES	K	LCRA - SUPPLEMENT BAY AND ESTUARY INFLOWS WITH BRACKISH GROUNDWATER	K GULF COAST AQUIFER MATAGORDA COUNTY	12,000	12,000	12,000	12,000	12,000	12,000	\$500	\$500
Region K Total Alternative WMS Supplies				99,525	120,192	206,663	212,947	219,006	219,399		

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Alternative Projects Associated with Water Management Strategies

Project Sponsor Region: K

Sponsor Name	Is Sponsor a WWP?	Project Name	Project Description	Capital Cost	Online Decade
AUSTIN	Y	CITY OF AUSTIN - BRACKISH GROUNDWATER DESALINATION	CONVEYANCE/TRANSMISSION PIPELINE; INJECTION WELL; MULTIPLE WELLS/WELL FIELD; NEW WATER TREATMENT PLANT; STORAGE TANK	\$54,582,000	2030
AUSTIN	Y	CITY OF AUSTIN - RECLAIMED WATER BANK INFILTRATION TO COLORADO ALLUVIUM	CONVEYANCE/TRANSMISSION PIPELINE; MULTIPLE WELLS/WELL FIELD; PUMP STATION; RESERVOIR CONSTRUCTION	\$151,846,000	2030
BUDA	N	DIRECT POTABLE REUSE	CONVEYANCE/TRANSMISSION PIPELINE; INJECTION WELL; NEW WATER TREATMENT PLANT; PUMP STATION; STORAGE TANK	\$26,779,000	2020
HAYS CALDWELL PUA	Y	HAYS/CALDWELL PUA PROJECT - ALTERNATIVE	CONVEYANCE/TRANSMISSION PIPELINE; MULTIPLE WELLS/WELL FIELD; NEW WATER TREATMENT PLANT; PUMP STATION; STORAGE TANK	\$51,128,546	2030
LOWER COLORADO RIVER AUTHORITY	Y	LCRA - AQUIFER STORAGE AND RECOVERY	CONVEYANCE/TRANSMISSION PIPELINE; INJECTION WELL; MULTIPLE WELLS/WELL FIELD; NEW WATER TREATMENT PLANT; PUMP STATION; STORAGE TANK	\$39,590,000	2040
LOWER COLORADO RIVER AUTHORITY	Y	LCRA - BAYLOR CREEK RESERVOIR	CONVEYANCE/TRANSMISSION PIPELINE; NEW SURFACE WATER INTAKE; PUMP STATION; RESERVOIR CONSTRUCTION	\$179,000,000	2040
LOWER COLORADO RIVER AUTHORITY	Y	LCRA - BRACKISH GROUNDWATER DESALINATION	CONVEYANCE/TRANSMISSION PIPELINE; INJECTION WELL; MULTIPLE WELLS/WELL FIELD; NEW WATER TREATMENT PLANT; PUMP STATION; STORAGE TANK	\$277,006,000	2040
LOWER COLORADO RIVER AUTHORITY	Y	LCRA - ENHANCED RECHARGE AND CONJUNCTIVE USE	CONVEYANCE/TRANSMISSION PIPELINE; MULTIPLE WELLS/WELL FIELD; NEW SURFACE WATER INTAKE; PUMP STATION; RESERVOIR CONSTRUCTION	\$53,504,000	2020
LOWER COLORADO RIVER AUTHORITY	Y	LCRA - GROUNDWATER IMPORTATION	CONVEYANCE/TRANSMISSION PIPELINE; MULTIPLE WELLS/WELL FIELD; PUMP STATION	\$614,790,000	2040
LOWER COLORADO RIVER AUTHORITY	Y	LCRA - IMPORT RETURN FLOWS FROM WILLIAMSON COUNTY	CONVEYANCE/TRANSMISSION PIPELINE; NEW WATER RIGHT/PERMIT; PUMP STATION; STORAGE TANK; WATER TREATMENT PLANT EXPANSION	\$54,193,000	2020
LOWER COLORADO RIVER AUTHORITY	Y	LCRA - SUPPLEMENT BAY AND ESTUARY INFLOWS WITH BRACKISH GROUNDWATER	CONVEYANCE/TRANSMISSION PIPELINE; DIVERSION AND CONTROL STRUCTURE	\$34,966,000	2020
Region K Total Alternative Capital Cost				\$1,537,384,546	

*Projects with a capital cost of zero are excluded from the report list.

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Water User Group (WUG) Unmet Needs Summary

REGION K

	2020	2030	2040	2050	2060	2070
MUNICIPAL	0	0	0	0	0	0
COUNTY-OTHER	0	0	0	0	0	0
MANUFACTURING	0	0	0	0	0	0
MINING	622	4,356	5,006	5,731	6,512	7,377
STEAM ELECTRIC POWER	0	0	0	0	0	0
LIVESTOCK	0	0	0	0	0	0
IRRIGATION	120,822	113,478	102,187	76,539	55,295	27,924

*WUG supplies and projected demands are entered for each of a WUG’s region-county-basin divisions. The unmet needs shown in the WUG Unmet Needs Summary report are calculated by first deducting the WUG split’s projected demand from the sum of its total existing water supply volume and all associated recommended water management strategy water volumes. If the WUG split has a greater future supply volume than projected demand in any given decade, this amount is considered a surplus volume. Before aggregating the difference between supplies and demands to the WUG category level, calculated surpluses are updated to zero so that only the WUGs with unmet needs in the decade are included with the Needs totals. Unmet needs water volumes are shown as absolute values.

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Water User Group (WUG) Unmet Needs

REGION K	WUG UNMET NEEDS (ACRE-FEET PER YEAR)						
		2020	2030	2040	2050	2060	2070
BASTROP COUNTY							
BRAZOS BASIN							
	MINING	173	409	450	496	545	600
COLORADO BASIN							
	MINING	449	3,947	4,556	5,235	5,967	6,777
COLORADO COUNTY							
BRAZOS-COLORADO BASIN							
	IRRIGATION	0	0	1,302	755	1,170	0
LAVACA BASIN							
	IRRIGATION	0	0	1,195	475	0	0
MATAGORDA COUNTY							
BRAZOS-COLORADO BASIN							
	IRRIGATION	29,286	27,777	25,165	19,532	14,562	7,502
COLORADO BASIN							
	IRRIGATION	5,273	5,077	4,694	3,738	2,887	1,576
COLORADO-LAVACA BASIN							
	IRRIGATION	35,671	34,041	31,096	24,394	18,461	9,750
WHARTON COUNTY							
BRAZOS-COLORADO BASIN							
	IRRIGATION	34,013	31,974	27,350	20,281	14,159	7,179
COLORADO BASIN							
	IRRIGATION	6,722	5,410	3,593	1,660	149	0
COLORADO-LAVACA BASIN							
	IRRIGATION	9,857	9,199	7,792	5,704	3,907	1,917

*WUG supplies and projected demands are entered for each of a WUG's region-county-basin divisions. The unmet needs shown in the WUG Unmet Needs report are calculated by first deducting the WUG split's projected demand from the sum of its total existing water supply volume and all associated recommended water management strategy water volumes. If the WUG split has a greater future supply volume than projected demand in any given decade, this amount is considered a surplus volume. In order to display only unmet needs associated with the WUG split, these surplus volumes are updated to a zero and the unmet needs water volumes are shown as absolute values.

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