

Southeast Conservation Blueprint Summary

for Louisiana

Created 10/11/2024

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[The Southeast Conservation Blueprint 2024](#)



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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 2024 Development Process](#)
- View and download the Blueprint data and make maps on the [Blueprint page of the SECAS Atlas](#)

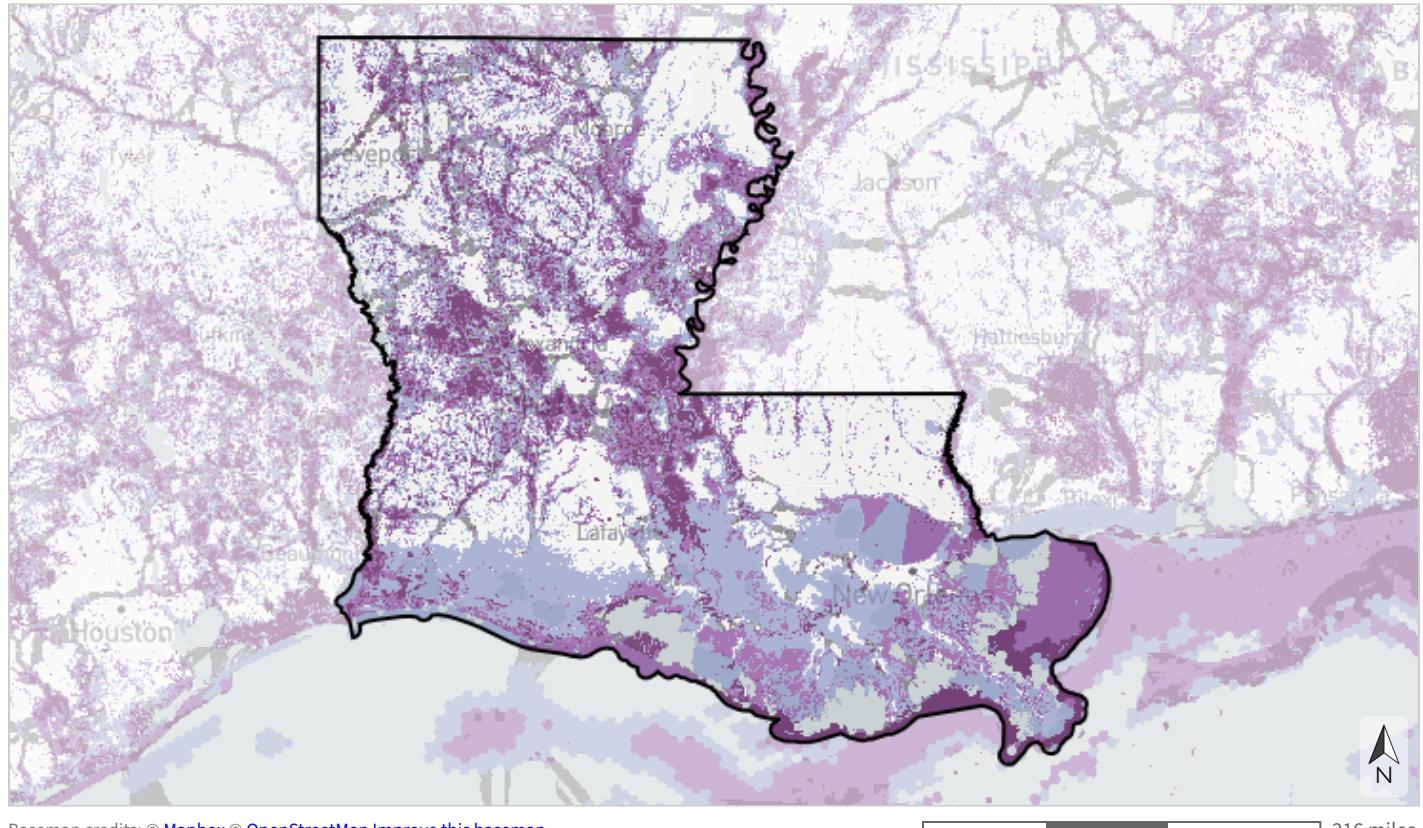
We're here to help!

- 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 Blueprint Explorer 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



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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.

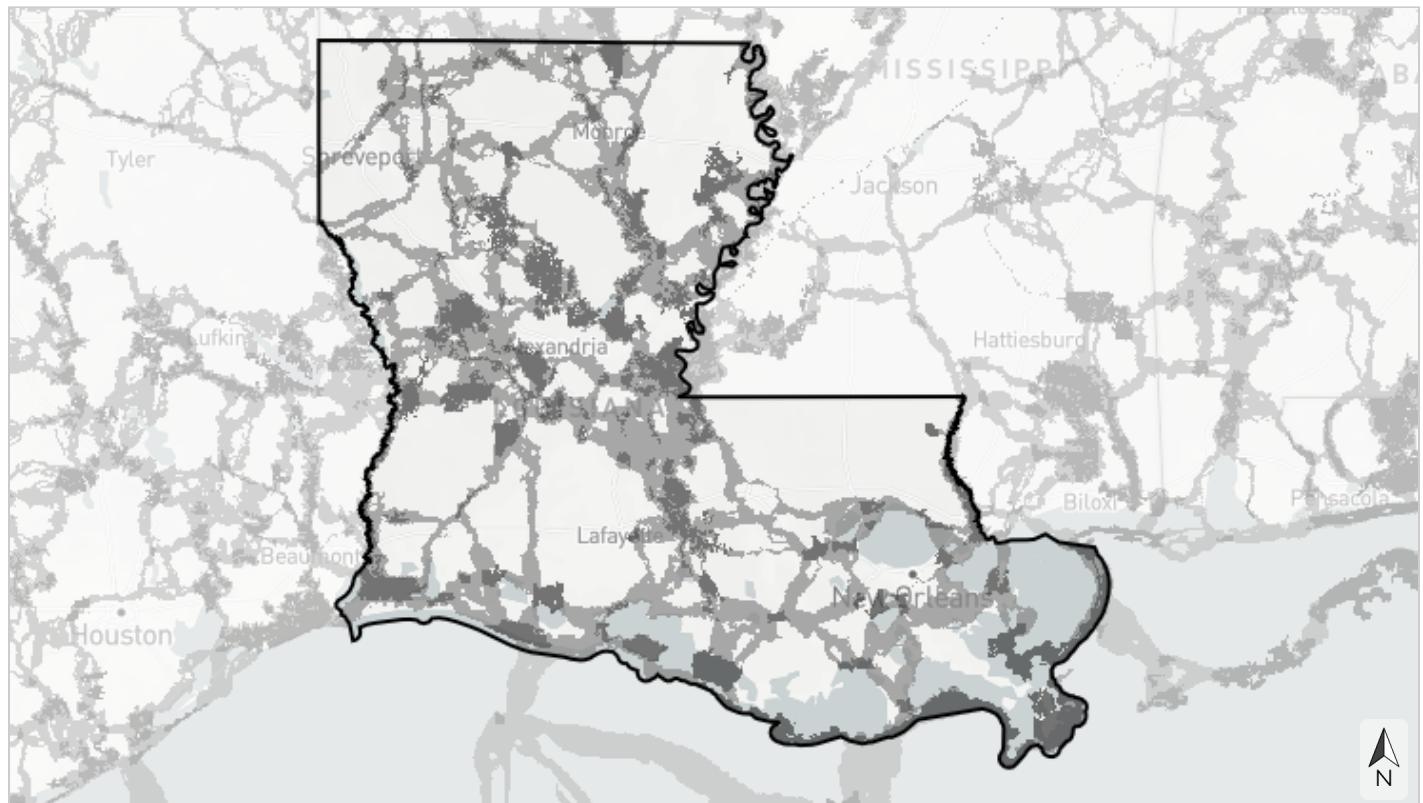
Table 1: Extent of each Blueprint priority category within Louisiana.

Priority Category	Acres	Percent of Area
Highest priority	3,903,099	11.6%
High priority	6,374,810	19.0%
Medium priority	10,165,169	30.3%
Priority connections	1,545,555	4.6%
Lower priority	11,531,569	34.4%
Total area	33,520,202	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.

In the continental Southeast, hubs are large patches (~5,000+ acres) of highest priority Blueprint areas and/or protected lands.



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Hubs
Corridors

Table 2: Extent of hubs and corridors within Louisiana.

Type	Acres	Percent of Area
Hubs	4,502,513	13.4%
Corridors	8,675,980	25.9%
Not a hub or corridor	20,341,709	60.7%
Total area	33,520,202	100%

Indicator Summary

Table 3: Terrestrial indicators.

Indicator	Present
Amphibian & reptile areas	✓
East Coastal Plain open pine birds	✓
Equitable access to potential parks	✓
Fire frequency	✓
Grasslands and savannas	✓
Greenways & trails	✓
Intact habitat cores	✓
Landscape condition	✓
Mississippi Alluvial Valley forest birds - protection	✓
Mississippi Alluvial Valley forest birds - reforestation	✓
Resilient terrestrial sites	✓
Urban park size	✓
West Coastal Plain & Ouachitas forested wetland birds	✓
West Coastal Plain & Ouachitas open pine birds	✓
West Gulf Coast mottled duck nesting	✓

Table 4: Freshwater indicators.

Indicator	Present
Gulf migratory fish connectivity	✓
Imperiled aquatic species	✓
Natural landcover in floodplains	✓
Network complexity	✓
Permeable surface	✓

Table 5: Coastal & marine indicators.

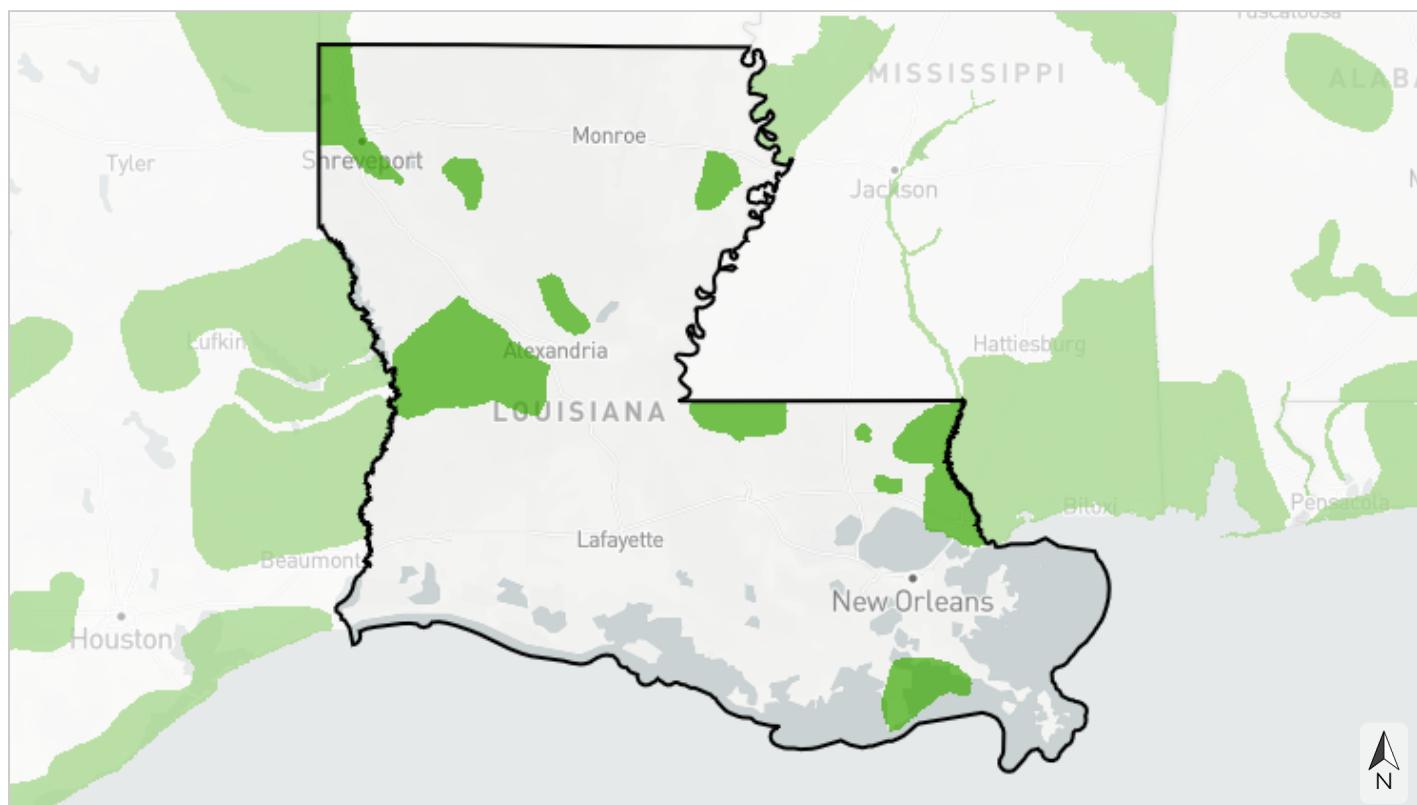
Indicator	Present
Coastal shoreline condition	✓
Estuarine coastal condition	✓
Gulf coral & hardbottom	✓
Gulf deep-sea coral richness	-
Gulf marine mammals	✓
Gulf sea turtles	✓
Island habitat	✓
Marine highly migratory fish	✓
Resilient coastal sites	✓
Seagrass	✓
South Atlantic maritime forest	-
Stable coastal wetlands	✓



Terrestrial

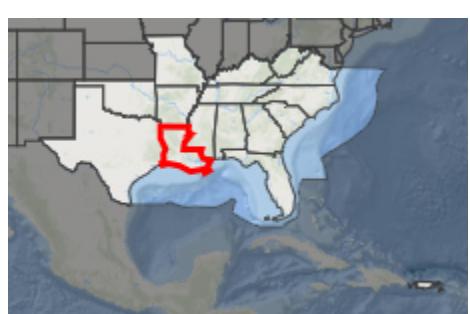
Amphibian & reptile areas

This indicator represents Priority Amphibian and Reptile Conservation Areas (PARCAs) across the Southeast. PARCA is an expert-driven, nonregulatory designation that includes places capable of supporting viable amphibian and reptile populations, places occupied by rare or imperiled species, and places rich in biodiversity or species unique to that geographic area (i.e., endemism). Reptiles and amphibians are a critical part of the Southeast region's rich biodiversity and many populations are declining in the face of threats like habitat loss, invasive species, and climate change. The PARCA dataset is maintained by the Amphibian and Reptile Conservancy and does not yet include Virginia or Kentucky.



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- Priority Amphibian and Reptile Conservation Area (PARCA)
- Not a PARCA (excluding Kentucky and Virginia)

Table 6: Indicator values for amphibian & reptile areas within Louisiana. A good condition threshold is not yet defined for this indicator.

	Indicator Values	Acres	Percent of Area
↑ High	Priority Amphibian and Reptile Conservation Area (PARCA)	3,622,098	10.8%
↓ Low	Not a PARCA (excluding Kentucky and Virginia)	29,898,103	89.2%
	<i>Area not evaluated for this indicator</i>	0.67	<0.1%
Total area		33,520,202	100%

Priority Amphibian and Reptile Conservation Areas:

Barataria Bay

The boundaries of the Barataria Bay PARCA are defined by marsh natural community types. The coastal portion of Louisiana is primarily made up of freshwater, intermediate, brackish, and salt marshes and, increasingly, open water. Other associated natural communities include cypress-tupelo-blackgum swamps, some bottomland hardwood forests, and live oak natural levee forests along the coast. Threats to this PARCA include urbanization, hurricanes, and sea-level rise. Major priorities for this PARCA include implementing turtle excluder devices on shrimp nets and crab traps, as well as restoring beach nesting habitat and barrier islands.

Bienville Pines

The Bienville Pines PARCA is primarily known for its longleaf pine woodlands and includes Kepler Creek Lake and Mill Creek Reservoir. This longleaf pine woodlands natural community occurs in association with hardwood slope forests and mixed hardwood-loblolly forests. Threats to this PARCA include fire suppression, invasive species (wild hogs), erosion, and disease. Major priorities for this PARCA include maintaining natural burn regimes, maintaining best management practices and streamside management zones, and controlling invasive species.

Big Thicket

Covering the southern Pineywoods, the Big Thicket PARCA is primarily forested but contains a diversity of habitats and variation with some open habitats, such as prairies and sandstone barrens. Vegetation communities today are very different from what was here pre-settlement, and historically mesophytic forests with defined mid and understories occurred on steep river bluffs. These forests featured large hardwoods, such as American beech, southern magnolia, and white oak. Modern management for timber production has shifted these forests to be generally younger and more dominated by loblolly pine. Xeric sandhills occur on deep riparian sand deposits and feature dry adapted plants like cacti and yuccas. The southernmost extent of longleaf pine in Texas extends into this PARCA. Herpetofauna in this PARCA is predominantly eastern, with species like the spotted dusky salamander, pig frog, and northern scarlet snake reaching the westernmost extents of their ranges. Threats include unsustainable timber practices, fire suppression, invasive species, roadway expansions, and trotlining (stringing up fishing lines with hooks at regular intervals).

Caddoan

The Caddoan PARCA in northeast Texas represents a variety of habitats; the eastern portion is generally forested with shortleaf pine, oaks and hickories, transitioning into post oak savanna and prairie in the western portions. Historically, the prairies contained a diverse microtopography of "mima" mounds and depressions. Much of this has been lost as they were converted to agriculture, but some examples on conservation and managed private lands remain. River floodplains contain some of the best bottomland hardwood forest habitat in the state of Texas. Species such as the pygmy rattlesnake, crawfish frog, and the Gulf Coast waterdog call this PARCA home, and they're threatened by fire suppression, forest conversion and clearing, prairie succession, mining, and invasive species.

Gulf Coast

The Gulf Coast PARCA spans the southern portion of Mississippi, encompassing a diverse landscape influenced by its proximity to the Gulf of Mexico. This region includes coastal flatwoods and marshes, upland longleaf pine forests, and expansive riverine systems, with notable features such as the Pascagoula River, renowned for its biodiversity. Habitats range from saltwater and freshwater marshes to fire-maintained longleaf pine forests, supporting species like the dusky gopher frog, Gulf salt marsh snake, and Mississippi diamondback terrapin. The confluence of these subregions, coupled with the area's history of fluctuating sea levels and sediment deposition, has sculpted a unique set of conditions conducive to supporting a wide range of plant and animal life, each with a distinct subset of species, threats, and conservation needs, underpinning its importance for conservation. Urban development, invasive species, and fire suppression are major threats that collaborative conservation efforts with national forests, national wildlife refuges, and educational institutions are crucial to address.

Longleaf Ridge

The Longleaf Ridge PARCA is located entirely within the Pineywoods, and comprises the heart of the range of longleaf pine in Texas. It also contains the majority of the known range of the Louisiana pine snake within the state. Portions of Angelina and Sabine National Forests are contained within this PARCA, as well as a large area of conservation easements. The northern half of this PARCA contains longleaf pine savannas on sandy, rolling uplands, containing species such as northern scarlet snakes, while shifting flatter towards the south. Downslope from longleaf savannas, hardwood forests, bald cypress-dominated floodplains, and seepage slopes occur, providing home for species such as the alligator snapping turtle, spotted dusky salamander, and pickerel frog. Threats to the biodiversity of this PARCA include unsustainable timber practices, forest conversion and clearing, invasive species, off-road vehicle use, and fire suppression.

No Man's Land

The No Man's Land PARCA contains unique geologic formations occurring in northeast to southwest bands across the area. The Jackson, Catahoula, Cook Mountain, and Fleming formations present distinctive soil types and conditions that influenced the development of natural community types along these formation bands. Calcareous clays, sandstones, saline deposits, siltstones, and ironstones have shaped the development of natural communities such as the calcareous forests, calcareous prairies, saline prairies, and small stream forests of this area. The south and southwestern portions of this PARCA are known for western longleaf pine flatwoods savannas and associated flatwoods ponds, and this area serves as the transition zone between Louisiana's coastal prairies and upland longleaf pine woodlands. Threats to this

PARCA include fire suppression, invasive species, siltation, and hydrology changes to ephemeral ponds. Major priorities for this PARCA include opening pine forests to establish natural canopy densities, returning natural burn regimes, maintaining best management practices and streamside management zones, creating/restoring ephemeral ponds, and controlling invasive species.

Pearl River Basin

Boasting more than 100 species of reptiles and amphibians, the Pearl River Basin is widely considered one of America's crown jewels for herpetological biodiversity. It consists primarily of upland forest dominated by evergreen/mixed hardwoods, pine flatwoods, and forested wetlands. Much of the historical longleaf pine component within the woodlands and flatwoods has been converted to loblolly pine. Ongoing efforts continue to restore longleaf and improve habitat conditions to these vital communities. This area faces a large number of human threats from urbanization, water pollution, and unsustainable timber practices. The natural areas here are also threatened by invasive species (wild hogs and cogongrass), as well as fire suppression and increased hurricane frequency. A significant effort will need to be made by cooperating across the many individuals and organizations who occupy this land to control point source pollution, return pine forests to natural fire conditions, control invasive species, and restore many of these habitats.

South Delta

The South Delta PARCA, nestled between the Mississippi and Yazoo Rivers, is characterized by rich alluvial soils that have historically supported extensive agriculture. Despite this transformation, remnants of bottomland hardwood forests and cypress-tupelo swamps persist within protected areas like Panther Swamp and Hillside National Wildlife Refuges. These wetlands are vital for species such as the western chicken turtle, alligator snapping turtle, and small-mouthed salamander. The region faces threats from agricultural runoff, invasive species like feral hogs and Chinese tallow trees, and altered hydrology. Conservation strategies include working with the Army Corps of Engineers, refining agricultural practices, and restoring abandoned catfish ponds to benefit aquatic species. Research efforts are needed to assess the impacts of invasive species and monitor turtle populations.

Stink Finger

The Stink Finger PARCA primarily consisted of shortleaf pine-oak-hickory woodland until post-settlement, when the majority of this community type was removed, and it has since been converted to loblolly pine plantation. Some natural stands of shortleaf pine-oak-hickory woodland still exist in this ecoregion. The major habitat types found within this PARCA consist of batture forests, hardwood slope forests, mixed hardwood-loblolly pine forests, shortleaf pine-oak-hickory woodlands, xeric sandhill woodlands, hardwood flatwoods, calcareous forests, calcareous prairies, saline prairies, and sandbars. The Shreveport Airport contains the last known population of southern crawfish frogs in the state. Threats to this PARCA include urbanization, vehicle mortality, invasive species, and habitat conversion. Major priorities for this PARCA include restoring native habitat types, controlling invasive species, and creating habitat for the southern crawfish frog.

Sulfur River

The Sulfur River PARCA is composed of rolling plains that are broken by nearly flat fluvial terraces, bottomlands, sandy low hills, and low cuestas. One of the biggest bottomland hardwood habitats persisting along the Red River Valley is found within this PARCA and is home to a thriving alligator

population. Recreational activities are abundant in this region, but maintaining the water quality and protecting important wetlands will help defend the abundant wildlife.

Tensas

The Tensas PARCA is primarily known for bottomland hardwood forests, as well as associated cypress-tupelo-blackgum swamps. Additional natural communities found within this PARCA include batture forests and hardwood flatwoods. The northeastern part of the state is heavily impacted by agriculture that is interspersed with fragmented forests. Threats to this PARCA include agricultural runoff, herbicides, and pesticides. Major priorities for this PARCA include restoring bottomland hardwoods, creating connectivity between forest patches, and reducing agricultural runoff.

Texas Pineywoods

This large PARCA includes the central Pineywoods and contains the majority of Davy Crockett, Angelina, and Sabine National Forests. A rich diversity of habitats occur here, from longleaf pine savanna uplands to hardwood stratified slopes, deep coarse sandhills, and bald cypress-tupelo bottomlands. Much of these historical habitats have been converted and lost, but large patches remain on national forest land and private conservation easements. Species such as the pygmy rattlesnake, mole salamander, and western chicken turtle represent the area's rich biodiversity, and are threatened by unsustainable timber practices, fire suppression, invasive plants and feral hogs, off-road vehicle use, and loss of prairie remnants.

Tunica Hills

The Tunica Hills PARCA is unique in that it is predominantly composed of the southern mesophytic hardwood forest community type that developed on loess hills with steep ravines and intermittent or spring-fed streams. Currently, this community type is only recognized from this area of Louisiana. In addition to southern mesophytic hardwoods, other associated community types within the Tunica Hills PARCA include hardwood slope forests and mixed hardwood-loblolly pine forests. Threats to this PARCA include water pollution (from sand and gravel mining), habitat conversion from hardwoods to pine, unsustainable timber harvests, and invasive species (wild hogs). Major priorities for this PARCA include adhering to best management practices and streamside management zones, maintaining late stage hardwoods, and creating/restoring ephemeral wetlands.

Upper Pearl

The Upper Pearl PARCA stretches along the Pearl River from its meeting with the Gulf Coast to central Mississippi. This region includes dynamic aquatic ecosystems and dense riparian forests of oak, hickory, and pine. The Pearl River is crucial for freshwater turtles like the Pearl River map turtle, ringed sawback, and alligator snapping turtle. Threats include altered hydrology from impoundments, invasive species, and agricultural runoff, which can be mitigated through conservation opportunities involving collaboration with water management districts, local municipalities, and environmental organizations. Research priorities include long-term turtle monitoring and habitat usage studies for key species that rely on the pristine waters that support one of the most diverse turtle populations in the country.

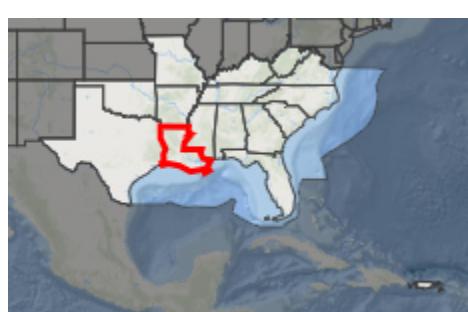
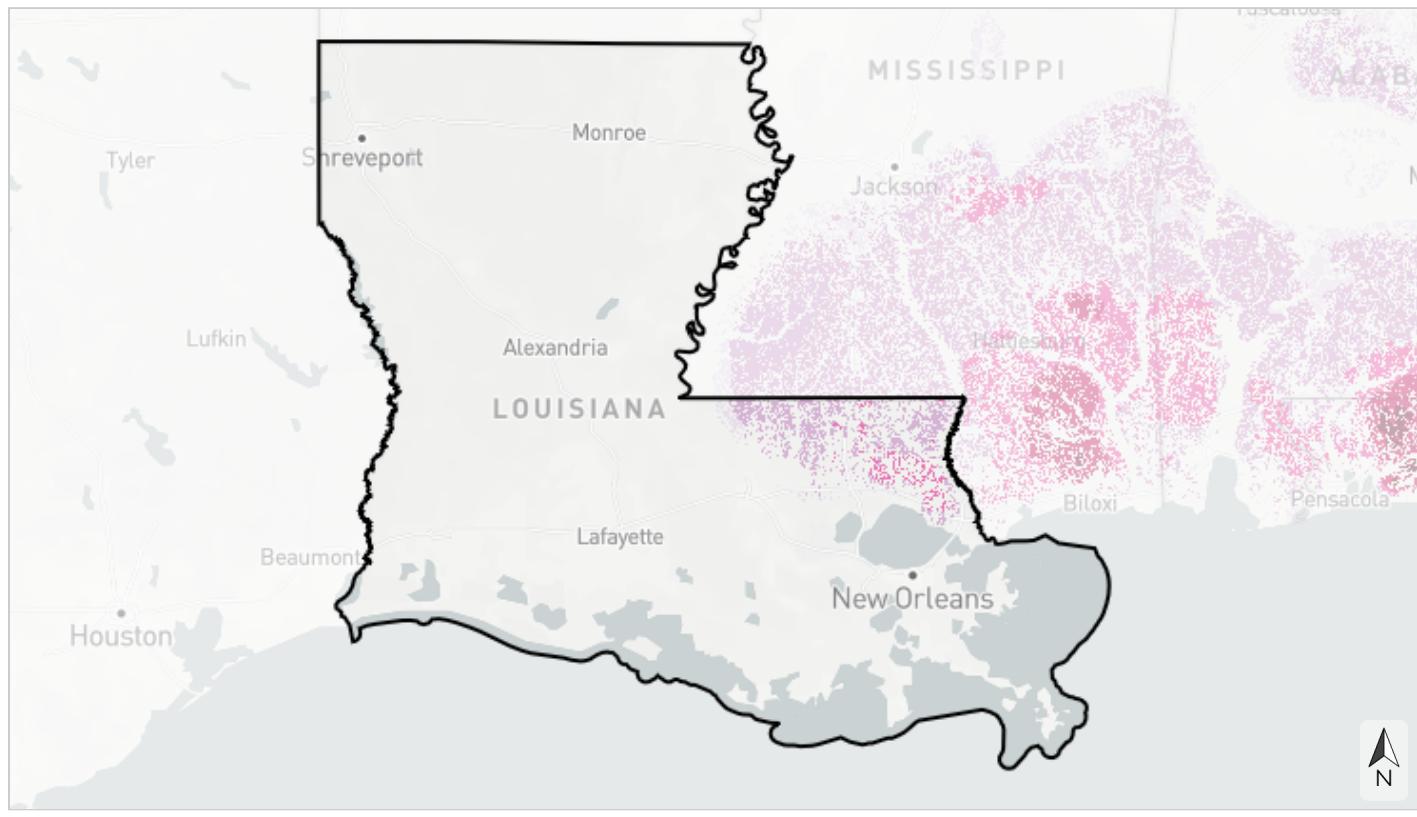
To learn more and explore the GIS data, [view this indicator in the SECAS Atlas](#).



Terrestrial

East Coastal Plain open pine birds

This indicator identifies areas within the historic longleaf pine range east of the Mississippi River where creating or maintaining open pine habitat would most benefit six focal species of birds (Bachman's sparrow, red-cockaded woodpecker, Henslow's sparrow, red-headed woodpecker, Northern bobwhite, brown-headed nuthatch). It prioritizes areas for open pine conservation based on suitability for longleaf pine, feasibility of prescribed burning, proximity to protected lands, habitat suitability for focal bird species, and proximity to bird source populations. It originates from the East Gulf Coastal Plain Joint Venture's prioritization of areas for open pine ecosystem restoration.



Priority for open pine conservation for focal bird species	
High priority (score >80-100)	
Medium-high priority (score >60-80)	
Medium priority (score >40-60)	
Medium-low priority (score >20-40)	
Low priority (score 0-20)	
Not a priority (not identified as upland pine)	

Table 7: Indicator values for East Coastal Plain open pine birds within Louisiana. A good condition threshold is not yet defined for this indicator.

Indicator Values: Priority for open pine conservation for focal bird species		Acres	Percent of Area
↑ High	High priority (score >80-100)	0	0%
	Medium-high priority (score >60-80)	0	0%
	Medium priority (score >40-60)	107,867	0.3%
	Medium-low priority (score >20-40)	564,346	1.7%
	Low priority (score 0-20)	55,102	0.2%
	Not a priority (not identified as upland pine)	1,592,213	4.8%
<i>Area not evaluated for this indicator</i>		31,200,674	93.1%
Total area		33,520,202	100%

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



Terrestrial

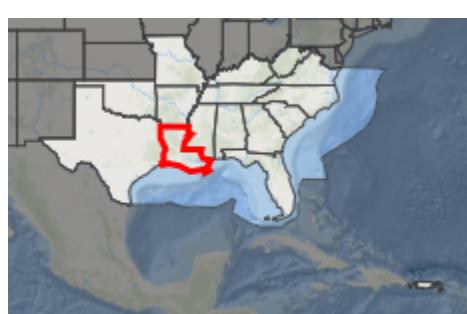
Equitable access to potential parks

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.



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

Indicator Values: Priority for a new park that would create nearby equitable access		Acres	Percent of Area
↑ High	Very high priority	99,852	0.3%
	High priority	110,031	0.3%
	Moderate priority	148,319	0.4%
↓ Low	Not identified as a priority (within urban areas)	29,824,086	89.0%
	<i>Area not evaluated for this indicator</i>	3,337,914	10.0%
	Total area	33,520,202	100%

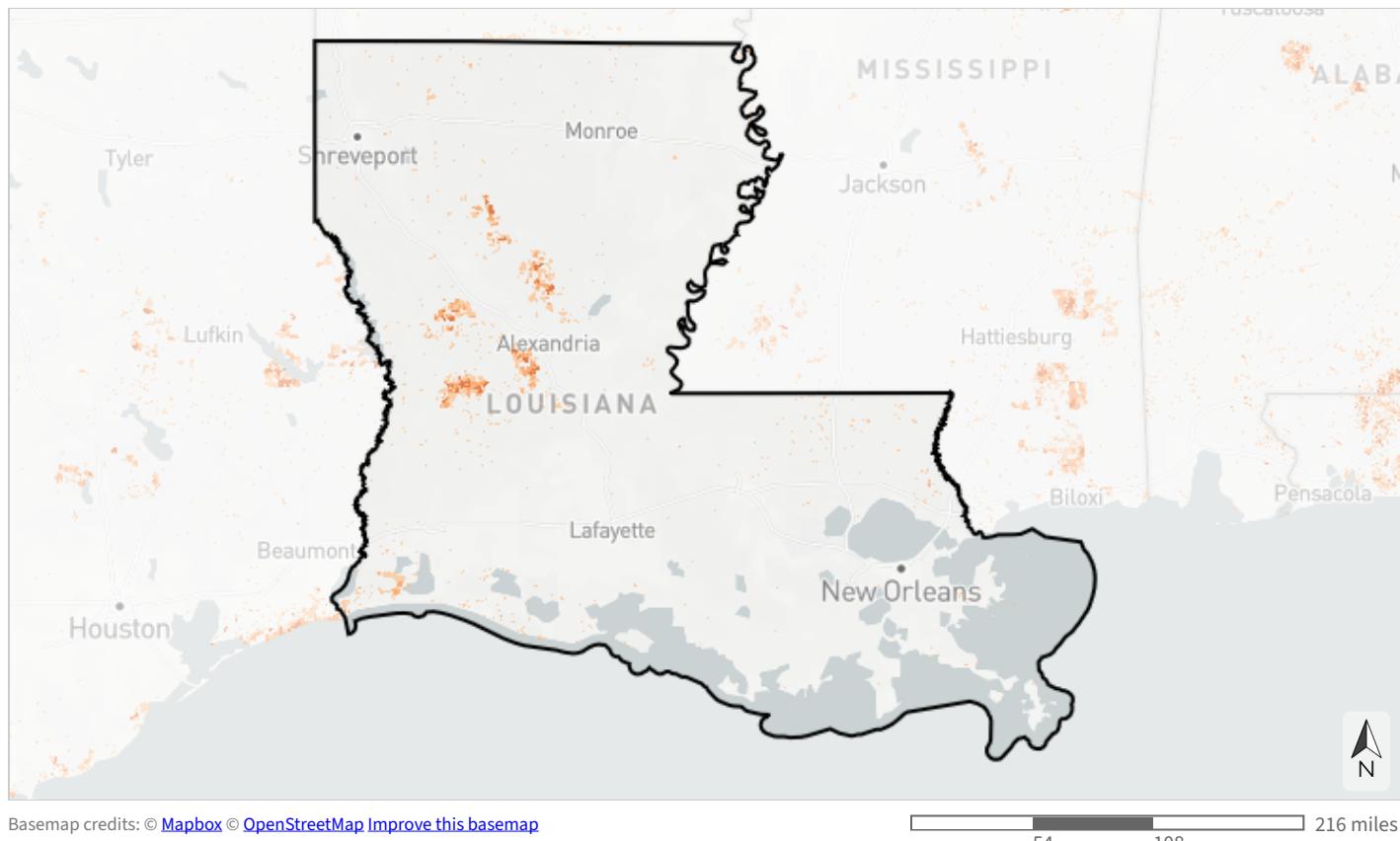
To learn more and explore the GIS data, [view this indicator in the SECAS Atlas](#).



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 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.



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- 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 9: Indicator values for fire frequency within Louisiana. 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	50,768	0.2%
	Burned 2 times from 2013-2021	117,918	0.4%
	Burned 1 time from 2013-2021	559,338	1.7%
↓ Low	Not burned from 2013-2021 or row crop	32,745,409	97.7%
	<i>Area not evaluated for this indicator</i>	46,769	0.1%
Total area		33,520,202	100%

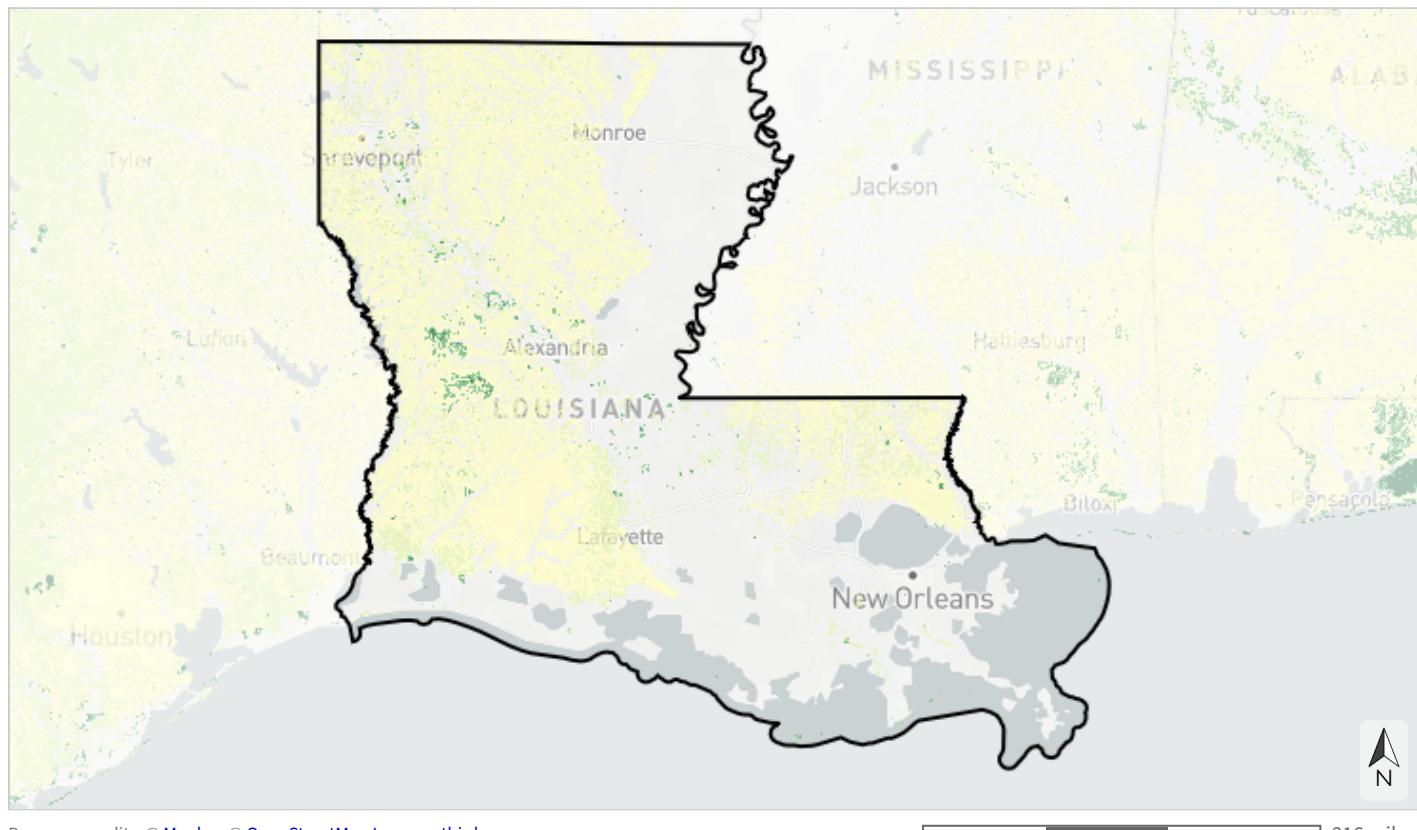
To learn more and explore the GIS data, [view this indicator in the SECAS Atlas](#).



Terrestrial

Grasslands and savannas

This indicator represents grasslands and savannas in the southeastern United States, which support important plants, reptiles, amphibians, mammals, birds, and pollinators. It considers known grassland and savanna locations, likely locations managed for biodiversity, and surrounding pollinator buffers. It also incorporates other potential grassland and savanna locations within natural and altered landscapes, and restoration opportunities within historic locations based on past fire intervals and historic ecosystem predictions. This indicator combines data from multiple sources, including the Southeastern Grasslands Institute, the National Land Cover Database, LANDFIRE biophysical settings, Oklahoma and Texas ecological systems maps, and more.



- Known grassland/savanna
- Likely grassland/savanna >10 acres
- Likely grassland/savanna ≤10 acres
- Pollinator buffer around known or likely grassland/savanna
- Potential grassland/savanna in mostly natural landscape
- Potential grassland/savanna in more altered landscape
- Historic grassland/savanna
- Not identified as grassland/savanna

Table 10: Indicator values for grasslands and savannas within Louisiana. Good condition thresholds reflect the range of indicator values that occur in healthy, functioning ecosystems.

	Indicator Values	Acres	Percent of Area
↑ High	Known grassland/savanna	0	0%
	Likely grassland/savanna >10 acres	39,366	0.1%
	Likely grassland/savanna ≤10 acres	17,076	<0.1%
↓ Low	Pollinator buffer around known or likely grassland/savanna	192,194	0.6%
	Potential grassland/savanna in mostly natural landscape	349,115	1.0%
	Potential grassland/savanna in more altered landscape	2,178,545	6.5%
↓ Low	Historic grassland/savanna	8,805,657	26.3%
	Not identified as grassland/savanna	18,600,711	55.5%
	<i>Area not evaluated for this indicator</i>	3,337,539	10.0%
Total area		33,520,202	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 data and the National Land Cover Database.



- 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 connected for ≥ 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 11: Indicator values for greenways & trails within Louisiana. Good condition thresholds reflect the range of indicator values that occur in healthy, functioning ecosystems.

Indicator Values	Acres	Percent of Area
Mostly natural and connected for ≥ 40 km	841	<0.1%
Mostly natural and connected for 5 to <40 km or partly natural and connected for ≥ 40 km	1,807	<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 ≥ 40 km	1,876	<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	3,526	<0.1%
Partly natural and connected for <1.9 km or developed and connected for 1.9 to <5 km	1,961	<0.1%
Developed and connected for <1.9 km	2,633	<0.1%
Sidewalk	3,535	<0.1%
Not identified as a trail, sidewalk, or other path	33,107,020	98.8%
<i>Area not evaluated for this indicator</i>	397,003	1.2%
Total area	33,520,202	100%

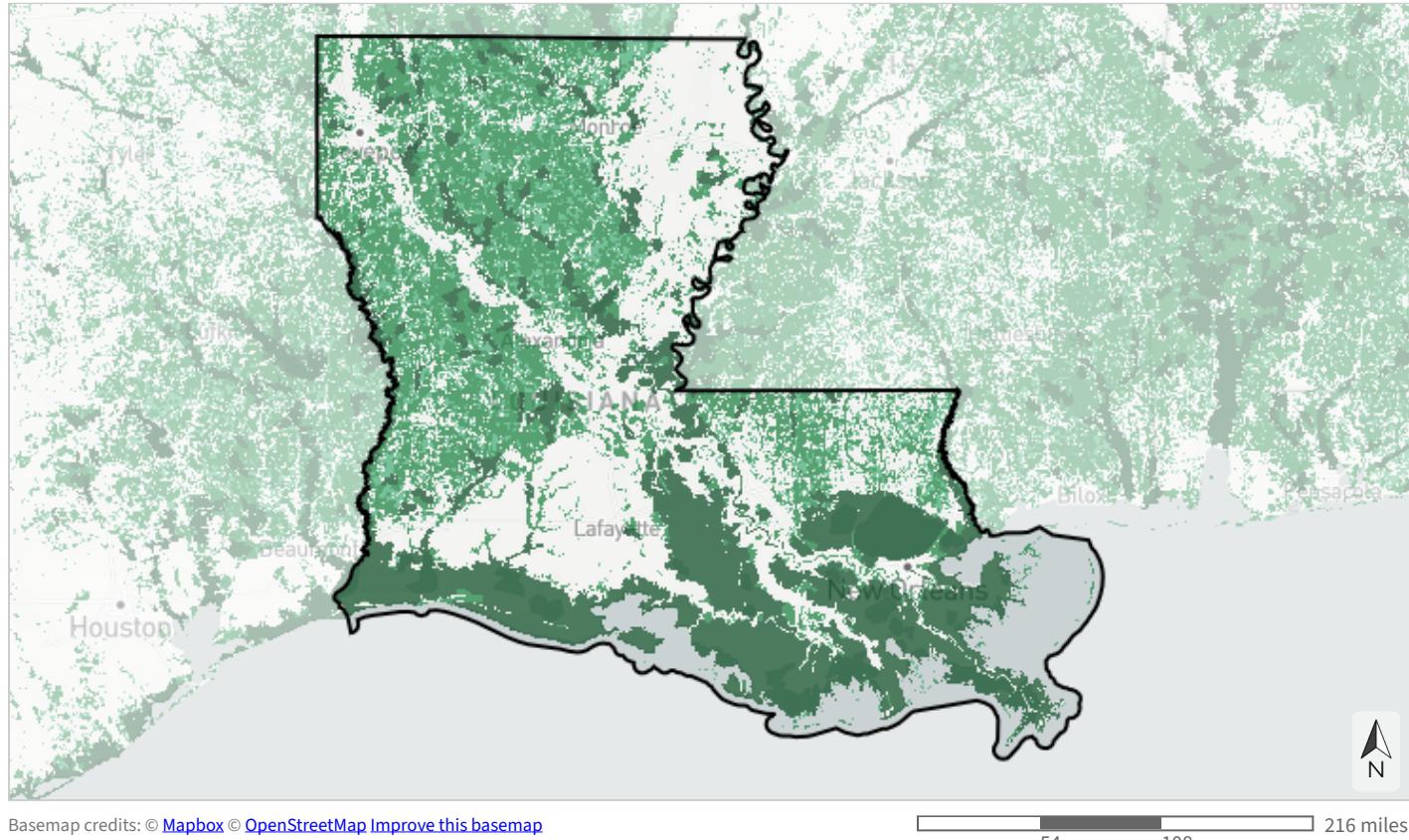
To learn more and explore the GIS data, [view this indicator in the SECAS Atlas](#).



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 12: Indicator values for intact habitat cores within Louisiana. 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)	8,444,876	25.2%
	Medium core (>1,000-10,000 acres)	6,920,323	20.6%
	Small core (>100-1,000 acres)	2,855,921	8.5%
↓ Low	Not a core	14,936,622	44.6%
	<i>Area not evaluated for this indicator</i>	362,461	1.1%
Total area		33,520,202	100%

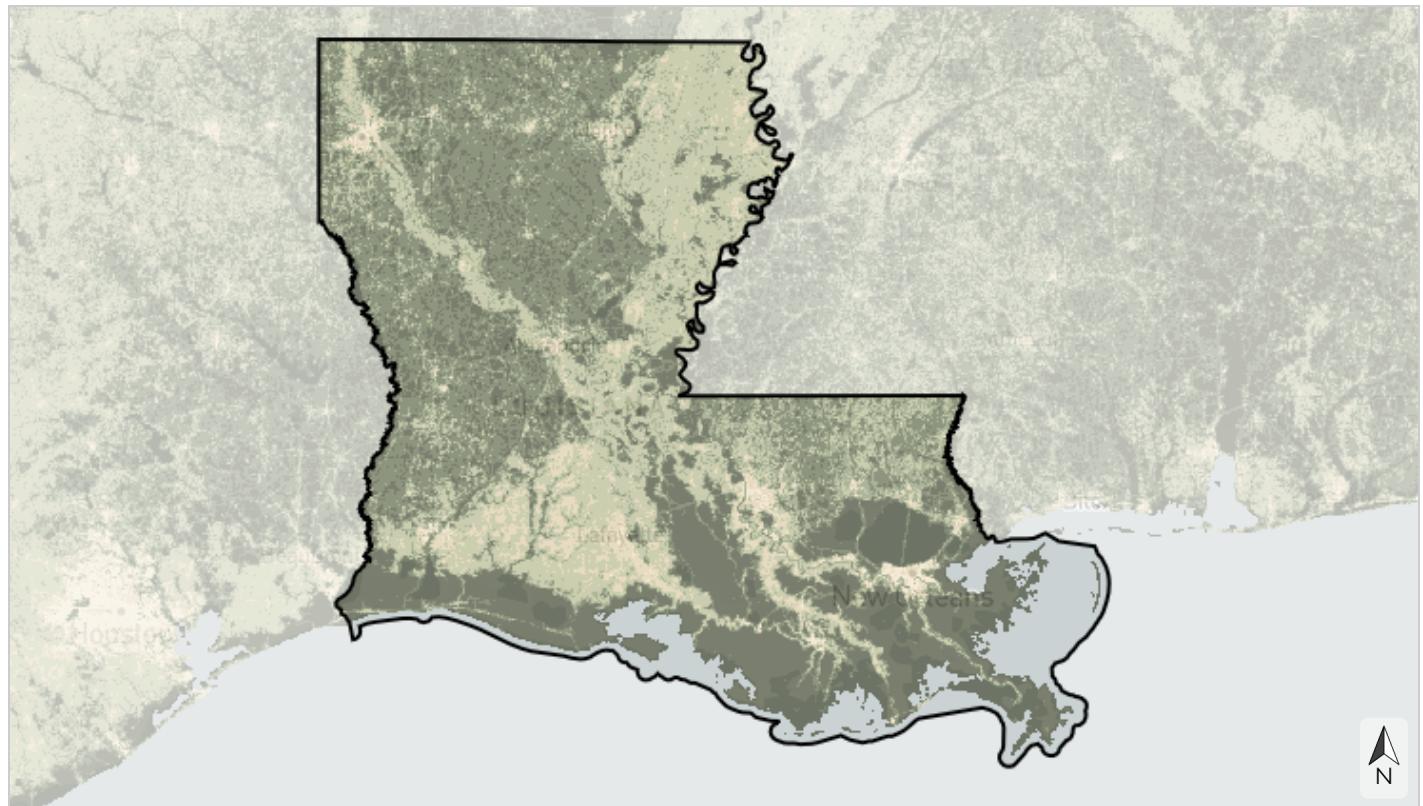
To learn more and explore the GIS data, [view this indicator in the SECAS Atlas](#).



Terrestrial

Landscape condition

This indicator represents natural areas with limited human alteration while also considering the naturalness of the surrounding landscape. Examples of human alteration include urban development and intense agricultural use. The degree of naturalness across the landscape is a key ecological condition for sustaining species and ecosystem services that are sensitive to habitat fragmentation at multiple scales. This indicator uses the National Land Cover Dataset, various data on grasslands, mines, and quarries, and ideas from the Florida Critical Lands and Waters Identification Project's approach for evaluating landscape integrity.



- Very natural landscape
- Natural landscape
- Mostly natural landscape
- Partly natural landscape
- Altered landscape
- Heavily altered landscape

Table 13: Indicator values for landscape condition within Louisiana. Good condition thresholds reflect the range of indicator values that occur in healthy, functioning ecosystems.

	Indicator Values	Acres	Percent of Area
↑ High ↓ Low	Very natural landscape	8,344,177	24.9%
	Natural landscape	8,687,196	25.9%
	Mostly natural landscape	4,650,200	13.9%
	Partly natural landscape	6,680,329	19.9%
	Altered landscape	1,595,293	4.8%
	Heavily altered landscape	225,469	0.7%
	<i>Area not evaluated for this indicator</i>	3,337,539	10.0%
Total area		33,520,202	100%

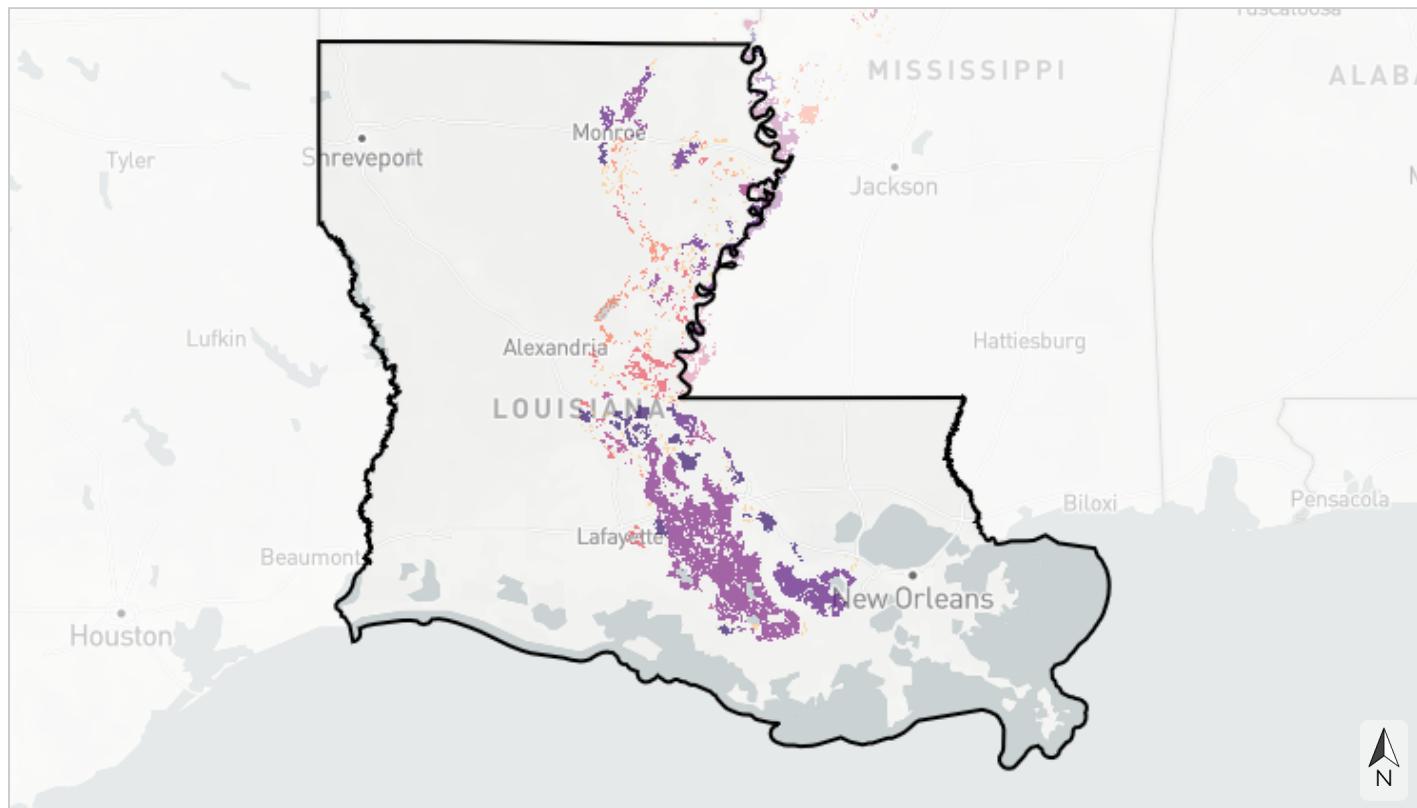
To learn more and explore the GIS data, [view this indicator in the SECAS Atlas](#).



Terrestrial

Mississippi Alluvial Valley forest birds - protection

This indicator prioritizes areas for new land protection within the Mississippi Alluvial Valley (MAV) based on benefits to forest breeding birds that need large interior cores of bottomland hardwood habitat (Swainson's warbler, cerulean warbler, swallow-tailed kite). The model considers core size, the amount of existing protected land within a forest patch, proximity to reforestation priorities, and risk of conversion to agriculture based on flooding frequency. The highest scores go to drier, unprotected forest patches with cores at least 2,000 ha (~5,000 ac) in size that are adjacent to complementary reforestation priority areas also identified by the Lower Mississippi Valley Joint Venture (LMVJV). This indicator originates from the LMVJV MAV forest breeding bird protection priorities.



Priority of forest breeding bird habitat patch for future protection

- Score >90-100 (highest priority)
- Score >80-90
- Score >70-80
- Score >60-70
- Score >50-60
- Score >40-50
- Score >30-40
- Score >20-30
- Score >10-20
- Score >0-10 (low priority)
- Score 0 (not a priority)

Table 14: Indicator values for Mississippi Alluvial Valley forest birds - protection within Louisiana. A good condition threshold is not yet defined for this indicator.

	Indicator Values: Priority of forest breeding bird habitat patch for future protection	Acres	Percent of Area
↑ High	Score >90-100 (highest priority)	196,620	0.6%
	Score >80-90	304,088	0.9%
	Score >70-80	982,424	2.9%
	Score >60-70	78,622	0.2%
	Score >50-60	12,062	<0.1%
	Score >40-50	118,297	0.4%
	Score >30-40	96,470	0.3%
	Score >20-30	23,774	<0.1%
	Score >10-20	128,816	0.4%
	Score >0-10 (low priority)	2,215	<0.1%
↓ Low	Score 0 (not a priority)	5,623,646	16.8%
	<i>Area not evaluated for this indicator</i>	25,953,169	77.4%
		Total area	33,520,202
			100%

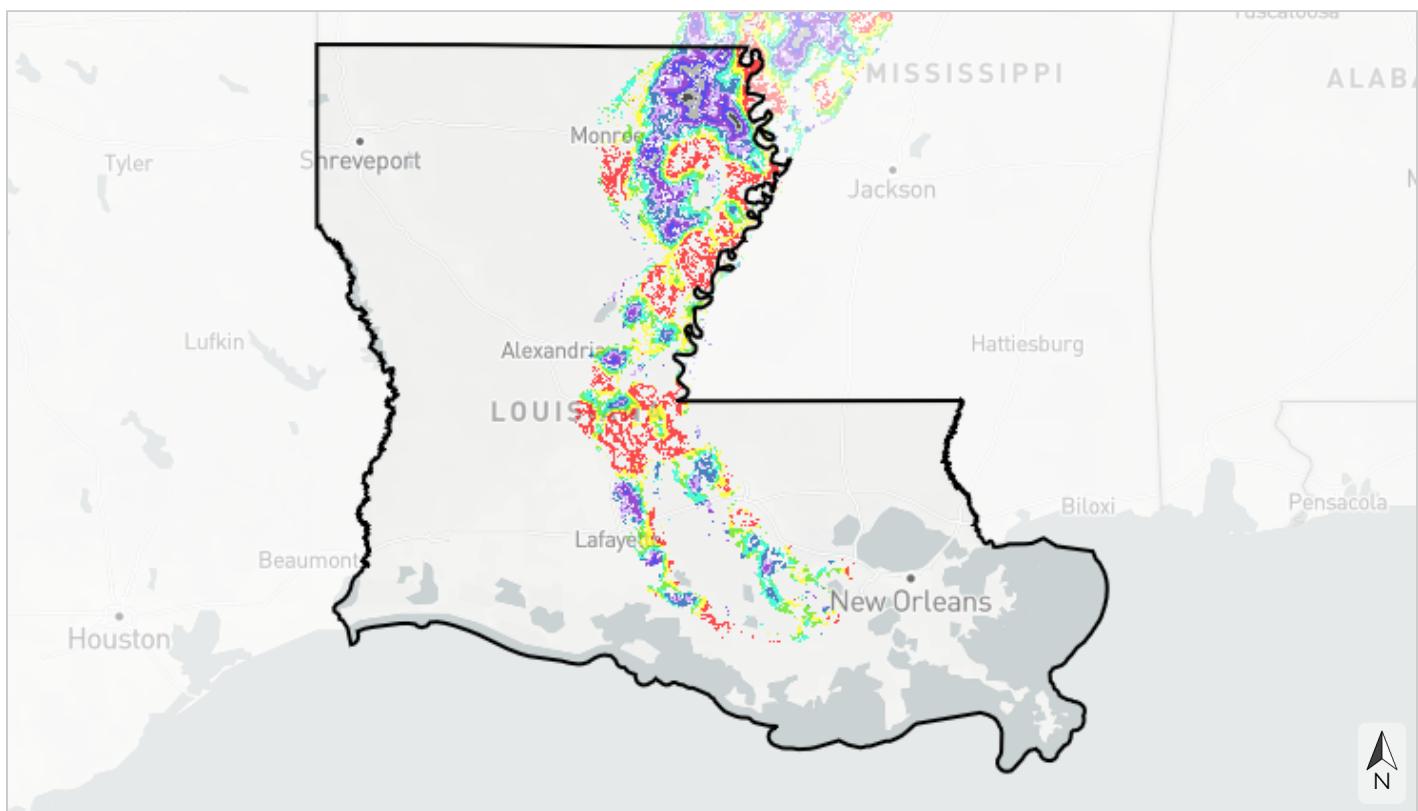
To learn more and explore the GIS data, [view this indicator in the SECAS Atlas](#).



Terrestrial

Mississippi Alluvial Valley forest birds - reforestation

This indicator prioritizes areas for reforestation within the Mississippi Alluvial Valley (MAV) based on benefits to three species of forest breeding birds that need large interior cores of bottomland hardwood habitat (Swainson's warbler, cerulean warbler, swallow-tailed kite). The model considers the core size, number of cores, and percent of local forest cover that would result from reforestation, as well as risk of conversion to agriculture based on flooding frequency. The highest scores go to drier areas where reforestation would create new forest patches containing interior cores at least 2,000 ha (~5,000 ac) in size. It originates from the Lower Mississippi Valley Joint Venture MAV forest breeding bird reforestation priorities.



Likelihood that reforestation will contribute to forest breeding bird habitat needs

- Most likely ($\geq 90^{\text{th}}$ percentile)
- Most likely (80 $^{\text{th}}$ to <90 $^{\text{th}}$ percentile)
- More likely (70 $^{\text{th}}$ to <70 $^{\text{th}}$ percentile)
- Less likely (60 $^{\text{th}}$ to <60 $^{\text{th}}$ percentile)
- Least likely (50 $^{\text{th}}$ to <50 $^{\text{th}}$ percentile)
- Least likely (40 $^{\text{th}}$ to <40 $^{\text{th}}$ percentile)
- Least likely (30 $^{\text{th}}$ to <30 $^{\text{th}}$ percentile)
- Least likely (20 $^{\text{th}}$ to <20 $^{\text{th}}$ percentile)
- Least likely (10 $^{\text{th}}$ to <10 $^{\text{th}}$ percentile)
- Least likely (<10 $^{\text{th}}$ percentile)
- Not a priority for reforestation

Table 15: Indicator values for Mississippi Alluvial Valley forest birds - reforestation within Louisiana. A good condition threshold is not yet defined for this indicator.

Indicator Values: Likelihood that reforestation will contribute to forest breeding bird habitat needs		Acres	Percent of Area
↑ High	Most likely (\geq 90th percentile)	783,661	2.3%
	Most likely (80th to <90th percentile)	552,512	1.6%
	More likely (70th to <80th percentile)	466,591	1.4%
	Less likely (60th to <70th percentile)	454,456	1.4%
	Least likely (50th to <60th percentile)	420,695	1.3%
	Least likely (40th to <50th percentile)	314,759	0.9%
	Least likely (30th to <40th percentile)	245,388	0.7%
	Least likely (20th to <30th percentile)	153,308	0.5%
	Least likely (10th to <20th percentile)	86,776	0.3%
	Least likely (<10th percentile)	10,296	<0.1%
↓ Low	Not a priority for reforestation	4,079,543	12.2%
	<i>Area not evaluated for this indicator</i>	25,952,219	77.4%
Total area		33,520,202	100%

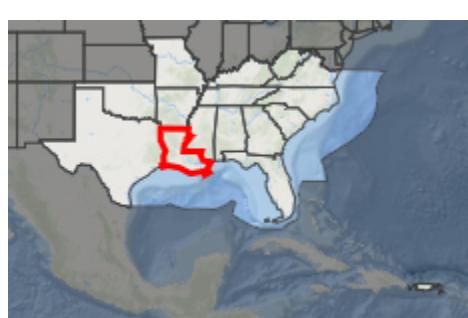
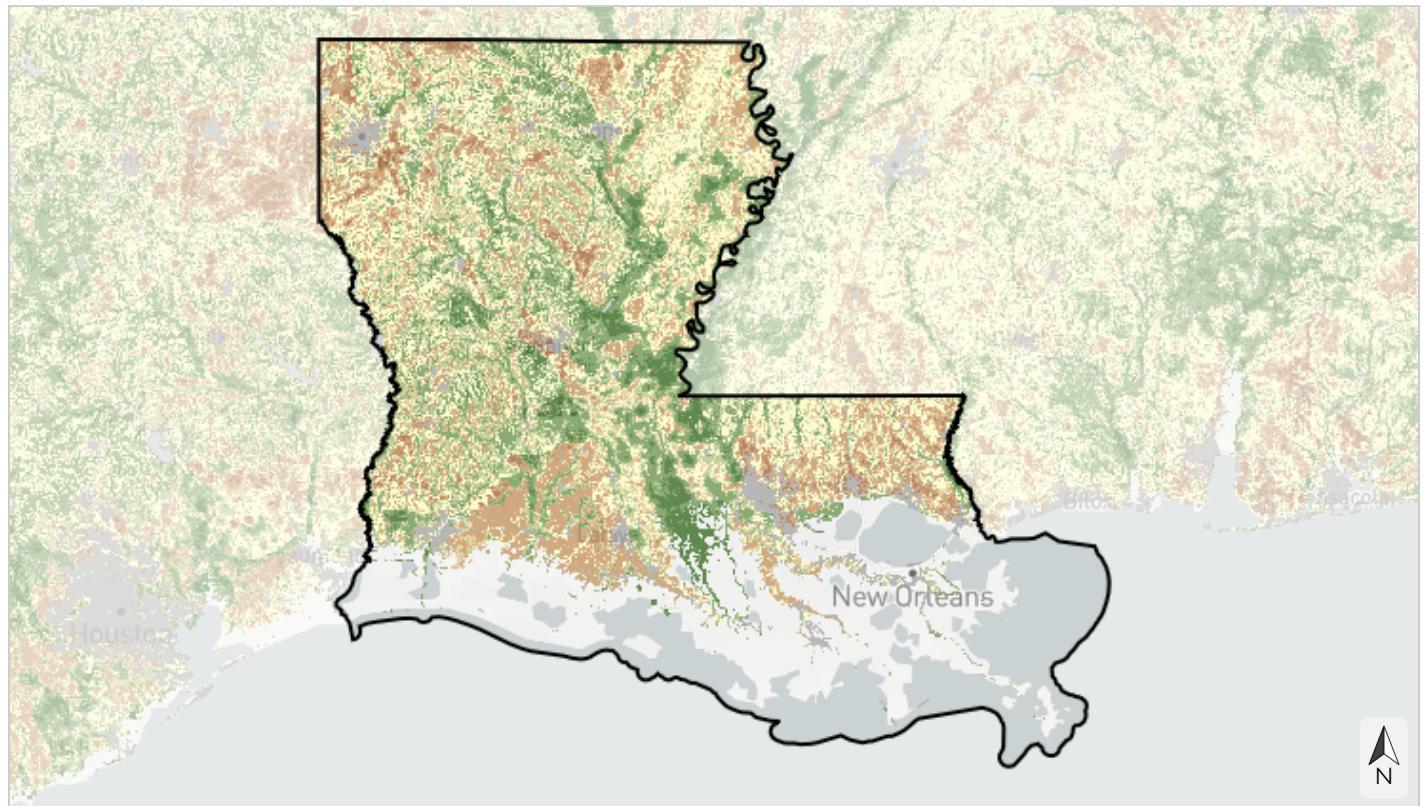
To learn more and explore the GIS data, [view this indicator in the SECAS Atlas](#).



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 16: Indicator values for resilient terrestrial sites within Louisiana. A good condition threshold is not yet defined for this indicator.

	Indicator Values	Acres	Percent of Area
↑ High	Most resilient	762,247	2.3%
	More resilient	3,441,361	10.3%
	Slightly more resilient	3,197,340	9.5%
	Average/median resilience	5,691,507	17.0%
	Slightly less resilient	2,960,540	8.8%
	Less resilient	3,349,096	10.0%
	Least resilient	519,430	1.5%
	Developed	1,235,741	3.7%
↓ Low	<i>Area not evaluated for this indicator</i>	12,362,940	36.9%
	Total area	33,520,202	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 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
- Not identified as an urban park

Table 17: Indicator values for urban park size within Louisiana. A good condition threshold is not yet defined for this indicator.

	Indicator Values	Acres	Percent of Area
↑ High	75+ acre urban park	66,576	0.2%
	50 to <75 acre urban park	2,472	<0.1%
	30 to <50 acre urban park	2,832	<0.1%
	10 to <30 acre urban park	4,159	<0.1%
	5 to <10 acre urban park	1,968	<0.1%
	<5 acre urban park	1,905	<0.1%
↓ Low	Not identified as an urban park	33,176,355	99.0%
	<i>Area not evaluated for this indicator</i>	263,936	0.8%
Total area		33,520,202	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/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 18: Indicator values for West Coastal Plain & Ouachitas forested wetland birds within Louisiana. A good condition threshold is not yet defined for this indicator.

Indicator Values: Habitat suitability for forested wetland bird umbrella species		Acres	Percent of Area
↑ High	High habitat suitability (score >80)	392,010	1.2%
	Medium-high habitat suitability (score >60-80)	268,582	0.8%
	Medium habitat suitability (score >40-60)	273,690	0.8%
	Medium-low habitat suitability (score >20-40)	379,063	1.1%
	Low habitat suitability (score >0-20)	403,167	1.2%
	Not suitable (score = 0)	9,764,315	29.1%
<i>Area not evaluated for this indicator</i>		22,039,376	65.7%
Total area		33,520,202	100%

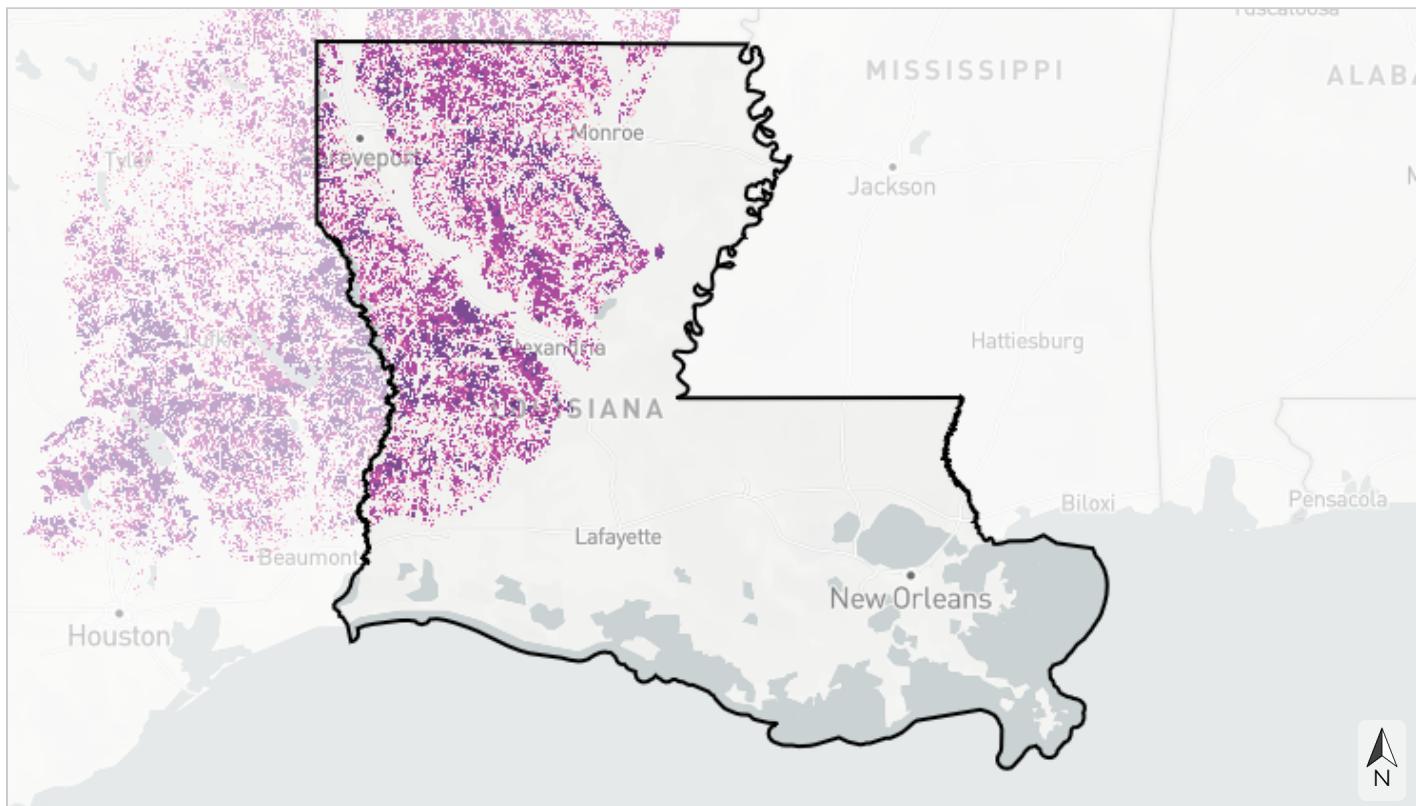
To learn more and explore the GIS data, [view this indicator in the SECAS Atlas](#).



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.



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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
- Pine patch too small and isolated to support a population of any species or not an upland pine patch

Table 19: Indicator values for West Coastal Plain & Ouachitas open pine birds within Louisiana. A good condition threshold is not yet defined for this indicator.

Indicator Values: Ability of pine patch to support a population of umbrella bird species if managed in open condition		Acres	Percent of Area
↑ High	Large enough to support a population of all 3 species	721,507	2.2%
	Large enough to support a population of 2 species	2,380,049	7.1%
	Large enough to a population of 1 species	563,414	1.7%
	Part of a cluster of nearby patches able to support a population of all 3 species	359,774	1.1%
	Part of a cluster of nearby patches able to support a population of 2 species	707,327	2.1%
	Part of a cluster of nearby patches able to support a population of 1 species	1,450	<0.1%
	Pine patch too small and isolated to support a population of any species or not an upland pine patch	6,747,278	20.1%
	<i>Area not evaluated for this indicator</i>	22,039,402	65.7%
Total area		33,520,202	100%

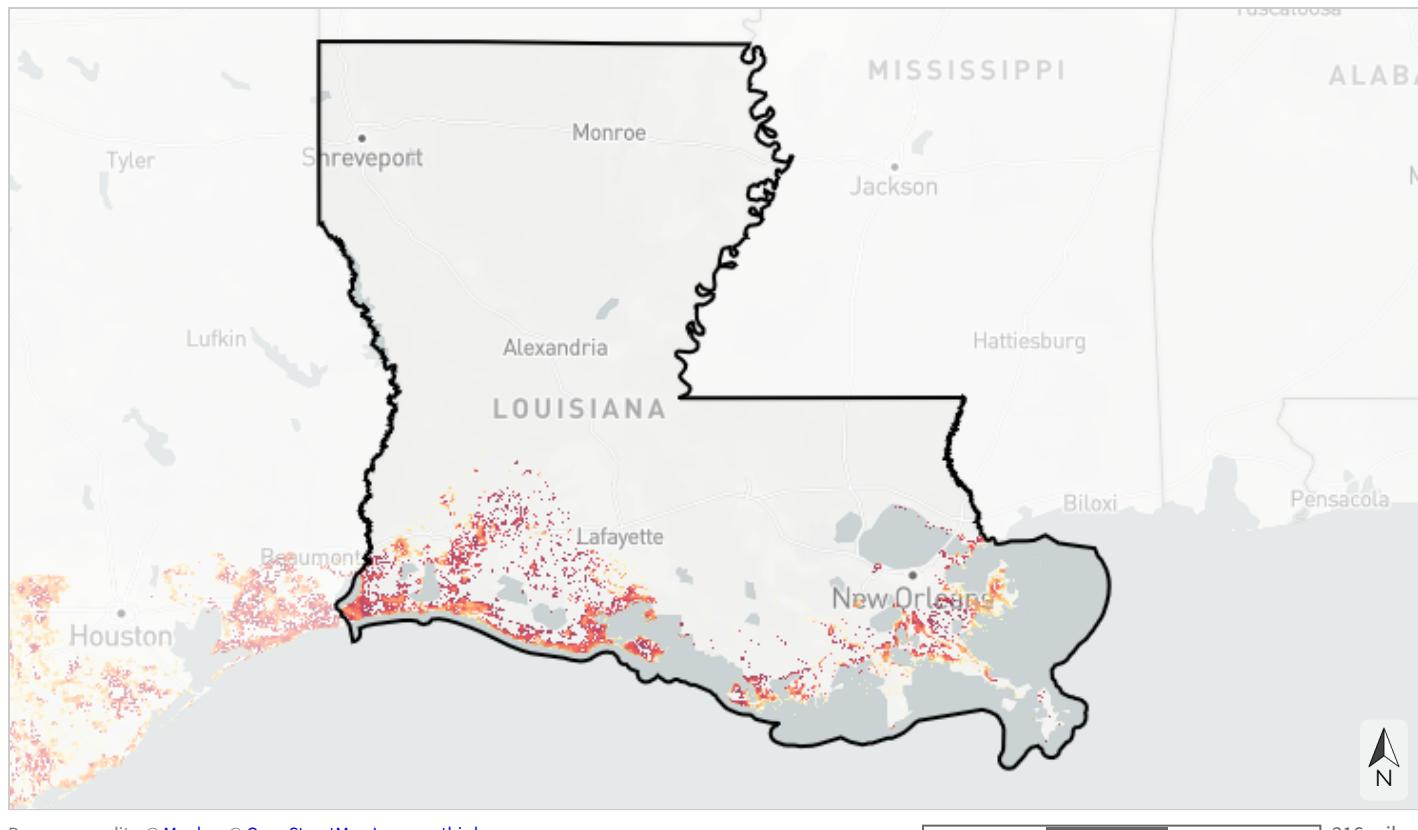
To learn more and explore the GIS data, [view this indicator in the SECAS Atlas](#).



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 Joint Venture.



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 (within TX and LA)

Table 20: Indicator values for west gulf coast mottled duck nesting within Louisiana. A good condition threshold is not yet defined for this indicator.

	Indicator Values: Percentile of suitable mottled duck nesting habitat	Acres	Percent of Area
↑ High	90th-100th percentile	317,421	0.9%
	80th-90th percentile	238,703	0.7%
	70th-80th percentile	203,974	0.6%
	60th-70th percentile	190,810	0.6%
	50th-60th percentile	166,952	0.5%
	40th-50th percentile	97,970	0.3%
	30th-40th percentile	75,981	0.2%
	20th-30th percentile	73,124	0.2%
	10th-20th percentile	72,727	0.2%
	0-10th percentile	111,158	0.3%
↓ Low	Not identified as suitable (within TX and LA)	6,150,506	18.3%
	<i>Area not evaluated for this indicator</i>	25,820,876	77.0%
Total area		33,520,202	100%

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



Freshwater

Gulf migratory fish connectivity

This indicator captures how far upstream migratory fish in the Gulf of Mexico have been observed. How far upstream migratory fish can travel reflects not just the presence of dams and other barriers, but also the presence of measures like fish ladders that allow specific species to access habitat upstream of dams. This indicator originates from The Nature Conservancy's Southeast Aquatic Connectivity Assessment Project 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).



- Presence of Gulf sturgeon
- Presence of Alabama shad, American shad, or striped bass
- Not identified as Gulf migratory fish habitat (east of the Mississippi River)

Table 21: Indicator values for Gulf migratory fish connectivity within Louisiana. Good condition thresholds reflect the range of indicator values that occur in healthy, functioning ecosystems.

	Indicator Values	Acres	Percent of Area
↑ High	Presence of Gulf sturgeon	636,795	1.9%
	Presence of Alabama shad, American shad, or striped bass	0	0%
↓ Low	Not identified as Gulf migratory fish habitat (east of the Mississippi River)	3,004,751	9.0%
	<i>Area not evaluated for this indicator</i>	29,878,656	89.1%
Total area		33,520,202	100%

↑ In good condition

↓ Not in good condition

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 Regional Species of Greatest Conservation Need (RSGCN) observed within each 12-digit HUC subwatershed, including fish, mussels, snails, crayfish, and amphibians. RSGCN are regional priority species derived from the list of SGCN identified in Southeast State Wildlife Action Plans as most in need of conservation action. RSGCN were chosen based on consistent criteria, such as level of conservation concern, regional stewardship responsibility, and ecological significance. This indicator 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).

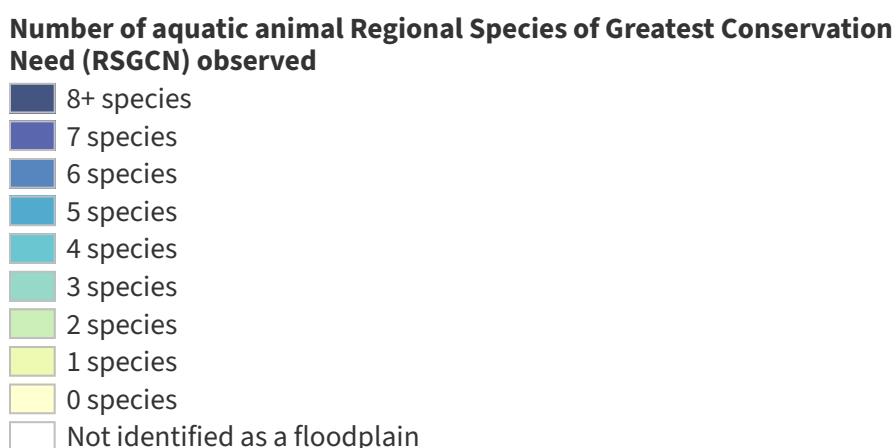
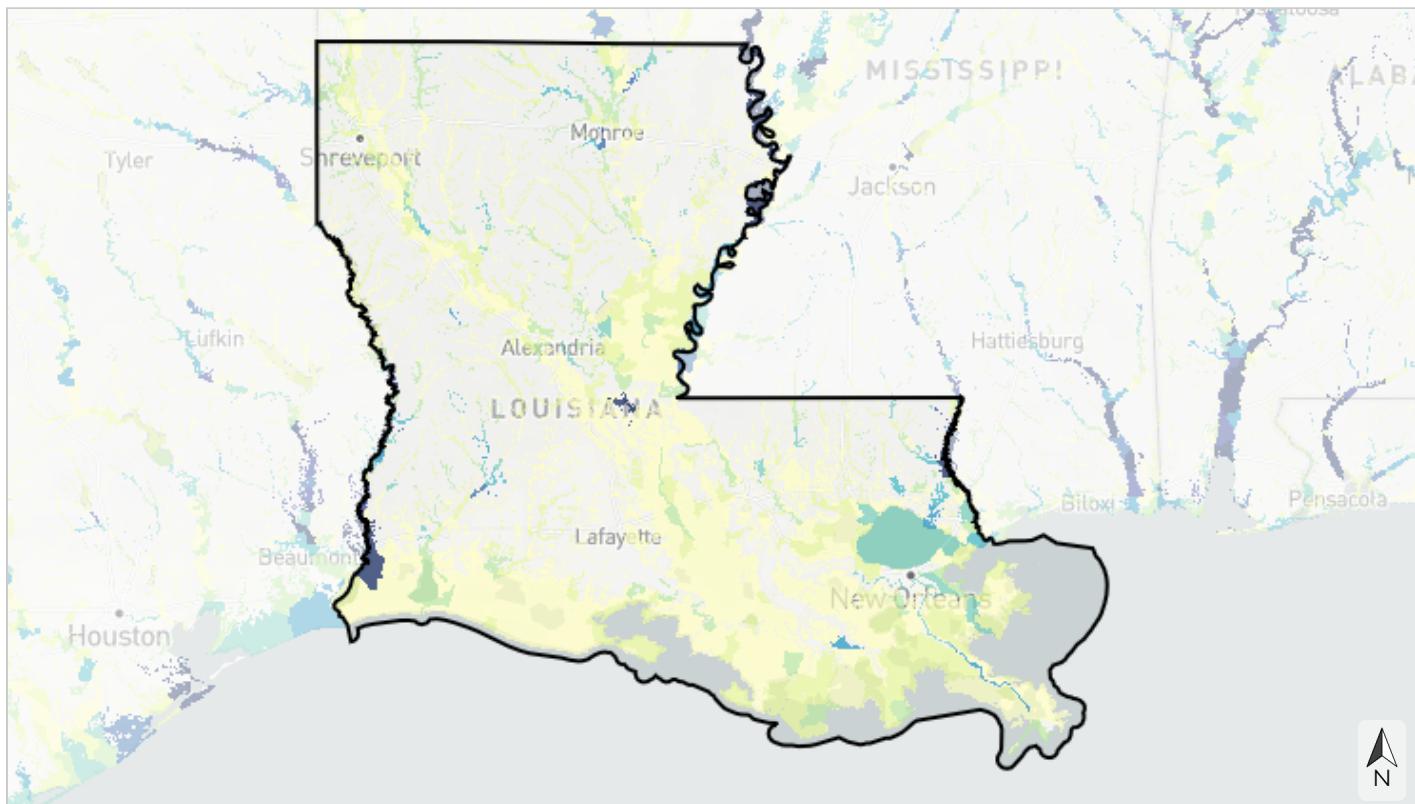


Table 22: Indicator values for imperiled aquatic species within Louisiana. A good condition threshold is not yet defined for this indicator.

	Indicator Values: Number of aquatic animal Regional Species of Greatest Conservation Need (RSGCN) observed	Acres	Percent of Area
↑ High	8+ species	264,599	0.8%
	7 species	26,204	<0.1%
	6 species	55,915	0.2%
	5 species	133,554	0.4%
	4 species	126,227	0.4%
	3 species	755,251	2.3%
	2 species	1,175,235	3.5%
	1 species	3,426,036	10.2%
	0 species	8,254,868	24.6%
	Not identified as a floodplain	15,927,839	47.5%
↓ Low	<i>Area not evaluated for this indicator</i>	3,374,475	10.1%
	Total area	33,520,202	100%

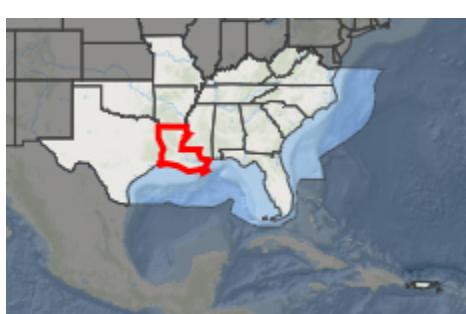
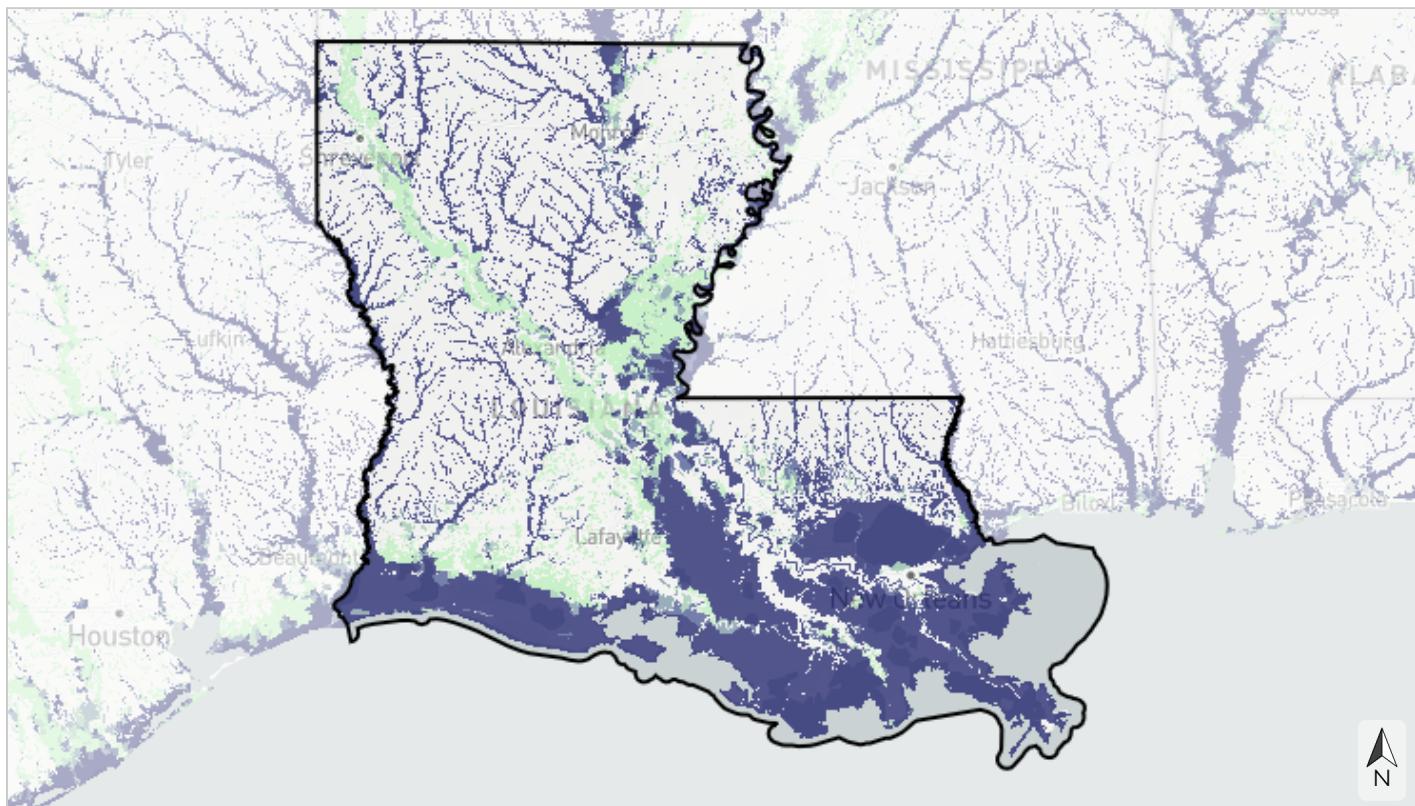
To learn more and explore the GIS data, [view this indicator in the SECAS Atlas](#).



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

Indicator Values: Percent natural landcover within the estimated floodplain, by catchment		Acres	Percent of Area
↑ High	>90% natural landcover	9,957,655	29.7%
	>80-90% natural landcover	938,668	2.8%
	>70-80% natural landcover	556,771	1.7%
	>60-70% natural landcover	452,807	1.4%
	≤60% natural landcover	2,311,986	6.9%
	Not identified as a floodplain	15,927,903	47.5%
↓ Low	<i>Area not evaluated for this indicator</i>	3,374,411	10.1%
	Total area	33,520,202	100%

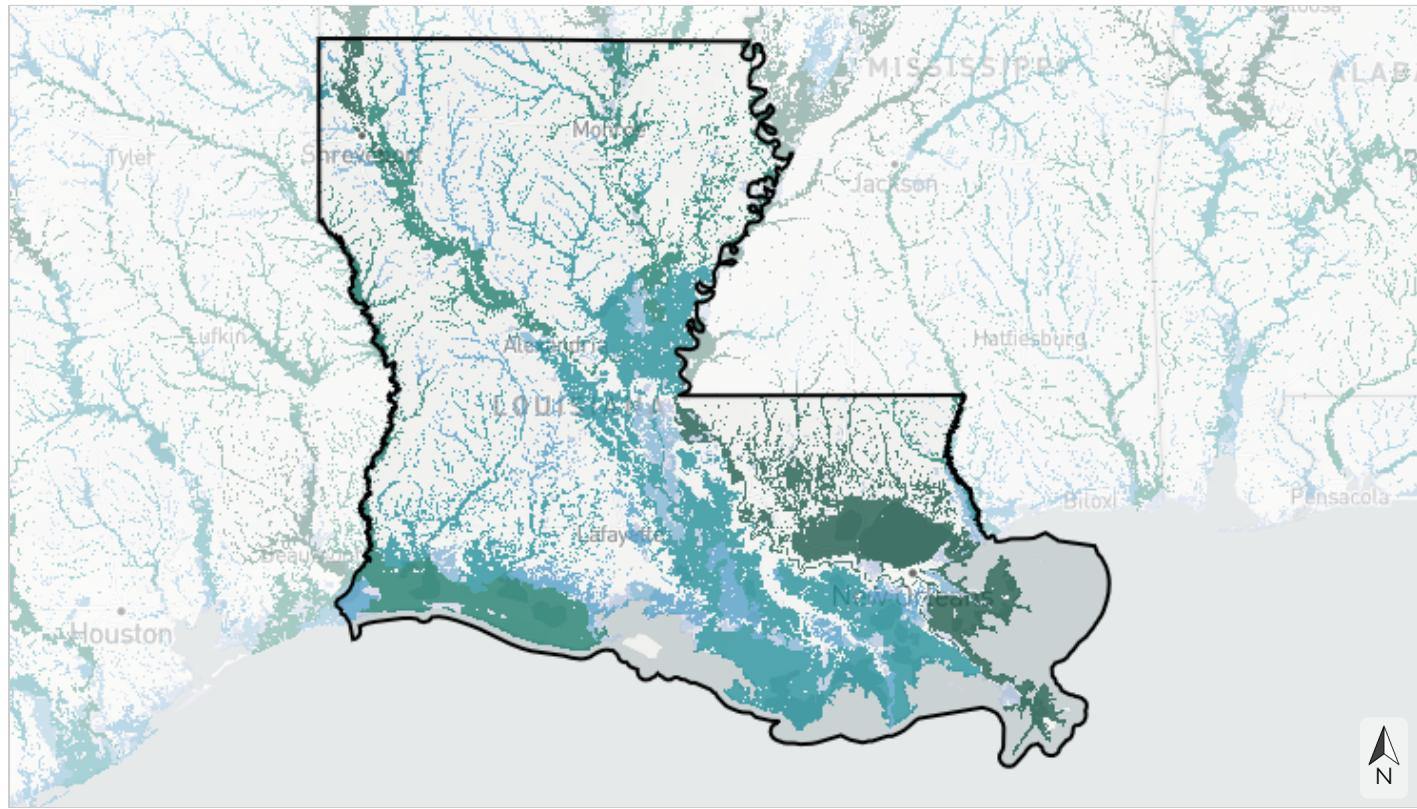
To learn more and explore the GIS data, [view this indicator in the SECAS Atlas](#).



Freshwater

Network complexity

This indicator depicts the number of 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 24: Indicator values for network complexity within Louisiana. Good condition thresholds reflect the range of indicator values that occur in healthy, functioning ecosystems.

	Indicator Values: Number of connected stream size classes	Acres	Percent of Area
↑ High	7 size classes	2,544,919	7.6%
	6 size classes	2,797,826	8.3%
	5 size classes	5,149,422	15.4%
	4 size classes	1,263,428	3.8%
	3 size classes	824,746	2.5%
	2 size classes	566,952	1.7%
	1 size class	593,335	1.8%
	Not identified as a floodplain	15,932,255	47.5%
↓ Low	<i>Area not evaluated for this indicator</i>	3,847,319	11.5%
	Total area	33,520,202	100%

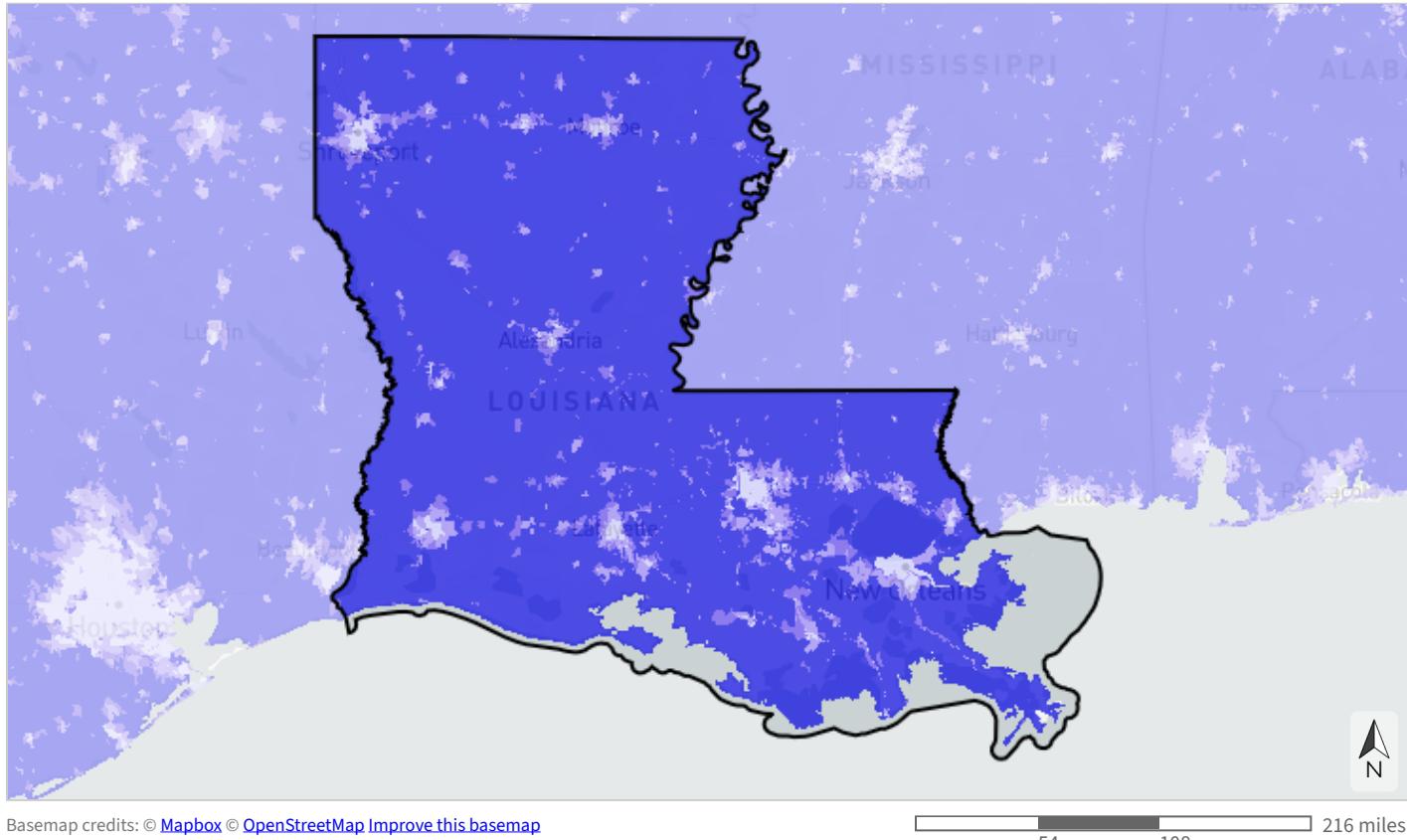
To learn more and explore the GIS data, [view this indicator in the SECAS Atlas](#).



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

	Indicator Values: Percent of catchment permeable	Acres	Percent of Area
↑ High	>95% permeable (likely high water quality and supporting most sensitive aquatic species)	27,247,207	81.3%
			↑ In good condition
	>90-95% permeable (likely declining water quality and supporting most aquatic species)	1,335,309	4.0%
			↓ Not in good condition
	>70-90% permeable (likely degraded water quality and not supporting many aquatic species)	1,151,115	3.4%
↓ Low	≤70% permeable (likely degraded instream flow, water quality, and aquatic species communities)	412,097	1.2%
	<i>Area not evaluated for this indicator</i>	3,374,475	10.1%
	Total area	33,520,202	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.



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

Table 26: Indicator values for coastal shoreline condition within Louisiana. 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	54,739	0.2%
	Natural	482,949	1.4%
	Partially armored and harder to develop	242	<0.1%
↓ Low	Partially armored	5,794	<0.1%
	Armored	7,457	<0.1%
	<i>Area not evaluated for this indicator</i>	32,969,021	98.4%
Total area		33,520,202	100%

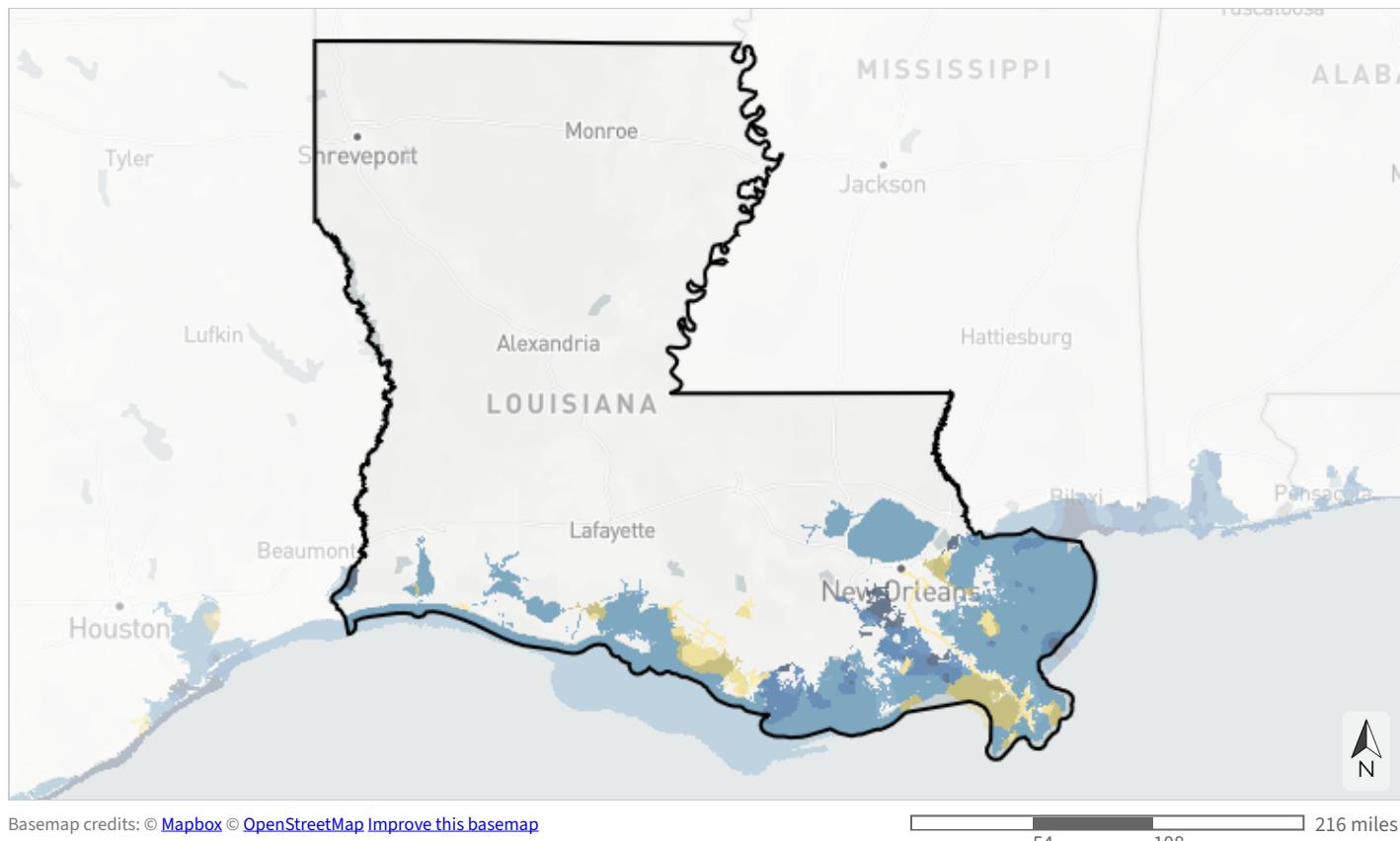
To learn more and explore the GIS data, [view this indicator in the SECAS Atlas](#).



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
- Fair to good
- Fair
- Poor to fair
- Poor
- Shallow estuary not assessed for condition

Table 27: Indicator values for estuarine coastal condition within Louisiana. Good condition thresholds reflect the range of indicator values that occur in healthy, functioning ecosystems.

	Indicator Values	Acres	Percent of Area
↑ High	Good	125,297	0.4%
	Fair to good	432,832	1.3%
	Fair	3,587,721	10.7%
	Poor to fair	376,624	1.1%
	Poor	222,245	0.7%
	Shallow estuary not assessed for condition	504,830	1.5%
↓ Low	<i>Area not evaluated for this indicator</i>	28,270,653	84.3%
	Total area	33,520,202	100%

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



Coastal & marine

Gulf coral & hardbottom

This indicator predicts the presence of coral and hardbottom in the Gulf of Mexico based on direct observations, acoustic surveys, and known locations of artificial reefs and shipwrecks. 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 micro-organisms that feed off of hydrocarbon seeps. This indicator combines data from multiple sources, including Bureau of Ocean Energy Management seismic water bottom anomalies, usSEABED sediment data, several National Oceanic and Atmospheric Administration datasets, various state layers, and more.



- Confirmed hardbottom-associated species (e.g., corals, sponges, patch reef, chemosynthetic communities)
- Confirmed natural hardbottom
- Artificial reefs
- Shipwrecks
- Probable natural hardbottom (fine resolution)
- Rock (coarse resolution)
- Gravel (coarse resolution)
- Not identified as hardbottom

Table 28: Indicator values for Gulf coral & hardbottom within Louisiana. A good condition threshold is not yet defined for this indicator.

	Indicator Values	Acres	Percent of Area
↑ High	Confirmed hardbottom-associated species (e.g., corals, sponges, patch reef, chemosynthetic communities)	18	<0.1%
	Confirmed natural hardbottom	0	0%
	Artificial reefs	3,842	<0.1%
	Shipwrecks	1,460	<0.1%
	Probable natural hardbottom (fine resolution)	0	0%
	Rock (coarse resolution)	0	0%
	Gravel (coarse resolution)	113,307	0.3%
↓ Low	Not identified as hardbottom	10,142,509	30.3%
	<i>Area not evaluated for this indicator</i>	23,259,066	69.4%
	Total area	33,520,202	100%

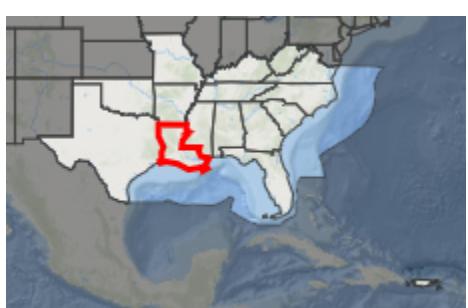
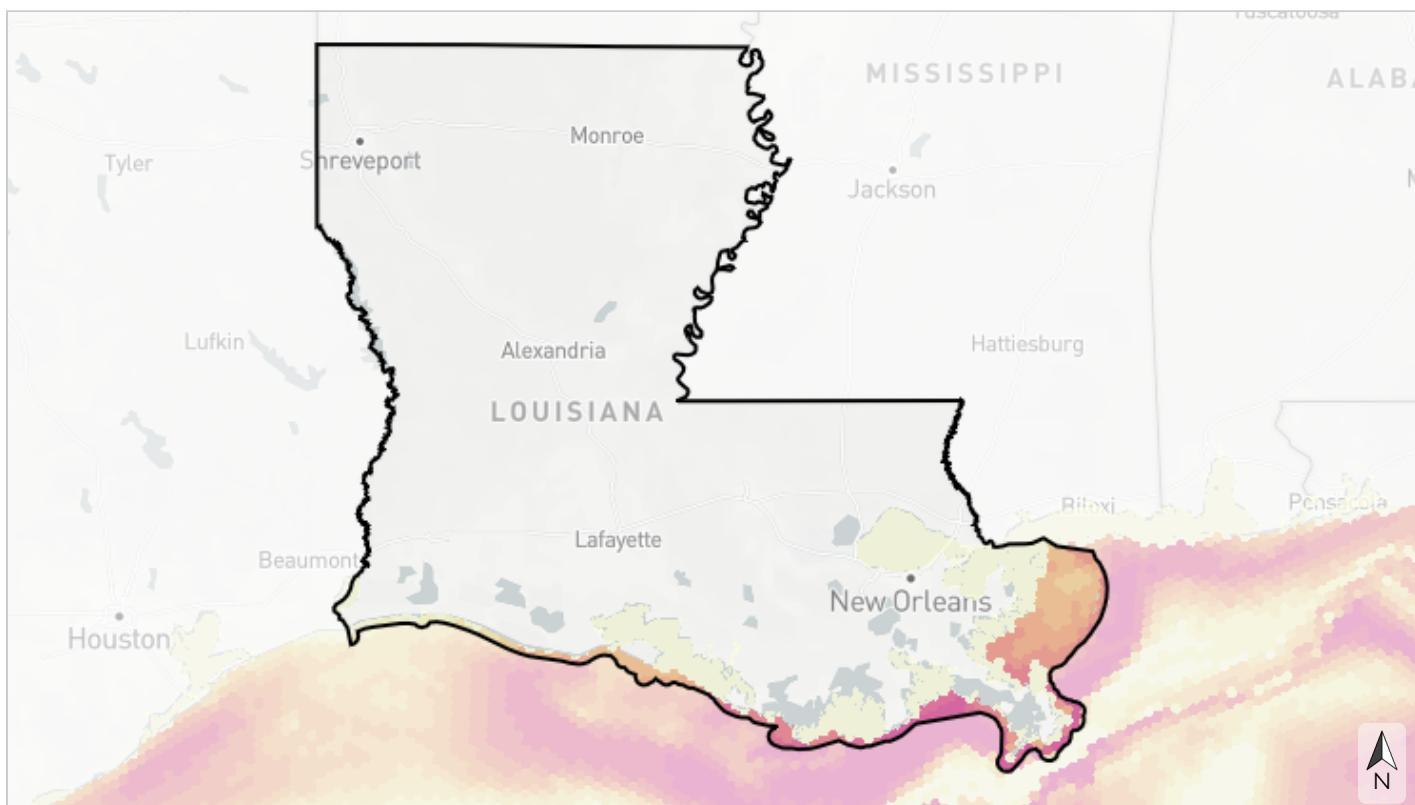
To learn more and explore the GIS data, [view this indicator in the SECAS Atlas](#).



Coastal & 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).



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 29: Indicator values for Gulf marine mammals within Louisiana. A good condition threshold is not yet defined for this indicator.

	Indicator Values: Percentile of importance for marine mammal index species (across larger analysis area)	Acres	Percent of Area
↑ High	>90th percentile	215,896	0.6%
	>80th-90th percentile	140,141	0.4%
	>70th-80th percentile	216,490	0.6%
	>60th-70th percentile	262,846	0.8%
	>50th-60th percentile	344,954	1.0%
	>40th-50th percentile	390,017	1.2%
	>30th-40th percentile	92,188	0.3%
	>20th-30th percentile	56,069	0.2%
	>10th-20th percentile	53,863	0.2%
	≤10th percentile	1,981,767	5.9%
↓ Low	Land	39,183	0.1%
	<i>Area not evaluated for this indicator</i>	29,726,787	88.7%
Total area		33,520,202	100%

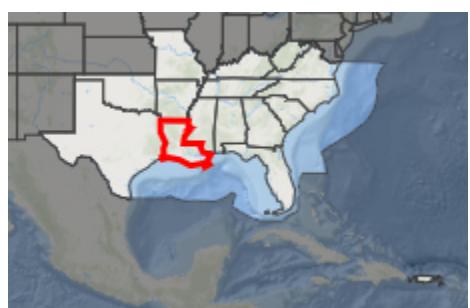
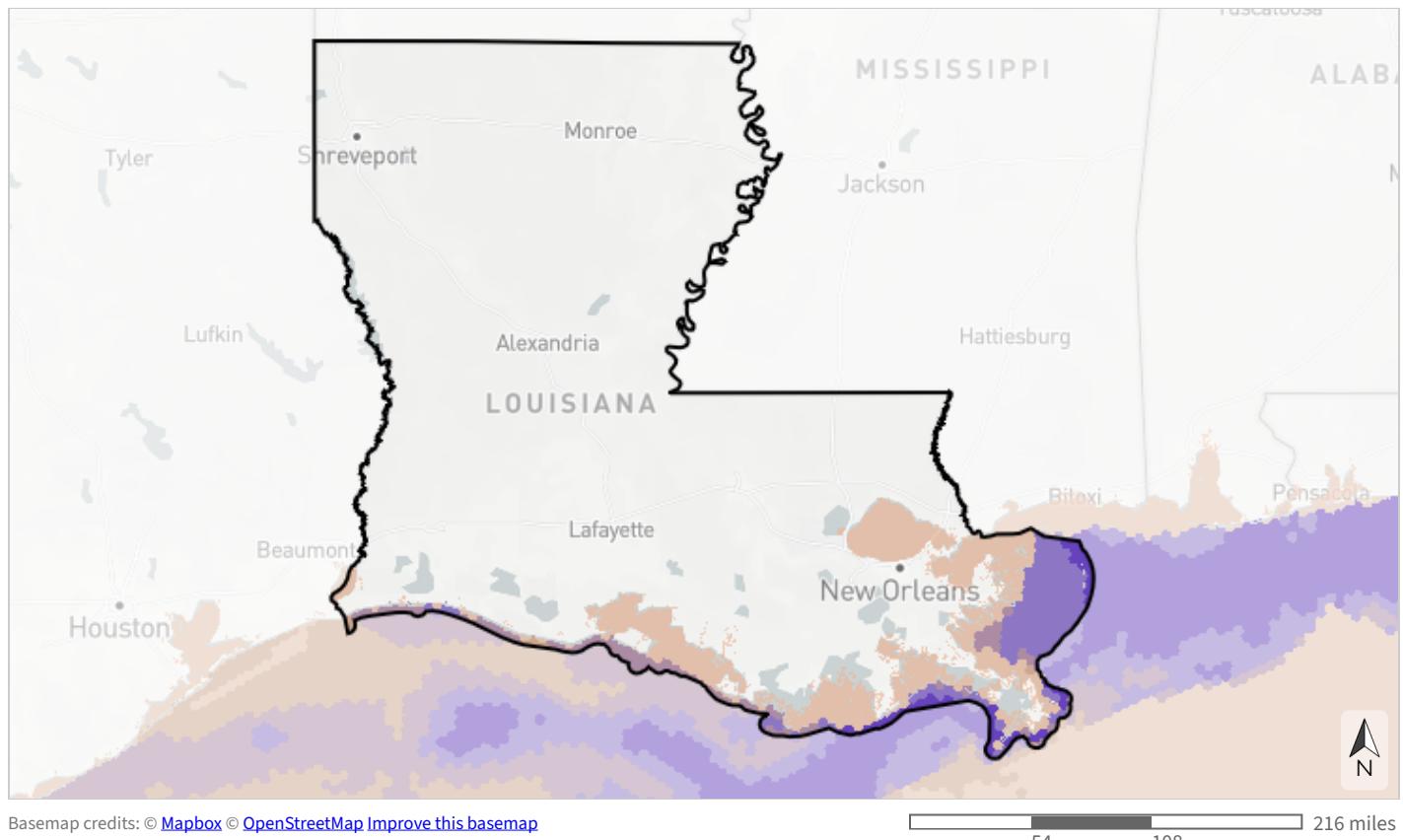
To learn more and explore the GIS data, [view this indicator in the SECAS Atlas](#).



Coastal & 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
- >65th-70th percentile
- ≤65th percentile
- Land

Table 30: Indicator values for Gulf sea turtles within Louisiana. A good condition threshold is not yet defined for this indicator.

Indicator Values: Percentile of importance for sea turtle index species (across larger analysis area)		Acres	Percent of Area
↑ High	>90th percentile	297,568	0.9%
	>80th-90th percentile	940,576	2.8%
	>70th-80th percentile	562,849	1.7%
	>65th-70th percentile	52,790	0.2%
	≤65th percentile	2,532,290	7.6%
↓ Low	Land	1,158,829	3.5%
	<i>Area not evaluated for this indicator</i>	27,975,300	83.5%
Total area		33,520,202	100%

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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- █ 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 31: Indicator values for island habitat within Louisiana. 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)	15,027	<0.1%
	Other island area	807,413	2.4%
↓ Low	Not a coastal island	12,271,970	36.6%
	<i>Area not evaluated for this indicator</i>	20,425,793	60.9%
Total area		33,520,202	100%

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



Coastal & 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.

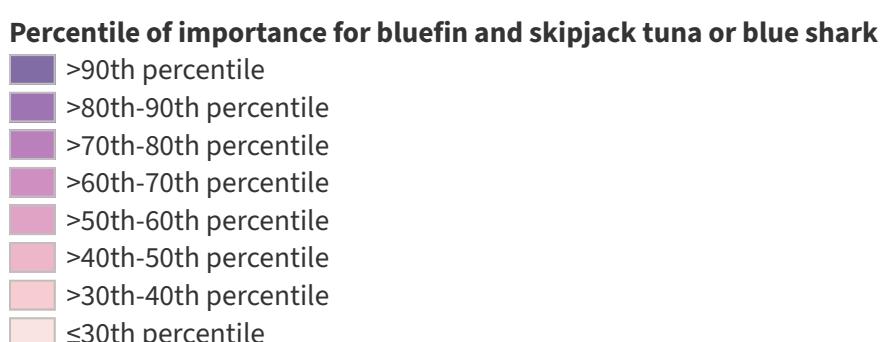


Table 32: Indicator values for marine highly migratory fish within Louisiana. A good condition threshold is not yet defined for this indicator.

Indicator Values: Percentile of importance for bluefin and skipjack tuna or blue shark		Acres	Percent of Area
↑ High	>90th percentile	0	0%
	>80th-90th percentile	0	0%
	>70th-80th percentile	0	0%
	>60th-70th percentile	0	0%
	>50th-60th percentile	0	0%
	>40th-50th percentile	0	0%
	>30th-40th percentile	0	0%
	≤30th percentile	16,199	<0.1%
<i>Area not evaluated for this indicator</i>		33,504,003	100.0%
Total area		33,520,202	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 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 33: Indicator values for resilient coastal sites within Louisiana. A good condition threshold is not yet defined for this indicator.

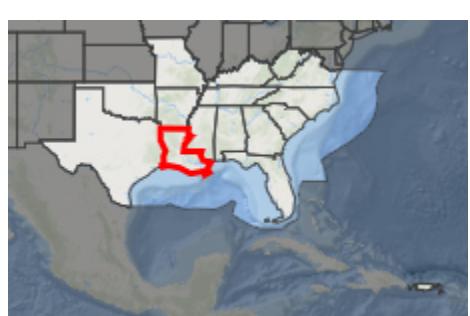
		Indicator Values	Acres	Percent of Area
↑ High	Most resilient		0	0%
	More resilient		2,575,873	7.7%
	Slightly more resilient		1,477,859	4.4%
	Average/median resilience		1,064,308	3.2%
	Slightly less resilient		153,773	0.5%
	Less resilient		33,733	0.1%
	Least resilient		28,456	<0.1%
<i>Area not evaluated for this indicator</i>			28,186,201	84.1%
		Total area	33,520,202	100%

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 34: Indicator values for seagrass within Louisiana. A good condition threshold is not yet defined for this indicator.

	Indicator Values	Acres	Percent of Area
↑ High	Seagrass present	2,211	<0.1%
	<i>Area not evaluated for this indicator</i>	33,517,992	100.0%
	Total area	33,520,202	100%

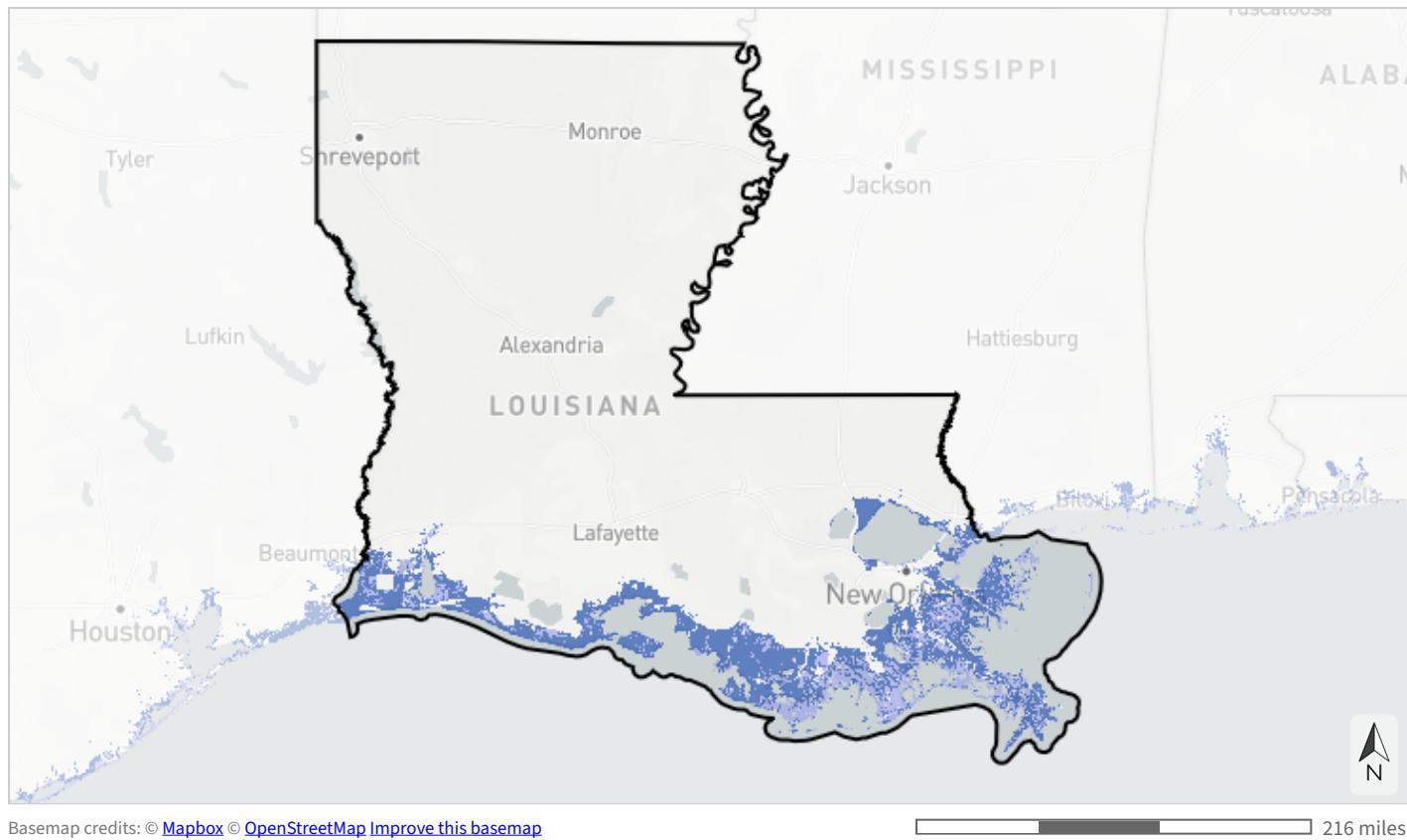
To learn more and explore the GIS data, [view this indicator in the SECAS Atlas](#).



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. 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 35: Indicator values for stable coastal wetlands within Louisiana. 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	1,890,699	5.6%
	Other coastal wetlands	488,270	1.5%
↓ Low	Not identified as coastal wetlands	4,377,789	13.1%
	<i>Area not evaluated for this indicator</i>	26,763,443	79.8%
Total area		33,520,202	100%

↑ 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 SLR above current levels. Darker blue areas will experience flooding first, and at greater depth, compared to lighter blue areas. These models are not linked to a future timeframe; see the projections below. NOAA calculates the inundation footprint at "mean higher high water", or the average highest daily tide. The area covered in each SLR scenario includes areas projected to be inundated at lower levels. For example, the area inundated by 4 ft of SLR also includes areas inundated by 3 ft, 2 ft, 1 ft, and 0 ft of SLR (where 0 ft represents current levels).

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

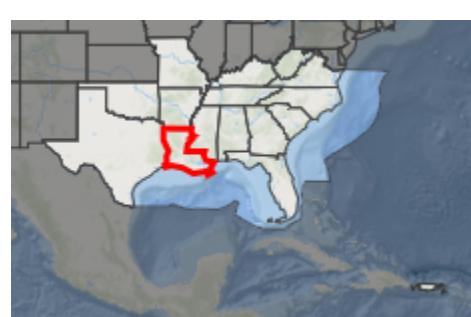


Table 36: Extent of flooding by projected average highest daily tide due to sea level rise within Louisiana. Values from the [NOAA sea-level rise inundation data](#).

Feet of sea-level rise	Acres	Percent of Area
0 feet	7,470,554	22.3%
1 foot	8,858,790	26.4%
2 feet	9,529,120	28.4%
3 feet	9,872,741	29.5%
4 feet	10,140,259	30.3%
5 feet	10,362,719	30.9%
6 feet	10,566,111	31.5%
7 feet	10,757,384	32.1%
8 feet	10,919,039	32.6%
9 feet	11,083,055	33.1%
10 feet	11,248,763	33.6%
<i>Not projected to be inundated by up to 10 feet</i>	6,867,470	20.5%
<i>Sea-level rise unlikely to be a threat (inland counties)</i>	15,069,511	45.0%
<i>Sea-level rise data unavailable</i>	334,458	1.0%
Total area	33,520,202	100%

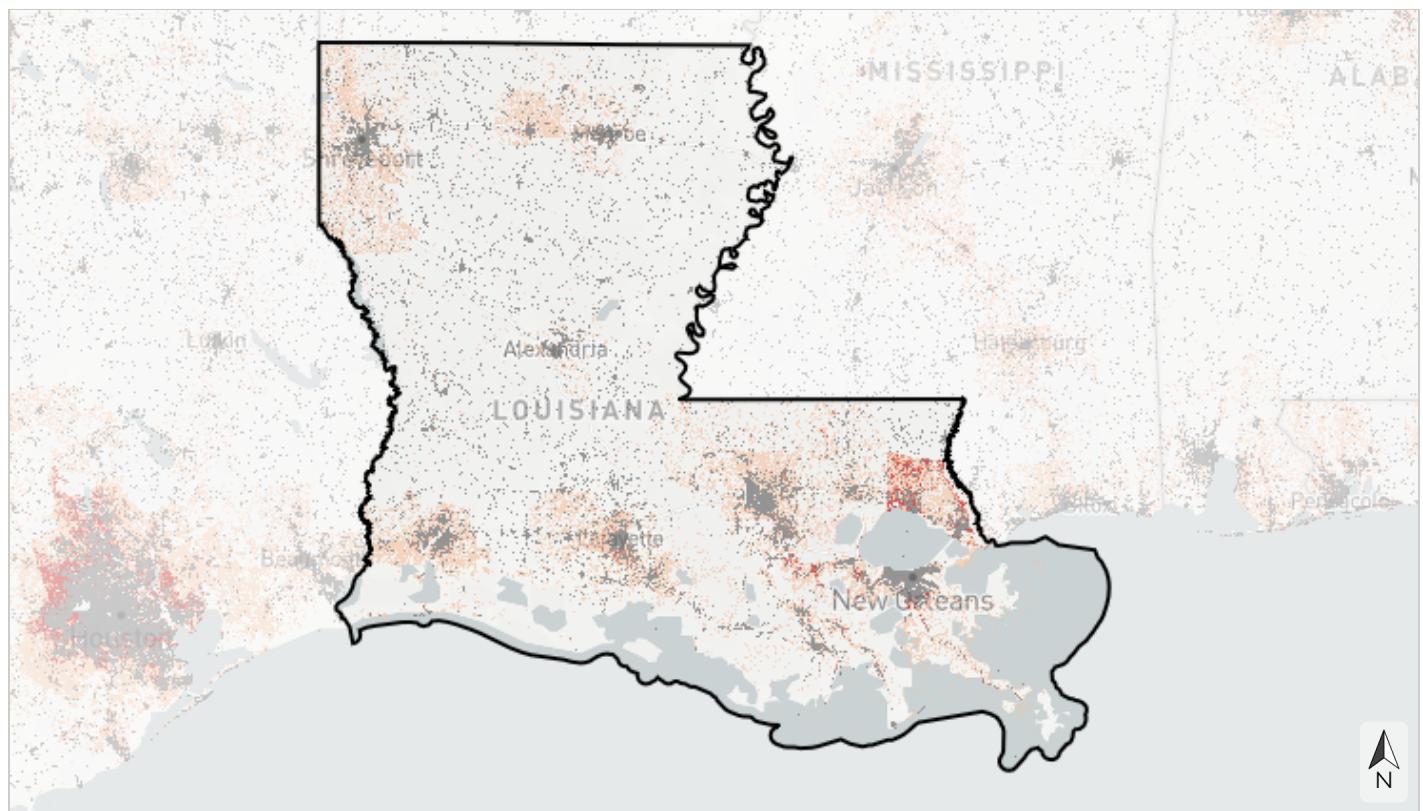
Table 37: Projected sea level rise by decade within Louisiana. Values are based on area-weighted averages of decadal projections for 1-degree grid cells that overlap this area based on [NOAA's 2022 Sea Level Rise Report](#). 2060 corresponds to the [SECAS goal](#): a 10% or greater improvement in the 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	0.58	0.89	1.2	1.5	1.8	2.1	2.3	2.6	2.8
Intermediate-low	0.61	0.96	1.3	1.7	2	2.4	2.7	3.1	3.4
Intermediate	0.62	0.98	1.4	1.8	2.2	2.8	3.4	4.1	4.9
Intermediate-high	0.62	1	1.5	2	2.7	3.5	4.4	5.4	6.5
High	0.62	1	1.5	2.2	3.1	4.2	5.4	6.8	8.1

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.

To explore maps for additional time periods, [click here](#).



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216 miles
54 108



Probability of urbanization by 2060

- Urban in 2021
- Very high likelihood of urbanization (>50% probability)
- High likelihood of urbanization (25 - 50% probability)
- Moderate likelihood of urbanization (2 - 25% probability)
- Not likely to urbanize

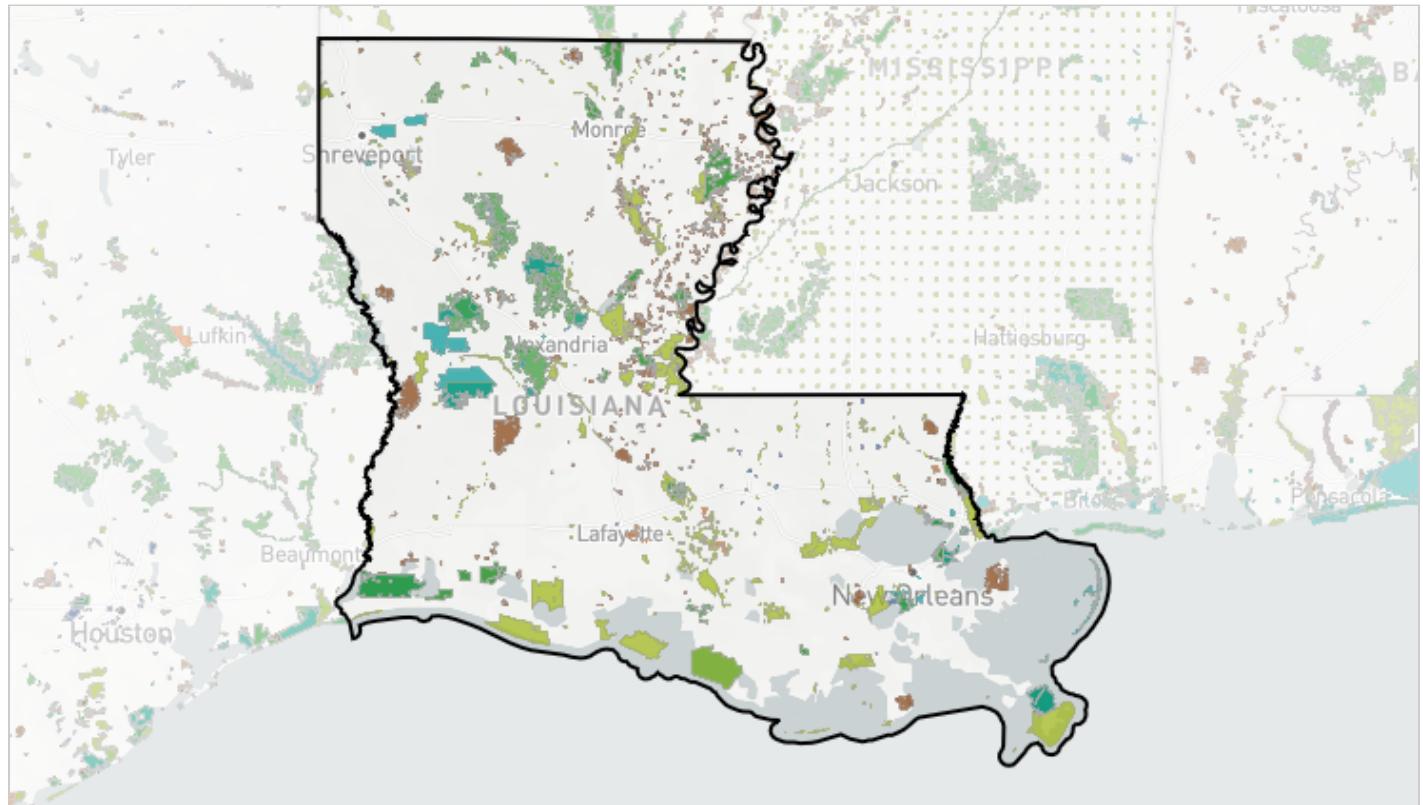
6.7% of this area is already urban in 2021, and an additional 10.7% has at least a moderate probability of urbanizing by 2060.

Table 38: Extent of projected urbanization by decade within Louisiana. 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.

Decade	Acres	Percent of Area
Urban in 2021	2,255,277	6.7%
2030 projected extent	2,373,070	7.1%
2040 projected extent	2,423,886	7.2%
2050 projected extent	2,466,870	7.4%
2060 projected extent	2,513,024	7.5%
2070 projected extent	2,550,703	7.6%
2080 projected extent	2,580,994	7.7%
2090 projected extent	2,605,319	7.8%
2100 projected extent	2,623,441	7.8%
<i>Not projected to urbanize by 2100</i>	27,260,256	81.3%
Total area	33,520,202	100%

Ownership and Partners

Conserved lands ownership



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54 108 216 miles

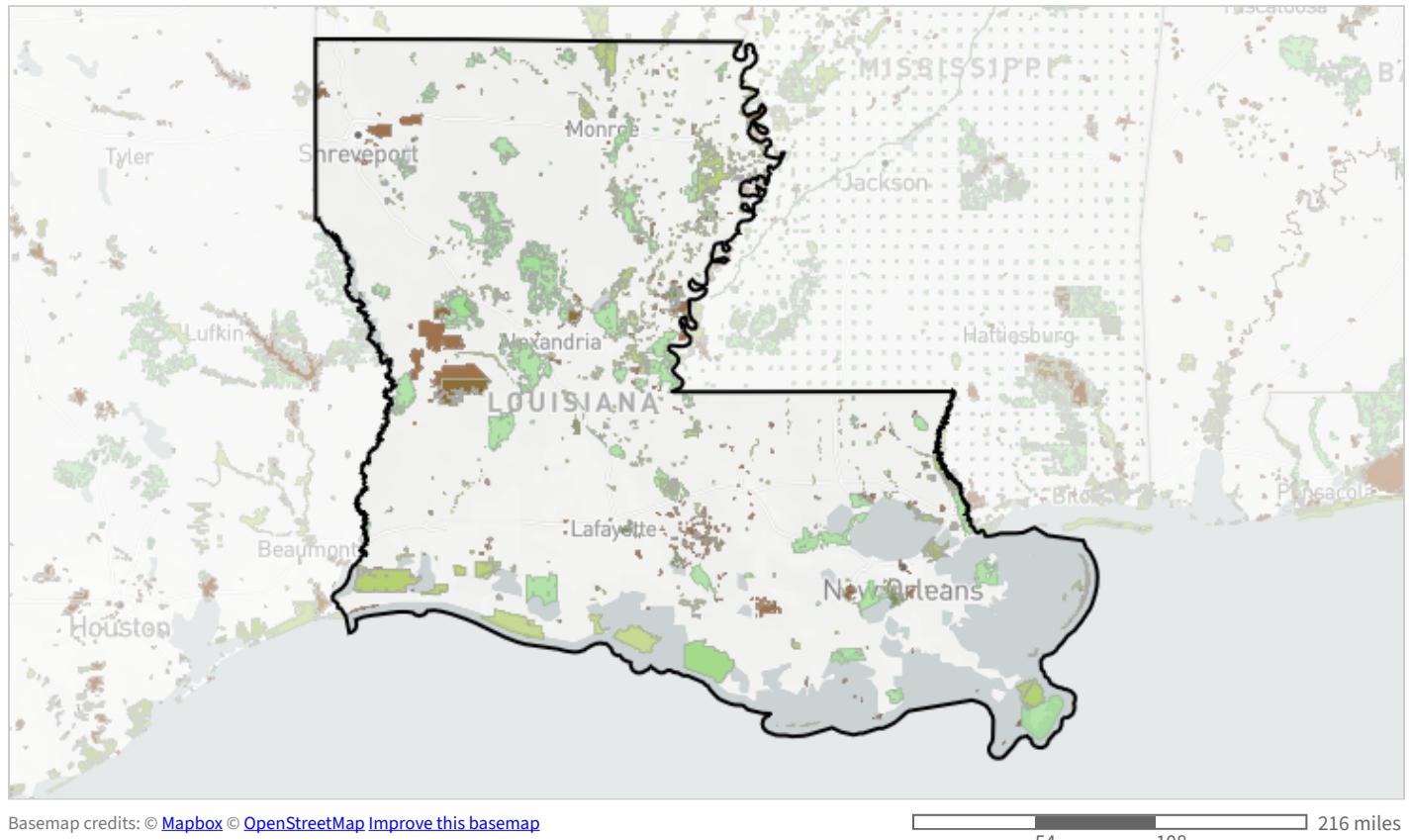


- | | |
|----------------|------------------------------------|
| Federal | Joint |
| State/province | Private non-profit conserved lands |
| Territorial | Private conservation land |
| Regional | Tribal |
| Local | Designation |
| | Ownership unknown |

Table 39: Extent of ownership class within Louisiana. Protected areas are derived from the [Protected Areas Database of the United States](#) (PAD-US v4.0 and 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 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	1,820,720	5.4%
State/province	1,390,355	4.1%
Regional	301	<0.1%
Local	21,536	<0.1%
Private non-profit conserved lands	32,764	<0.1%
Private conservation land	708,537	2.1%
Designation	841,970	2.5%
Ownership unknown	1,437	<0.1%

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 40: Extent of land protection status within Louisiana. Protected areas are derived from the [Protected Areas Database of the United States](#) (PAD-US v4.0 and 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 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)	166,360	0.5%
Managed for biodiversity (disturbance events suppressed)	2,065,596	6.2%
Managed for multiple uses (subject to extractive uses such as mining or logging, or OHV use)	1,996,881	6.0%
No known mandate for biodiversity protection	588,784	1.8%

Protected Areas

- Kisatchie National Forest (USDA FOREST SERVICE; 608,486 acres)
- Fort Polk (Unknown owner; 240,294 acres)
- Atchafalaya Delta WMA (State Department of Natural Resources; 137,719 acres)
- Atchafalaya Delta Wildlife Management Area and Game Preserve (Unknown; 137,719 acres)
- Sabine National Wildlife Refuge (Unknown; 124,848 acres)
- SABINE NATIONAL WILDLIFE REFUGE (Fee; 123,815 acres)
- Sabine National Wildlife Refuge (Fee; 123,815 acres)
- Pass A Loutre WMA (State Fish and Wildlife; 115,322 acres)
- Rockefeller Wildlife Refuge (State Department of Natural Resources; 85,813 acres)
- Tensas River National Wildlife Refuge (Fee; 77,852 acres)
- TENSAS RIVER NATIONAL WILDLIFE REFUGE (Fee; 77,852 acres)
- White Lake Wetlands Conservation Area (State Fish and Wildlife; 71,602 acres)
- Marsh Island Wildlife Refuge (State Department of Natural Resources; 70,769 acres)
- Dewey W Wills WMA (State Fish and Wildlife; 64,316 acres)
- West Bay WMA (Private Institution; 63,810 acres)
- UPPER OUACHITA NATIONAL WILDLIFE REFUGE (Fee; 54,556 acres)
- Upper Ouachita National Wildlife Refuge (Fee; 54,555 acres)
- Boise Vernon WMA (Private Institution; 54,442 acres)
- Boeuf WMA (State Fish and Wildlife; 52,237 acres)
- Delta National Wildlife Refuge (Unknown; 50,262 acres)
- DELTA NATIONAL WILDLIFE REFUGE (Fee; 50,260 acres)
- Delta National Wildlife Refuge (Fee; 50,260 acres)
- DOW DONATION (State Department of Natural Resources; 50,072 acres)
- Red River WMA (State Fish and Wildlife; 45,140 acres)
- Sherburne WMA/Atchafalaya NWR/Bayou des Ourses Area (USACOE) (State Fish and Wildlife; 44,878 acres)

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 v4.0 and 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](#).

Names and descriptions of public Priority Amphibian and Reptile Areas provided by the [Amphibian and Reptile Conservancy](#) on August 30, 2024 and edited slightly for clarity and consistency.