

Southeast Conservation Blueprint Summary

for Texas

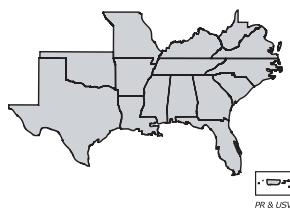
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The Southeast
Conservation
Adaptation Strategy

SECAS



The Southeast Conservation Blueprint 2022

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About the Southeast Blueprint

The Southeast Conservation Blueprint is the primary product of the [Southeast Conservation Adaptation Strategy](#) (SECAS). It is a living, spatial plan to achieve the SECAS vision of a connected network of lands and waters across the Southeast and Caribbean. The Blueprint is regularly updated to incorporate new data, partner input, and information about on-the-ground conditions.

Across 15 states of the Southeast, the Blueprint identifies priority areas based on a suite of natural and cultural resource indicators representing terrestrial, freshwater, and marine ecosystems. A connectivity analysis identifies corridors that link coastal and inland areas and span climate gradients. This portion of the Southeast Blueprint is referred to as the "Base Blueprint".

To provide more complete coverage of the SECAS geography, the Blueprint incorporates two additional input plans: the Florida Marine Blueprint for marine areas in Florida and the Caribbean Landscape Conservation Design for inland areas in Puerto Rico.

For more information:

- Visit the [Blueprint webpage](#)
- Review the [Blueprint 2022 Development Process](#)
- View and download the Blueprint data and make maps on the [Blueprint page of the SECAS Atlas](#)

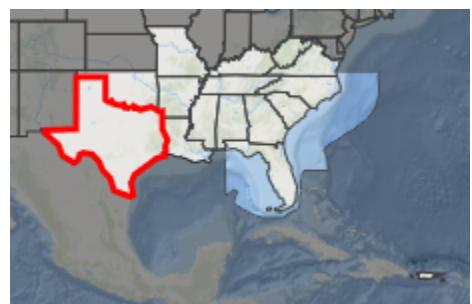
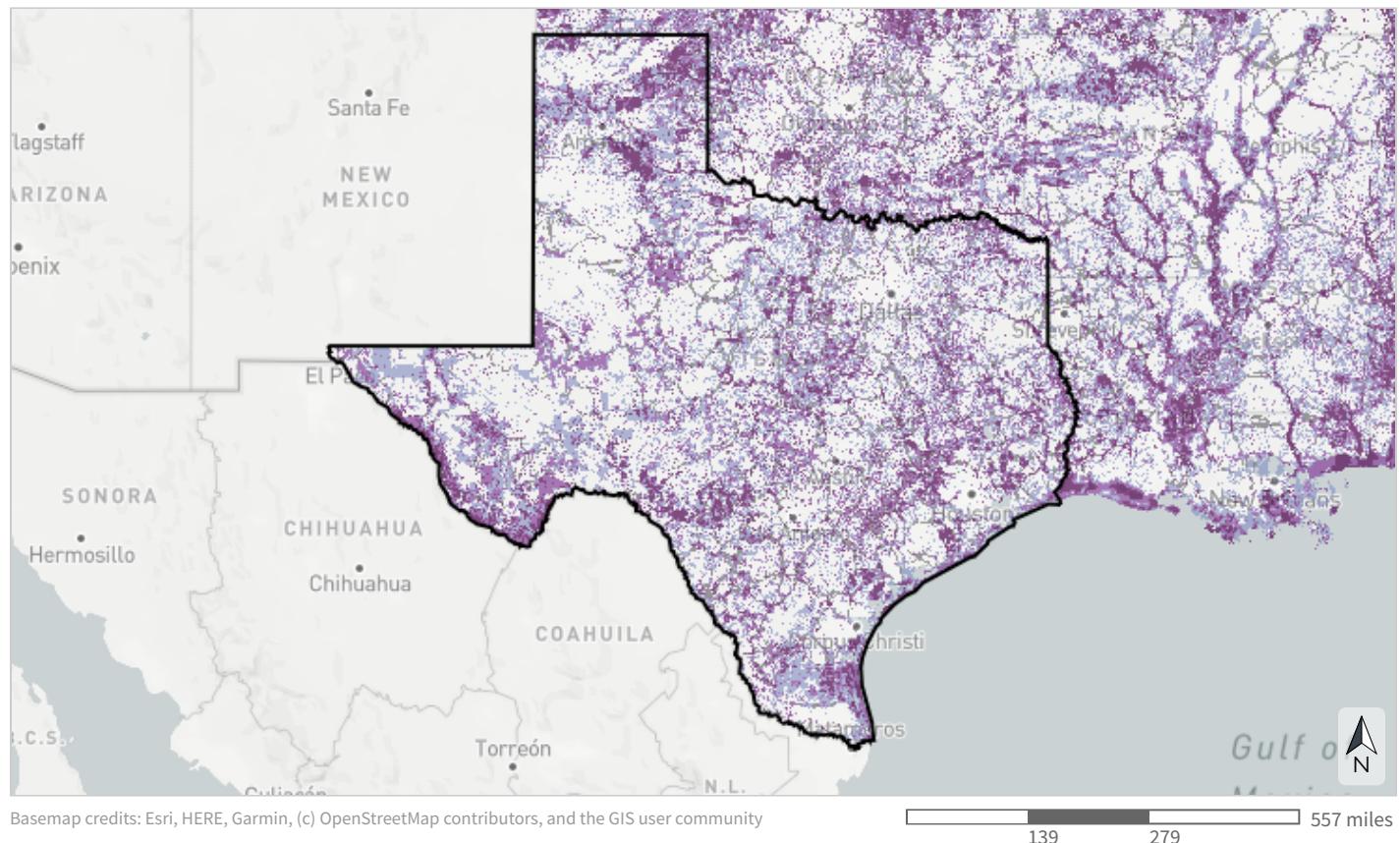
We're here to help!

- Do you have a question about the Blueprint?
- Would you like help using the Blueprint to support a proposal or inform a decision?
- Do you have a suggestion on how to improve the Blueprint? The Blueprint and its inputs are regularly revised based on input from people like you.
- Do you have feedback on how to improve the Simple Viewer interface?

If you need help or have questions, [contact Southeast Blueprint staff](#) by reaching out to a member of the user support team.

We're here to support you. We really mean it. It's what we do!

Southeast Blueprint Priorities



Priorities for a connected network of lands and waters

- Highest priority
- High priority
- Medium priority
- Priority connections

Priority Categories

For a connected network of lands and waters

In total, Blueprint priorities and priority connections cover roughly 50% of the Southeast Blueprint geography.

Highest priority

Areas where conservation action would make the biggest impact, based on a suite of natural and cultural resource indicators. This class covers roughly 10% of the Southeast Blueprint geography.

High priority

Areas where conservation action would make a big impact, based on a suite of natural and cultural resource indicators. This class covers roughly 15% of the Southeast Blueprint geography.

Medium priority

Areas where conservation action would make an above-average impact, based on a suite of natural and cultural resource indicators. This class covers roughly 20% of the Southeast Blueprint geography.

Priority connections

Connections between priority areas that cover the shortest distance possible while routing through as much Blueprint priority as possible. This class covers roughly 5% of the Southeast Blueprint geography.

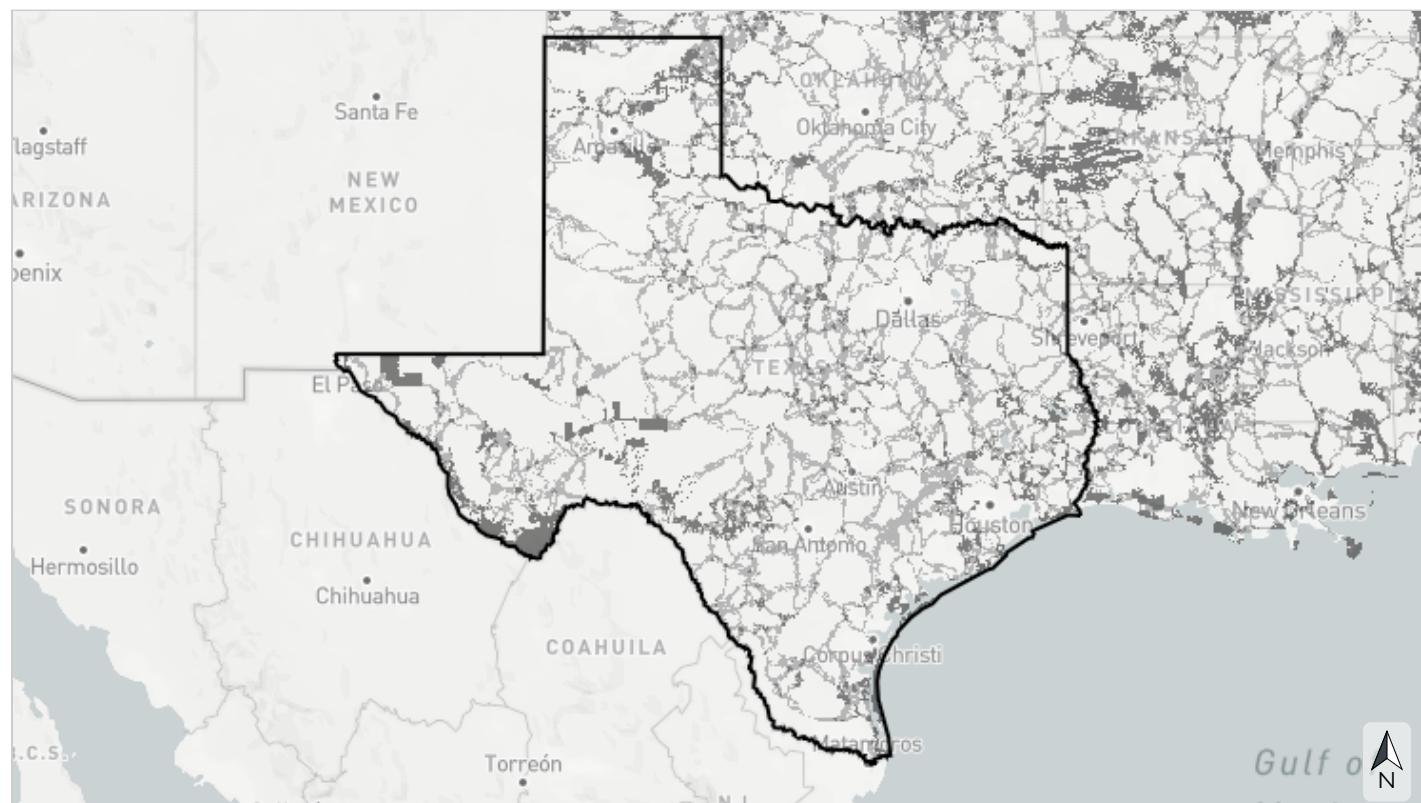
Table 1: Extent of each Blueprint priority category.

Priority Category	Acres	Percent of Area
Highest priority	16,267,005	9.5%
High priority	25,090,871	14.6%
Medium priority	35,157,201	20.5%
Priority connections	8,853,890	5.2%
Lower priority	86,509,732	50.3%
<i>Outside Southeast Blueprint</i>	22,348	<0.1%
Total area	171,901,047	100%

Hubs and Corridors

The Blueprint uses a least-cost path connectivity analysis to identify corridors that link hubs across the shortest distance possible, while also routing through as much Blueprint priority as possible.

Inland hubs are large patches (~5,000+ acres) of highest priority Blueprint areas and/or protected lands, connected by inland corridors. Marine and estuarine hubs are large estuaries and large patches (~5,000+ acres) of highest priority Blueprint areas. Marine and estuarine corridors connect those hubs within broad marine mammal movement areas.



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139 279 557 miles



- Inland hubs
- Inland corridors
- Marine & estuarine hubs
- Marine & estuarine corridors
- Not a hub or corridor

Table 2: Extent of hubs and corridors.

Type	Acres	Percent of Area
Inland hubs	12,842,885	7.5%
Inland corridors	32,747,132	19.0%
Not a hub or corridor	126,288,682	73.5%
<i>Outside Southeast Blueprint</i>	22,348	<0.1%
Total area	171,901,047	100%

Indicator Summary

Table 3: Terrestrial indicators.

Indicator	Present
East Coastal Plain open pine birds	-
<u>Equitable access to potential parks</u>	✓
<u>Fire frequency</u>	✓
<u>Great Plains perennial grasslands</u>	✓
<u>Greenways & trails</u>	✓
<u>Intact habitat cores</u>	✓
Interior Southeast grasslands	-
Mississippi Alluvial Valley forest birds (protection)	-
Mississippi Alluvial Valley forest birds (reforestation)	-
<u>Playas</u>	✓
<u>Resilient terrestrial sites</u>	✓
South Atlantic amphibian & reptile areas	-
South Atlantic forest birds	-
South Atlantic low-urban historic landscapes	-
<u>Urban park size</u>	✓
<u>West Coastal Plain & Ouachitas forested wetland birds</u>	✓
<u>West Coastal Plain & Ouachitas open pine birds</u>	✓
<u>West Gulf Coast mottled duck nesting</u>	✓

Table 4: Freshwater indicators.

Indicator	Present
Atlantic migratory fish habitat	-
Gulf migratory fish connectivity	-
<u>Imperiled aquatic species</u>	✓
West Virginia imperiled aquatic species	-
<u>Natural landcover in floodplains</u>	✓
<u>Network complexity</u>	✓
<u>Permeable surface</u>	✓

Table 5: Coastal & marine indicators.

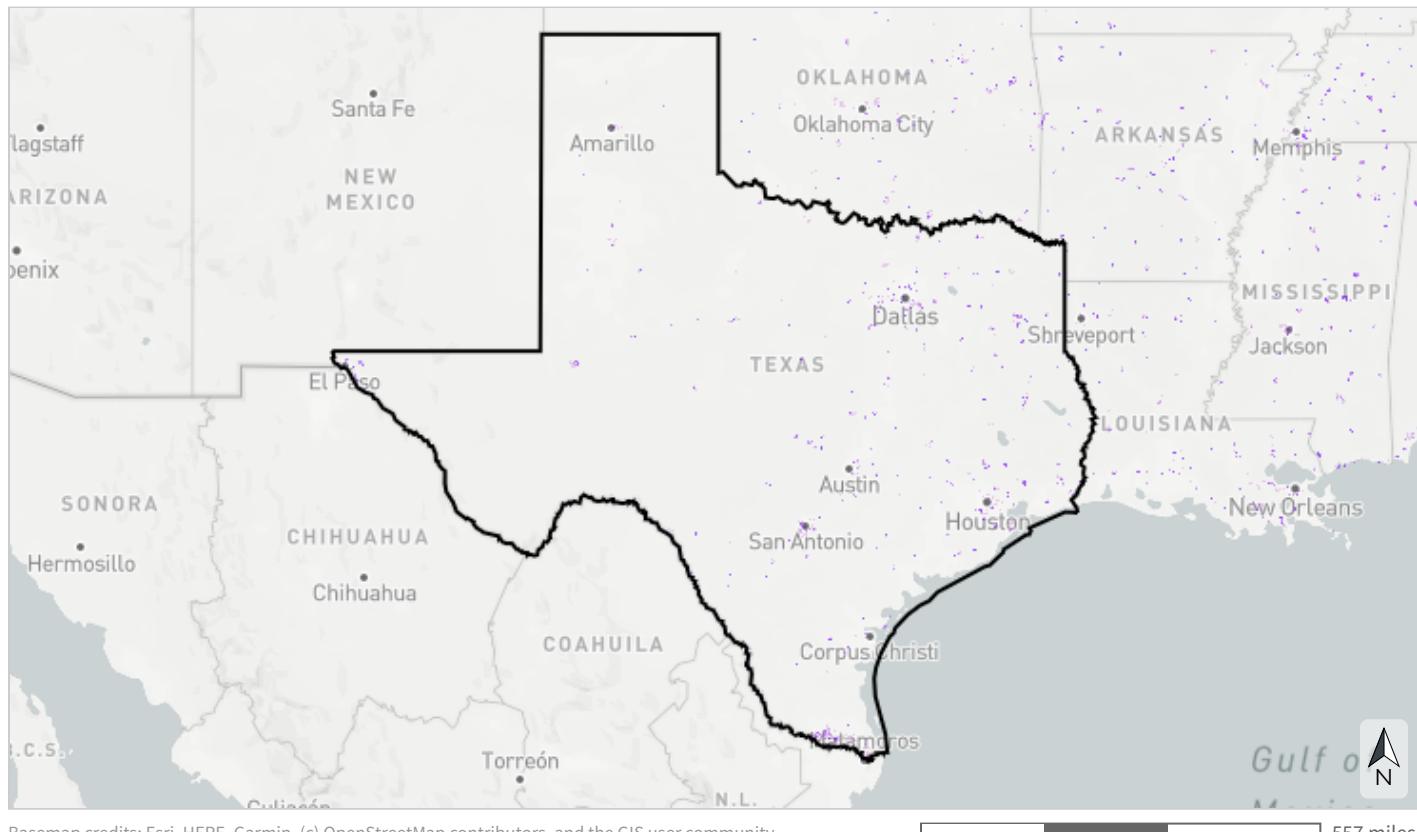
Indicator	Present
Atlantic estuarine fish habitat	-
<u>Coastal shoreline condition</u>	✓
<u>Estuarine coastal condition</u>	✓
<u>Islands</u>	✓
<u>Resilient coastal sites</u>	✓
<u>Seagrasses</u>	✓
South Atlantic beach birds	-
South Atlantic hardbottom & deep-sea coral	-
South Atlantic marine mammals	-
South Atlantic marine birds	-
South Atlantic maritime forest	-
<u>Stable coastal wetlands</u>	✓



Terrestrial

Equitable access to potential parks

This cultural resource indicator prioritizes places to create new parks that would fill gaps in equitable access to open space within socially vulnerable communities. It identifies areas where residents currently lack access to parks within a 10-minute walk (accounting for walkable road networks and access barriers like highways and fences), then prioritizes based on park need using demographic and environmental metrics. Parks help improve public health, foster a conservation ethic by providing opportunities for people to connect with nature, and support critical ecosystem services. This indicator originates from the Trust for Public Land's ParkServe park priority areas.



- █ Very high priority for a new park that would create nearby equitable access
- █ High priority for a new park that would create nearby equitable access
- █ Moderate priority for a new park that would create nearby equitable access

Table 6: Indicator values for equitable access to potential parks in this area. A good condition threshold is not yet defined for this indicator.

	Indicator Values	Acres	Percent of Area
↑ High	Very high priority for a new park that would create nearby equitable access	325,796	0.2%
	High priority for a new park that would create nearby equitable access	450,230	0.3%
↓ Low	Moderate priority for a new park that would create nearby equitable access	764,278	0.4%
	<i>Area not evaluated for this indicator</i>	170,338,395	99.1%
	<i>Outside Southeast Blueprint</i>	22,348	<0.1%
	Total area	171,901,047	100%

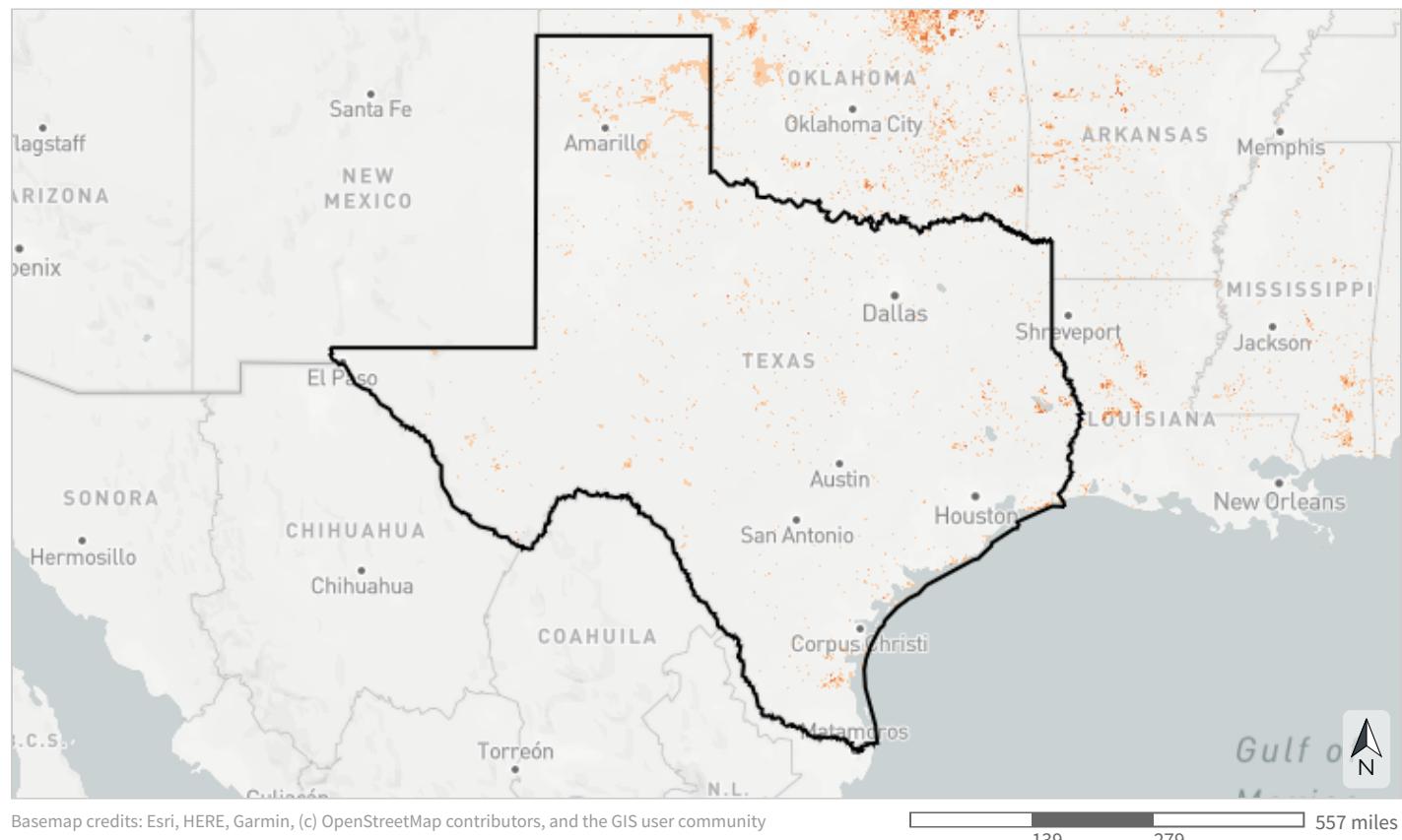
To learn more and explore the GIS data, [view this indicator in the SECAS Atlas](#).



Terrestrial

Fire frequency

This indicator uses remote sensing to estimate the number of times an area has been burned from 2013 to 2021. Many Southeastern ecosystems rely on regular, low-intensity fires to maintain habitat, encourage native plant growth, and reduce wildfire risk. This indicator combines burned area layers from both U.S. Geological Survey Landsat data and the inter-agency Monitoring Trends in Burn Severity program. Landsat-based fire predictions within the range of longleaf pine are also available through Southeast FireMap.



- Burned 3+ times from 2013-2021
- Burned 2 times from 2013-2021
- Burned 1 time from 2013-2021
- Not burned from 2013-2021 or row crop

Table 7: Indicator values for fire frequency in this area. Good condition thresholds reflect the range of indicator values that occur in healthy, functioning ecosystems.

	Indicator Values	Acres	Percent of Area
↑ High	Burned 3+ times from 2013-2021	76,345	<0.1%
	Burned 2 times from 2013-2021	355,188	0.2%
	Burned 1 time from 2013-2021	3,050,860	1.8%
↓ Low	Not burned from 2013-2021 or row crop	168,396,305	98.0%
	<i>Outside Southeast Blueprint</i>	22,348	<0.1%
Total area		171,901,047	100%

↑ In good condition

↓ Not in good condition

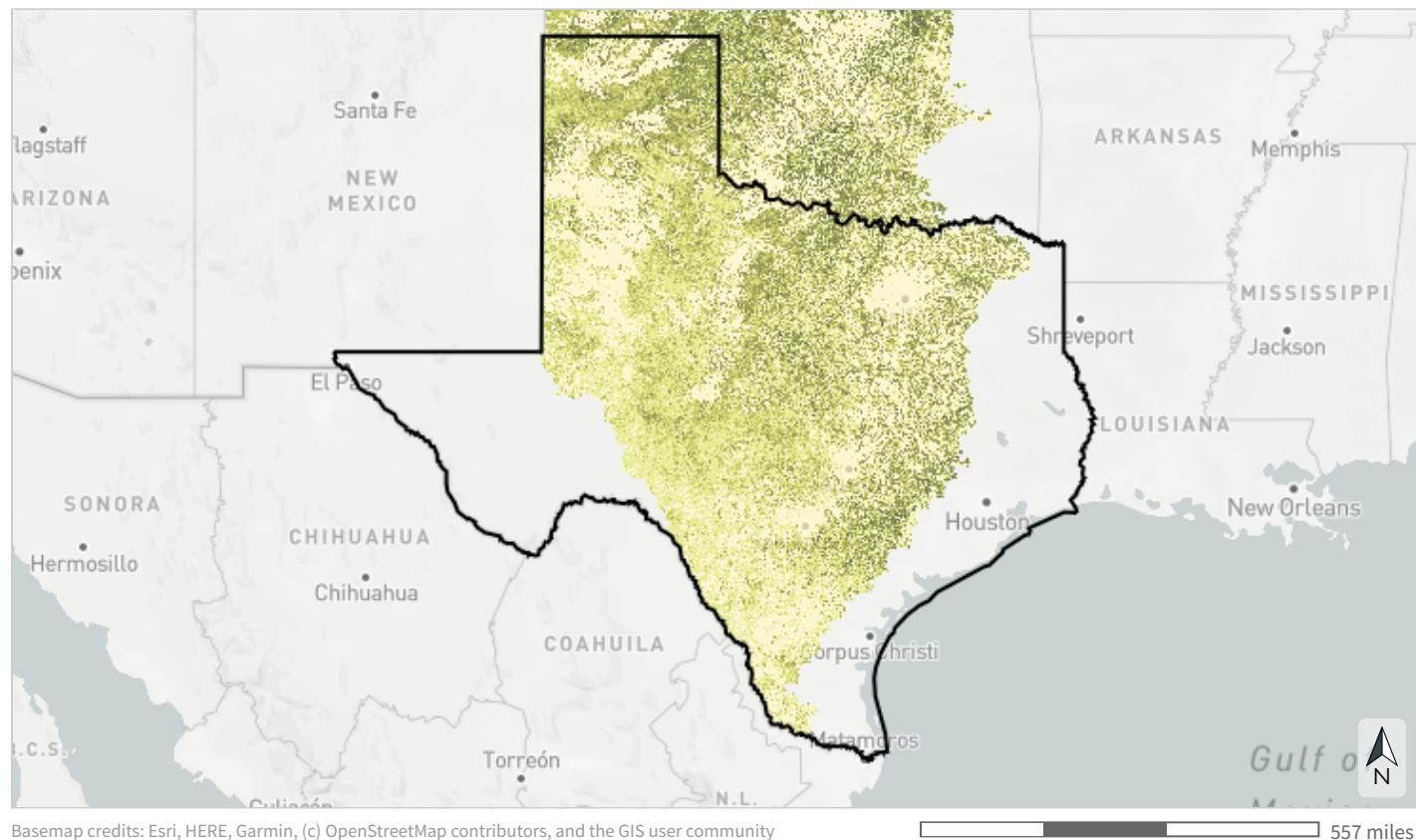
To learn more and explore the GIS data, [view this indicator in the SECAS Atlas](#).



Terrestrial

Great Plains perennial grasslands

This indicator measures the percent of perennial forb and perennial grass to evaluate grassland condition across the Great Plains. Grasslands in this area with a high percentage of perennials are less likely to be impacted by woody encroachment, less susceptible to non-native annual grasses, and more likely to support important plants, birds, and pollinators. This indicator originates from Rangeland Analysis Platform vegetation cover data.



- 81-100% perennial forb and perennial grass
- 61-80% perennial forb and perennial grass
- 41-60% perennial forb and perennial grass
- 21-40% perennial forb and perennial grass
- 0-20% perennial forb and perennial grass

Table 8: Indicator values for Great Plains perennial grasslands in this area. A good condition threshold is not yet defined for this indicator.

	Indicator Values	Acres	Percent of Area
↑ High	81-100% perennial forbs and perennial grass	1,702,121	1.0%
	61-80% perennial forbs and perennial grass	15,504,557	9.0%
	41-60% perennial forbs and perennial grass	23,140,264	13.5%
	21-40% perennial forbs and perennial grass	29,122,227	16.9%
↓ Low	0-20% perennial forbs and perennial grass	46,763,827	27.2%
	<i>Area not evaluated for this indicator</i>	55,645,703	32.4%
	<i>Outside Southeast Blueprint</i>	22,348	<0.1%
Total area		171,901,047	100%

To learn more and explore the GIS data, [view this indicator in the SECAS Atlas](#).



Terrestrial

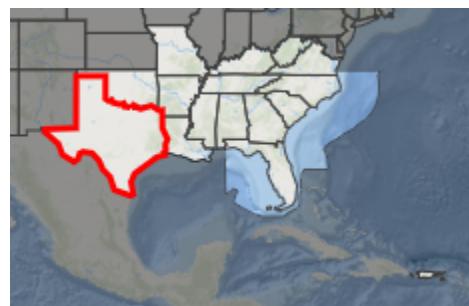
Greenways & trails

This cultural resource indicator measures both the natural condition and connected length of greenways and trails to characterize the quality of the recreational experience. Natural condition is based on the amount of impervious surface surrounding the path. Connected length captures how far a person can go without leaving a dedicated path, based on common distances for walking, running, and biking. This indicator originates from OpenStreetMap.



Basemap credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community

139 279 557 miles



- Mostly natural and connected for ≥ 40 km
- Mostly natural and connected for 5 to <40 km or partly natural and connected for ≥ 40 km
- Mostly natural and connected for 1.9 to <5 km, partly natural and connected for 5 to <40 km, or developed and ≥ 40 km
- Mostly natural and connected for <1.9 km, partly natural and connected for 1.9 to <5 km, or developed and connected for 5 to <40 km
- Partly natural and connected for <1.9 km or developed and connected for 1.9 to <5 km
- Developed and connected for <1.9 km
- Sidewalk or other path

Table 9: Indicator values for greenways & trails in this area. Good condition thresholds reflect the range of indicator values that occur in healthy, functioning ecosystems.

	Indicator Values	Acres	Percent of Area
↑ High	Mostly natural and connected for ≥ 40 km	7,162	<0.1%
	Mostly natural and connected for 5 to <40 km or partly natural and connected for ≥ 40 km	9,621	<0.1%
	Mostly natural and connected for 1.9 to <5 km, partly natural and connected for 5 to <40 km, or developed and ≥ 40 km	9,655	<0.1%
	Mostly natural and connected for <1.9 km, partly natural and connected for 1.9 to <5 km, or developed and connected for 5 to <40 km	3,671	<0.1%
	Partly natural and connected for <1.9 km or developed and connected for 1.9 to <5 km	2,186	<0.1%
↓ Low	Developed and connected for <1.9 km	1,207	<0.1%
	Sidewalk or other path	155,876	<0.1%
	<i>Area not evaluated for this indicator</i>	171,689,322	99.9%
	<i>Outside Southeast Blueprint</i>	22,348	<0.1%
Total area		171,901,047	100%

↑ In good condition

↓ Not in good condition

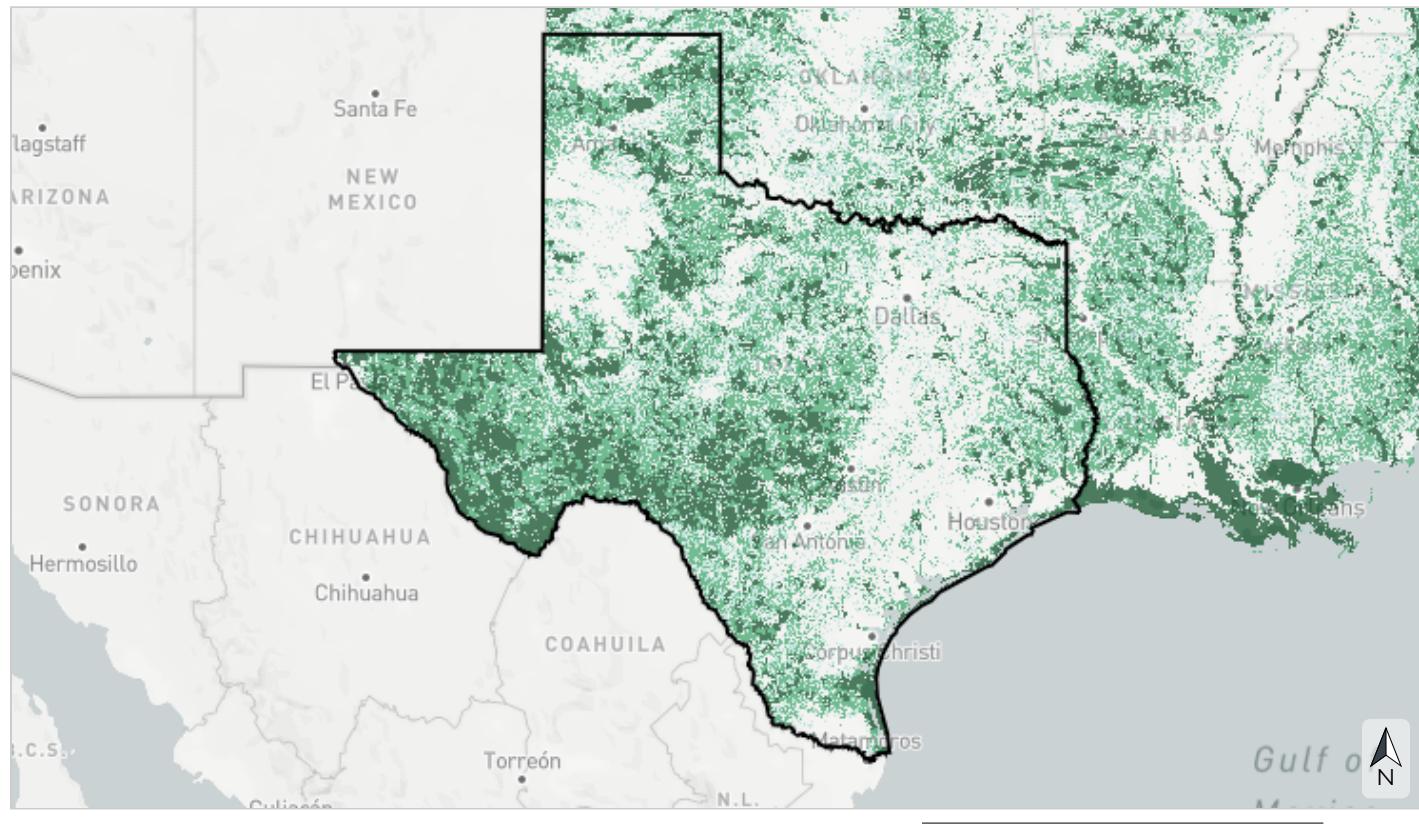
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Terrestrial

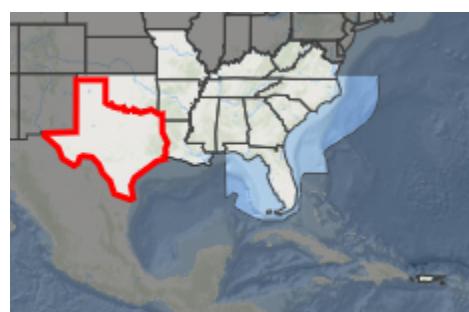
Intact habitat cores

This indicator represents the size of large, unfragmented patches of natural habitat. It identifies minimally disturbed natural areas at least 100 acres in size and greater than 200 meters wide. Large areas of intact natural habitat are important for many wildlife species, including reptiles and amphibians, birds, and large mammals. This indicator originates from Esri's green infrastructure data.



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139 279 557 miles



- Large core (>10,000 acres)
- Medium core (>1,000-10,000 acres)
- Small core (>100-1,000 acres)
- Not a core

Table 10: Indicator values for intact habitat cores in this area. Good condition thresholds reflect the range of indicator values that occur in healthy, functioning ecosystems.

	Indicator Values	Acres	Percent of Area
↑ High	Large core (>10,000 acres)	31,196,958	18.1%
	Medium core (>1,000-10,000 acres)	44,940,424	26.1%
	Small core (>100-1,000 acres)	22,634,492	13.2%
↓ Low	Not a core	73,106,825	42.5%
	<i>Outside Southeast Blueprint</i>	22,348	<0.1%
Total area		171,901,047	100%

To learn more and explore the GIS data, [view this indicator in the SECAS Atlas](#).



Terrestrial
Playas

This indicator represents the condition and location of playas, which are round, shallow depressions found primarily in the western Great Plains that serve as temporary wetlands by collecting water from rainfall and runoff. It defines a healthy playa as one that is not farmed, hydrologically modified, within a wind farm, or impacted by sediment accumulation due to agriculture. It also considers the increased benefits to wildlife provided by clusters of nearby playas, compared to more sparsely distributed playas. Playas play a critical role in recharging the Ogallala aquifer and provide habitat and food for birds and other animals. This indicator originates from the Playa Lakes Joint Venture's probable playas dataset.



Basemap credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community



- Healthy playa and part of a larger cluster
- Healthy playa
- Other playa

Table 11: Indicator values for playas in this area. Good condition thresholds reflect the range of indicator values that occur in healthy, functioning ecosystems.

	Indicator Values	Acres	Percent of Area	
↑ High	Healthy playa and part of a larger cluster	139,261	<0.1%	↑ In good condition
	Healthy playa	4,004	<0.1%	
↓ Low	Other playa	249,050	0.1%	↓ Not in good condition
	<i>Area not evaluated for this indicator</i>	171,486,385	99.8%	
	<i>Outside Southeast Blueprint</i>	22,348	<0.1%	
	Total area	171,901,047	100%	

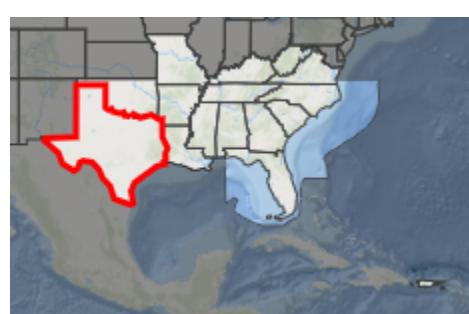
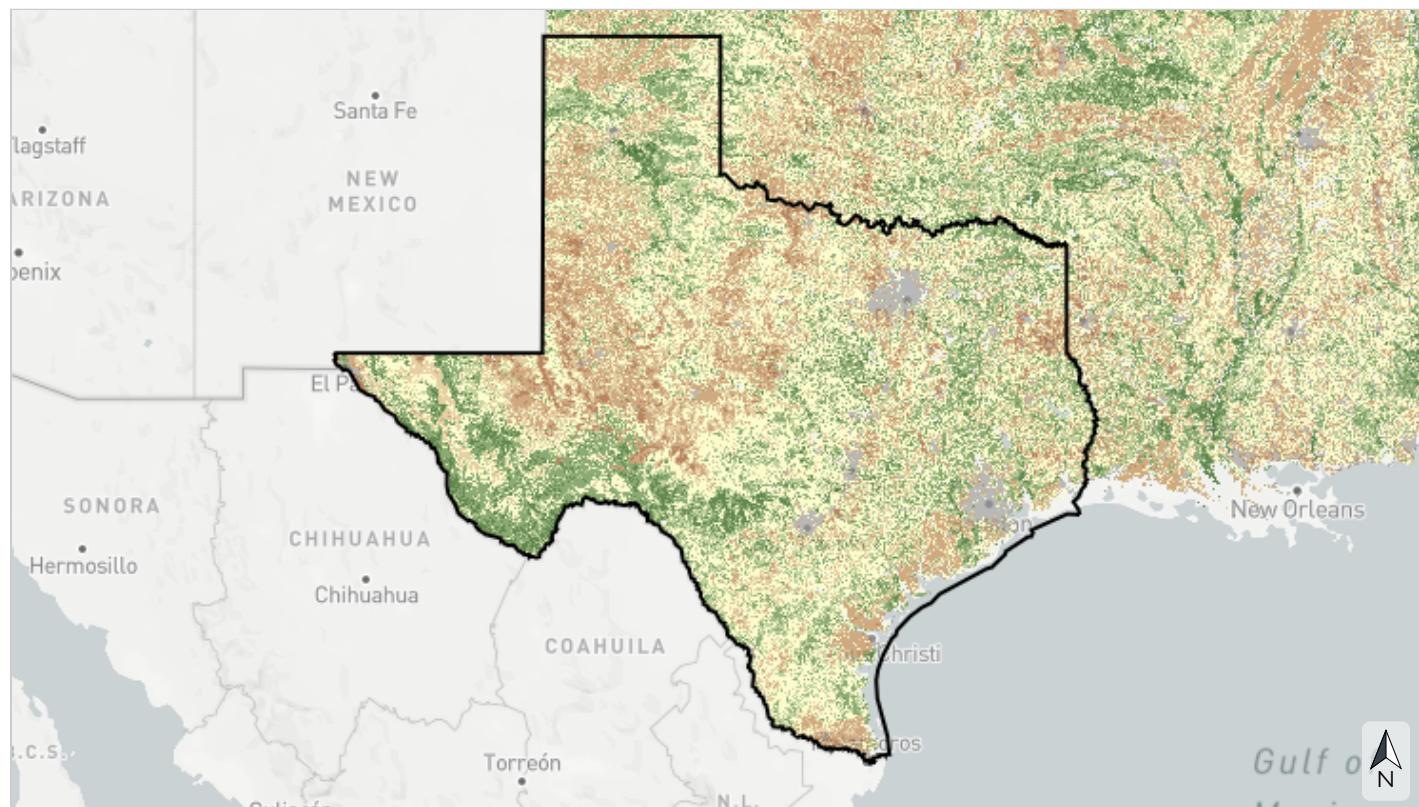
To learn more and explore the GIS data, [view this indicator in the SECAS Atlas](#).



Terrestrial

Resilient terrestrial sites

This indicator depicts an area's capacity to maintain species diversity and ecosystem function in the face of climate change. It measures two factors that influence resilience. The first, landscape diversity, reflects the number of microhabitats and climatic gradients created by topography, elevation, and hydrology. The second, local connectedness, reflects the degree of habitat fragmentation and strength of barriers to species movement. Highly resilient sites contain many different habitat niches that support biodiversity, and allow species to move freely through the landscape to find suitable microclimates as the climate changes. This indicator originates from The Nature Conservancy's Resilient Land data.



- █ Most resilient
- █ More resilient
- █ Slightly more resilient
- █ Average/median resilience
- █ Slightly less resilient
- █ Less resilient
- █ Least resilient
- █ Developed

Table 12: Indicator values for resilient terrestrial sites in this area. A good condition threshold is not yet defined for this indicator.

	Indicator Values	Acres	Percent of Area
↑ High	Most resilient	5,940,038	3.5%
	More resilient	26,512,527	15.4%
	Slightly more resilient	25,389,141	14.8%
	Average/median resilience	53,304,136	31.0%
	Slightly less resilient	24,129,665	14.0%
	Less resilient	21,829,734	12.7%
	Least resilient	3,342,247	1.9%
	Developed	5,423,119	3.2%
↓ Low	<i>Area not evaluated for this indicator</i>	6,008,093	3.5%
	<i>Outside Southeast Blueprint</i>	22,348	<0.1%
	Total area	171,901,047	100%

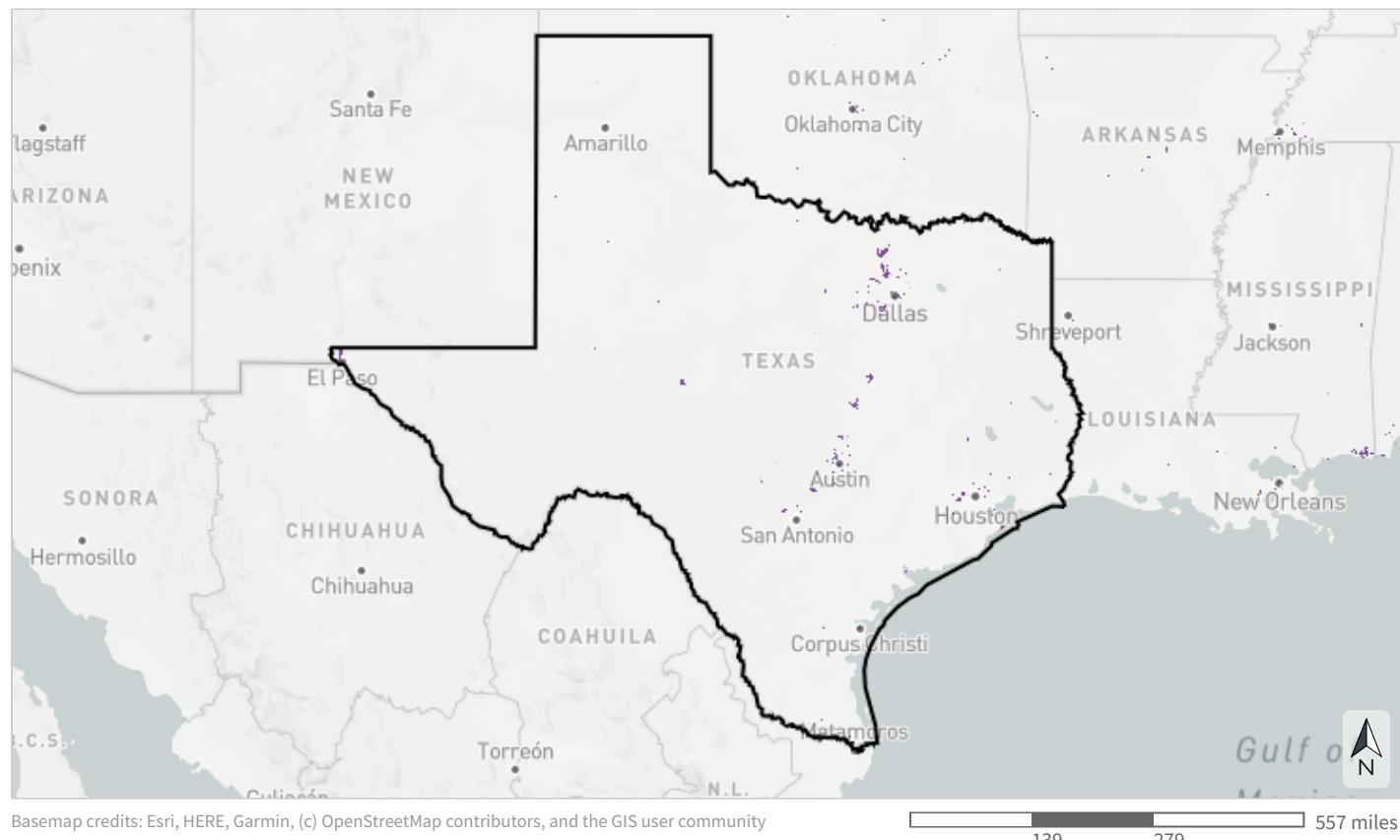
To learn more and explore the GIS data, [view this indicator in the SECAS Atlas](#).



Terrestrial

Urban park size

This cultural resource indicator measures the size of parks larger than 5 acres in the urban environment. Protected natural areas in urban environments provide urban residents a nearby place to connect with nature, and offer refugia for some species. This indicator complements the equitable access to potential parks indicator by capturing the value of existing parks. It originates from the U.S. Geological Survey's Protected Areas Database and 2019 National Land Cover Database percent developed impervious layer.



- █ >75 acre urban park
- █ >50-75 acre urban park
- █ >30-50 acre urban park
- █ >10-30 acre urban park
- █ 5-10 acre urban park

Table 13: Indicator values for urban park size in this area. A good condition threshold is not yet defined for this indicator.

		Indicator Values	Acres	Percent of Area
↑ High	>75 acre urban park	461,778	0.3%	
	>50-75 acre urban park	16,778	<0.1%	
	>30-50 acre urban park	19,702	<0.1%	
	>10-30 acre urban park	29,864	<0.1%	
↓ Low	5-10 acre urban park	11,529	<0.1%	
	<i>Area not evaluated for this indicator</i>	171,339,047	99.7%	
	<i>Outside Southeast Blueprint</i>	22,348	<0.1%	
	Total area	171,901,047		100%

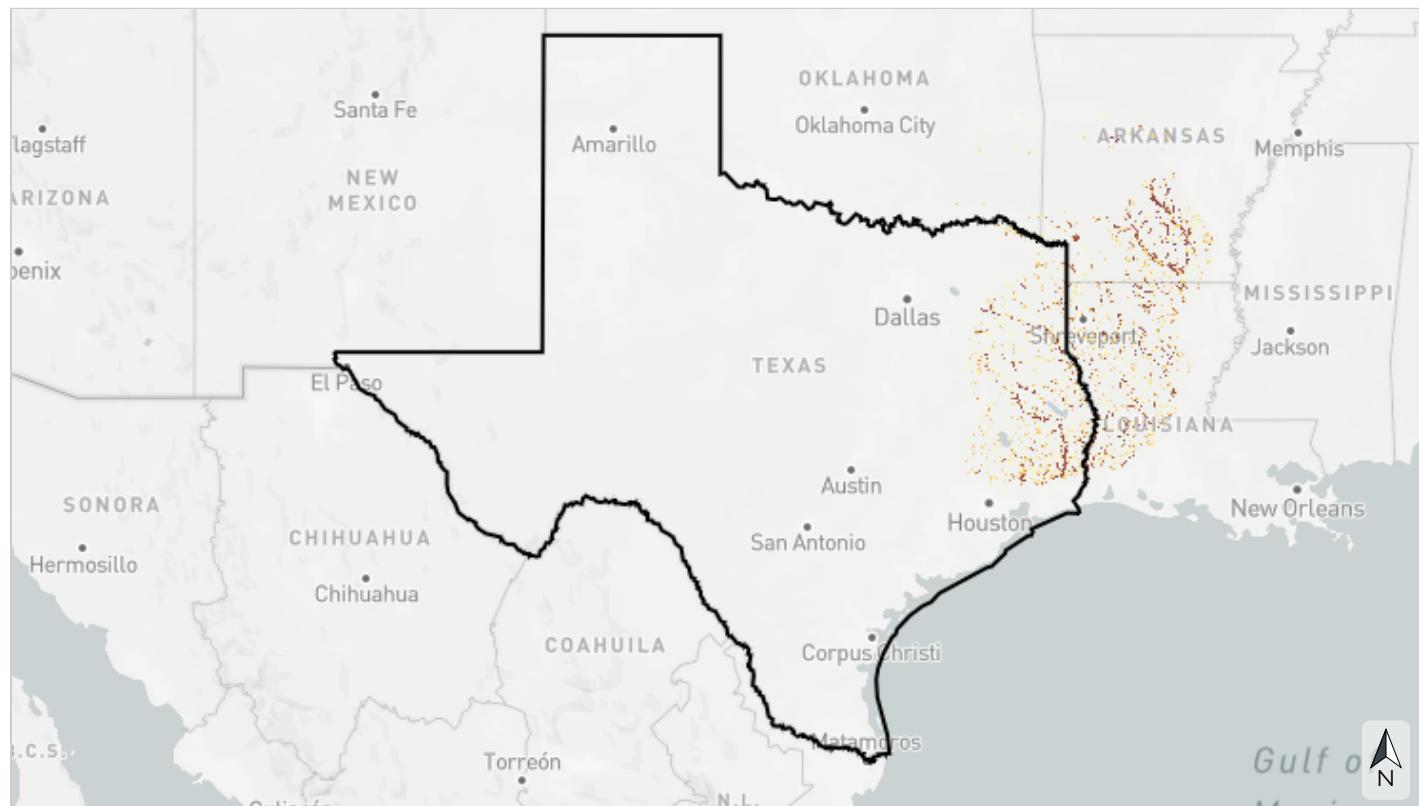
To learn more and explore the GIS data, [view this indicator in the SECAS Atlas](#).

Terrestrial



West Coastal Plain & Ouachitas forested wetland birds

This indicator is an index of habitat suitability for five forested wetland bird species (Acadian flycatcher, Kentucky warbler, yellow-throated warbler, prothonotary warbler, red-shouldered hawk) within bottomland hardwood forests and riparian areas in the West Gulf Coastal Plain and Ouachitas Bird Conservation Region. It uses metrics like patch size, dispersal distance, distance to water, and more to assess the potential for habitat to support sustainable populations of these birds. This indicator originates from the Lower Mississippi Valley Joint Venture's forested wetland decision support model for the West Gulf Coastal Plain and Ouachitas region.



- █ High habitat suitability for forested wetland bird umbrella species (Acadian flycatcher, Kentucky warbler, yellow-throated warbler, prothonotary warbler, red-shouldered hawk) (score >80)
- █ Medium-high habitat suitability (score >60-80)
- █ Medium habitat suitability (score >40-60)
- █ Medium-low habitat suitability (score >20-40)
- █ Low habitat suitability for forested wetland bird umbrella species (score 0-20)

Table 14: Indicator values for West Coastal Plain & Ouachitas forested wetland birds in this area. A good condition threshold is not yet defined for this indicator.

	Indicator Values	Acres	Percent of Area
↑ High	High habitat suitability for forested wetland bird umbrella species (Acadian flycatcher, Kentucky warbler, yellow-throated warbler, prothonotary warbler, red-shouldered hawk) (score >80)	471,261	0.3%
	Medium-high habitat suitability (score >60-80)	316,932	0.2%
	Medium habitat suitability (score >40-60)	358,581	0.2%
	Medium-low habitat suitability (score >20-40)	560,119	0.3%
↓ Low	Low habitat suitability for forested wetland bird umbrella species (score 0-20)	545,026	0.3%
	<i>Area not evaluated for this indicator</i>	169,626,781	98.7%
	<i>Outside Southeast Blueprint</i>	22,348	<0.1%
	Total area	171,901,047	100%

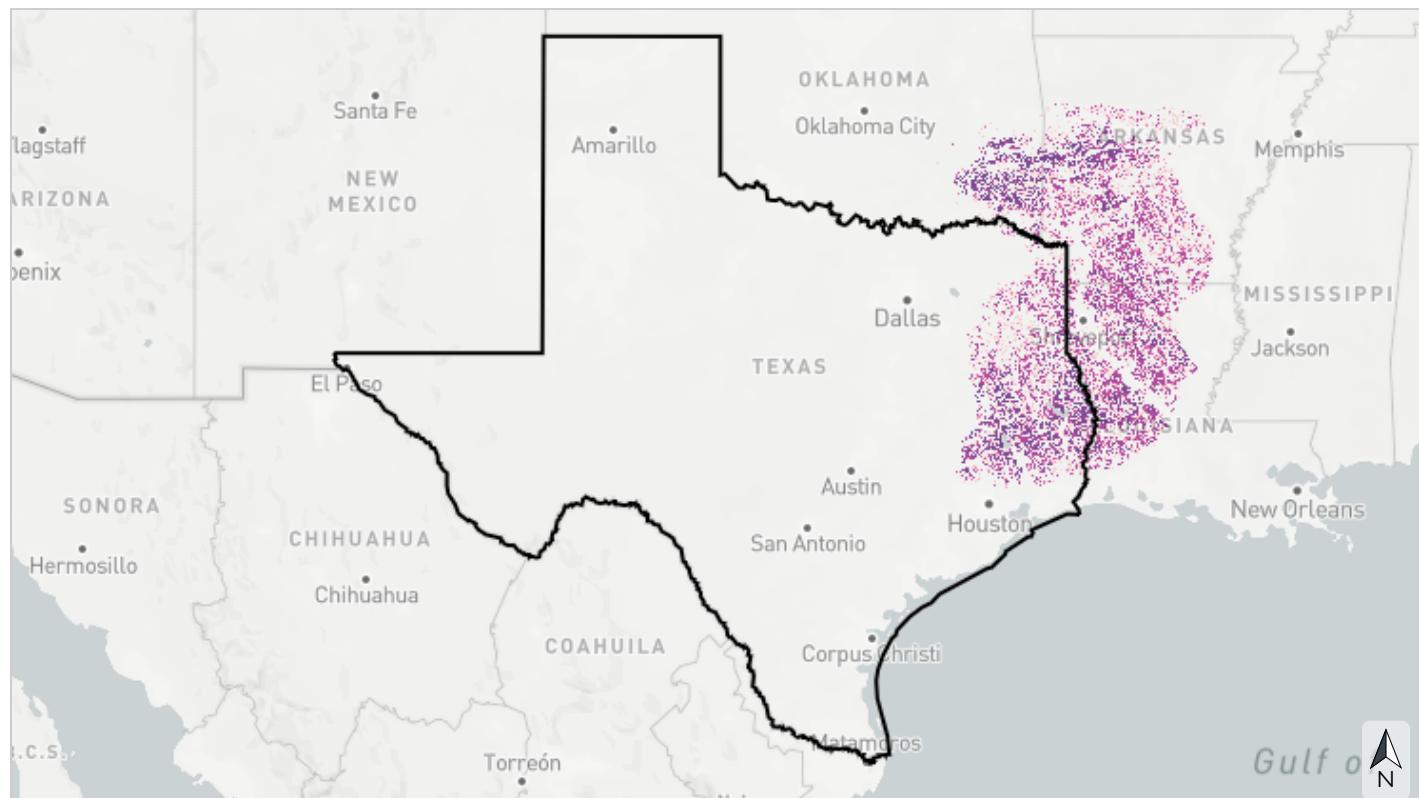
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Terrestrial



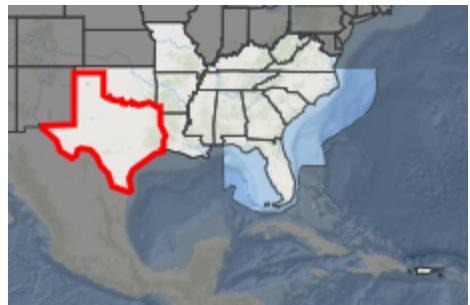
West Coastal Plain & Ouachitas open pine birds

This indicator identifies areas with existing pine trees that, if managed for open condition, could support a population of three umbrella bird species (brown-headed nuthatch, Bachman's sparrow, red-cockaded woodpecker). It evaluates potential habitat based on each species' habitat needs and population dynamics, prioritizing opportunities to restore and manage habitat to benefit open pine birds. Final scores reflect both the selectiveness of the species and whether an area meets the habitat requirements through one large patch, or clusters of smaller patches in sufficiently close proximity for breeding pairs to disperse. This indicator updates the Lower Mississippi Valley Joint Venture's open pine decision support model for the West Gulf Coastal Plain and Ouachitas region.



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139 279 557 miles



- █ Pine patch large enough to support a population of all 3 umbrella bird species (brown-headed nuthatch, Bachman's sparrow, red-cockaded woodpecker) if managed in open condition
- █ Pine patch large enough to support a population of 2 umbrella bird species if managed in open condition
- █ Pine patch large enough to support a population of 1 umbrella bird species if managed in open condition
- █ Pine patch part of a cluster of nearby patches able to support a population of all 3 umbrella bird species if managed in open condition
- █ Pine patch part of a cluster of nearby patches able to support a population of 2 umbrella bird species if managed in open condition
- █ Pine patch part of a cluster of nearby patches able to support a population of 1 umbrella bird species if managed in open condition
- █ Pine patch too small and isolated to support a population of any umbrella bird species or not an upland pine patch

Table 15: Indicator values for West Coastal Plain & Ouachitas open pine birds in this area. A good condition threshold is not yet defined for this indicator.

	Indicator Values	Acres	Percent of Area
↑ High	Pine patch large enough to support a population of all 3 umbrella bird species (brown-headed nuthatch, Bachman's sparrow, red-cockaded woodpecker) if managed in open condition	1,587,070	0.9%
	Pine patch large enough to support a population of 2 umbrella bird species if managed in open condition	2,165,245	1.3%
	Pine patch large enough to support a population of 1 umbrella bird species if managed in open condition	557,515	0.3%
	Pine patch part of a cluster of nearby patches able to support a population of all 3 umbrella bird species if managed in open condition	414,071	0.2%
	Pine patch part of a cluster of nearby patches able to support a population of 2 umbrella bird species if managed in open condition	1,049,289	0.6%
	Pine patch part of a cluster of nearby patches able to support a population of 1 umbrella bird species if managed in open condition	4,320	<0.1%
	Pine patch too small and isolated to support a population of any umbrella bird species or not an upland pine patch	9,835,723	5.7%
<i>Area not evaluated for this indicator</i>		156,265,466	90.9%
<i>Outside Southeast Blueprint</i>		22,348	<0.1%
Total area		171,901,047	100%

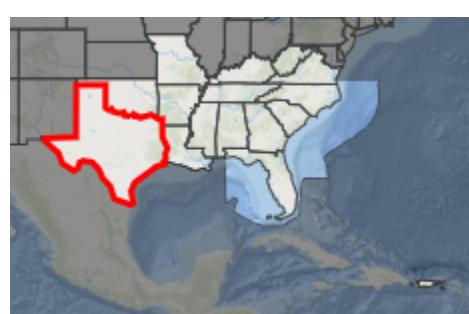
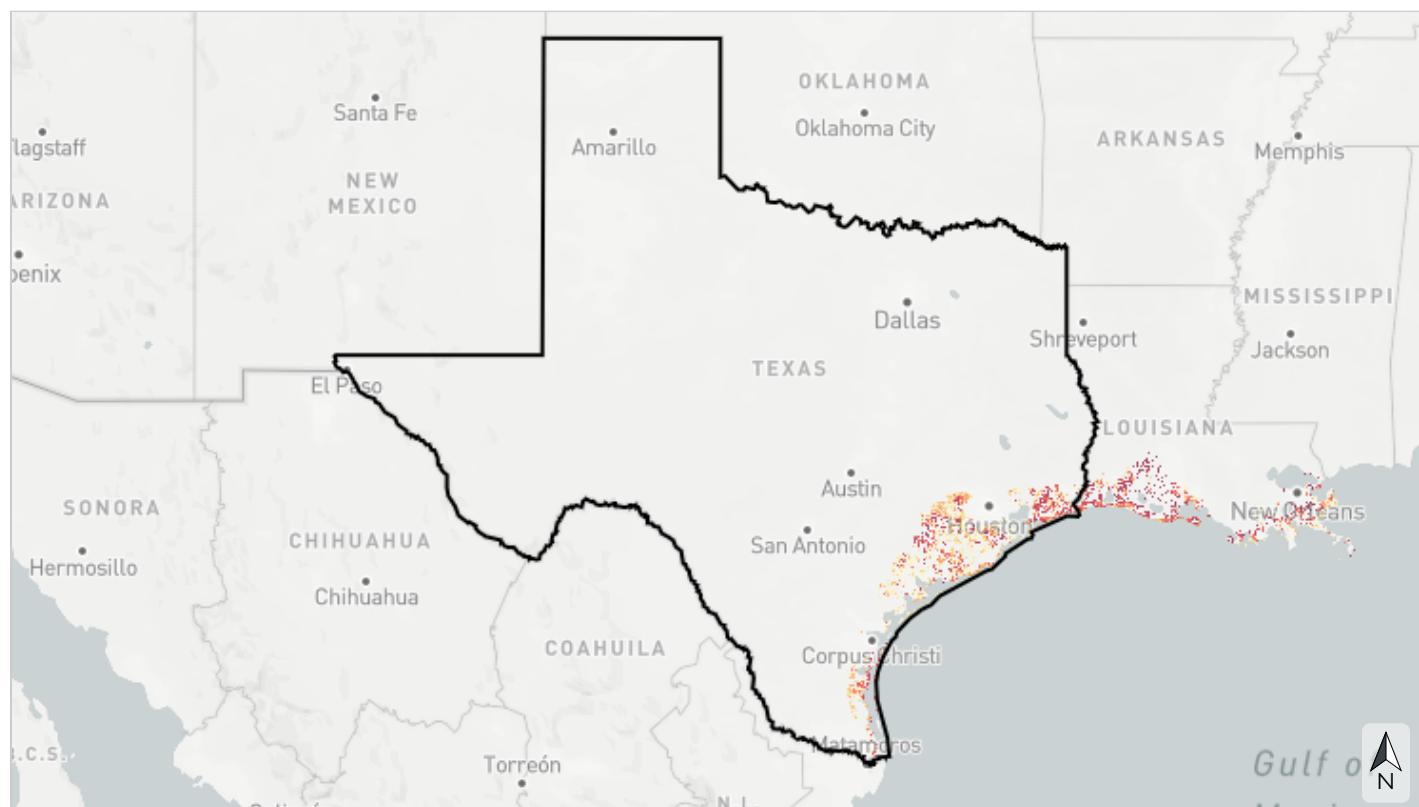
To learn more and explore the GIS data, [view this indicator in the SECAS Atlas.](#)



Terrestrial

West Gulf Coast mottled duck nesting

This indicator depicts marshes and grasslands along the coast of Louisiana and Texas that are important for mottled duck nesting, based on key biological parameters such as patch size, land cover type, and distance to brood rearing habitat. As a non-migratory bird endemic to the Gulf coast, mottled ducks serve as good indicators of coastal marsh health and function. Urban growth, agricultural development, and hydrologic changes due to human alteration and climate change have caused significant mottled duck habitat loss and population declines. This indicator originates from a mottled duck decision support tool developed by the Gulf Coast Prairie Landscape Conservation Cooperative.



- 90th-100th percentile of suitable mottled duck nesting habitat
- 80th-90th percentile of suitable mottled duck nesting habitat
- 70th-80th percentile of suitable mottled duck nesting habitat
- 60th-70th percentile of suitable mottled duck nesting habitat
- 50th-60th percentile of suitable mottled duck nesting habitat
- 40th-50th percentile of suitable mottled duck nesting habitat
- 30th-40th percentile of suitable mottled duck nesting habitat
- 20th-30th percentile of suitable mottled duck nesting habitat
- 10th-20th percentile of suitable mottled duck nesting habitat
- 0-10th percentile of suitable mottled duck nesting habitat

Table 16: Indicator values for West Gulf Coast mottled duck nesting in this area. A good condition threshold is not yet defined for this indicator.

	Indicator Values	Acres	Percent of Area
↑ High	90th-100th percentile of suitable mottled duck nesting habitat	152,241	<0.1%
	80th-90th percentile of suitable mottled duck nesting habitat	232,610	0.1%
	70th-80th percentile of suitable mottled duck nesting habitat	264,442	0.2%
	60th-70th percentile of suitable mottled duck nesting habitat	280,144	0.2%
	50th-60th percentile of suitable mottled duck nesting habitat	304,455	0.2%
	40th-50th percentile of suitable mottled duck nesting habitat	373,547	0.2%
	30th-40th percentile of suitable mottled duck nesting habitat	385,903	0.2%
	20th-30th percentile of suitable mottled duck nesting habitat	395,842	0.2%
	10th-20th percentile of suitable mottled duck nesting habitat	384,953	0.2%
	0-10th percentile of suitable mottled duck nesting habitat	335,480	0.2%
↓ Low	<i>Area not evaluated for this indicator</i>	168,769,085	98.2%
	<i>Outside Southeast Blueprint</i>	22,348	<0.1%
	Total area	171,901,047	100%

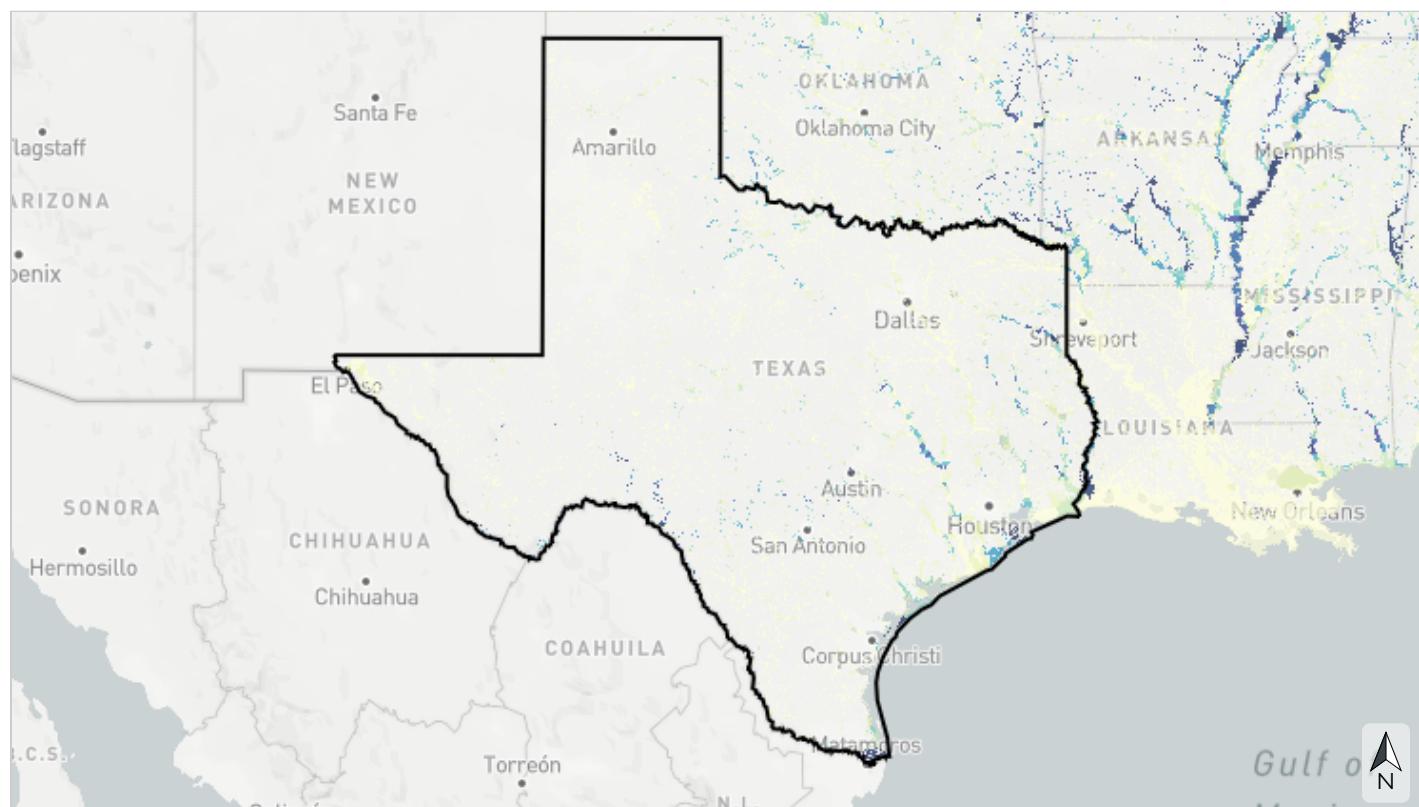
To learn more and explore the GIS data, [view this indicator in the SECAS Atlas](#).



Freshwater

Imperiled aquatic species

This indicator measures the number of aquatic animal Species of Greatest Conservation Need (SGCN) observed within each 12-digit HUC subwatershed, including fish, mussels, snails, crayfish, and amphibians. SGCN are identified in State Wildlife Action Plans as most in need of conservation action. This indicator captures patterns of rare and endemic species diversity not well-represented by other freshwater aquatic indicators. It originates from state Natural Heritage Program data collected by the Southeast Aquatic Resources Partnership and applies to the Environmental Protection Agency's estimated floodplain, which spatially defines areas estimated to be inundated by a 100-year flood, also known as the 1% annual chance flood.



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139 279 557 miles

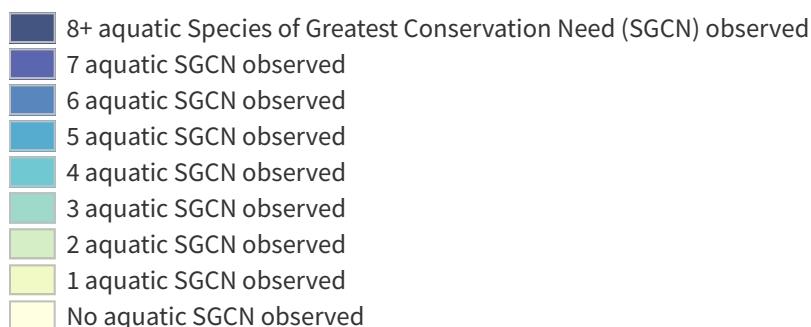
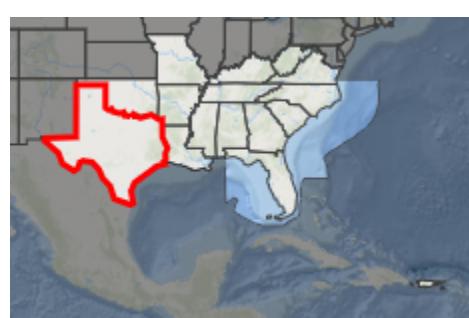


Table 17: Indicator values for imperiled aquatic species in this area. A good condition threshold is not yet defined for this indicator.

	Indicator Values	Acres	Percent of Area
↑ High	8+ aquatic Species of Greatest Conservation Need (SGCN) observed	392,595	0.2%
	7 aquatic SGCN observed	119,402	<0.1%
	6 aquatic SGCN observed	175,113	0.1%
	5 aquatic SGCN observed	457,800	0.3%
	4 aquatic SGCN observed	444,563	0.3%
	3 aquatic SGCN observed	740,350	0.4%
	2 aquatic SGCN observed	1,550,503	0.9%
	1 aquatic SGCN observed	3,193,593	1.9%
	No aquatic SGCN observed	15,267,679	8.9%
	<i>Area not evaluated for this indicator</i>	149,537,101	87.0%
↓ Low	<i>Outside Southeast Blueprint</i>	22,348	<0.1%
	Total area	171,901,047	100%

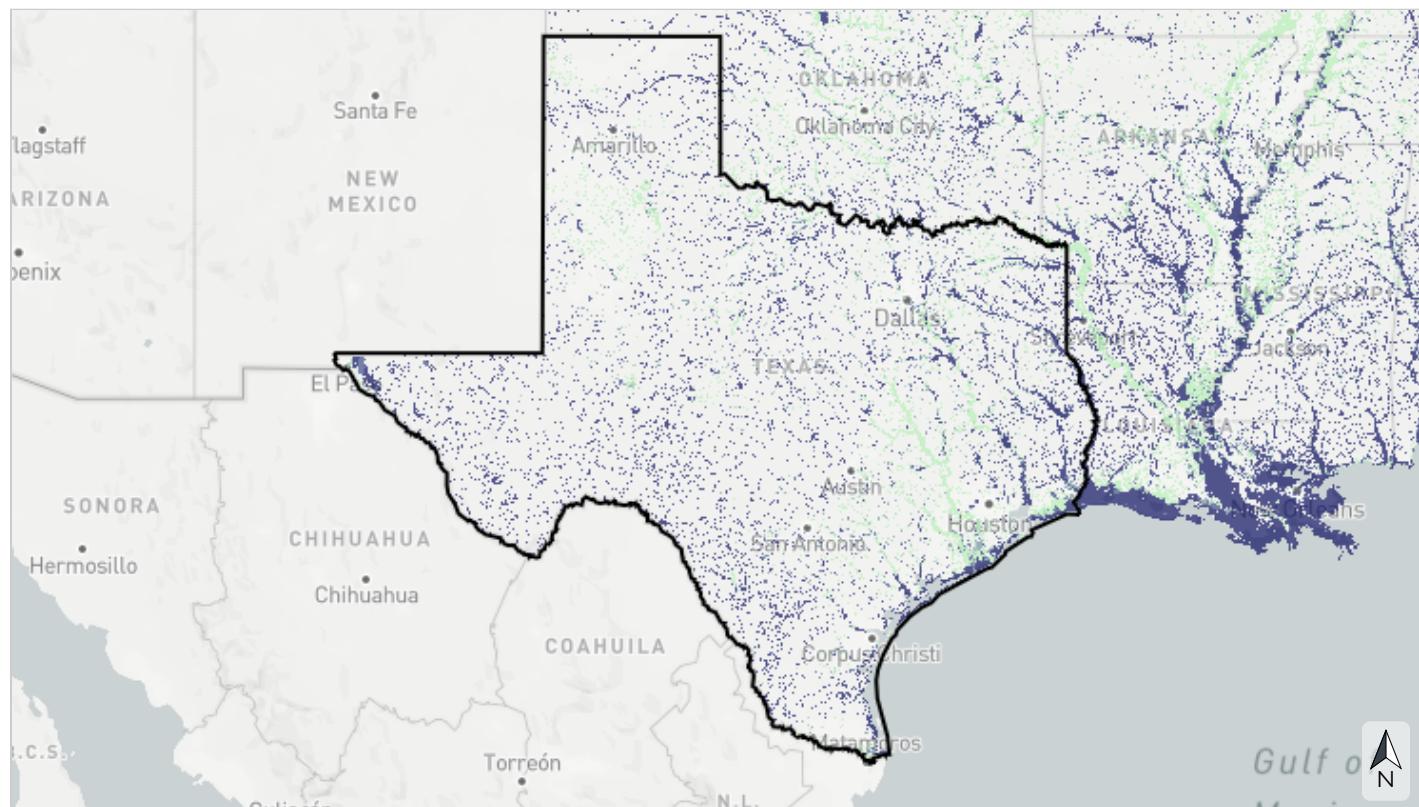
To learn more and explore the GIS data, [view this indicator in the SECAS Atlas](#).



Freshwater

Natural landcover in floodplains

This indicator measures the amount of natural landcover in the estimated floodplain of rivers and streams within each catchment. It assesses the stream channel and its surrounding riparian buffer, measuring the percent of unaltered habitat like forests, wetlands, or open water (rather than agriculture or development). Intact vegetated buffers within the floodplain of rivers and streams provide aquatic habitat, improve water quality, reduce erosion and flooding, recharge groundwater, and more. This indicator originates from the 2019 National Land Cover Database and applies to the Environmental Protection Agency's estimated floodplain, which spatially defines areas estimated to be inundated by a 100-year flood, also known as the 1% annual chance flood.



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- >90% natural habitat within the estimated floodplain, by catchment
- >80-90%
- >70-80%
- >60-70%
- ≤60% natural habitat within the estimated floodplain, by catchment

Table 18: Indicator values for natural landcover in floodplains in this area. Good condition thresholds reflect the range of indicator values that occur in healthy, functioning ecosystems.

	Indicator Values	Acres	Percent of Area
↑ High	>90% natural habitat within the estimated floodplain, by catchment	11,434,453	6.7%
	>80-90%	2,551,115	1.5%
↓ Low	>70-80%	1,838,172	1.1%
	>60-70%	1,419,478	0.8%
	≤60% natural habitat within the estimated floodplain, by catchment	5,098,440	3.0%
	<i>Area not evaluated for this indicator</i>	149,537,042	87.0%
	<i>Outside Southeast Blueprint</i>	22,348	<0.1%
	Total area	171,901,047	100%

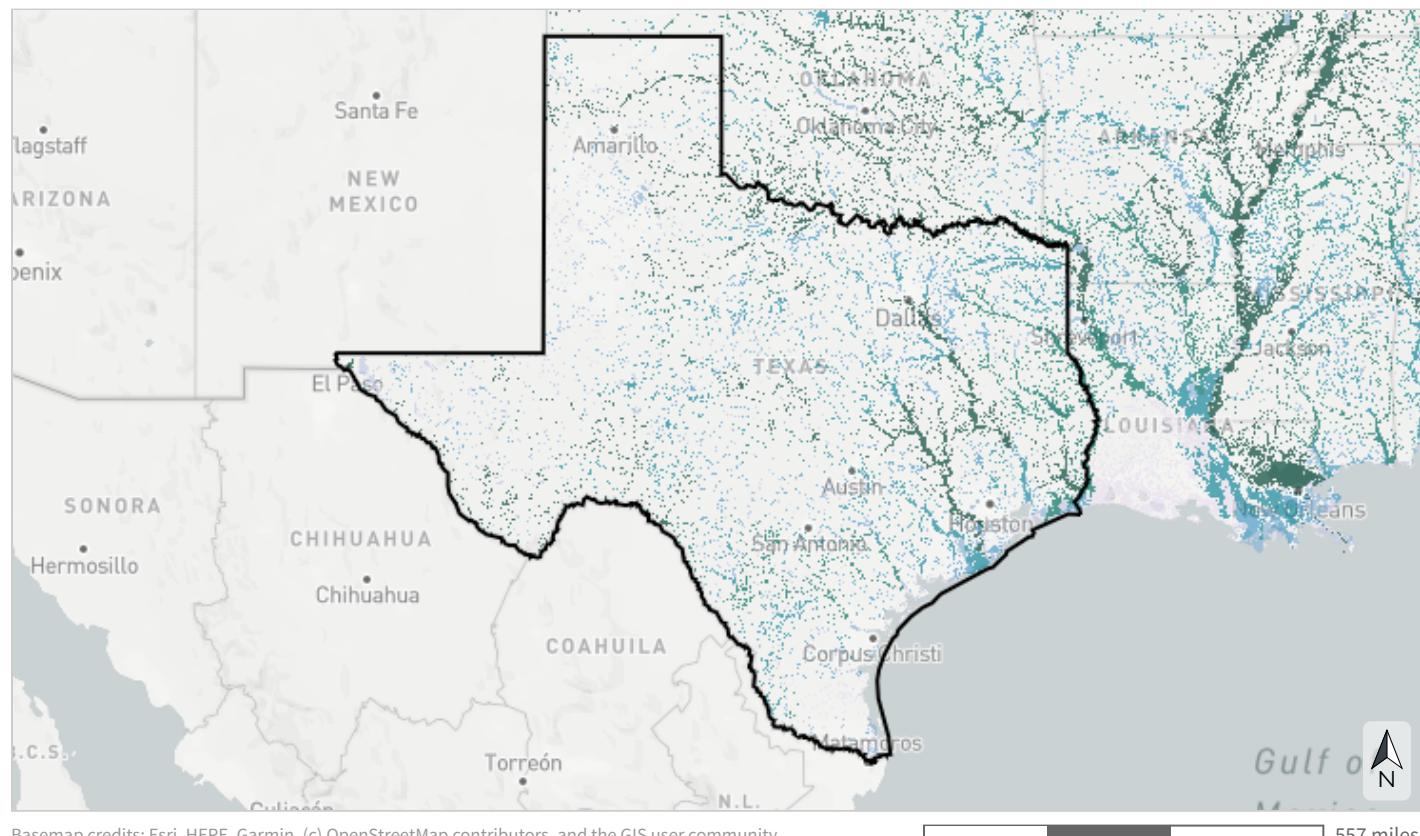
To learn more and explore the GIS data, [view this indicator in the SECAS Atlas](#).



Freshwater

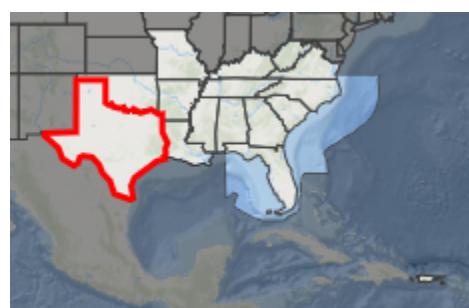
Network complexity

This indicator depicts the number of different stream size classes in a river network not separated by dams or waterfalls. River networks with a variety of connected stream classes help retain aquatic biodiversity in a changing climate by allowing species to access climate refugia and move between habitats. This indicator originates from the Southeast Aquatic Resources Partnership and applies to the Environmental Protection Agency's estimated floodplain, which spatially defines areas estimated to be inundated by a 100-year flood, also known as the 1% annual chance flood.



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- 7 connected stream classes
- 6 connected stream classes
- 5 connected stream classes
- 4 connected stream classes
- 3 connected stream classes
- 2 connected stream classes
- 1 connected stream class

Table 19: Indicator values for network complexity in this area. Good condition thresholds reflect the range of indicator values that occur in healthy, functioning ecosystems.

	Indicator Values	Acres	Percent of Area
↑ High	7 connected stream classes	5,178,200	3.0%
	6 connected stream classes	3,045,395	1.8%
	5 connected stream classes	4,912,291	2.9%
	4 connected stream classes	2,939,122	1.7%
	3 connected stream classes	2,062,518	1.2%
	2 connected stream classes	2,221,221	1.3%
	1 connected stream class	1,287,964	0.7%
	<i>Area not evaluated for this indicator</i>	150,231,988	87.4%
↓ Low	<i>Outside Southeast Blueprint</i>	22,348	<0.1%
	Total area	171,901,047	100%

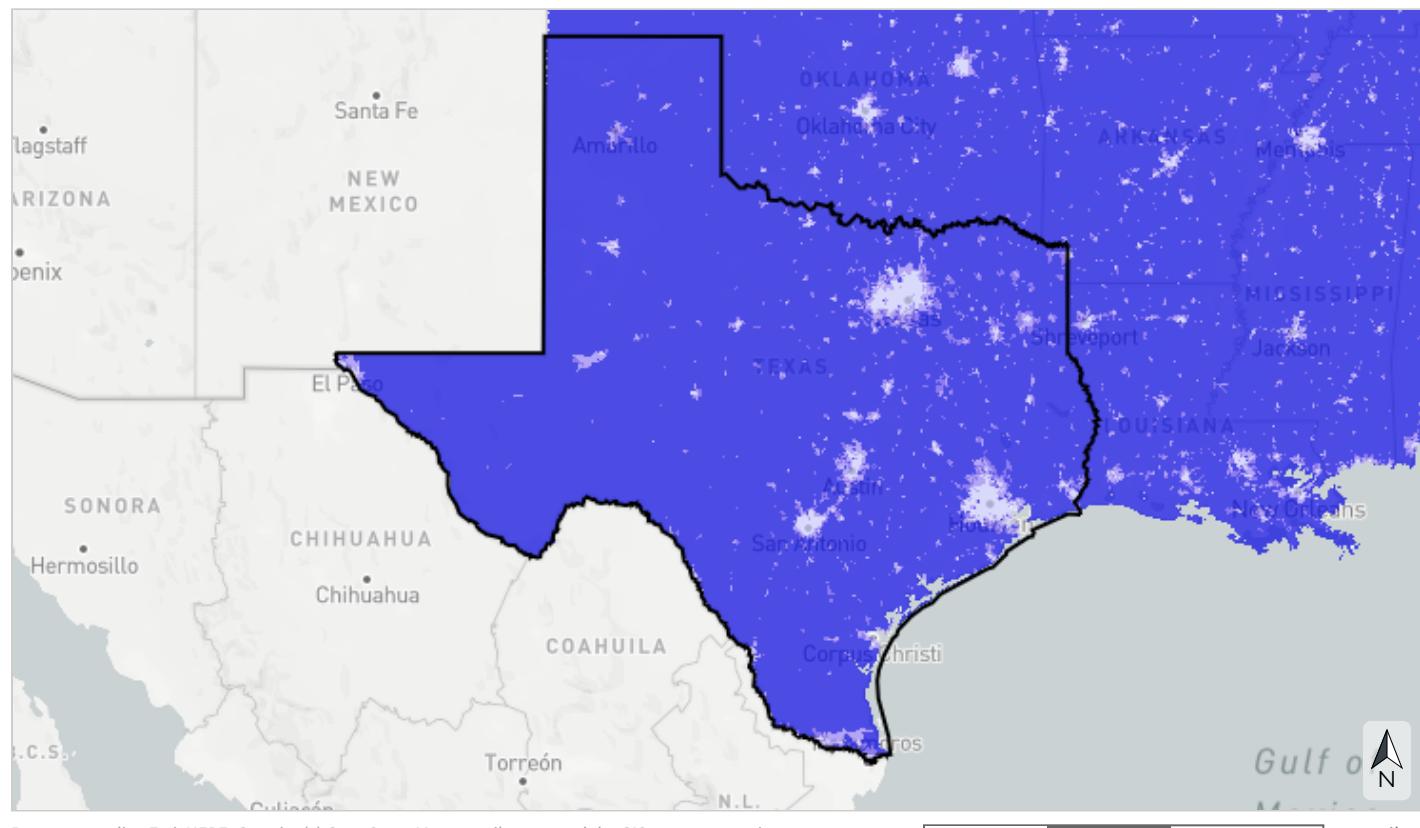
To learn more and explore the GIS data, [view this indicator in the SECAS Atlas](#).



Freshwater

Permeable surface

This indicator measures the average percent of non-impervious cover within each catchment. High levels of impervious surface degrade water quality and alter freshwater flow, impacting both aquatic species communities and ecosystem services for people, like the availability of clean drinking water. This indicator originates from the 2019 National Land Cover Database percent developed impervious layer.



- >95% of catchment permeable (likely high water quality and supporting most sensitive aquatic species)
- >90-95% of catchment permeable (likely declining water quality and supporting most aquatic species)
- >70-90% of catchment permeable (likely degraded water quality and not supporting many aquatic species)
- $\leq 70\%$ of catchment permeable (likely degraded instream flow, water quality, and aquatic species communities)

Table 20: Indicator values for permeable surface in this area. Good condition thresholds reflect the range of indicator values that occur in healthy, functioning ecosystems.

	Indicator Values	Acres	Percent of Area	
↑ High	>95% of catchment permeable (likely high water quality and supporting most sensitive aquatic species)	157,414,014	91.6%	↑ In good condition
	>90-95% of catchment permeable (likely declining water quality and supporting most aquatic species)	4,367,609	2.5%	
↓ Low	>70-90% of catchment permeable (likely degraded water quality and not supporting many aquatic species)	4,674,997	2.7%	↓ Not in good condition
	≤70% of catchment permeable (likely degraded instream flow, water quality, and aquatic species communities)	2,950,905	1.7%	
<i>Area not evaluated for this indicator</i>		2,471,174	1.4%	
<i>Outside Southeast Blueprint</i>		22,348	<0.1%	
Total area		171,901,047	100%	

To learn more and explore the GIS data, [view this indicator in the SECAS Atlas](#).



Coastal & marine

Coastal shoreline condition

This indicator assesses shoreline condition based on the presence of hardened structures like jetties, groins, and riprap, as well as other human development. By restricting the natural movement of sediment, shoreline armoring increases erosion, prevents the inland migration of coastal ecosystems in response to sea-level rise, and degrades habitat for birds, sea turtles, fish, plants, and other species both on and offshore. Natural shorelines in harder-to-develop coastal areas receive the highest shoreline condition scores, while hardened shorelines receive the lowest scores. This indicator originates from the National Oceanic and Atmospheric Administration's Environmental Sensitivity Index dataset.

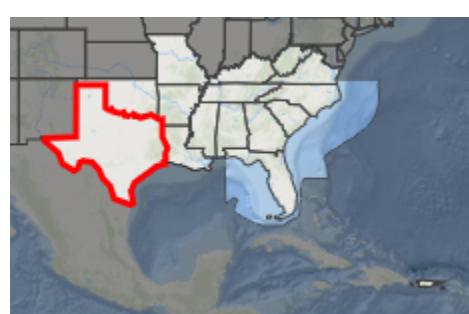


Table 21: Indicator values for coastal shoreline condition in this area. Good condition thresholds reflect the range of indicator values that occur in healthy, functioning ecosystems.

	Indicator Values	Acres	Percent of Area
↑ High	Natural and harder to develop	30,548	<0.1%
	Natural	60,776	<0.1%
	Partially armored and harder to develop	1,194	<0.1%
	Partially armored	4,908	<0.1%
↓ Low	Armored	15,595	<0.1%
	<i>Area not evaluated for this indicator</i>	171,765,678	99.9%
	<i>Outside Southeast Blueprint</i>	22,348	<0.1%
	Total area	171,901,047	100%

To learn more and explore the GIS data, [view this indicator in the SECAS Atlas](#).



Coastal & marine

Estuarine coastal condition

This indicator combines measures of water quality, sediment quality, contaminants in fish tissue, and benthic community condition to create an overall index of coastal estuarine condition. Estuaries serve as important nursery habitat for wildlife, including many species of fish and shellfish eaten as seafood. They also improve water quality by filtering out sediments and pollutants, provide recreational opportunities, and support coastal economies. This indicator originates from the Environmental Protection Agency's National Coastal Condition Assessment data.



- Good
- Good to fair
- Fair
- Fair to poor
- Poor

Table 22: Indicator values for estuarine coastal condition in this area. Good condition thresholds reflect the range of indicator values that occur in healthy, functioning ecosystems.

	Indicator Values	Acres	Percent of Area
↑ High	Good	304,555	0.2%
	Good to fair	160,862	<0.1%
	Fair	1,136,252	0.7%
↓ Low	Fair to poor	103,359	<0.1%
	Poor	78,889	<0.1%
	<i>Area not evaluated for this indicator</i>	170,094,782	98.9%
<i>Outside Southeast Blueprint</i>		22,348	<0.1%
Total area		171,901,047	100%

To learn more and explore the GIS data, [view this indicator in the SECAS Atlas](#).



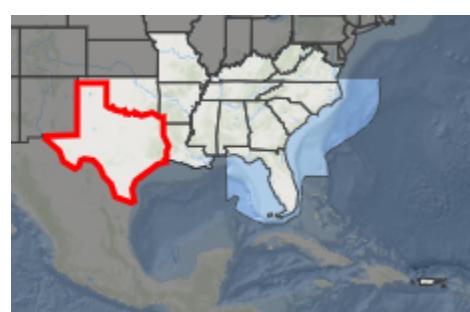
Coastal & marine Islands

This indicator represents important habitat for island-dependent species across the Southeast. Because the isolation of islands can make them ecologically unique and protect them from disturbance and mainland predators, they often serve as important habitat for many species of mammals, plants, and insects, as well as breeding coastal birds and sea turtles. The highest scores go to island critical habitat for six threatened and endangered animal and plant species: piping plover, loggerhead sea turtle, Cape Sable thoroughwort, Florida semaphore cactus, silver rice rat, and Bartram's hairstreak butterfly. This indicator originates from U.S. Fish and Wildlife Service critical habitat data and island boundaries from the U.S. Geological Survey and Esri.



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- Island critical habitat for any of six threatened and endangered species (piping plover, loggerhead sea turtle, Cape Sable thoroughwort, Florida semaphore cactus, silver rice rat, or Bartram's hairstreak butterfly)
- Island

Table 23: Indicator values for islands in this area. A good condition threshold is not yet defined for this indicator.

	Indicator Values	Acres	Percent of Area
↑ High	Island critical habitat for any of six threatened and endangered species (piping plover, loggerhead sea turtle, Cape Sable thoroughwort, Florida semaphore cactus, silver rice rat, or Bartram's hairstreak butterfly)	84,061	<0.1%
↓ Low	Island	270,518	0.2%
	<i>Area not evaluated for this indicator</i>	171,524,120	99.8%
	<i>Outside Southeast Blueprint</i>	22,348	<0.1%
	Total area	171,901,047	100%

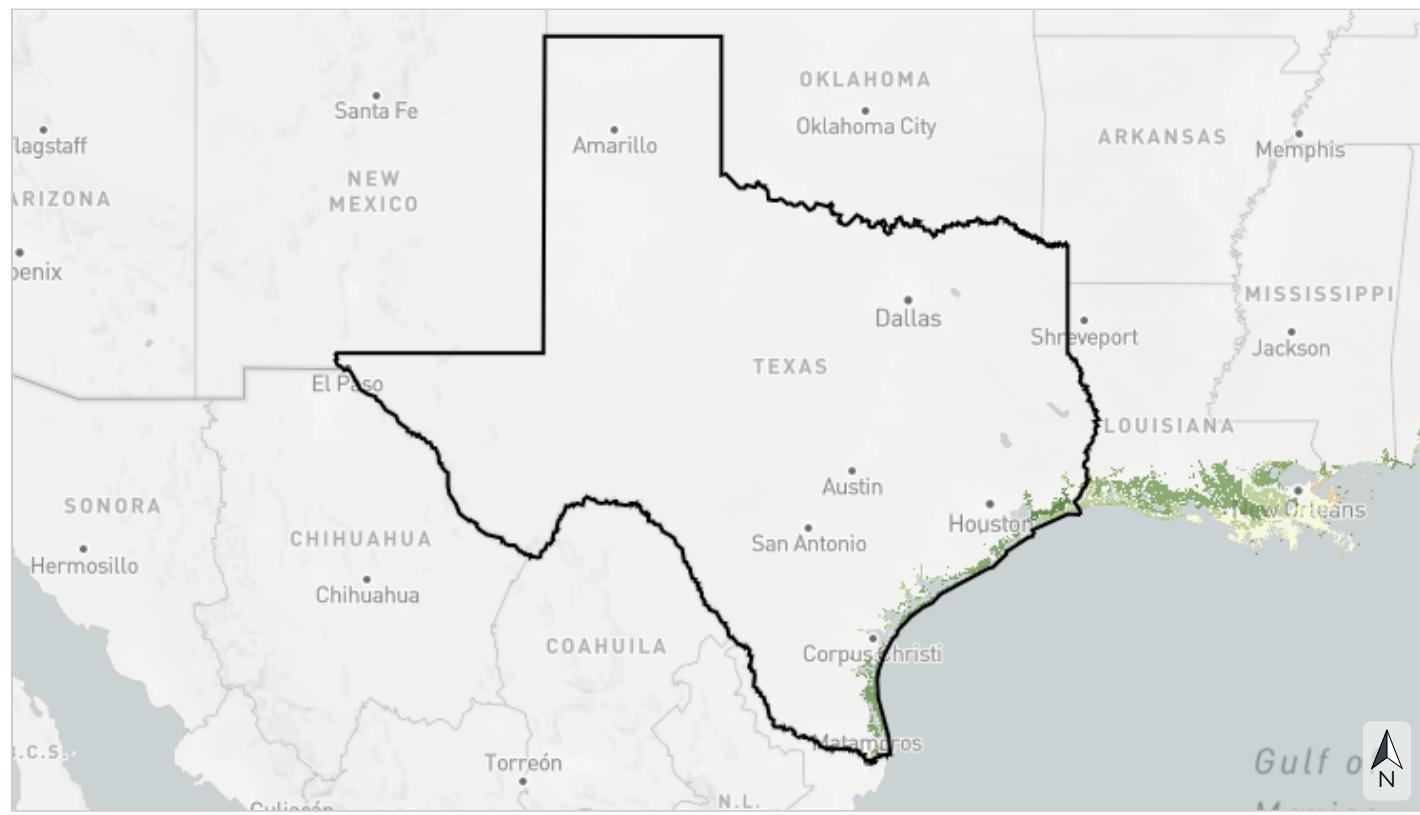
To learn more and explore the GIS data, [view this indicator in the SECAS Atlas](#).



Coastal & marine

Resilient coastal sites

This indicator depicts the capacity of coastal habitats to migrate to adjacent lowlands in order to sustain biodiversity and natural services under increasing inundation from sea-level rise. It is based on the physical and condition characteristics of current tidal complexes, their predicted migration space, and surrounding buffer areas. These characteristics include marsh complex size, shared edge with migration space, sediment balance, water quality, natural landcover, landform diversity, and many others. This indicator originates from The Nature Conservancy's Resilient Coastal Sites project.



Basemap credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community



- Most resilient
- More resilient
- Slightly more resilient
- Average/median resilience
- Slightly less resilient
- Less resilient
- Least resilient

Table 24: Indicator values for resilient coastal sites in this area. A good condition threshold is not yet defined for this indicator.

	Indicator Values	Acres	Percent of Area
↑ High	Most resilient	237,679	0.1%
	More resilient	1,186,577	0.7%
	Slightly more resilient	377,286	0.2%
	Average/median resilience	57,161	<0.1%
	Slightly less resilient	2,327	<0.1%
	Less resilient	787	<0.1%
	Least resilient	1,951	<0.1%
↓ Low	<i>Area not evaluated for this indicator</i>	170,014,932	98.9%
	<i>Outside Southeast Blueprint</i>	22,348	<0.1%
	Total area	171,901,047	100%

To learn more and explore the GIS data, [view this indicator in the SECAS Atlas](#).



Coastal & marine Seagrasses

This indicator represents the presence of seagrass in the Atlantic Ocean and Gulf of Mexico. Seagrasses provide food and habitat for a range of marine and estuarine wildlife, including fish, sea turtles, shrimp, crabs, oysters, and more. They also produce oxygen, filter water, control erosion, and buffer storms. Seagrasses serve as an important indicator of the overall health of coastal ecosystems because they are sensitive to water quality and require sufficiently clear water for sunlight to penetrate. This indicator originates from the National Oceanic and Atmospheric Administration's Marine Cadastre.



Seagrasses present

Table 25: Indicator values for seagrasses in this area. A good condition threshold is not yet defined for this indicator.

	Indicator Values	Acres	Percent of Area
↑ High	Seagrasses present	228,430	0.1%
	<i>Area not evaluated for this indicator</i>	171,650,269	99.9%
	<i>Outside Southeast Blueprint</i>	22,348	<0.1%
	Total area	171,901,047	100%

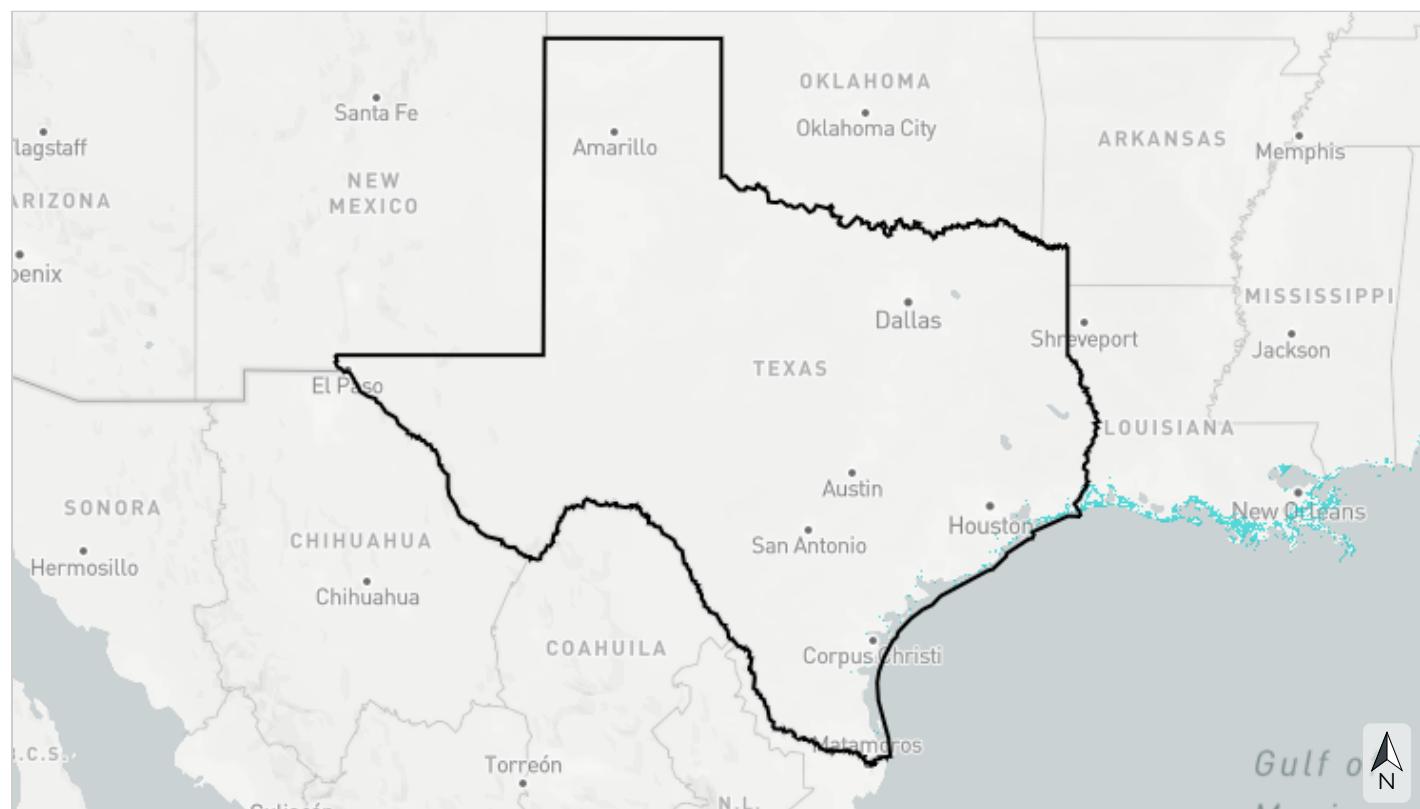
To learn more and explore the GIS data, [view this indicator in the SECAS Atlas](#).



Coastal & marine

Stable coastal wetlands

This indicator uses remote sensing to calculate the unvegetated-vegetated ratio of tidal wetlands, which compares how much of a wetland is not covered by plants (e.g., sediment, rocks, open water) to how much is covered by plants. This ratio, and how it changes over time, is a good surrogate for salt marsh degradation processes like sediment loss and conversion to open water. It helps differentiate between stable marshes that are more resilient, and declining marshes that are more vulnerable to threats like sea-level rise, erosion, and coastal development. This indicator originates from a U.S. Geological Survey project on an unvegetated to vegetated ratio for coastal wetlands.



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Table 26: Indicator values for stable coastal wetlands in this area. Good condition thresholds reflect the range of indicator values that occur in healthy, functioning ecosystems.

	Indicator Values	Acres	Percent of Area	
↑ High	Stable coastal wetlands	301,041	0.2%	↑ In good condition
	<i>Area not evaluated for this indicator</i>	171,577,659	99.8%	
	<i>Outside Southeast Blueprint</i>	22,348	<0.1%	
	Total area	171,901,047	100%	

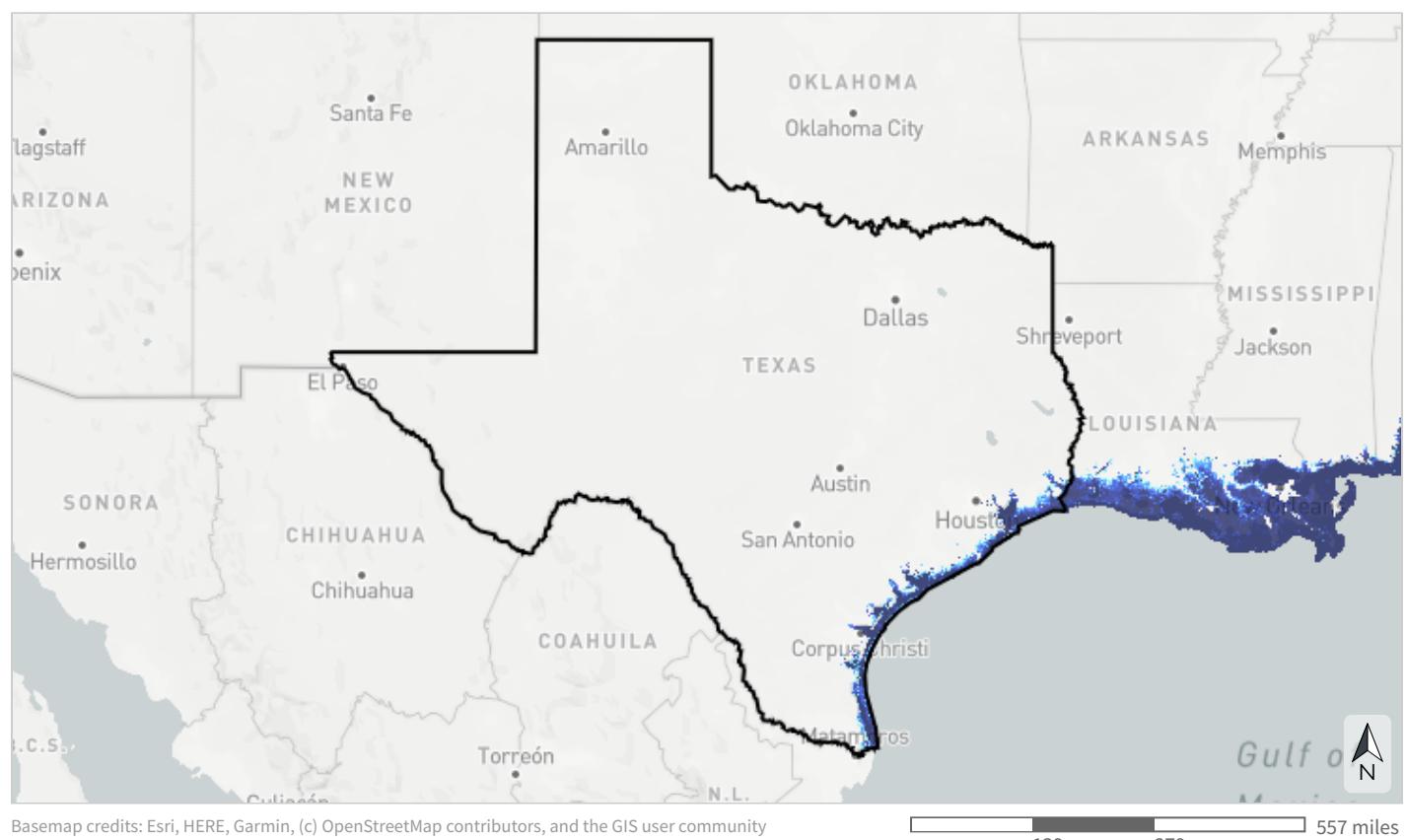
To learn more and explore the GIS data, [view this indicator in the SECAS Atlas](#).

Threats

Sea-level rise

NOAA's sea-level rise (SLR) inundation models represent areas likely to experience flooding at high tide based on each foot of inundation depth above current levels. These inundation depth models are not linked to a future timeframe; see the projections below. NOAA calculates the inundation depth at "mean higher high water", or the average highest daily tide. The area covered by each inundation depth level includes areas projected to be inundated at lower levels. For example, areas inundated by 4 ft of SLR also includes areas inundated by 3 ft, 2 ft, 1 ft, and current inundation levels.

To explore additional SLR information, please see NOAA's [Sea Level Rise Viewer](#).



Flooding extent by projected sea-level rise (ft)



Table 27: Extent of flooding by projected average highest daily tide due to sea level rise in this area. Values from the [NOAA sea-level rise inundation data](#).

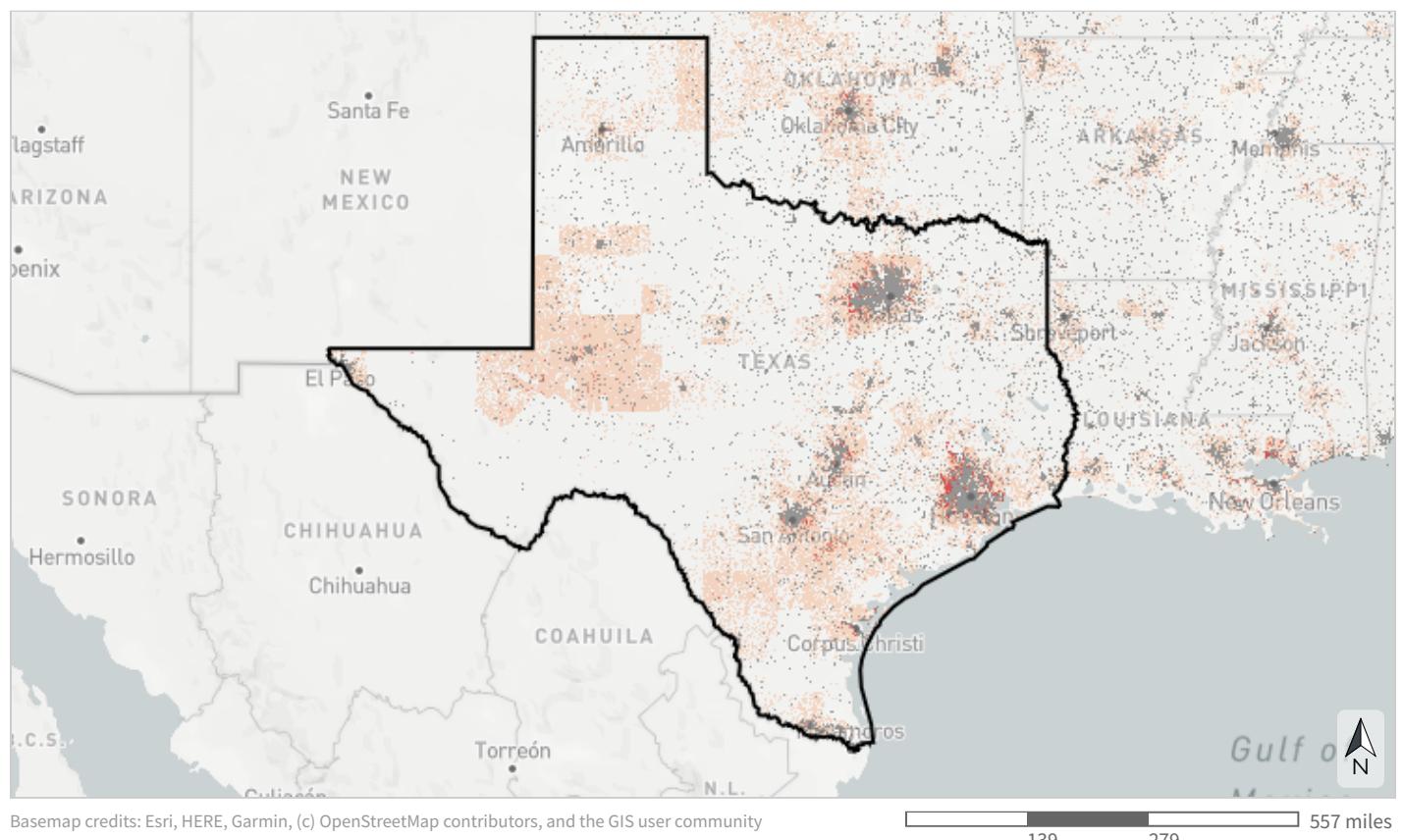
Feet of sea-level rise	Acres	Percent of Area
0 feet	2,464,661	1.4%
1 foot	2,795,750	1.6%
2 feet	3,093,251	1.8%
3 feet	3,302,607	1.9%
4 feet	3,469,355	2.0%
5 feet	3,616,314	2.1%
6 feet	3,768,572	2.2%
7 feet	3,936,500	2.3%
8 feet	4,097,934	2.4%
9 feet	4,260,008	2.5%
10 feet	4,419,417	2.6%
<i>Not projected to be inundated by up to 10 feet</i>	10,372,350	6.0%
<i>Sea-level rise data unavailable</i>	128,108	<0.1%
<i>Sea-level rise unlikely to be a threat (inland counties)</i>	156,958,824	91.3%
<i>Outside Southeast Blueprint</i>	22,348	<0.1%
Total area	171,901,047	100%

Table 28: Projected sea level rise by decade in this area. Values are based on area-weighted averages of decadal projections for 1-degree grid cells that overlap this area based on [NOAA's 2022 Sea Level Rise Report](#). 2060 corresponds to the [SECAS goal](#): a 10% or greater improvement in the health, function, and connectivity of Southeastern ecosystems by 2060.

SLR Scenario	2020 (ft)	2030 (ft)	2040 (ft)	2050 (ft)	2060 (ft)	2070 (ft)	2080 (ft)	2090 (ft)	2100 (ft)
Low	0.5	0.76	1	1.2	1.5	1.7	1.9	2	2.2
Intermediate-low	0.53	0.82	1.1	1.4	1.7	2	2.3	2.6	2.9
Intermediate	0.54	0.85	1.1	1.5	1.9	2.4	2.9	3.6	4.4
Intermediate-high	0.55	0.87	1.2	1.7	2.3	3.1	4	4.9	5.9
High	0.55	0.9	1.3	1.9	2.7	3.8	5	6.3	7.6

Urban growth

The FUTURES urban growth model predicts the likelihood that an area will urbanize at every decade from 2020 to 2100. Developed areas from the 2019 National Landcover Database serve as the baseline for current urban areas. The model simulates landscape change based on trends in population growth, local development suitability factors, and an urban patch-growing algorithm. It considers environmental drivers like distance to floodplain, slope, and available infrastructure, and even socio-economic status. The probability of urbanization for each area reflects how many times it urbanized out of 50 model runs.



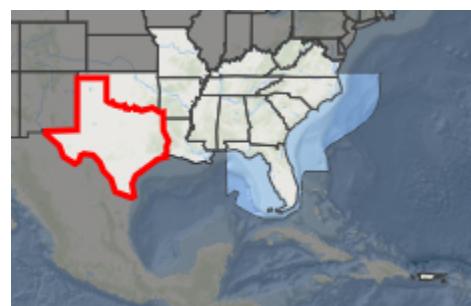
5.9% of this area is already urban in 2019, and an additional 19.5% has at least a moderate probability of urbanizing by 2060.

Table 29: Extent of projected urbanization by decade in this area. Values from the FUTURES urban growth model. Data provided by the [Center for Geospatial Analytics](#), NC State University. 2060 corresponds to the [SECAS goal](#): a 10% or greater improvement in the health, function, and connectivity of Southeastern ecosystems by 2060.

Decade	Acres	Percent of Area
Urban in 2019	10,142,244	5.9%
2020 projected extent	10,382,457	6.0%
2030 projected extent	11,024,558	6.4%
2040 projected extent	11,599,720	6.7%
2050 projected extent	12,101,245	7.0%
2060 projected extent	12,557,757	7.3%
2070 projected extent	12,935,652	7.5%
2080 projected extent	13,226,376	7.7%
2090 projected extent	13,430,376	7.8%
2100 projected extent	13,569,411	7.9%
<i>Not projected to urbanize by 2100</i>	123,469,762	71.8%
<i>Outside Southeast Blueprint</i>	22,348	<0.1%
Total area	171,901,047	100%

Ownership and Partners

Conserved lands ownership

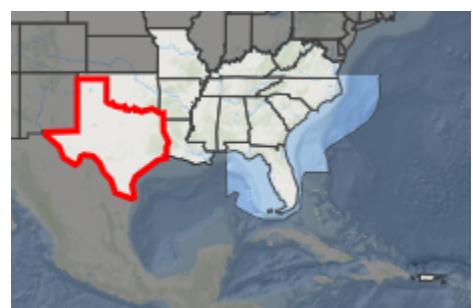
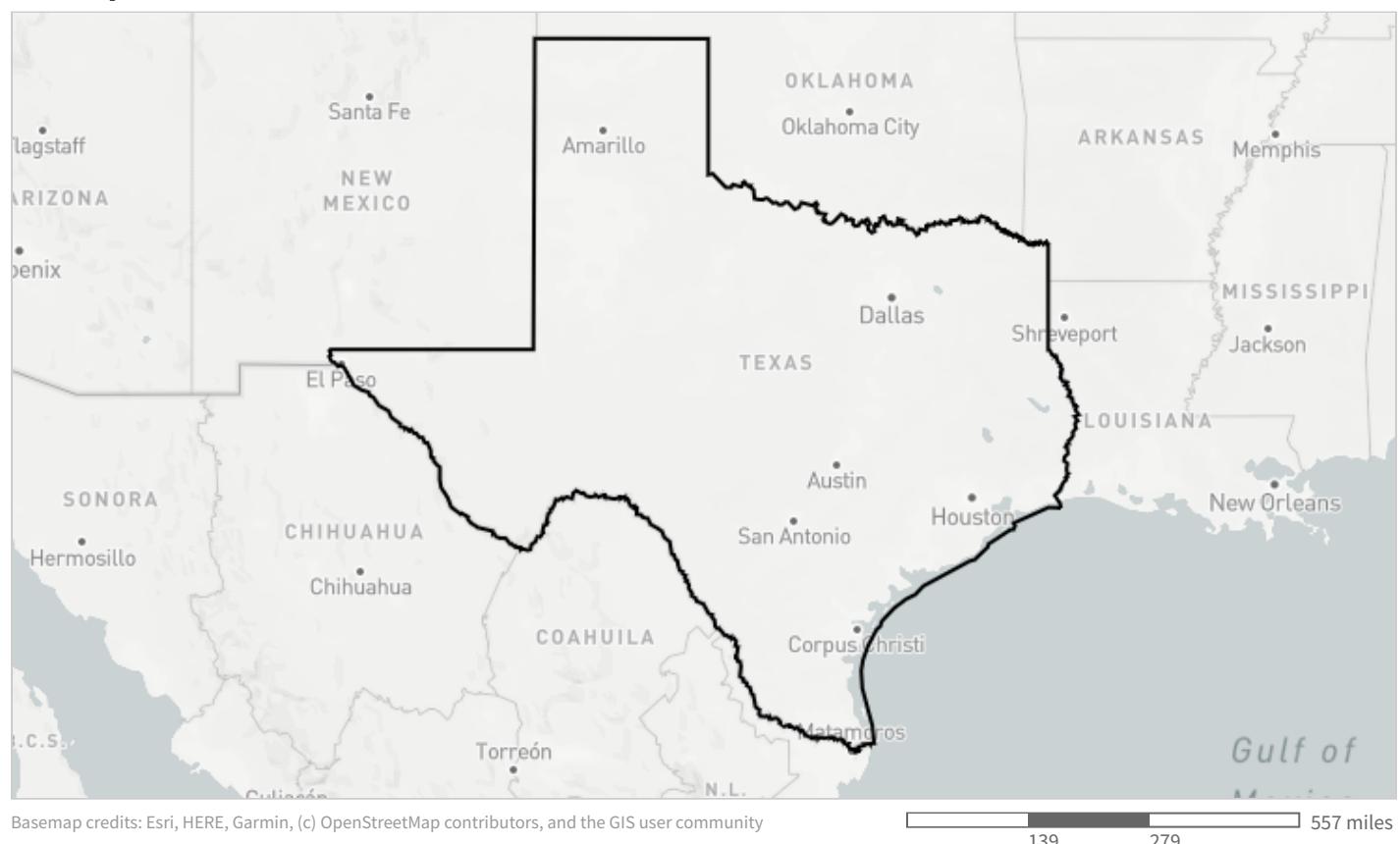


Federal	Joint
State/province	Private non-profit conserved lands
Territorial	Private conservation land
Regional	Tribal
Local	Designation
	Ownership unknown

Table 30: Extent of ownership class in this area. Protected areas are derived from the [Protected Areas Database of the United States](#) (PAD-US v3.0). Note: areas are based on the polygon boundary of this area compared to protected area polygons, rather than pixel-level analyses used elsewhere in this report.

Ownership	Acres	Percent of Area
Federal	2,609,391	1.5%
State/province	2,346,263	1.4%
Regional	47,379	<0.1%
Local	320,707	0.2%
Joint	260	<0.1%
Private non-profit conserved lands	142,002	<0.1%
Private conservation land	713,218	0.4%
Designation	2,420,333	1.4%
Ownership unknown	664,772	0.4%
<i>Not conserved</i>	162,636,731	94.6%
Total area	171,901,058	100%

Land protection status



- Managed for biodiversity (disturbance events proceed or are mimicked)
- Managed for biodiversity (disturbance events suppressed)
- Managed for multiple uses (subject to extractive uses such as mining or logging, or OHV use)
- No known mandate for biodiversity protection

Table 31: Extent of land protection status in this area. Protected areas are derived from the [Protected Areas Database of the United States](#) (PAD-US v3.0). Note: areas are based on the polygon boundary of this area compared to protected area polygons, rather than pixel-level analyses used elsewhere in this report.

Land Protection Status	Acres	Percent of Area
Managed for biodiversity (disturbance events proceed or are mimicked)	1,778,778	1.0%
Managed for biodiversity (disturbance events suppressed)	2,699,280	1.6%
Managed for multiple uses (subject to extractive uses such as mining or logging, or OHV use)	2,856,732	1.7%
No known mandate for biodiversity protection	1,929,537	1.1%
<i>Not conserved</i>	162,636,731	94.6%
Total area	171,901,058	100%

Protected Areas

- Permanent University Fund (Texas General Land Office; 1,389,713 acres)
- BIBE (NPS; 784,706 acres)
- National Forests in Texas (USDA FOREST SERVICE; 677,734 acres)
- Big Bend (576,702 acres)
- Big Bend Ranch SP (Texas Parks and Wildlife Department; 313,391 acres)
- Fort Hood (219,325 acres)
- Mission-Aransas National Estuarine Research Reserve (Unknown; 185,674 acres)
- Padre Island National Seashore (Unknown; 131,161 acres)
- PAIS (NPS; 130,489 acres)
- Fort Bliss (123,320 acres)
- SAM RAYBURN (Unknown; 116,718 acres)
- Aransas National Wildlife Refuge (Unknown; 116,538 acres)
- Sam Rayburn Reservoir (113,190 acres)
- BITH (NPS; 108,722 acres)
- Black Gap WMA (Texas Parks and Wildlife Department; 104,659 acres)
- Lower Rio Grande Valley National Wildlife Refuge (Unknown; 98,081 acres)
- LAGUNA ATASCOSA NATIONAL WILDLIFE REFUGE (Fee; 95,359 acres)

- Laguna Atascosa National Wildlife Refuge (Unknown; 91,401 acres)
- ARANSAS NATIONAL WILDLIFE REFUGE (Fee; 90,764 acres)
- LOWER RIO GRANDE VALLEY NATIONAL WILDLIFE REFUGE (Fee; 88,232 acres)
- GUMO (NPS; 86,839 acres)
- WRIGHT PATMAN (Unknown; 81,011 acres)
- Cibola National Forest (USDA FOREST SERVICE; 79,349 acres)
- SAN BERNARD NATIONAL WILDLIFE REFUGE (Fee; 62,792 acres)
- San Bernard National Wildlife Refuge (Unknown; 62,098 acres)
- ... and 9,306 more protected areas ...

Nearby land trusts

[Click here](#) to search for land trusts within 500 miles of this area on the Land Trust Alliance website.

Credits

This report was generated by the Southeast Conservation Blueprint Explorer, which was developed by [Astute Spruce, LLC](#) in partnership with the U.S. Fish and Wildlife Service under the [Southeast Conservation Adaptation Strategy](#).

Data credits

Urbanization data are derived from the FUTURES urban growth model. Data provided by the [Center for Geospatial Analytics](#), NC State University (June 2022).

Sea level rise data are derived from the National Oceanic and Atmospheric Administration's [Sea Level Rise Inundation Depth Data](#) and the [2022 Sea Level Rise Technical Report](#).

Land ownership and conservation status is derived from the [Protected Areas Database of the United States](#) (PAD-US v3.0).