

# Southeast Conservation Blueprint Summary

for Texas

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Created 11/27/2023

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The Southeast  
Conservation  
Adaptation Strategy

SECAS



The Southeast Conservation Blueprint 2023

PR & USVI

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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.

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.

For more information:

- Visit the [Blueprint webpage](#)
- Review the [Blueprint 2023 Development Process](#)
- View and download the Blueprint data and make maps on the [Blueprint page of the SECAS Atlas](#)

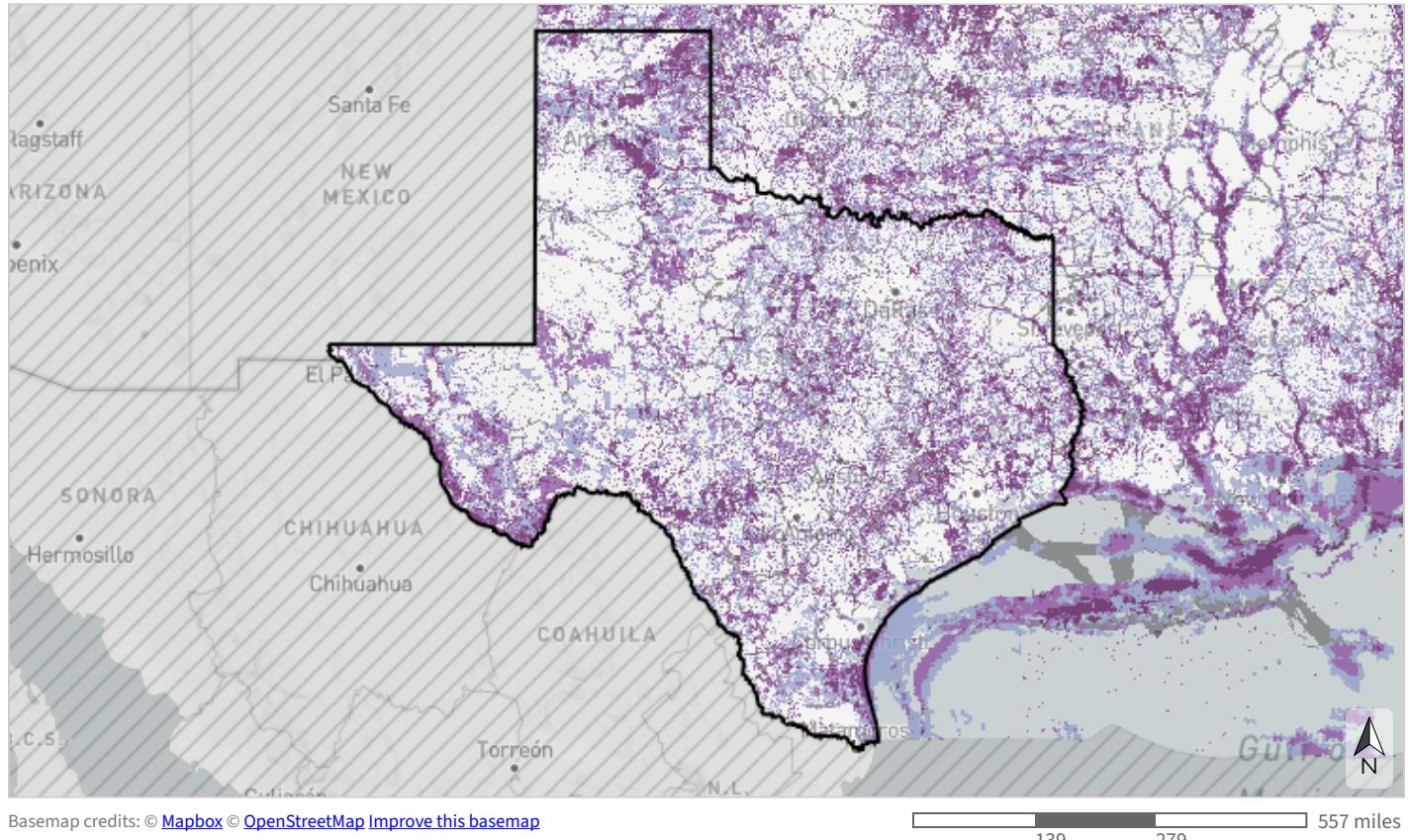
## We're here to help!

- 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.

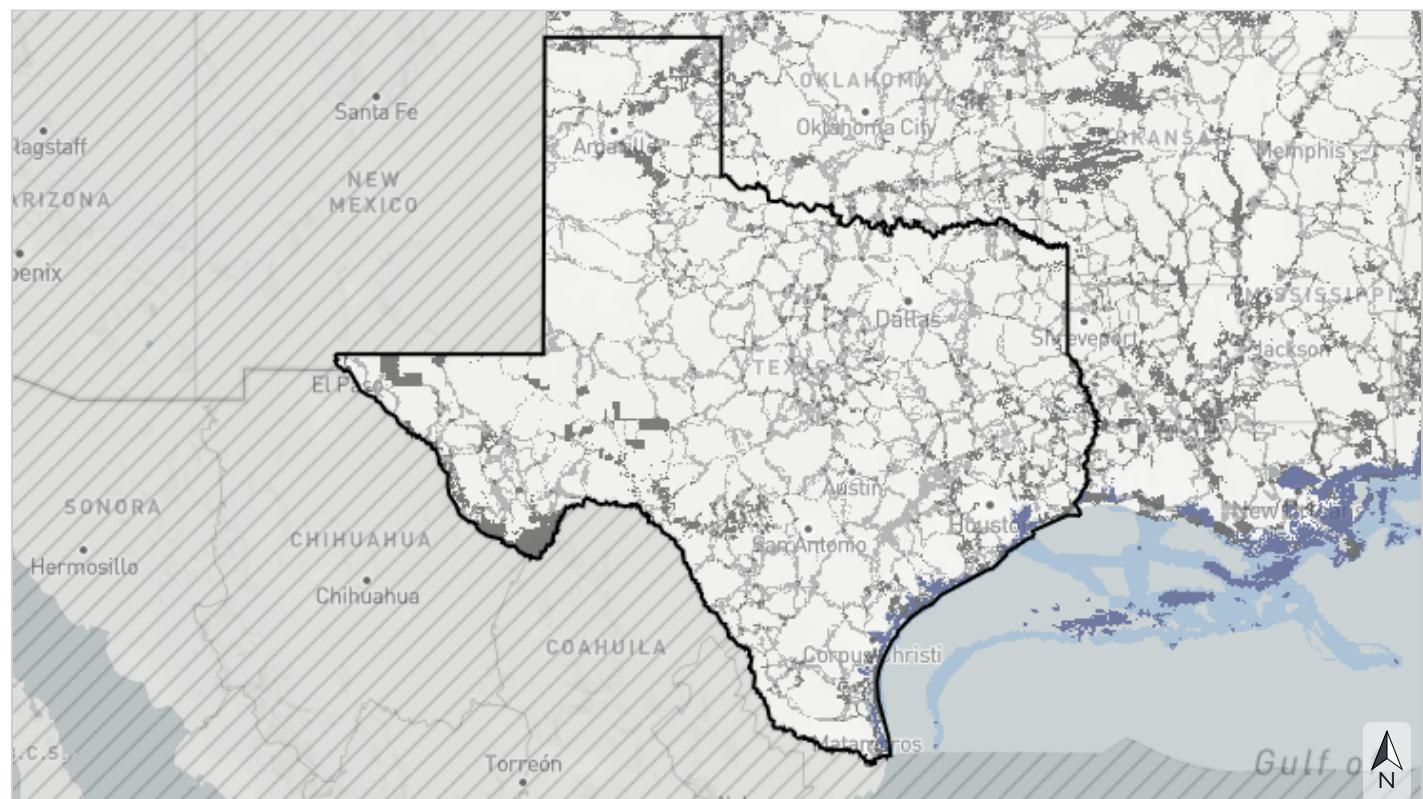
Table 1: Extent of each Blueprint priority category within Texas.

Priority Category	Acres	Percent of Area
Highest priority	16,353,272	9.5%
High priority	24,942,953	14.5%
Medium priority	35,013,495	20.4%
Priority connections	8,968,428	5.2%
Lower priority	86,619,276	50.4%
<b>Total area</b>	<b>171,897,425</b>	<b>100%</b>

## 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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557 miles  
139 279



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

*Table 2: Extent of hubs and corridors within Texas.*

Type	Acres	Percent of Area
Inland continental hubs	12,810,856	7.5%
Inland continental corridors	32,410,068	18.9%
Marine & estuarine continental hubs	1,525,590	0.9%
Marine & estuarine continental corridors	491,670	0.3%
Not a hub or corridor	124,659,241	72.5%
<b>Total area</b>	<b>171,897,425</b>	<b>100%</b>

# Indicator Summary

Table 3: Terrestrial indicators.

Indicator	Present
<a href="#"><u>Equitable access to potential parks</u></a>	✓
<a href="#"><u>Fire frequency</u></a>	✓
<a href="#"><u>Great Plains perennial grasslands</u></a>	✓
<a href="#"><u>Greenways &amp; trails</u></a>	✓
<a href="#"><u>Intact habitat cores</u></a>	✓
Mississippi Alluvial Valley forest birds - protection	-
Mississippi Alluvial Valley forest birds - reforestation	-
<a href="#"><u>Playas</u></a>	✓
<a href="#"><u>Resilient terrestrial sites</u></a>	✓
<a href="#"><u>Urban park size</u></a>	✓
<a href="#"><u>West Coastal Plain &amp; Ouachitas forested wetland birds</u></a>	✓
<a href="#"><u>West Coastal Plain &amp; Ouachitas open pine birds</u></a>	✓
<a href="#"><u>West Gulf Coast mottled duck nesting</u></a>	✓

Table 4: Freshwater indicators.

Indicator	Present
<a href="#"><u>Imperiled aquatic species</u></a>	✓
<a href="#"><u>Natural landcover in floodplains</u></a>	✓
<a href="#"><u>Network complexity</u></a>	✓
<a href="#"><u>Permeable surface</u></a>	✓

Table 5: Coastal &amp; marine indicators.

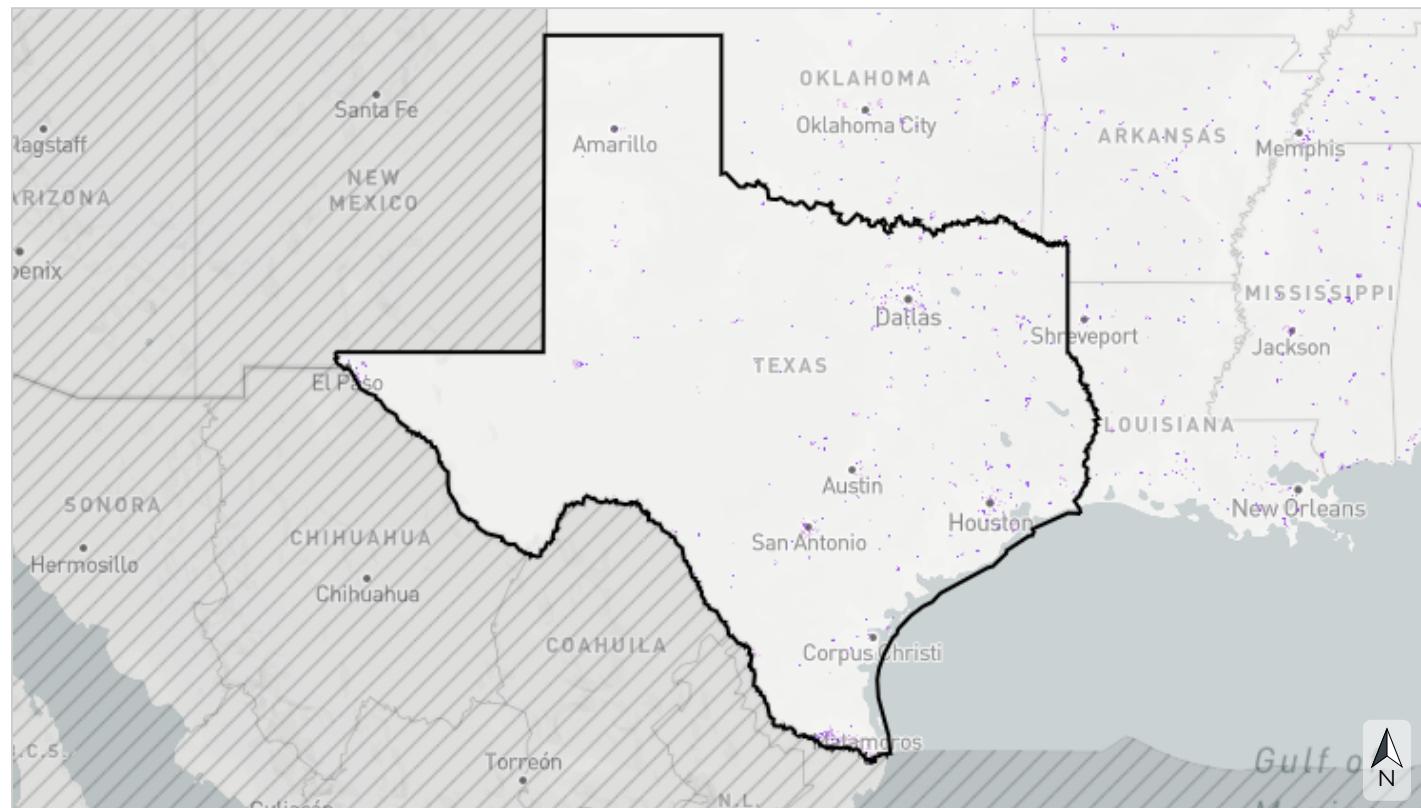
Indicator	Present
Atlantic coral & hardbottom	-
Atlantic deep-sea coral richness	-
Atlantic estuarine fish habitat	-
Atlantic marine birds	-
Atlantic marine mammals	-
<a href="#"><u>Coastal shoreline condition</u></a>	✓
<a href="#"><u>Estuarine coastal condition</u></a>	✓
<a href="#"><u>Gulf coral &amp; hardbottom</u></a>	✓
Gulf deep-sea coral richness	-
<a href="#"><u>Gulf marine mammals</u></a>	✓
<a href="#"><u>Gulf sea turtles</u></a>	✓
<a href="#"><u>Island habitat</u></a>	✓
<a href="#"><u>Marine highly migratory fish</u></a>	✓
<a href="#"><u>Resilient coastal sites</u></a>	✓
<a href="#"><u>Seagrass</u></a>	✓
<a href="#"><u>Stable coastal wetlands</u></a>	✓



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 in urban areas. 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 and the Center for Disease Control's Social Vulnerability Index.



### Priority for a new park that would create nearby equitable access

- Very high priority
- High priority
- Moderate priority
- Not identified as a priority (within urban areas)

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

<b>Indicator Values: Priority for a new park that would create nearby equitable access</b>		<b>Acres</b>	<b>Percent of Area</b>
↑ High	Very high priority	325,796	0.2%
	High priority	450,230	0.3%
	Moderate priority	764,278	0.4%
↓ Low	Not identified as a priority (within urban areas)	168,399,407	98.0%
	<i>Area not evaluated for this indicator</i>	1,957,715	1.1%
	<b>Total area</b>	<b>171,897,425</b>	<b>100%</b>

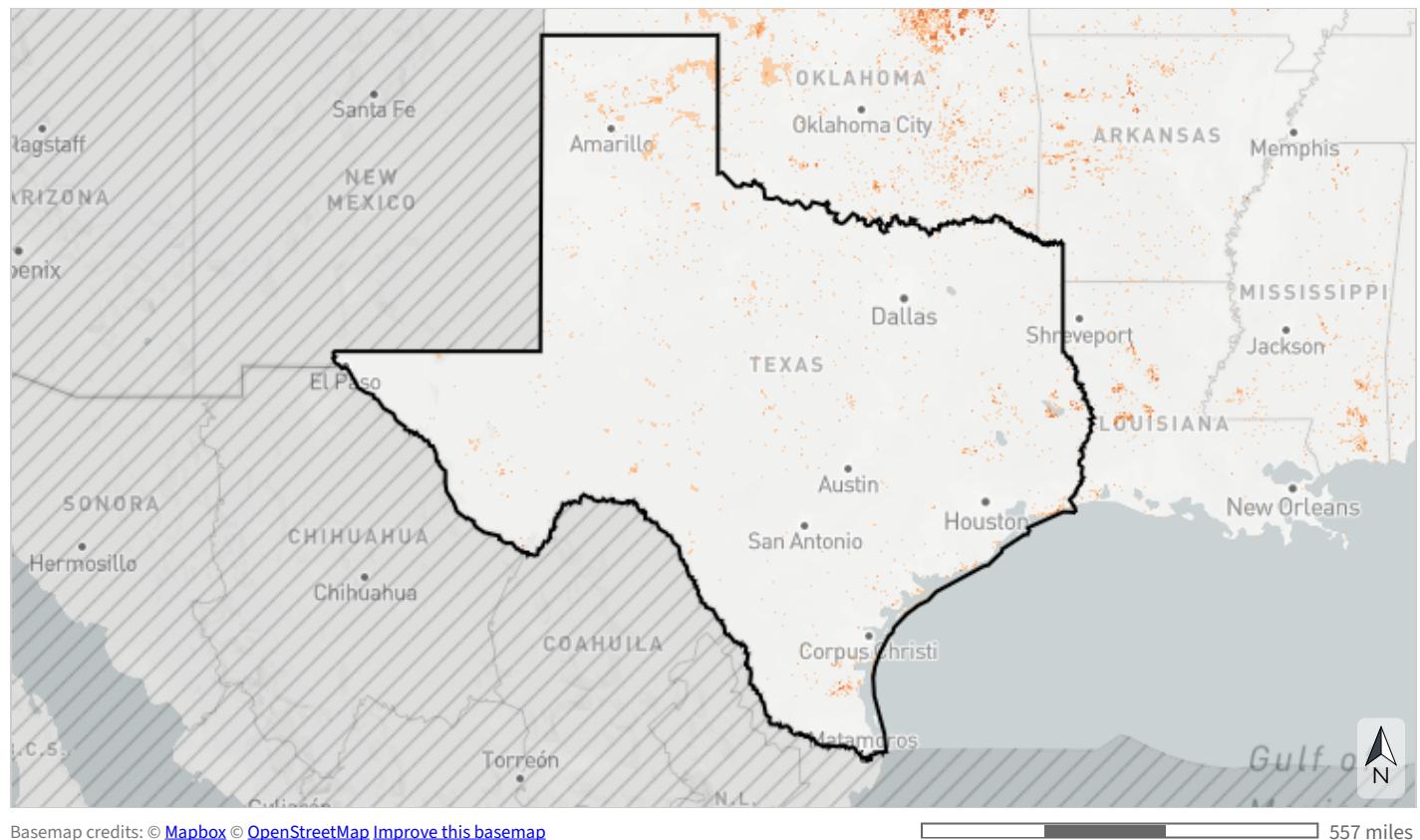
To learn more and explore the GIS data, [view this indicator in the SECAS Atlas](#).



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 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 within Texas. Good condition thresholds reflect the range of indicator values that occur in healthy, functioning ecosystems.*

	<b>Indicator Values</b>	<b>Acres</b>	<b>Percent of Area</b>
↑ 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>Area not evaluated for this indicator</i>	18,726	<0.1%
<b>Total area</b>		<b>171,897,425</b>	<b>100%</b>

↑ In good condition

↓ Not in good condition

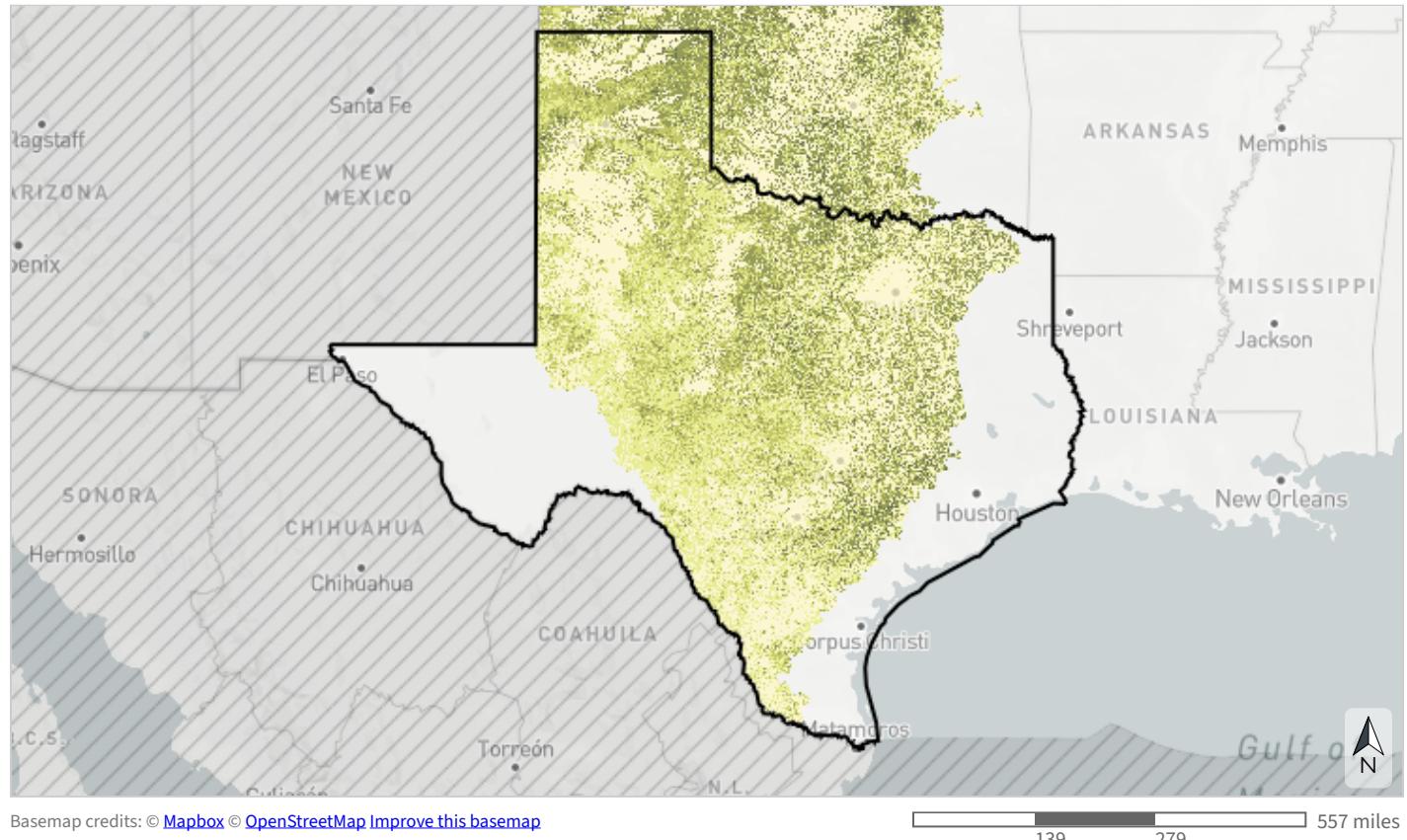
To learn more and explore the GIS data, [view this indicator in the SECAS Atlas](#).



Terrestrial

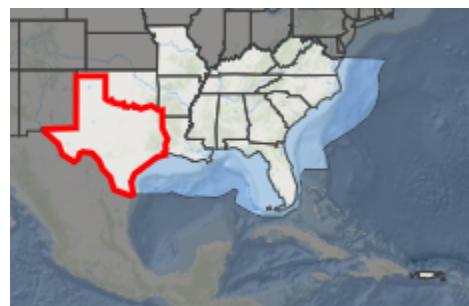
## Great Plains perennial grasslands

This indicator measures the percent of perennial forbs 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.



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139 279 557 miles



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

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

		<b>Indicator Values</b>	<b>Acres</b>	<b>Percent of Area</b>
↑ 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>	55,664,429	32.4%	
		<b>Total area</b>	<b>171,897,425</b>	<b>100%</b>

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 data and the National Land Cover Database.



- Mostly natural and connected for  $\geq 40$  km
- Mostly natural and connected for 5 to  $< 40$  km or partly natural and connected for  $\geq 40$  km
- Mostly natural and connected for 1.9 to  $< 5$  km, partly natural and connected for 5 to  $< 40$  km, or developed and connected for  $\geq 40$  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
- Not identified as a trail, sidewalk, or other path

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

	<b>Indicator Values</b>	<b>Acres</b>	<b>Percent of Area</b>
↑ High	Mostly natural and connected for $\geq 40$ km	10,725	<0.1%
	Mostly natural and connected for 5 to $< 40$ km or partly natural and connected for $\geq 40$ km	20,640	<0.1%
	Mostly natural and connected for 1.9 to $< 5$ km, partly natural and connected for 5 to $< 40$ km, or developed and connected for $\geq 40$ km	41,278	<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	31,134	<0.1%
	Partly natural and connected for $< 1.9$ km or developed and connected for 1.9 to $< 5$ km	18,180	<0.1%
	Developed and connected for $< 1.9$ km	28,223	<0.1%
	Sidewalk	65,229	<0.1%
	Not identified as a trail, sidewalk, or other path	171,630,447	99.8%
↓ Low	<i>Area not evaluated for this indicator</i>	51,569	<0.1%
	<b>Total area</b>	<b>171,897,425</b>	<b>100%</b>

↑ In good condition

↓ Not in good condition

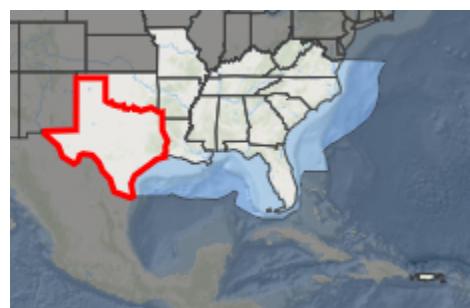
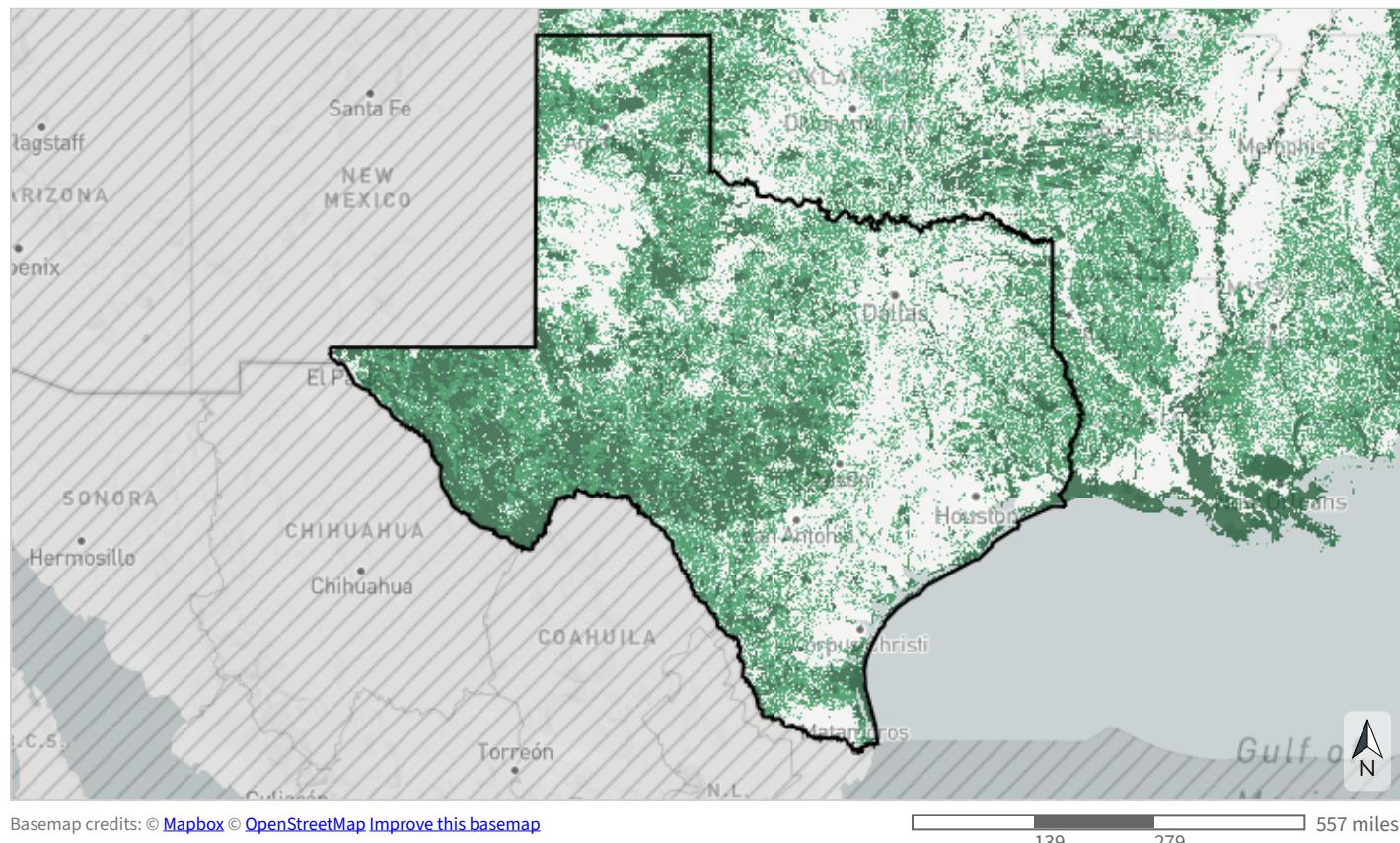
To learn more and explore the GIS data, [view this indicator in the SECAS Atlas](#).



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.



- 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 within Texas. Good condition thresholds reflect the range of indicator values that occur in healthy, functioning ecosystems.*

	<b>Indicator Values</b>	<b>Acres</b>	<b>Percent of Area</b>
↑ High	Large core (>10,000 acres)	31,196,845	18.1%
	Medium core (>1,000-10,000 acres)	44,940,382	26.1%
	Small core (>100-1,000 acres)	22,634,420	13.2%
↓ Low	Not a core	73,074,209	42.5%
	<i>Area not evaluated for this indicator</i>	51,569	<0.1%
<b>Total area</b>		<b>171,897,425</b>	<b>100%</b>

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 probable playas dataset.



- Healthy playa and part of a larger cluster
- Healthy playa
- Other playa
- Not identified as a playa

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

	<b>Indicator Values</b>	<b>Acres</b>	<b>Percent of Area</b>
↑ High	Healthy playa and part of a larger cluster	139,261	<0.1%
	Healthy playa	4,004	<0.1%
↓ Low	Other playa	249,050	0.1%
	Not identified as a playa	47,766,454	27.8%
<i>Area not evaluated for this indicator</i>		123,738,656	72.0%
<b>Total area</b>		<b>171,897,425</b>	<b>100%</b>

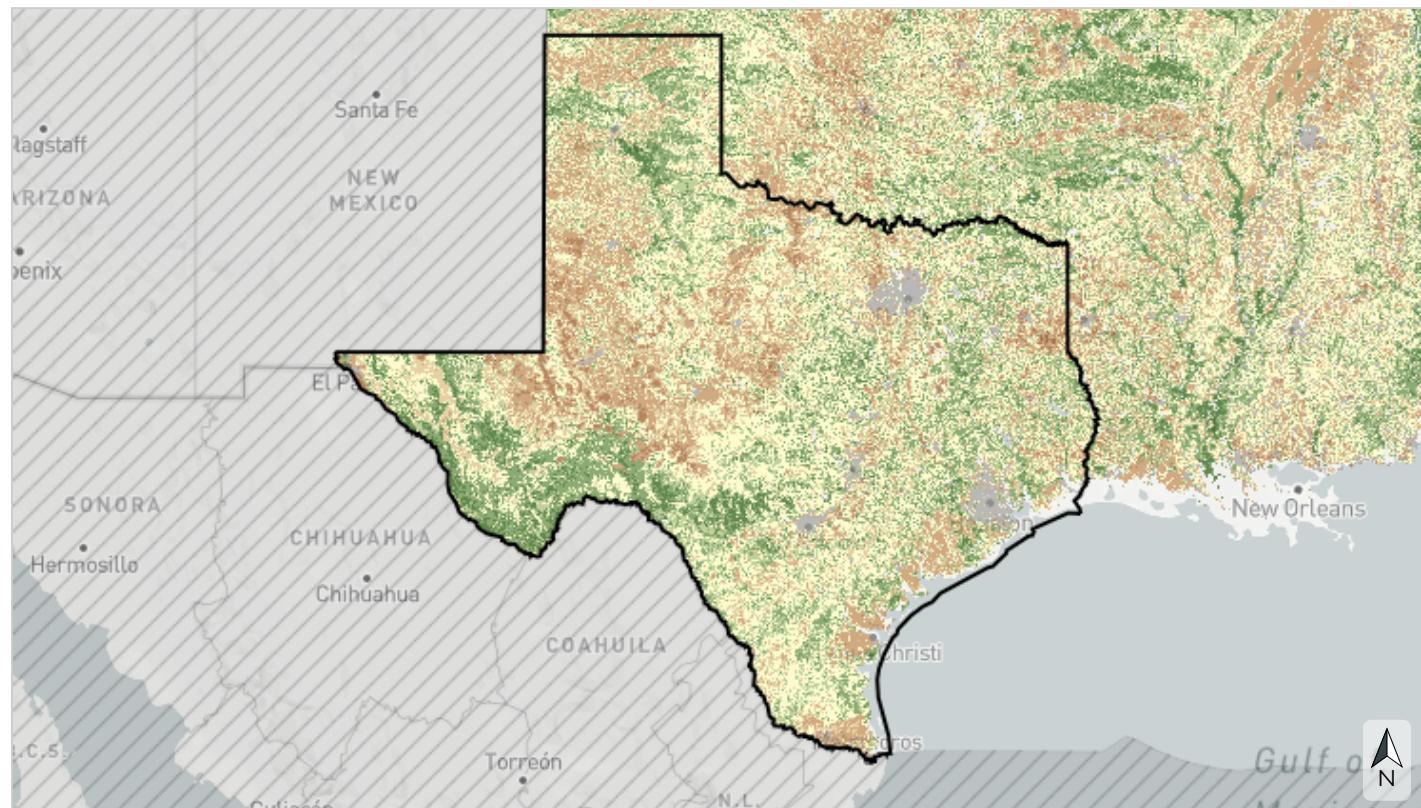
To learn more and explore the GIS data, [view this indicator in the SECAS Atlas](#).



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 within Texas. A good condition threshold is not yet defined for this indicator.*

	<b>Indicator Values</b>	<b>Acres</b>	<b>Percent of Area</b>
↑ 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	24,129,664	14.0%
	Less resilient	21,829,734	12.7%
	Least resilient	3,342,247	1.9%
	Developed	5,423,119	3.2%
<i>Area not evaluated for this indicator</i>		6,026,820	3.5%
<b>Total area</b>		<b>171,897,425</b>	<b>100%</b>

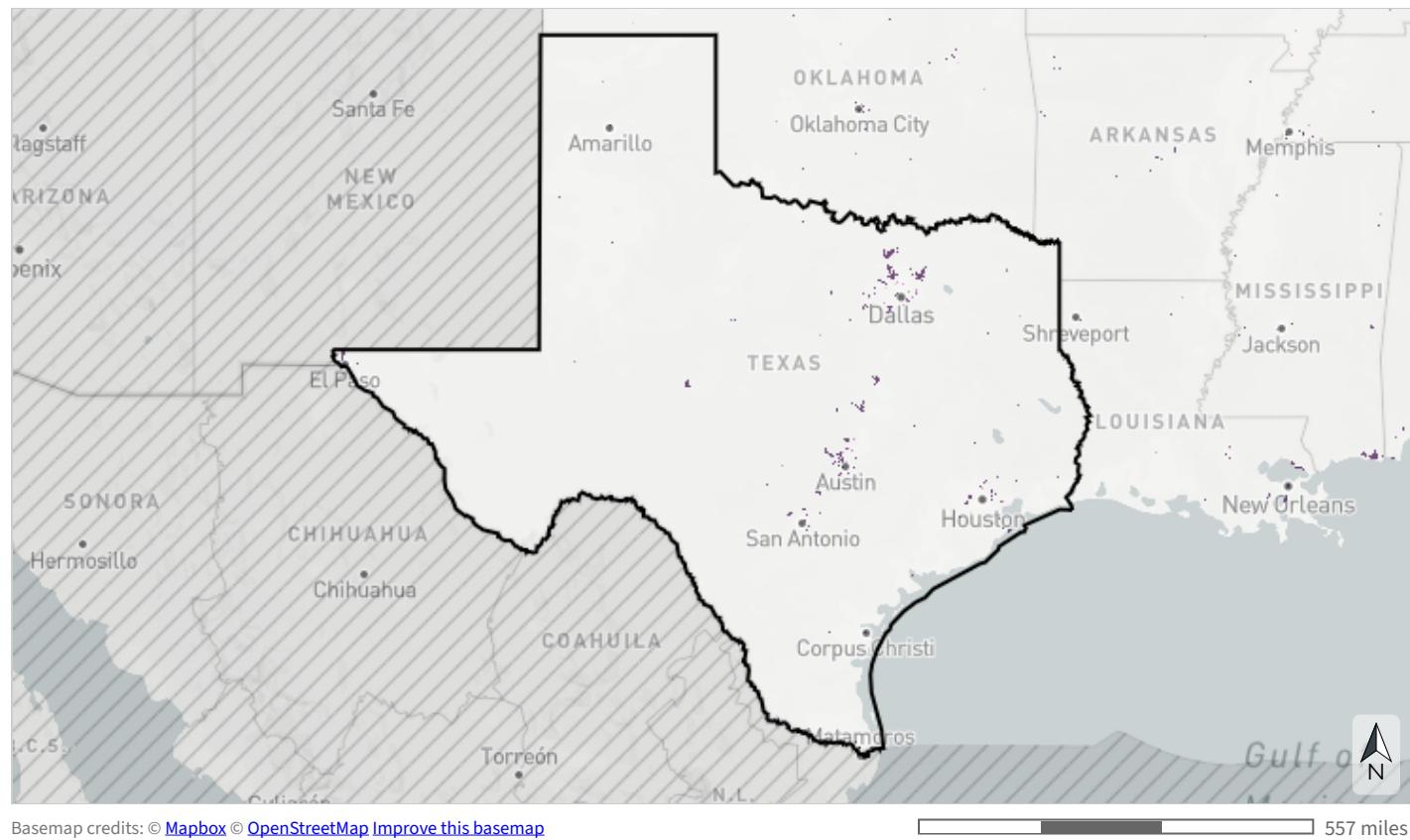
To learn more and explore the GIS data, [view this indicator in the SECAS Atlas](#).



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 Protected Areas Database of the United States, Census urban areas, and the National Land Cover Database.



- 75+ acre urban park
- 50 to <75 acre urban park
- 30 to <50 acre urban park
- 10 to <30 acre urban park
- 5 to <10 acre urban park
- <5 acre urban park or not identified as an urban park

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

	<b>Indicator Values</b>	<b>Acres</b>	<b>Percent of Area</b>
↑ High	75+ acre urban park	554,292	0.3%
	50 to <75 acre urban park	20,015	<0.1%
	30 to <50 acre urban park	24,690	<0.1%
	10 to <30 acre urban park	39,346	<0.1%
	5 to <10 acre urban park	16,996	<0.1%
	<5 acre urban park or not identified as an urban park	171,203,162	99.6%
<i>Area not evaluated for this indicator</i>		38,923	<0.1%
<b>Total area</b>		<b>171,897,425</b>	<b>100%</b>

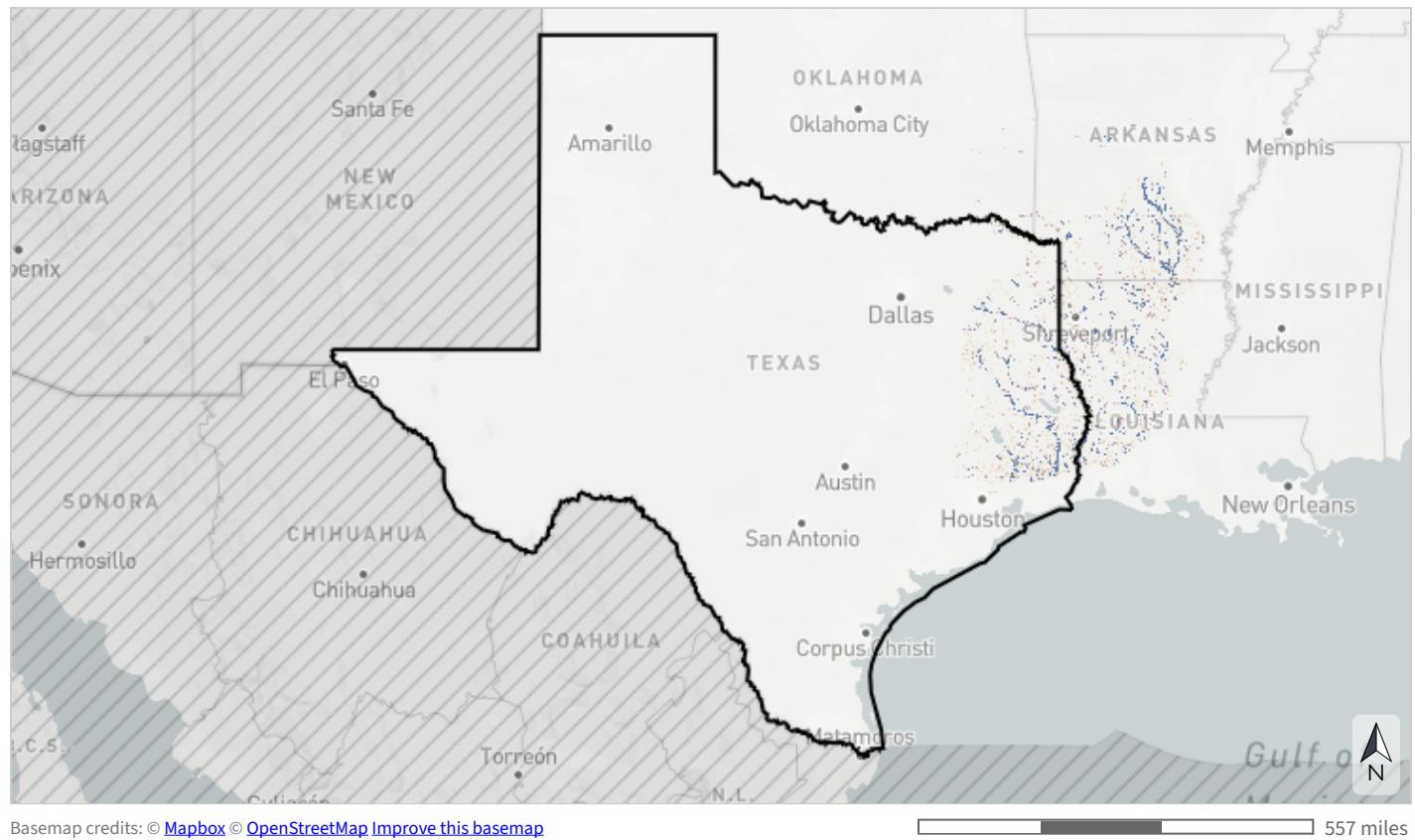
To learn more and explore the GIS data, [view this indicator in the SECAS Atlas](#).



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/Ouachitas (WGCPO) Bird Conservation Region. It uses metrics like patch size, dispersal distance, and distance to water 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 WGCPO region.



### Habitat suitability for forested wetland bird umbrella species

- High habitat suitability (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 (score >0-20)
- Not suitable (score =0)

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

<b>Indicator Values: Habitat suitability for forested wetland bird umbrella species</b>		<b>Acres</b>	<b>Percent of Area</b>
↑ High	High habitat suitability (score >80)	472,163	0.3%
	Medium-high habitat suitability (score >60-80)	318,899	0.2%
	Medium habitat suitability (score >40-60)	361,743	0.2%
	Medium-low habitat suitability (score >20-40)	566,631	0.3%
	Low habitat suitability (score >0-20)	553,694	0.3%
↓ Low	Not suitable (score =0)	13,606,700	7.9%
	<i>Area not evaluated for this indicator</i>	156,017,595	90.8%
	<b>Total area</b>	<b>171,897,425</b>	<b>100%</b>

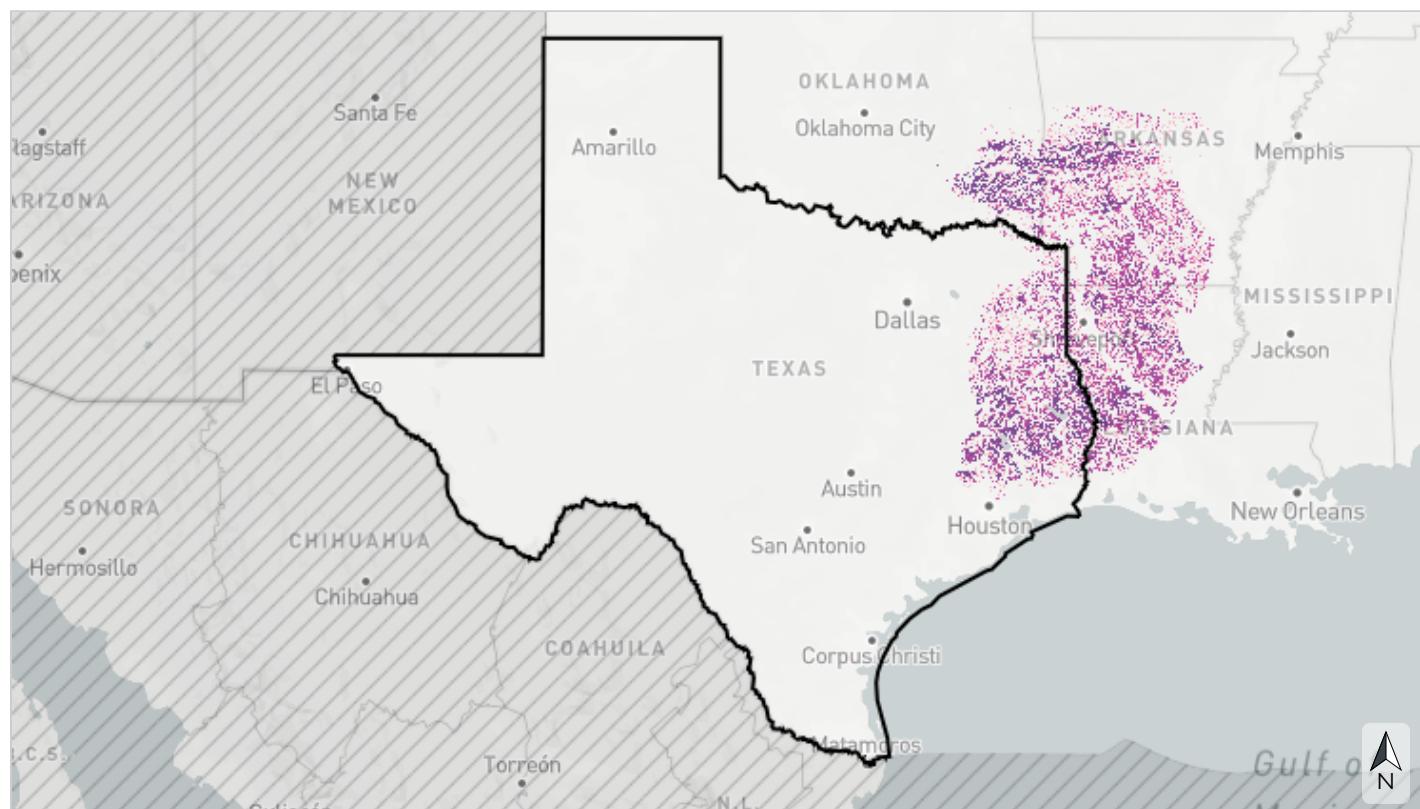
To learn more and explore the GIS data, [view this indicator in the SECAS Atlas](#).



Terrestrial

## West Coastal Plain & Ouachitas open pine birds

This indicator identifies areas with 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 in the West Gulf Coastal Plain/Ouachitas (WGCPO) Bird Conservation Region 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 WGCPO region.



### Ability of pine patch to support a population of umbrella bird species if managed in open condition

- Large enough to support a population of all 3 species
- Large enough to support a population of 2 species
- Large enough to support a population of 1 species
- Part of a cluster of nearby patches able to support a population of all 3 species
- Part of a cluster of nearby patches able to support a population of 2 species
- Part of a cluster of nearby patches able to support a population of 1 species
- Too small and isolated to support a population of any species or not an upland pine patch

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

<b>Indicator Values: Ability of pine patch to support a population of umbrella bird species if managed in open condition</b>		<b>Acres</b>	<b>Percent of Area</b>
↑ High	Large enough to support a population of all 3 species	1,589,538	0.9%
	Large enough to support a population of 2 species	2,163,307	1.3%
	Large enough to support a population of 1 species	559,981	0.3%
	Part of a cluster of nearby patches able to support a population of all 3 species	415,274	0.2%
	Part of a cluster of nearby patches able to support a population of 2 species	1,057,850	0.6%
	Part of a cluster of nearby patches able to support a population of 1 species	5,709	<0.1%
	Too small and isolated to support a population of any species or not an upland pine patch	10,087,885	5.9%
	<i>Area not evaluated for this indicator</i>	156,017,881	90.8%
<b>Total area</b>		<b>171,897,425</b>	<b>100%</b>

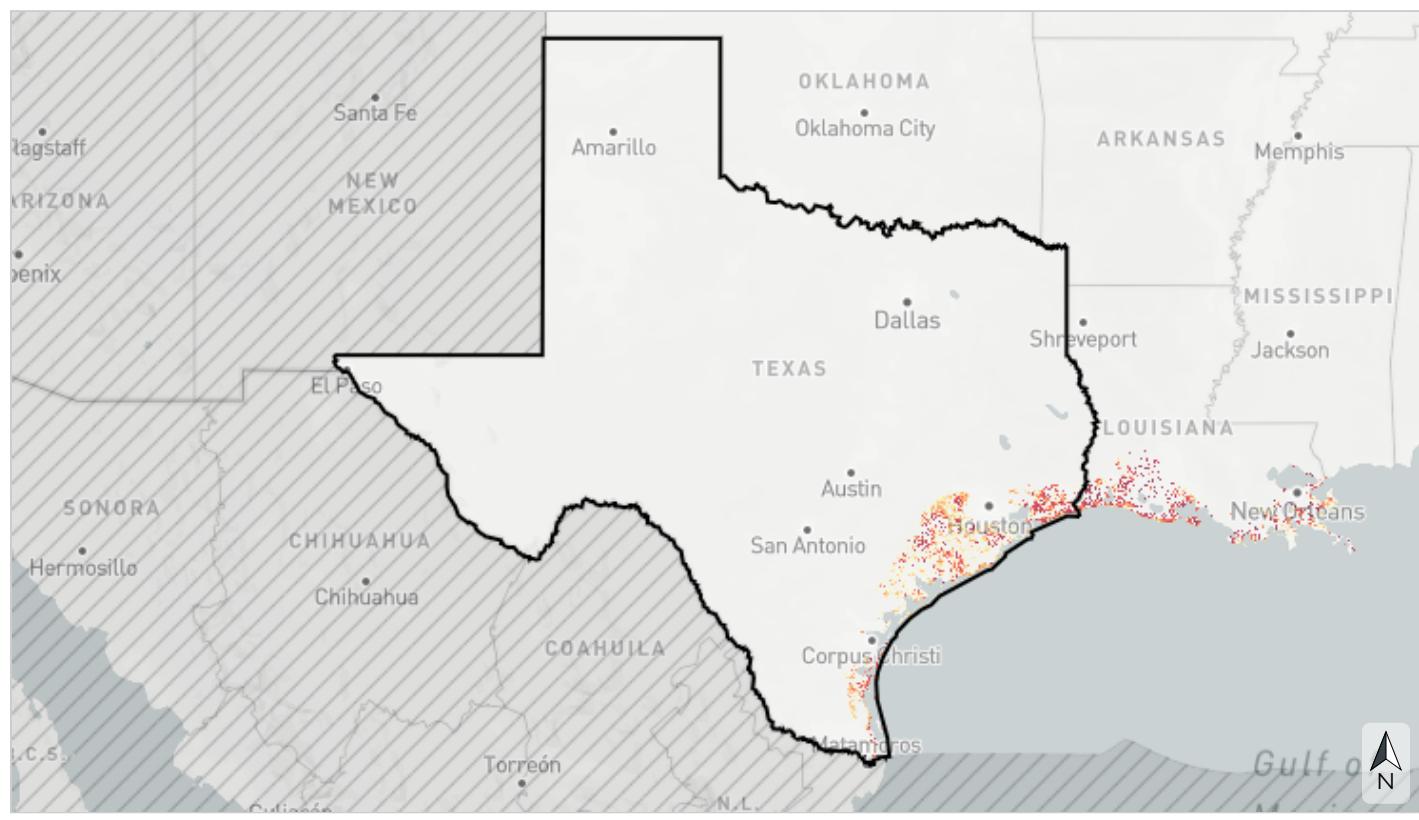
To learn more and explore the GIS data, [view this indicator in the SECAS Atlas](#).



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.



### Percentile of suitable mottled duck nesting habitat

- 90th-100th percentile
- 80th-90th percentile
- 70th-80th percentile
- 60th-70th percentile
- 50th-60th percentile
- 40th-50th percentile
- 30th-40th percentile
- 20th-30th percentile
- 10th-20th percentile
- 0-10th percentile
- Not identified as suitable habitat (within TX and LA)

*Table 16: Indicator values for west gulf coast mottled duck nesting within Texas. A good condition threshold is not yet defined for this indicator.*

<b>Indicator Values: Percentile of suitable mottled duck nesting habitat</b>		<b>Acres</b>	<b>Percent of Area</b>
↑ High	90th-100th percentile	150,896	<0.1%
	80th-90th percentile	230,369	0.1%
	70th-80th percentile	265,008	0.2%
	60th-70th percentile	281,124	0.2%
	50th-60th percentile	307,163	0.2%
	40th-50th percentile	374,127	0.2%
	30th-40th percentile	398,233	0.2%
	20th-30th percentile	405,638	0.2%
	10th-20th percentile	405,367	0.2%
	0-10th percentile	359,904	0.2%
↓ Low	Not identified as suitable habitat (within TX and LA)	7,717,798	4.5%
	<i>Area not evaluated for this indicator</i>	161,001,797	93.7%
<b>Total area</b>		<b>171,897,425</b>	<b>100%</b>

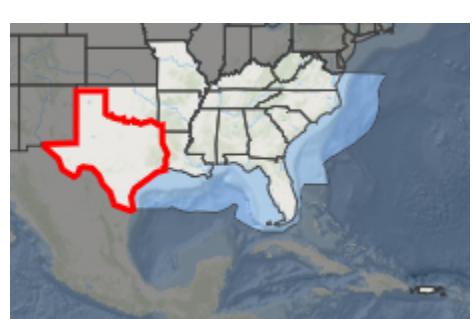
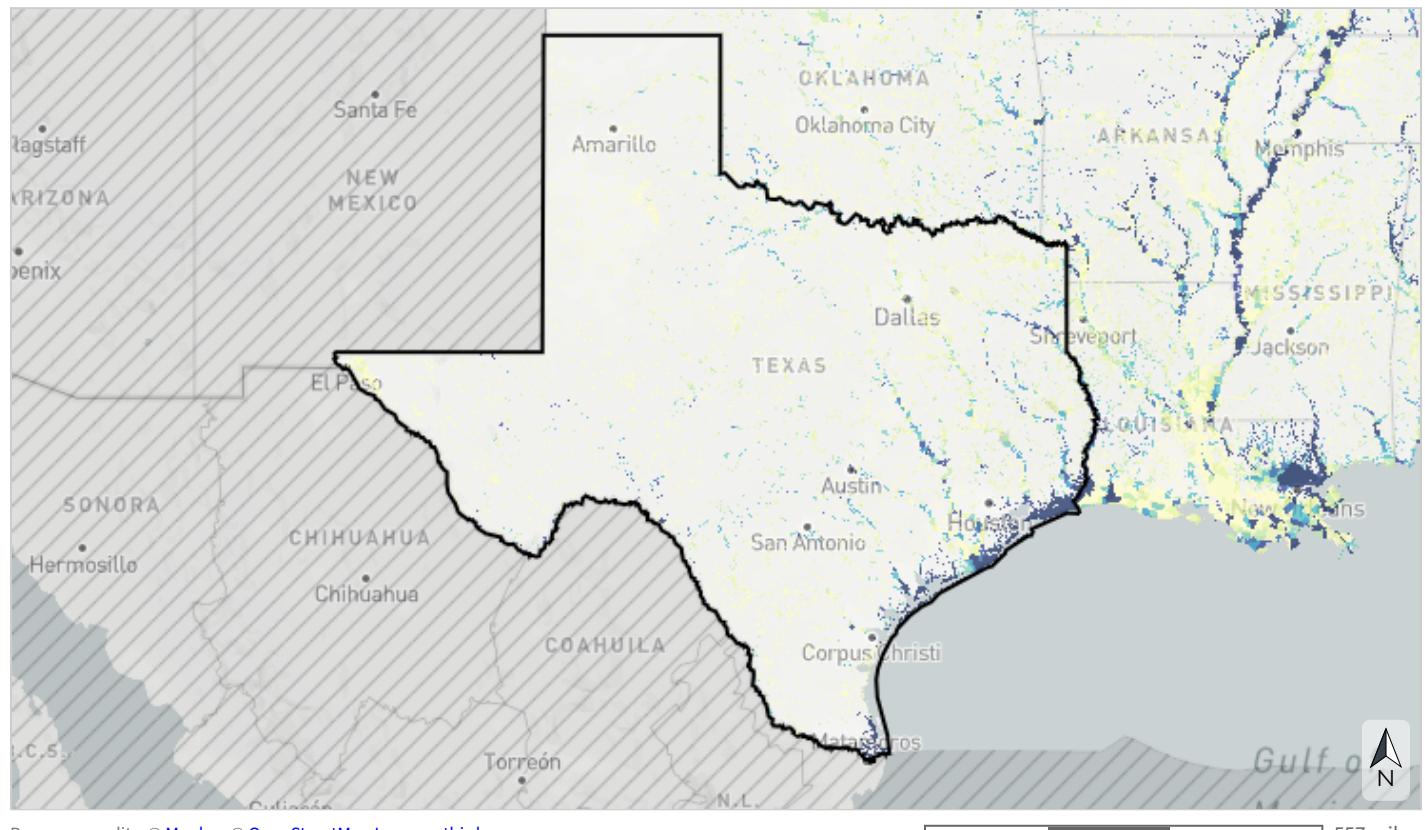
To learn more and explore the GIS data, [view this indicator in the SECAS Atlas](#).



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 aquatic species diversity. 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).



### Number of aquatic animal Species of Greatest Conservation Need observed

<span style="background-color: darkblue; width: 10px; height: 10px; display: inline-block;"></span>	8+ species
<span style="background-color: mediumblue; width: 10px; height: 10px; display: inline-block;"></span>	7 species
<span style="background-color: steelblue; width: 10px; height: 10px; display: inline-block;"></span>	6 species
<span style="background-color: lightblue; width: 10px; height: 10px; display: inline-block;"></span>	5 species
<span style="background-color: cyan; width: 10px; height: 10px; display: inline-block;"></span>	4 species
<span style="background-color: lightgreen; width: 10px; height: 10px; display: inline-block;"></span>	3 species
<span style="background-color: yellow; width: 10px; height: 10px; display: inline-block;"></span>	2 species
<span style="background-color: paleyellow; width: 10px; height: 10px; display: inline-block;"></span>	1 species
<span style="background-color: white; width: 10px; height: 10px; display: inline-block;"></span>	0 species
<span style="border: 1px solid black; width: 10px; height: 10px; display: inline-block;"></span>	Not identified as a floodplain (excluding West Virginia)

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

<b>Indicator Values: Number of aquatic animal Species of Greatest Conservation Need observed</b>		<b>Acres</b>	<b>Percent of Area</b>
↑ High	8+ species	2,150,275	1.3%
	7 species	371,012	0.2%
	6 species	377,605	0.2%
	5 species	564,774	0.3%
	4 species	613,719	0.4%
	3 species	994,808	0.6%
	2 species	1,306,403	0.8%
	1 species	3,023,247	1.8%
	0 species	12,939,815	7.5%
	Not identified as a floodplain (excluding West Virginia)	147,054,288	85.5%
↓ Low	<i>Area not evaluated for this indicator</i>	2,501,480	1.5%
	<b>Total area</b>	<b>171,897,425</b>	<b>100%</b>

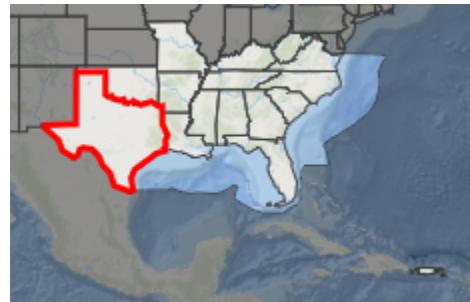
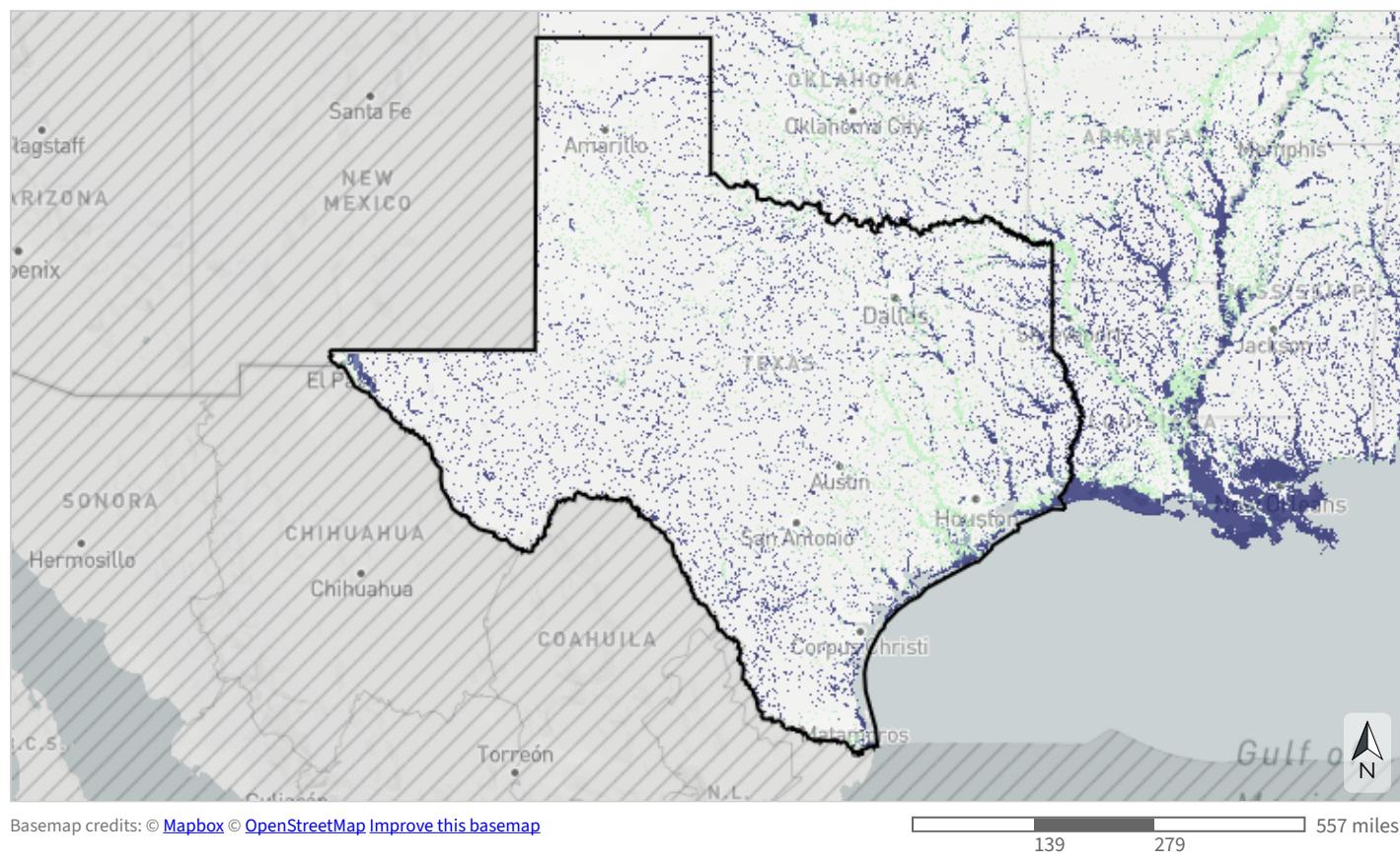
To learn more and explore the GIS data, [view this indicator in the SECAS Atlas](#).



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 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).



### Percent natural landcover within the estimated floodplain, by catchment

- >90% natural landcover
- >80-90% natural landcover
- >70-80% natural landcover
- >60-70% natural landcover
- ≤60% natural landcover
- Not identified as a floodplain

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

<b>Indicator Values: Percent natural landcover within the estimated floodplain, by catchment</b>		<b>Acres</b>	<b>Percent of Area</b>
↑ High	>90% natural landcover	11,434,453	6.7%
	>80-90% natural landcover	2,551,115	1.5%
	>70-80% natural landcover	1,838,172	1.1%
↓ Low	>60-70% natural landcover	1,419,478	0.8%
	≤60% natural landcover	5,098,440	3.0%
	Not identified as a floodplain	147,081,793	85.6%
	<i>Area not evaluated for this indicator</i>	2,473,974	1.4%
<b>Total area</b>		<b>171,897,425</b>	<b>100%</b>

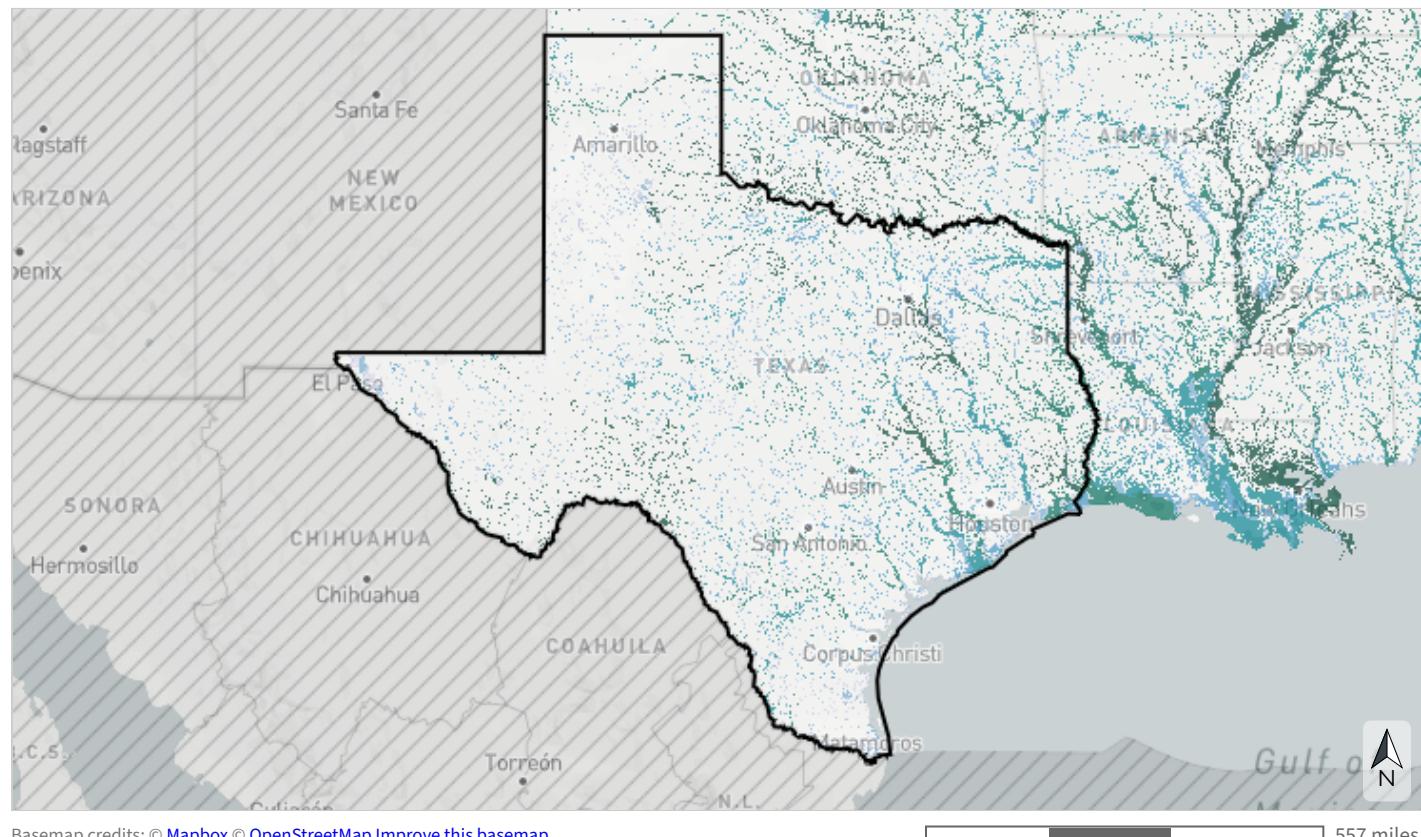
To learn more and explore the GIS data, [view this indicator in the SECAS Atlas](#).



Freshwater

## Network complexity

This indicator depicts the number of connected stream size classes in a river network between 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).



### Number of connected stream size classes

- 7 size classes
- 6 size classes
- 5 size classes
- 4 size classes
- 3 size classes
- 2 size classes
- 1 size class
- Not identified as a floodplain

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

<b>Indicator Values: Number of connected stream size classes</b>		<b>Acres</b>	<b>Percent of Area</b>
↑ High	7 size classes	3,727,060	2.2%
	6 size classes	3,591,382	2.1%
	5 size classes	4,472,240	2.6%
	4 size classes	2,657,194	1.5%
	3 size classes	2,637,739	1.5%
	2 size classes	2,839,417	1.7%
	1 size class	2,058,003	1.2%
	Not identified as a floodplain	147,107,829	85.6%
↓ Low	<i>Area not evaluated for this indicator</i>	2,806,560	1.6%
	<b>Total area</b>	<b>171,897,425</b>	<b>100%</b>

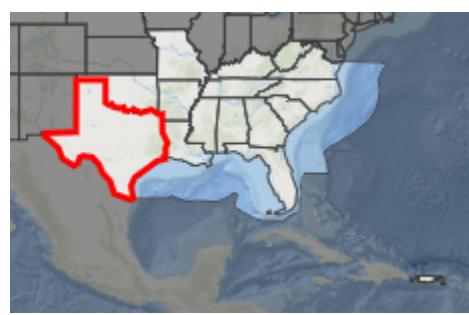
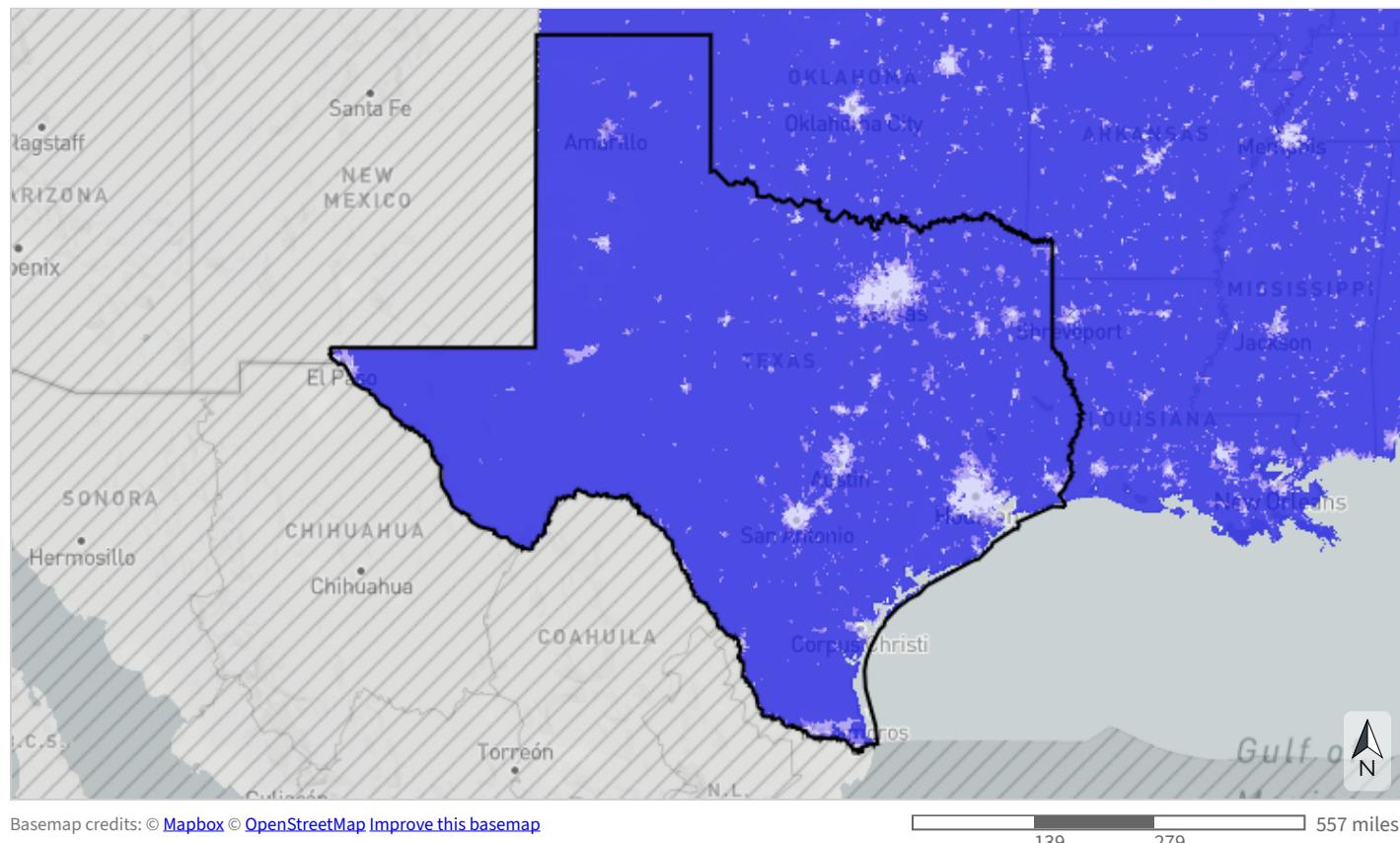
To learn more and explore the GIS data, [view this indicator in the SECAS Atlas](#).



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 National Land Cover Database.



### Percent of catchment permeable

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

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

	<b>Indicator Values: Percent of catchment permeable</b>	<b>Acres</b>	<b>Percent of Area</b>	
↑ High	>95% permeable (likely high water quality and supporting most sensitive aquatic species)	157,414,013	91.6%	↑ In good condition
	>90-95% permeable (likely declining water quality and supporting most aquatic species)	4,367,609	2.5%	↓ Not in good condition
	>70-90% permeable (likely degraded water quality and not supporting many aquatic species)	4,674,997	2.7%	
↓ Low	≤70% permeable (likely degraded instream flow, water quality, and aquatic species communities)	2,950,905	1.7%	
	<i>Area not evaluated for this indicator</i>	2,489,901	1.4%	
	<b>Total area</b>	<b>171,897,425</b>	<b>100%</b>	

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



Coastal &amp; 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.



- Natural and harder to develop
- Natural
- Partially armored and harder to develop
- Partially armored
- Armored

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

	<b>Indicator Values</b>	<b>Acres</b>	<b>Percent of Area</b>	
↑ High	Natural and harder to develop	30,548	<0.1%	↑ In good condition ↓ Not in good condition
	Natural	61,163	<0.1%	
	Partially armored and harder to develop	1,194	<0.1%	
	Partially armored	4,940	<0.1%	
↓ Low	Armored	15,683	<0.1%	
	<i>Area not evaluated for this indicator</i>	171,783,897	99.9%	
<b>Total area</b>		<b>171,897,425</b>	<b>100%</b>	

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



Coastal &amp; 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
- Fair to good
- Fair
- Poor to fair
- Poor
- Shallow estuary not assessed for condition

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

	<b>Indicator Values</b>	<b>Acres</b>	<b>Percent of Area</b>
↑ High	Good	304,885	0.2%
	Fair to good	161,270	<0.1%
	Fair	1,138,338	0.7%
	Poor to fair	103,359	<0.1%
	Poor	78,889	<0.1%
	Shallow estuary not assessed for condition	212,935	0.1%
<i>Area not evaluated for this indicator</i>		169,897,750	98.8%
<b>Total area</b>		<b>171,897,425</b>	<b>100%</b>

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



Coastal &amp; marine

## Gulf coral & hardbottom

This indicator predicts the presence of coral and hardbottom in the Gulf of Mexico based on direct observations, acoustic surveys, designated Coral Habitat Areas of Particular Concern, and known locations of human-created structures like artificial reefs. Hardbottom provides an anchor for important seafloor habitats such as deep-sea corals, plants, and sponges, providing valuable structure that supports a wide range of invertebrate and fish species. Hardbottom is also sometimes associated with diverse chemosynthetic communities supported by bacteria that feed off of hydrocarbon seeps. This indicator combines data from multiple sources, including Bureau of Ocean Energy Management seismic water bottom anomalies, usSEABED sediments, several National Oceanic and Atmospheric Administration datasets, and more.



- Confirmed hardbottom-associated species (corals, patch reef, chemosynthetic communities, or other organisms)
- Confirmed human-created hardbottom (shipwrecks, artificial reefs, decommissioned oil and gas platforms)
- Predicted hardbottom (fine resolution)
- Coral Habitat Area of Particular Concern (HAPC)
- Rock (coarse resolution)
- Gravel (coarse resolution)
- Not identified as hardbottom

*Table 23: Indicator values for Gulf coral & hardbottom within Texas. A good condition threshold is not yet defined for this indicator.*

	<b>Indicator Values</b>	<b>Acres</b>	<b>Percent of Area</b>
↑ High	Confirmed hardbottom-associated species (corals, patch reef, chemosynthetic communities, or other organisms)	0	0%
	Confirmed human-created hardbottom (shipwrecks, artificial reefs, decommissioned oil and gas platforms)	10,067	<0.1%
	Predicted hardbottom (fine resolution)	0	0%
	Coral Habitat Area of Particular Concern (HAPC)	0	0%
	Rock (coarse resolution)	3,120	<0.1%
	Gravel (coarse resolution)	76,210	<0.1%
	Not identified as hardbottom	16,580,840	9.6%
	<i>Area not evaluated for this indicator</i>	155,227,188	90.3%
<b>Total area</b>		<b>171,897,425</b>	<b>100%</b>

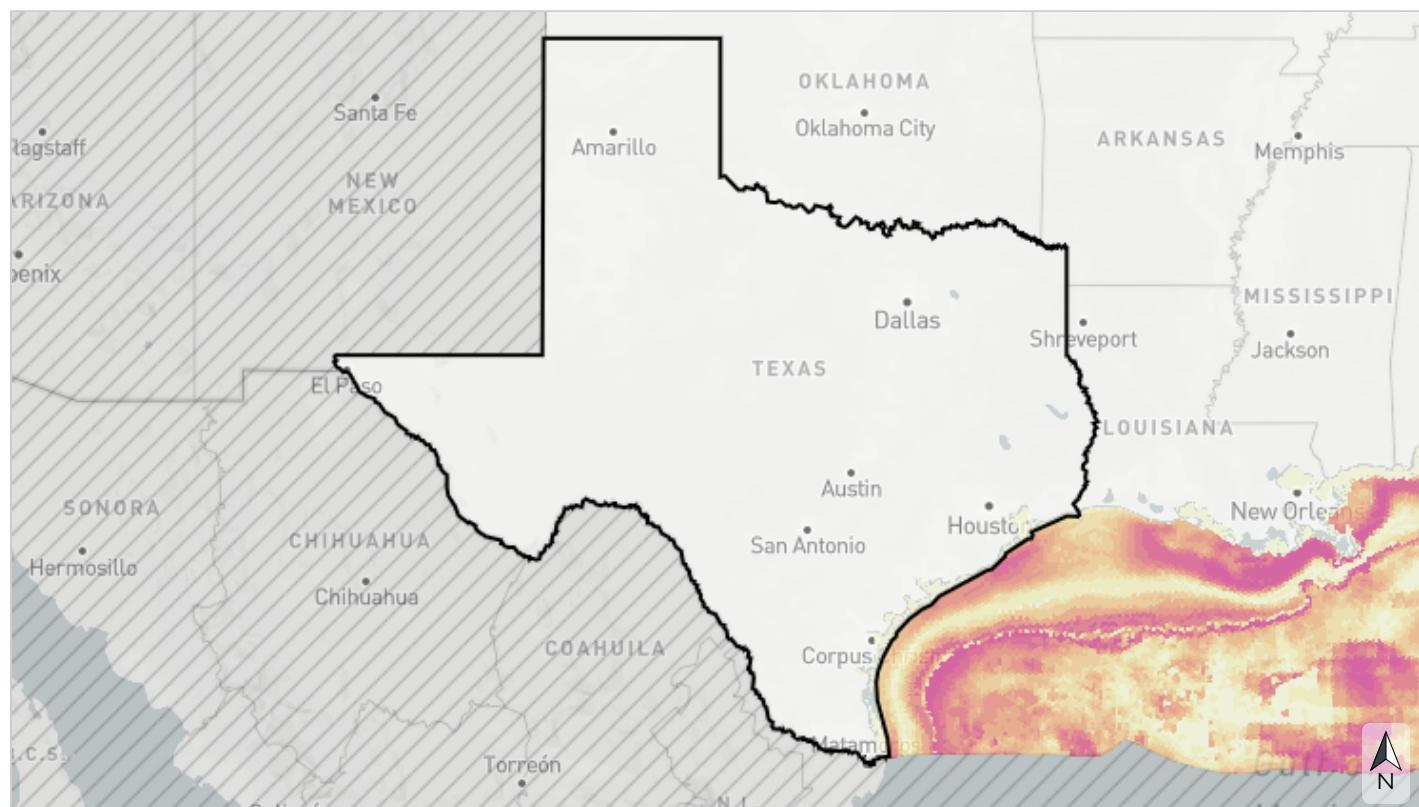
To learn more and explore the GIS data, [view this indicator in the SECAS Atlas](#).



Coastal &amp; marine

## Gulf marine mammals

This indicator identifies important areas in the Gulf of Mexico for dolphins and whales. It incorporates monthly density predictions for 13 marine mammal species or species groups (Atlantic spotted dolphin, beaked whales, blackfish [which includes killer whale, melon-headed whale, false killer whale, pygmy killer whale], bottlenose dolphin, Bryde's whale, clymene dolphin, pantropical spotted dolphin, pilot whales, pygmy/dwarf sperm whales, Rice's whale, Risso's dolphin, sperm whale, spinner dolphin) based on sightings from boat-based and aerial surveys and data on oceanographic conditions. It uses marine mammal models developed by the National Oceanic and Atmospheric Administration as part of the Gulf of Mexico Marine Assessment Program for Protected Species (GoMMAPPS).



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139 279 557 miles



### Percentile of importance for marine mammal index species (across larger analysis area)

- >90th percentile
- >80th-90th percentile
- >70th-80th percentile
- >60th-70th percentile
- >50th-60th percentile
- >40th-50th percentile
- >30th-40th percentile
- >20th-30th percentile
- >10th-20th percentile
- ≤10th percentile
- Land

Table 24: Indicator values for Gulf marine mammals within Texas. A good condition threshold is not yet defined for this indicator.

	<b>Indicator Values: Percentile of importance for marine mammal index species (across larger analysis area)</b>	<b>Acres</b>	<b>Percent of Area</b>
↑ High	>90th percentile	0	0%
	>80th-90th percentile	412	<0.1%
	>70th-80th percentile	13,774	<0.1%
	>60th-70th percentile	50,207	<0.1%
	>50th-60th percentile	56,763	<0.1%
	>40th-50th percentile	178,650	0.1%
	>30th-40th percentile	132,301	<0.1%
	>20th-30th percentile	252,137	0.1%
	>10th-20th percentile	52,589	<0.1%
	≤10th percentile	1,460,039	0.8%
↓ Low	Land	211,424	0.1%
	<i>Area not evaluated for this indicator</i>	169,489,131	98.6%
<b>Total area</b>		<b>171,897,425</b>	<b>100%</b>

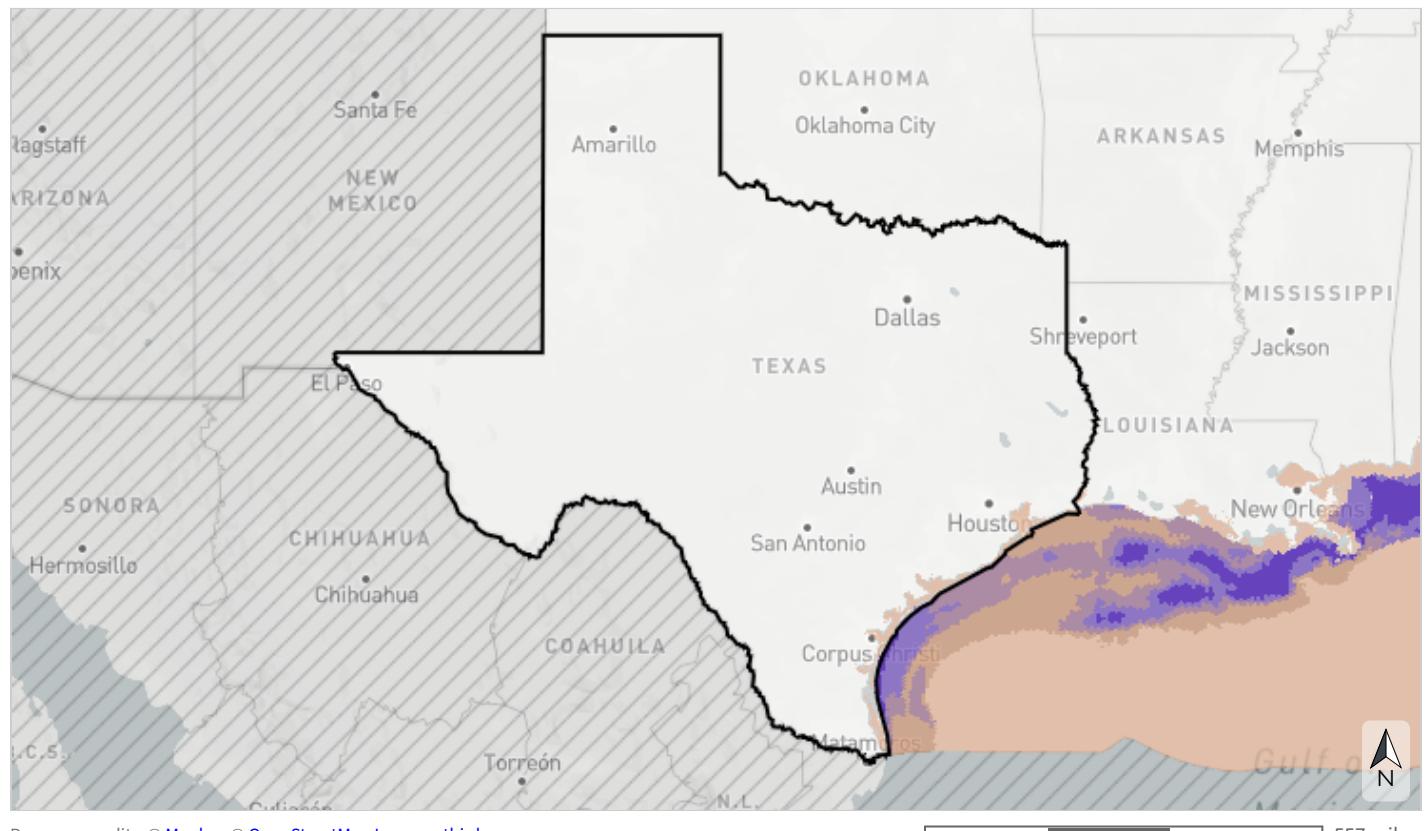
To learn more and explore the GIS data, [view this indicator in the SECAS Atlas](#).



Coastal &amp; marine

## Gulf sea turtles

This indicator identifies important areas in the Gulf of Mexico for sea turtles. It incorporates monthly density predictions for four species (green, Kemp's ridley, leatherback, and loggerhead sea turtles) based on sightings from boat-based and aerial surveys and data on oceanographic conditions. It uses sea turtle models developed by the National Oceanic and Atmospheric Administration as part of the Gulf of Mexico Marine Assessment Program for Protected Species (GoMMAPPS).



### Percentile of importance for sea turtle index species (across larger analysis area)

- >90th percentile
- >80th-90th percentile
- >70th-80th percentile
- >60th-70th percentile
- ≤60th percentile
- Land

*Table 25: Indicator values for Gulf sea turtles within Texas. A good condition threshold is not yet defined for this indicator.*

<b>Indicator Values: Percentile of importance for sea turtle index species (across larger analysis area)</b>		<b>Acres</b>	<b>Percent of Area</b>
↑ High	>90th percentile	168,995	<0.1%
	>80th-90th percentile	131,189	<0.1%
	>70th-80th percentile	209,502	0.1%
	>60th-70th percentile	231,957	0.1%
	≤60th percentile	1,656,409	1.0%
↓ Low	Land	1,704,558	1.0%
	<i>Area not evaluated for this indicator</i>	167,794,815	97.6%
<b>Total area</b>		<b>171,897,425</b>	<b>100%</b>

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



## Coastal & marine Island habitat

This indicator represents important habitat for coastal 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 uses U.S. Fish and Wildlife Service critical habitat data and island boundaries from the U.S. Geological Survey and Esri.



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139 279 557 miles



- 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)
- Other island area
- Not a coastal island

Table 26: Indicator values for island habitat within Texas. A good condition threshold is not yet defined for this indicator.

	<b>Indicator Values</b>	<b>Acres</b>	<b>Percent of Area</b>
↑ 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%
	Other island area	270,523	0.2%
↓ Low	Not a coastal island	11,609,712	6.8%
	<i>Area not evaluated for this indicator</i>	159,933,129	93.0%
<b>Total area</b>		<b>171,897,425</b>	<b>100%</b>

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



Coastal &amp; marine

## Marine highly migratory fish

This indicator identifies important foraging and spawning areas for highly migratory fish in the Atlantic Ocean and Gulf of Mexico. It uses physical capture and satellite tag observations, remote sensing of environmental variables, and physical oceanographic data to analyze the habitat preferences of three species (skipjack tuna, bluefin tuna, and blue shark) at various life stages. It originates from European Commission Joint Research Centre global fish models.

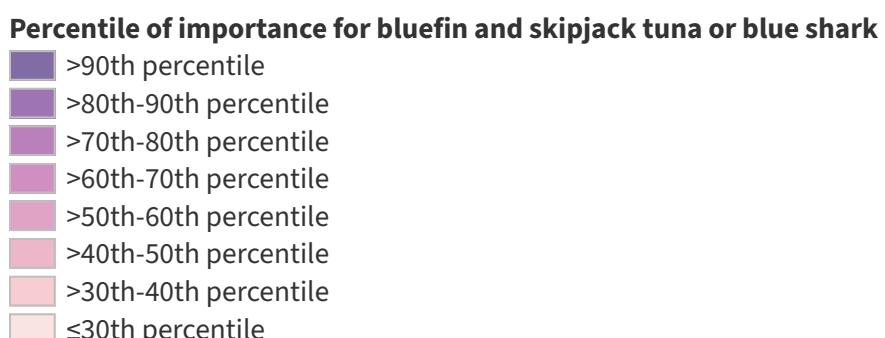
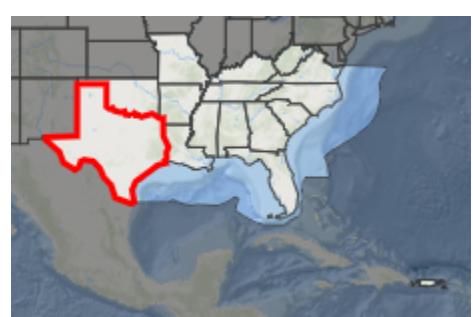
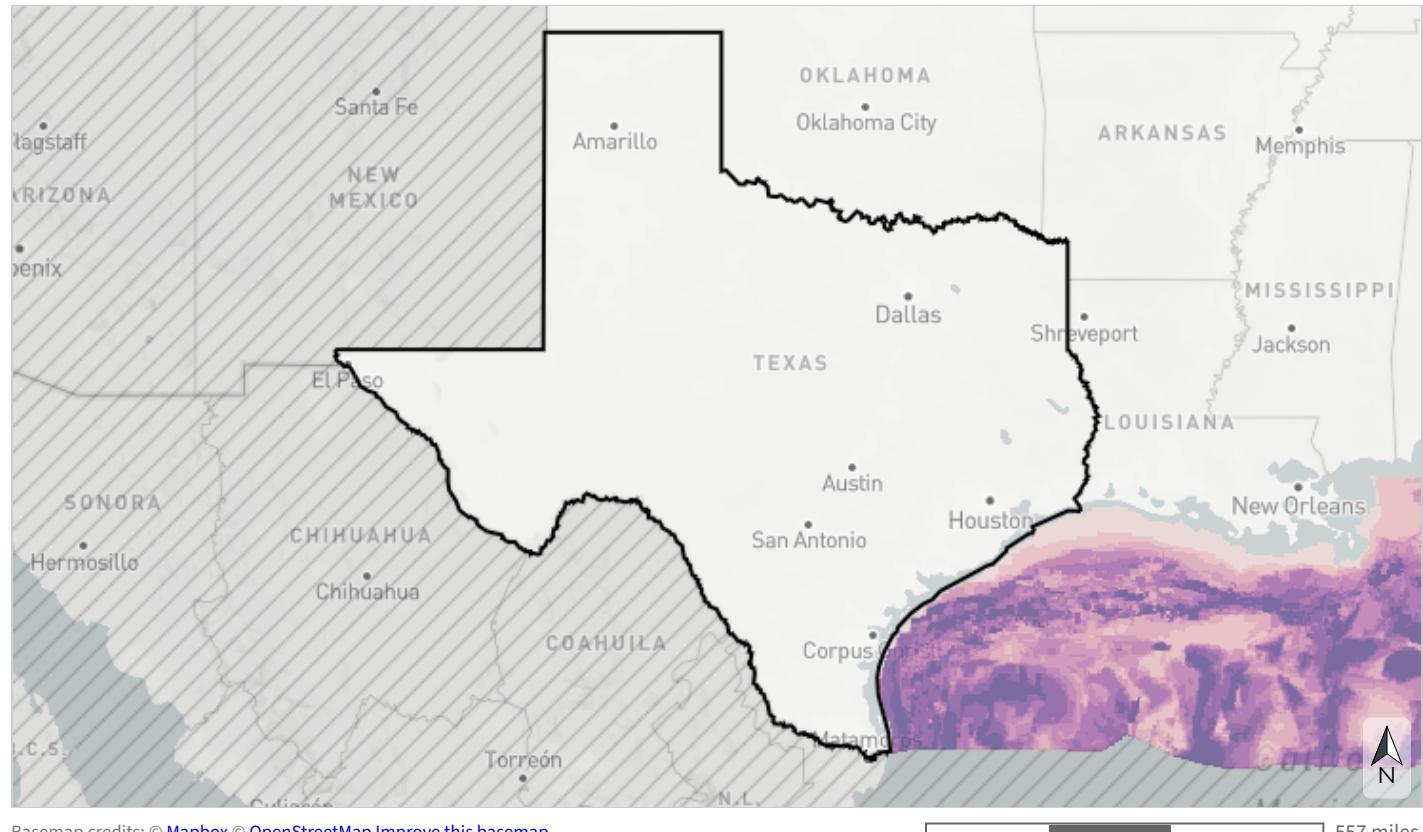


Table 27: Indicator values for marine highly migratory fish within Texas. A good condition threshold is not yet defined for this indicator.

	<b>Indicator Values: Percentile of importance for bluefin and skipjack tuna or blue shark</b>	<b>Acres</b>	<b>Percent of Area</b>
↑ High	>90th percentile	0	0%
	>80th-90th percentile	70	<0.1%
	>70th-80th percentile	170	<0.1%
	>60th-70th percentile	1,595	<0.1%
	>50th-60th percentile	1,185	<0.1%
	>40th-50th percentile	0	0%
	>30th-40th percentile	0	0%
	≤30th percentile	2,363	<0.1%
<i>Area not evaluated for this indicator</i>		171,892,042	100.0%
<b>Total area</b>		<b>171,897,425</b>	<b>100%</b>

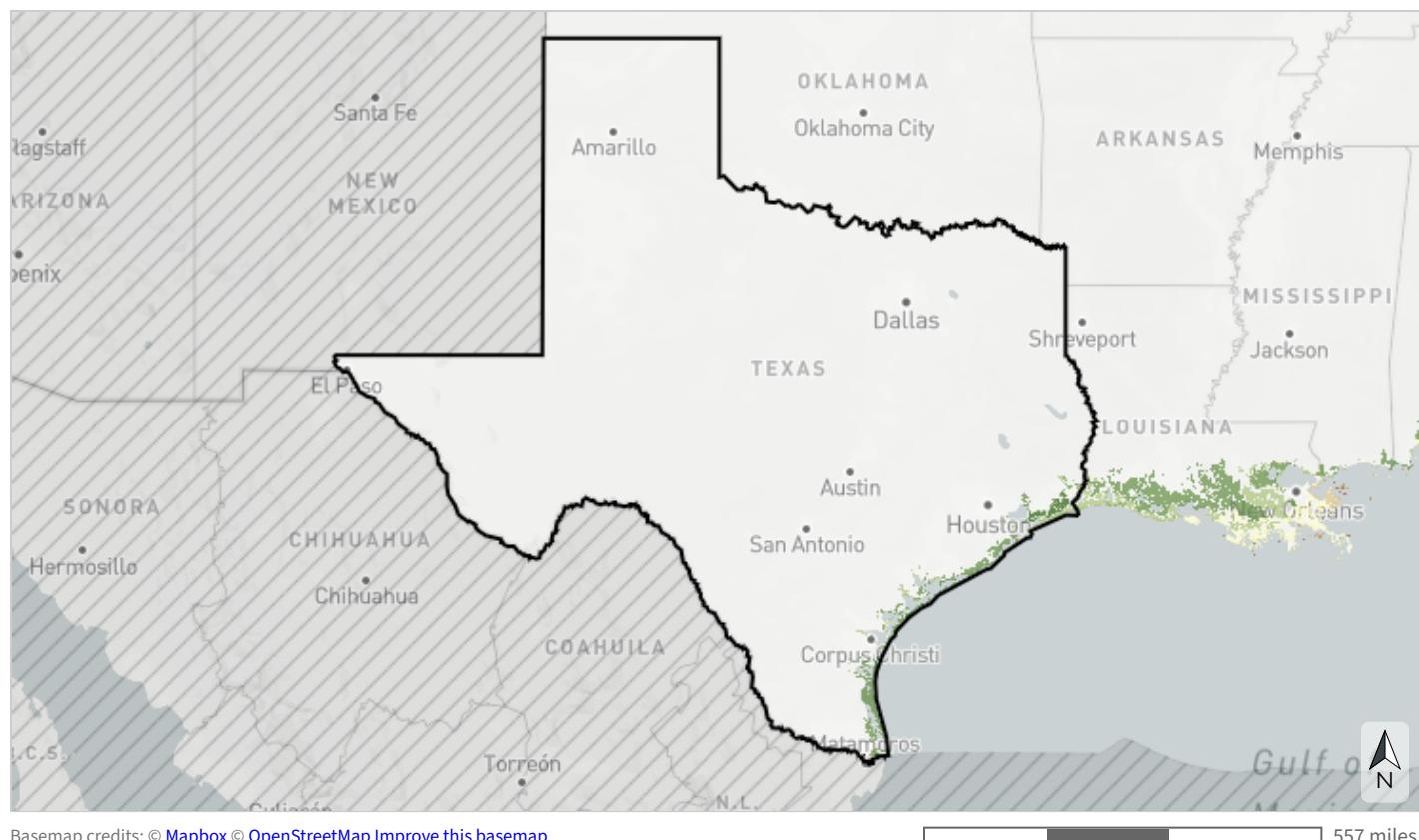
To learn more and explore the GIS data, [view this indicator in the SECAS Atlas](#).



Coastal &amp; 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 more. This indicator originates from The Nature Conservancy's Resilient Coastal Sites project.



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

Table 28: Indicator values for resilient coastal sites within Texas. A good condition threshold is not yet defined for this indicator.

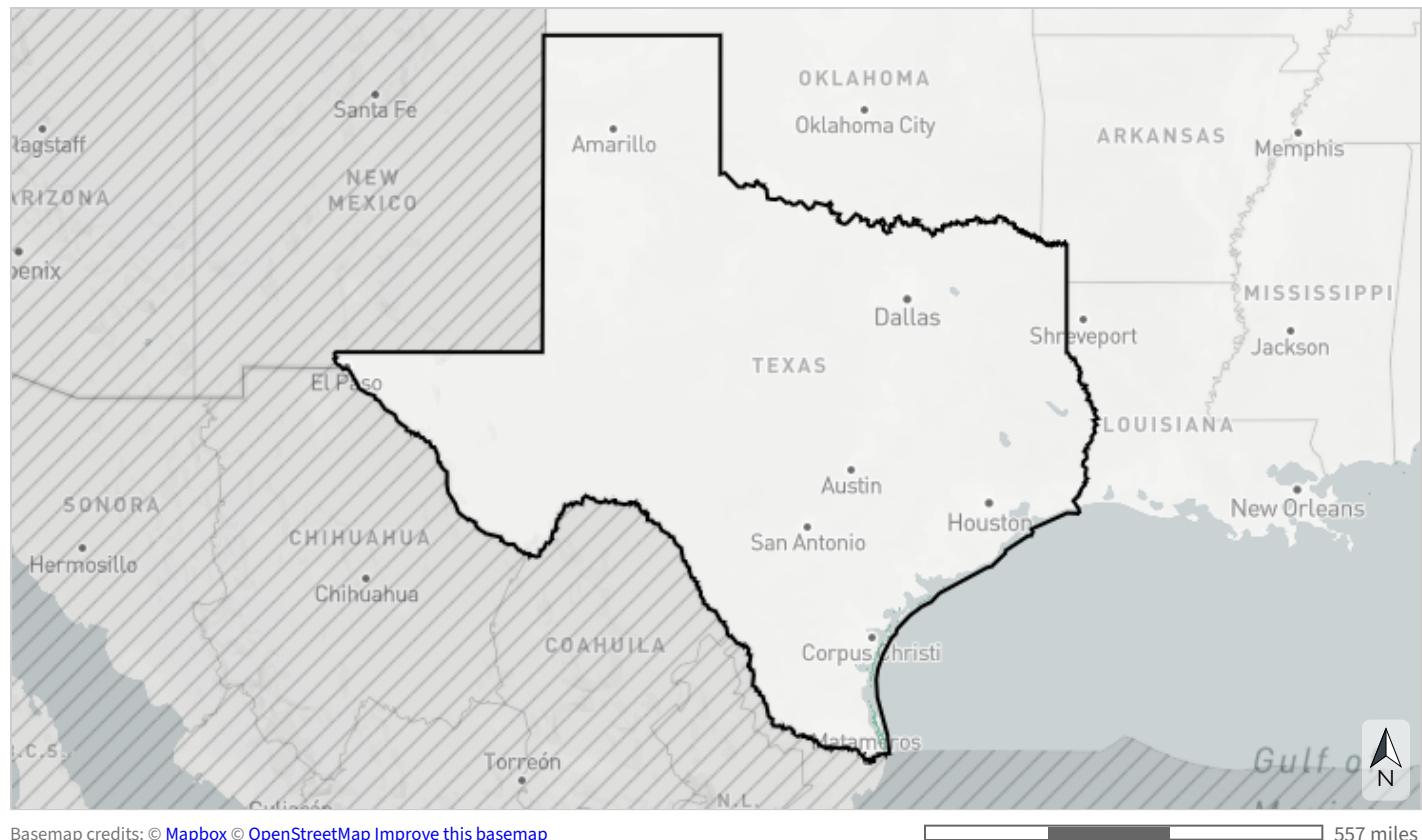
	<b>Indicator Values</b>	<b>Acres</b>	<b>Percent of Area</b>
↑ High	Most resilient	237,679	0.1%
	More resilient	1,186,577	0.7%
	Slightly more resilient	377,286	0.2%
	Average/median resilience	57,161	<0.1%
	Slightly less resilient	2,327	<0.1%
	Less resilient	787	<0.1%
	Least resilient	1,951	<0.1%
↓ Low	<i>Area not evaluated for this indicator</i>	170,033,658	98.9%
	<b>Total area</b>	<b>171,897,425</b>	<b>100%</b>

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



## Coastal & marine Seagrass

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.



■ Seagrass present

Table 29: Indicator values for seagrass within Texas. A good condition threshold is not yet defined for this indicator.

	Indicator Values	Acres	Percent of Area
↑ High	Seagrass present	228,430	0.1%
	Area not evaluated for this indicator	171,668,995	99.9%
	<b>Total area</b>	<b>171,897,425</b>	<b>100%</b>

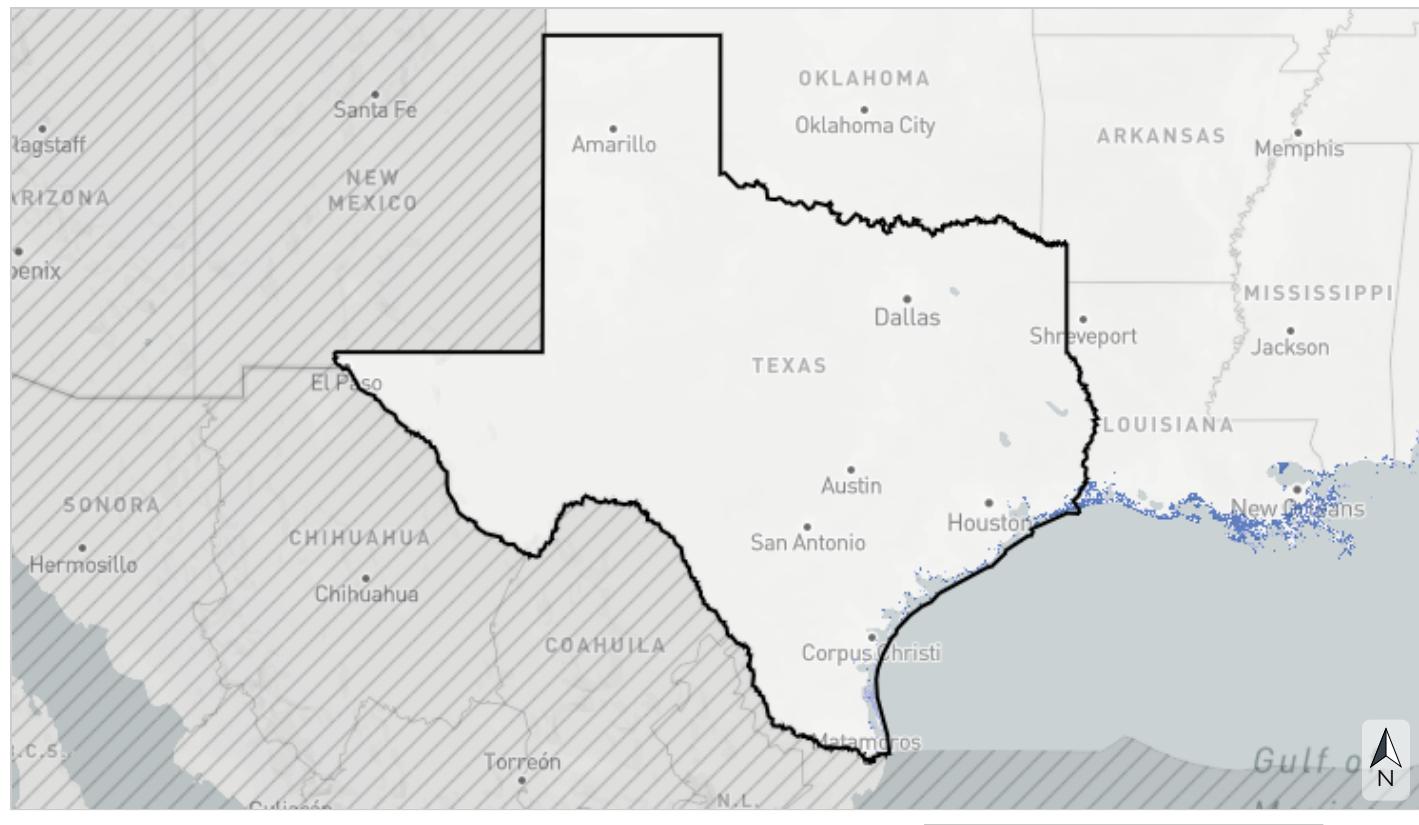
To learn more and explore the GIS data, [view this indicator in the SECAS Atlas](#).



Coastal &amp; 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. Marshes that maintain a higher proportion of vegetation tend to be more stable and resilient to threats like sea-level rise, erosion, and coastal development. 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. This indicator originates from a U.S. Geological Survey project on an unvegetated to vegetated ratio for coastal wetlands.



- █ Stable coastal wetlands
- █ Other coastal wetlands
- █ Not identified as coastal wetlands

*Table 30: Indicator values for stable coastal wetlands within Texas. Good condition thresholds reflect the range of indicator values that occur in healthy, functioning ecosystems.*

	<b>Indicator Values</b>	<b>Acres</b>	<b>Percent of Area</b>
↑ High	Stable coastal wetlands	302,417	0.2%
	Other coastal wetlands	390,136	0.2%
↓ Low	Not identified as coastal wetlands	2,441,195	1.4%
	<i>Area not evaluated for this indicator</i>	168,763,677	98.2%
<b>Total area</b>		<b>171,897,425</b>	<b>100%</b>

↑ In good condition

↓ Not in good condition

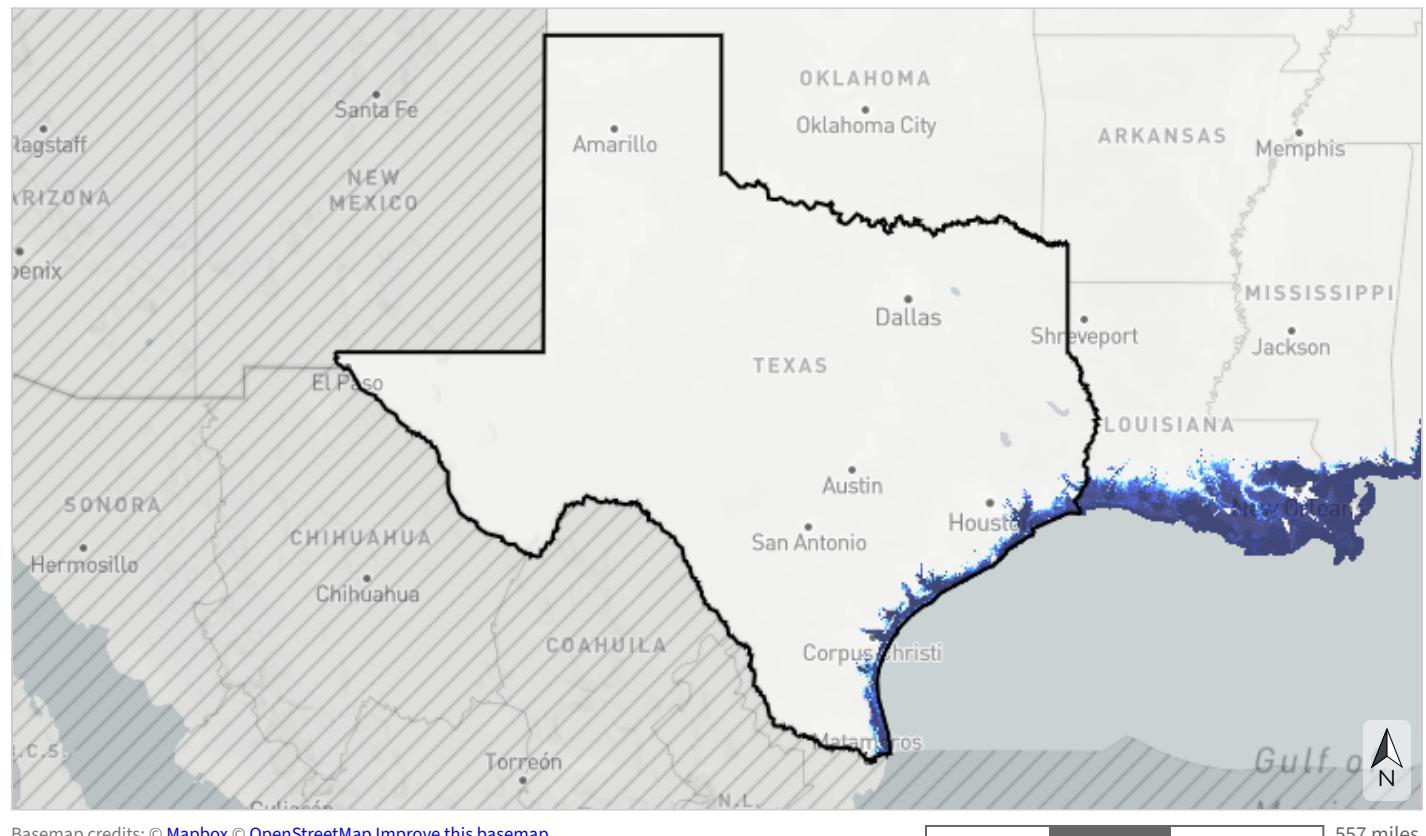
To learn more and explore the GIS data, [view this indicator in the SECAS Atlas](#).

# 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](#).



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Flooding extent by projected sea-level rise (ft)



Table 31: Extent of flooding by projected average highest daily tide due to sea level rise within Texas. Values from the [NOAA sea-level rise inundation data](#).

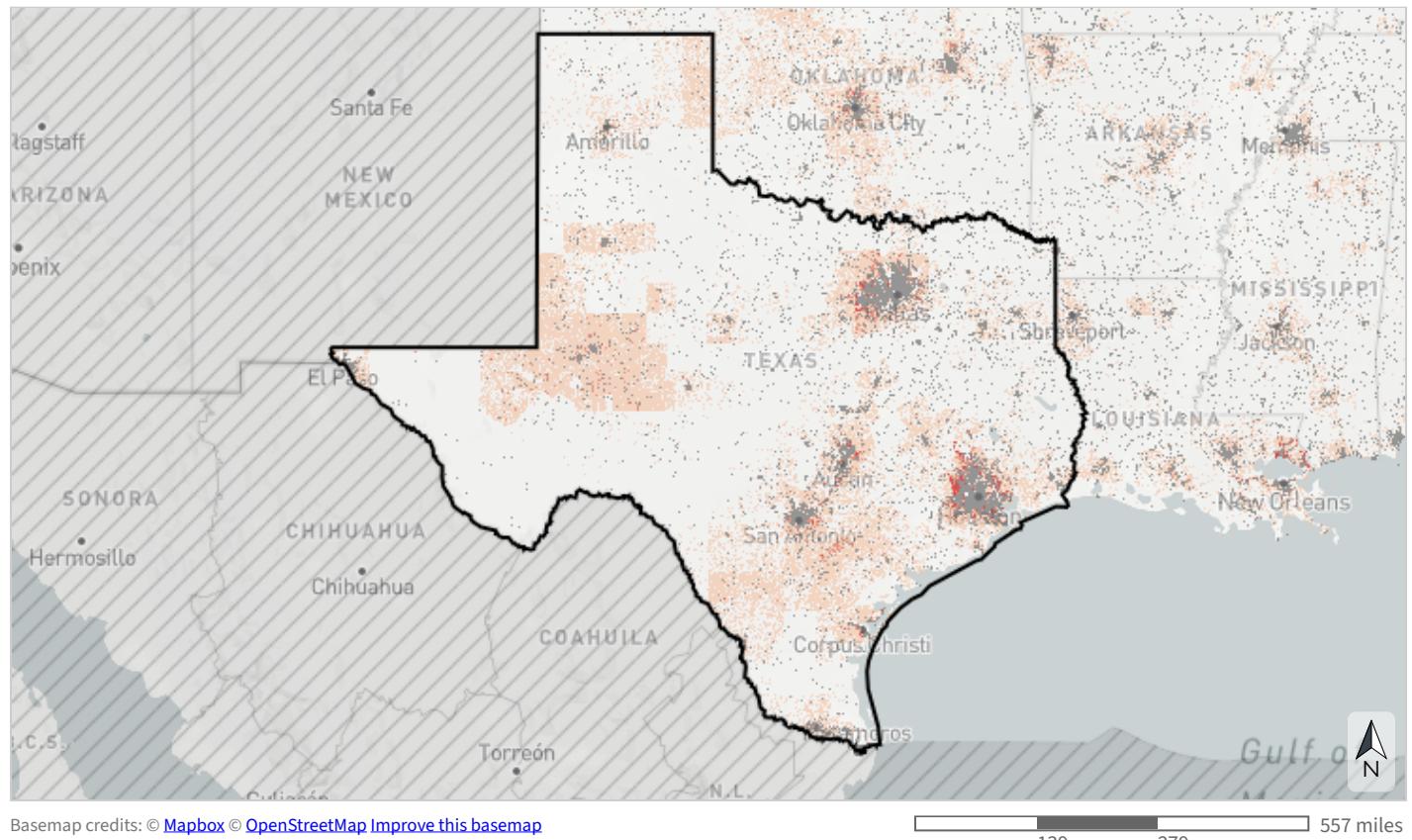
Feet of sea-level rise	Acres	Percent of Area
0 feet	2,478,465	1.4%
1 foot	2,809,554	1.6%
2 feet	3,107,056	1.8%
3 feet	3,316,412	1.9%
4 feet	3,483,160	2.0%
5 feet	3,630,119	2.1%
6 feet	3,782,377	2.2%
7 feet	3,950,305	2.3%
8 feet	4,111,739	2.4%
9 feet	4,273,813	2.5%
10 feet	4,433,222	2.6%
<i>Not projected to be inundated by up to 10 feet</i>	10,499,022	6.1%
<i>Sea-level rise unlikely to be a threat (inland counties)</i>	156,958,840	91.3%
<i>Sea-level rise data unavailable</i>	6,340	<0.1%
<b>Total area</b>	<b>171,897,425</b>	<b>100%</b>

Table 32: Projected sea level rise by decade within Texas. 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	1.3	1.5	1.7	1.9	2.1	2.3
Intermediate-low	0.53	0.82	1.1	1.4	1.7	2	2.3	2.6	2.9
Intermediate	0.54	0.85	1.2	1.5	1.9	2.4	3	3.6	4.4
Intermediate-high	0.55	0.87	1.3	1.7	2.4	3.1	4	5	6
High	0.55	0.9	1.4	1.9	2.8	3.8	5	6.3	7.7

## 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 2021 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.



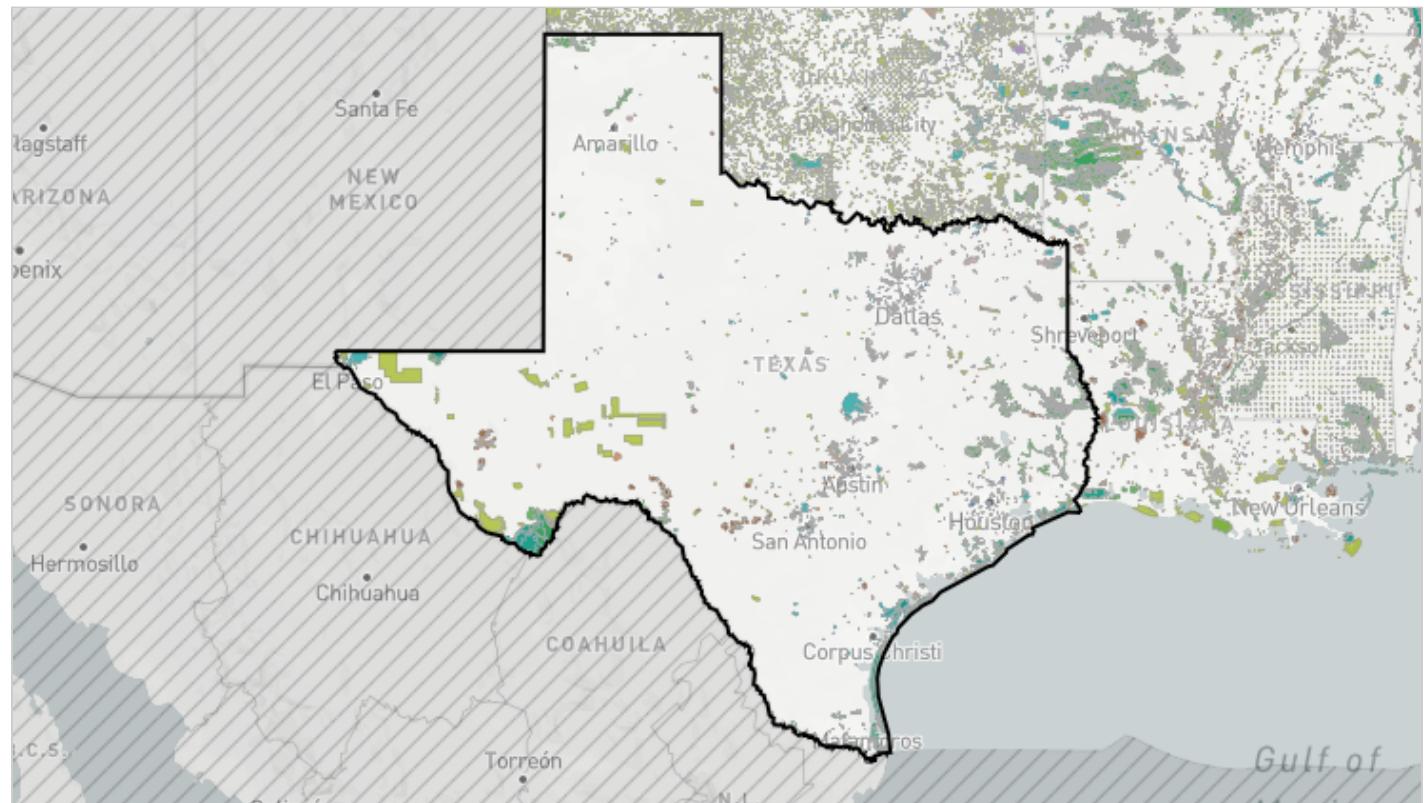
6.0% of this area is already urban in 2021, and an additional 19.5% has at least a moderate probability of urbanizing by 2060.

Table 33: Extent of projected urbanization by decade within Texas. Values from [FUTURES model projections for the contiguous United States](#) developed 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.

<b>Decade</b>	<b>Acres</b>	<b>Percent of Area</b>
Urban in 2021	10,284,773	6.0%
2030 projected extent	11,155,182	6.5%
2040 projected extent	11,723,021	6.8%
2050 projected extent	12,219,062	7.1%
2060 projected extent	12,671,220	7.4%
2070 projected extent	13,045,617	7.6%
2080 projected extent	13,333,696	7.8%
2090 projected extent	13,535,923	7.9%
2100 projected extent	13,673,739	8.0%
<i>Not projected to urbanize by 2100</i>	123,446,847	71.8%
<b>Total area</b>	<b>171,897,425</b>	<b>100%</b>

# Ownership and Partners

## Conserved lands ownership



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139 279 557 miles

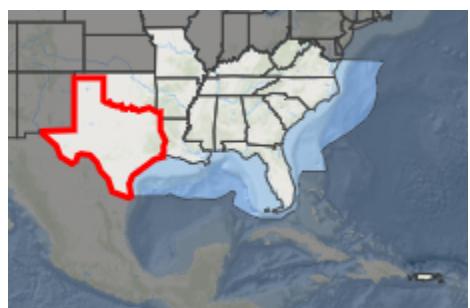
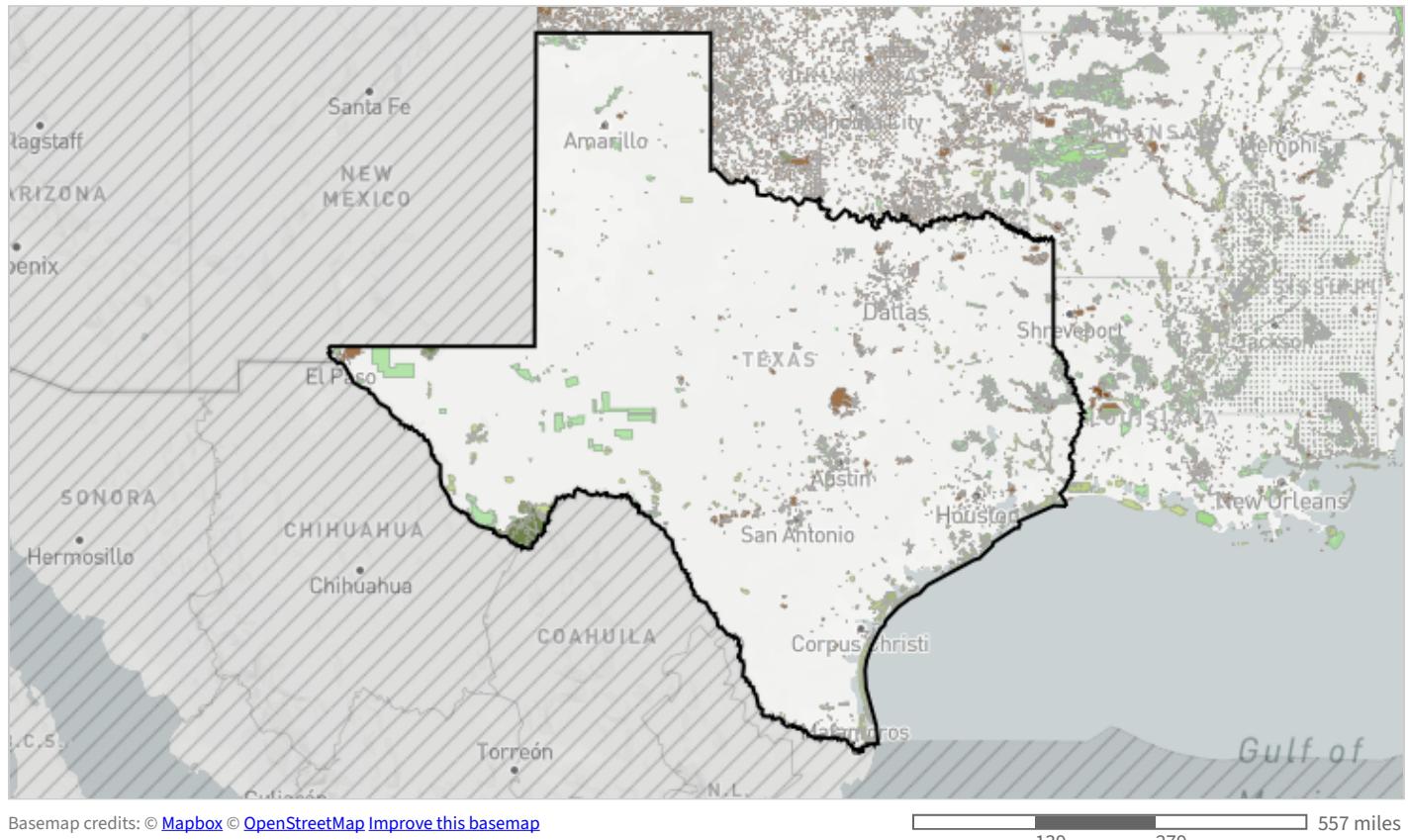


Federal	Joint
State/province	Private non-profit conserved lands
Territorial	Private conservation land
Regional	Tribal
Local	Designation
	Ownership unknown

*Table 34: Extent of ownership class within Texas. Protected areas are derived from the [Protected Areas Database of the United States](#) (PAD-US v3.0) and include Fee, Designation, Easement, Marine, and Proclamation (Dept. of Defense lands only) boundaries. 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. Also note: PAD-US v3.0 includes protected areas that may overlap within a given area; this may cause the area within and between the following categories to be greater than the actual ground area.*

Ownership	Acres	Percent of Area
Federal	2,608,724	1.5%
State/province	2,346,178	1.4%
Regional	47,379	<0.1%
Local	320,700	0.2%
Joint	260	<0.1%
Private non-profit conserved lands	141,990	<0.1%
Private conservation land	713,204	0.4%
Designation	2,420,174	1.4%
Ownership unknown	664,772	0.4%

## 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 35: Extent of land protection status within Texas. Protected areas are derived from the [Protected Areas Database of the United States](#) (PAD-US v3.0) and include Fee, Designation, Easement, Marine, and Proclamation (Dept. of Defense lands only) boundaries. 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. Also note: PAD-US v3.0 includes protected areas that may overlap within a given area; this may cause the area within and between the following categories to be greater than the actual ground area.*

Land Protection Status	Acres	Percent of Area
Managed for biodiversity (disturbance events proceed or are mimicked)	1,778,241	1.0%
Managed for biodiversity (disturbance events suppressed)	2,699,210	1.6%
Managed for multiple uses (subject to extractive uses such as mining or logging, or OHV use)	2,856,482	1.7%
No known mandate for biodiversity protection	1,929,448	1.1%

## Protected Areas

- Permanent University Fund (Texas General Land Office; 1,389,712 acres)
- BIBE (NPS; 784,238 acres)
- National Forests in Texas (USDA FOREST SERVICE; 677,734 acres)
- Big Bend (576,637 acres)
- Big Bend Ranch SP (Texas Parks and Wildlife Department; 313,335 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 (123,244 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; 104,641 acres)
- Lower Rio Grande Valley National Wildlife Refuge (Unknown; 98,069 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; 88,221 acres)
- GUMO (NPS; 86,837 acres)
- WRIGHT PATMAN (Unknown; 81,011 acres)
- Cibola National Forest (USDA FOREST SERVICE; 79,345 acres)
- SAN BERNARD NATIONAL WILDLIFE REFUGE (Fee; 62,792 acres)
- San Bernard National Wildlife Refuge (Unknown; 62,098 acres)
- ... and 9,305 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

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

Future urban growth estimates derived from [FUTURES model projections for the contiguous United States](#) developed by the [Center for Geospatial Analytics](#), NC State University.

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](#).