## **Southeast Conservation Blueprint Summary**

for Louisiana

### **Created 11/20/2025**

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**The Southeast Conservation Blueprint 2025** 



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## **About the Southeast Blueprint**

The Southeast Conservation Blueprint is the primary product of the <u>Southeast Conservation Adaptation Strategy</u> (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 <u>Blueprint webpage</u>
- Review the <u>Blueprint 2025 Development Process</u>
- View and download the Blueprint data and make maps on the Blueprint page of the SECAS Atlas

### We're here to help!

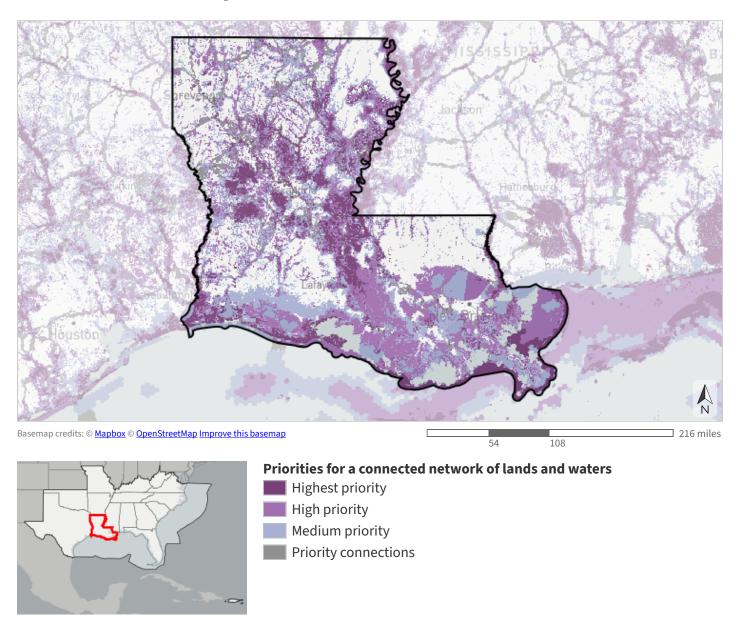
- Do you have a question about the Blueprint?
- Would you like help using the Blueprint to support a proposal or inform a decision?
- Do you have a suggestion on how to improve the Blueprint? The Blueprint and its inputs are regularly revised based on input from people like you.
- Do you have feedback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

If you need help or have questions, <u>contact Southeast Blueprint staff</u> 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!

This report was generated by the Southeast Conservation Blueprint Explorer, which was developed by <u>Astute Spruce, LLC</u> in partnership with the U.S. Fish and Wildlife Service under the <u>Southeast Conservation Adaptation Strategy</u>.

## **Southeast Blueprint Priorities**



### **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	4,186,024	12.5%
High priority	8,241,419	24.6%
Medium priority	7,773,963	23.2%
Priority connections	1,468,852	4.4%
Lower priority	11,849,944	35.4%
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.

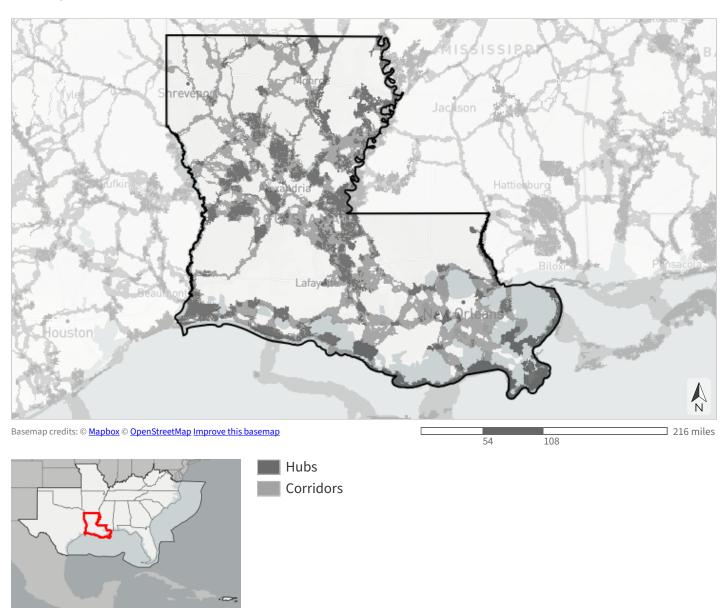


Table 2: Extent of hubs and corridors within Louisiana.

Туре	Acres	Percent of Area
Hubs	5,078,436	15.2%
Corridors	7,889,375	23.5%
Not a hub or corridor	20,552,392	61.3%
Total area	33,520,202	100%

## **Indicator Summary**

Table 3: Terrestrial indicators.

Indicator	Present
East Coastal Plain open pine birds	<b>√</b>
Fire frequency	<b>√</b>
Grassland & savanna extent	<b>√</b>
Grassland & savanna restoration	<b>√</b>
<u>Greenways &amp; trails</u>	<b>√</b>
Imperiled amphibians & reptiles	<b>√</b>
Imperiled mammals	<b>√</b>
Intact habitat cores	<b>√</b>
Landscape condition	<b>√</b>
Mississippi Alluvial Valley forest birds - protection	<b>√</b>
Mississippi Alluvial Valley forest birds - reforestation	<b>√</b>
Potential access to parks	<b>√</b>
Resilient terrestrial sites	<b>√</b>
River cane restoration	<b>√</b>
South Atlantic forest birds	-
South Atlantic low-urban historic landscapes	-
<u>Urban park size</u>	<b>√</b>
West Coastal Plain & Ouachitas forested wetland birds	<b>√</b>
West Coastal Plain & Ouachitas open pine birds	<b>√</b>
West Gulf Coast mottled duck nesting	✓

Table 4: Freshwater indicators.

Indicator	Present
Floodplain inundation	<b>✓</b>
Gulf migratory fish connectivity	<b>√</b>
Imperiled aquatic species	<b>√</b>
Lakes & reservoirs	<b>√</b>
Natural landcover in floodplains	<b>√</b>
Network complexity	<b>√</b>
Permeable surface	<b>√</b>

### Table 5: Coastal & marine indicators.

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

# 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.

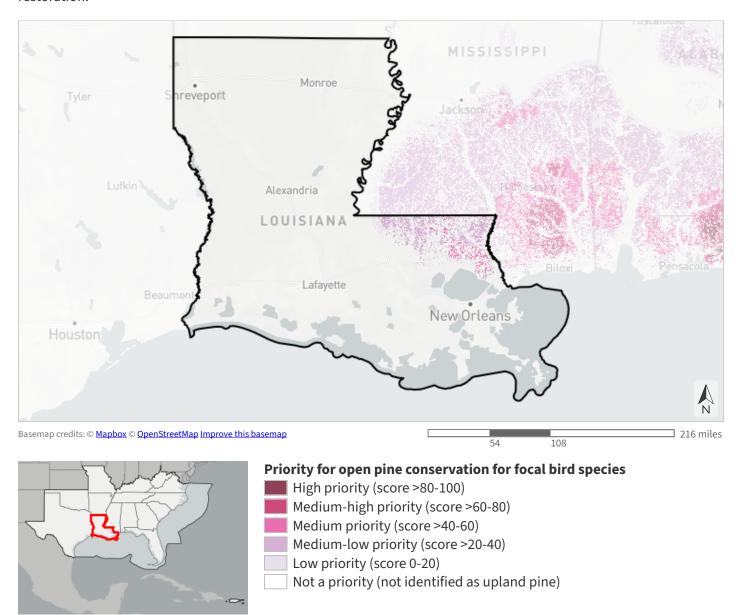


Table 6: Indicator values for East Coastal Plain open pine birds within Louisiana. A good condition threshold is not yet defined for this indicator.

	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	Low priority (score 0-20)	55,102	0.2%
	Not a priority (not identified as upland pine)	1,592,213	4.8%
	Area not evaluated for this indicator	31,200,674	93.1%
	Total area	33,520,202	100%



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.

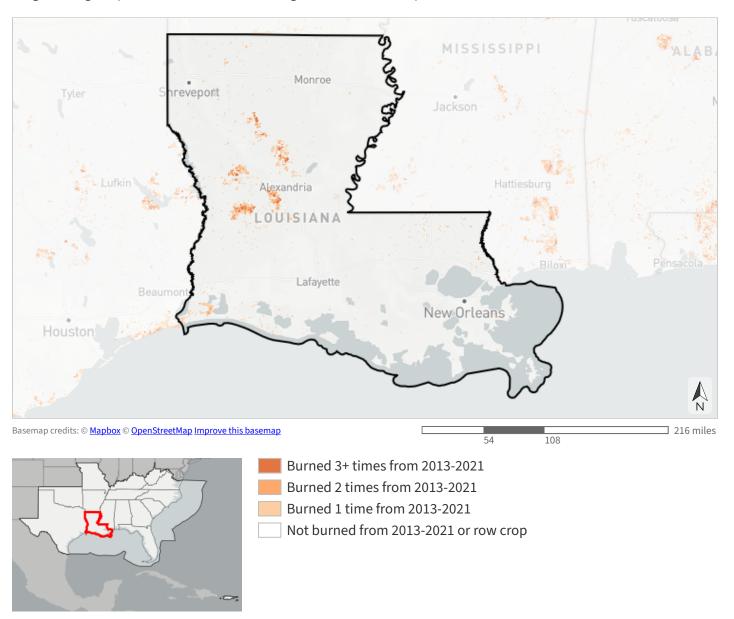


Table 7: Indicator values for fire frequency within Louisiana. Good condition thresholds reflect the range of indicator values that occur in healthy, functioning ecosystems.

	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%	↑ In good condition
	Burned 1 time from 2013-2021	559,338	1.7%	→ Not in good condition
↓ Low	Not burned from 2013-2021 or row crop	32,745,409	97.7%	
	Area not evaluated for this indicator	46,769	0.1%	
	Total area	33,520,202	100%	

# Terrestrial

### Grassland & savanna extent

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, predicted locations within protected areas, 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, Oklahoma and Texas ecological systems maps, and more.

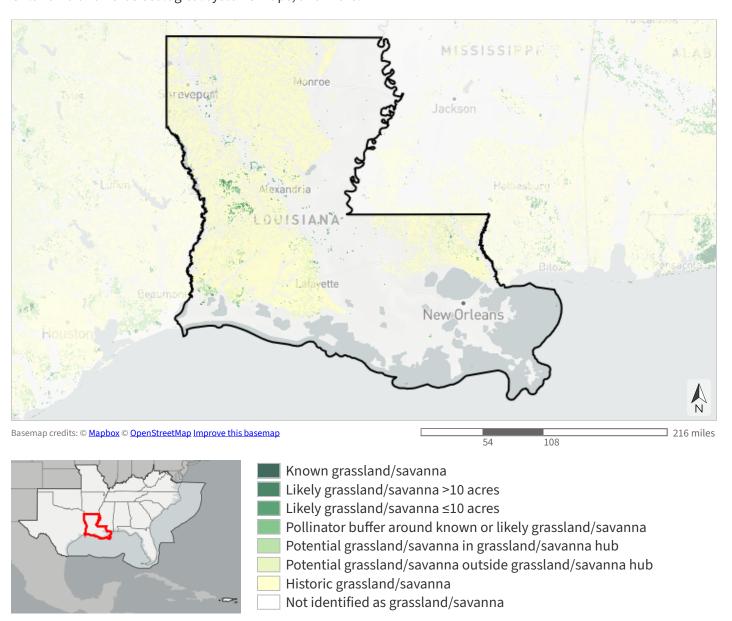


Table 8: Indicator values for grassland & savanna extent within Louisiana. Good condition thresholds reflect the range of indicator values that occur in healthy, functioning ecosystems.

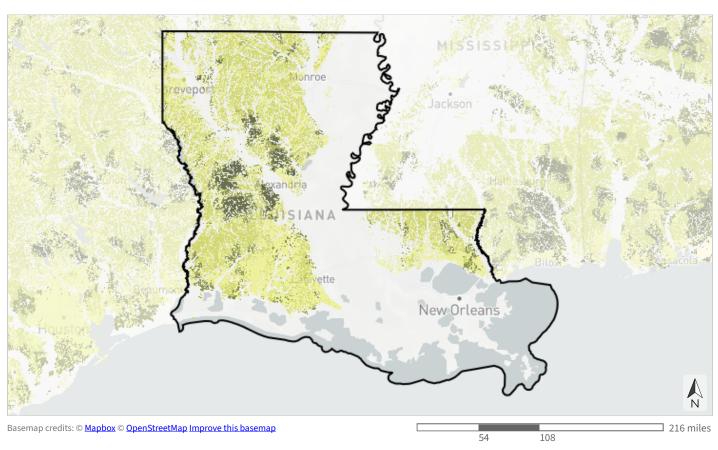
	Indicator Values	Acres	Percent of Area	
↑ High	Known grassland/savanna	4,397	<0.1%	
	Likely grassland/savanna >10 acres	39,550	0.1%	
	Likely grassland/savanna ≤10 acres	17,099	<0.1%	↑ In good condition
	Pollinator buffer around known or likely grassland/savanna	200,876	0.6%	↓ Not in good condition
	Potential grassland/savanna in grassland/savanna hub	313,346	0.9%	
	Potential grassland/savanna outside grassland/savanna hub	1,126,021	3.4%	
	Historic grassland/savanna	8,855,345	26.4%	
↓ Low	Not identified as grassland/savanna	22,916,825	68.4%	
	Area not evaluated for this indicator	46,743	0.1%	
	Total area	33,520,202	100%	

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Terrestrial

### **Grassland & savanna restoration**

This indicator represents potential restoration opportunities for grasslands and savannas within their historic range in the southeastern United States. Grasslands support important plants, reptiles, amphibians, mammals, birds, and pollinators, but have significantly declined from their current extent. It considers proximity to clusters of existing grasslands and savannas, protected areas with management potential, landcover classes with good restoration potential, priority areas for restoration of longleaf and shortleaf pine, and historic grassland and savanna locations. This indicator combines data from multiple sources, including the Southeast Blueprint grassland and savanna extent indicator, the Longleaf Suitability Analysis, shortleaf pine suitability, landcover from the National Land Cover Database and LANDFIRE, and more.





#### **Restoration priority**

- Highest (in a grassland/savanna hub, in a protected area with management potential, in a historic patch >10 acres)
- Very high (in a grassland/savanna hub, unprotected landcover with good restoration potential, in a historic patch >10 acres)
- High (outside a grassland/savanna hub, in a protected area with management potential, in a historic patch >10 acres)
- Medium (outside a grassland/savanna hub, unprotected landcover with good restoration potential, in a historic patch >10 acres)
- Low (other historic grassland/savanna)
- Very low (already known or likely grassland/savanna)
  - Lowest (not identified as historic grassland/savanna)

Table 9: Indicator values for grassland & savanna restoration within Louisiana. A good condition threshold is not yet defined for this indicator.

	Indicator Values: Restoration priority	Acres	Percent of Area
↑ High	Highest (in a grassland/savanna hub, in a protected area with management potential, in a historic patch >10 acres)	433,261	1.3%
	Very high (in a grassland/savanna hub, unprotected landcover with good restoration potential, in a historic patch >10 acres)	848,284	2.5%
	High (outside a grassland/savanna hub, in a protected area with management potential, in a historic patch >10 acres)	112,004	0.3%
	Medium (outside a grassland/savanna hub, unprotected landcover with good restoration potential, in a historic patch >10 acres)	3,646,316	10.9%
	Low (other historic grassland/savanna)	5,352,777	16.0%
	Very low (already known or likely grassland/savanna)	61,046	0.2%
↓ Low	Lowest (not identified as historic grassland/savanna)	23,019,770	68.7%
	Area not evaluated for this indicator	46,743	0.1%
	Total area	33,520,202	100%

# 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.

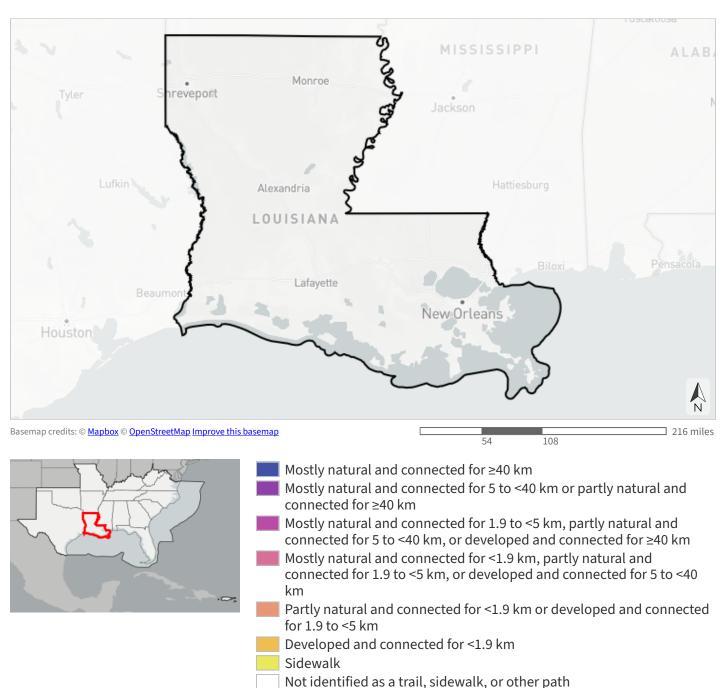


Table 10: Indicator values for greenways & trails within Louisiana. Good condition thresholds reflect the range of indicator values that occur in healthy, functioning ecosystems.

	Indicator Values	Acres	Percent of Area	
↑ High	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%	↑ In good condition
	Partly natural and connected for <1.9 km or developed and connected for 1.9 to <5 km	1,961	<0.1%	→ Not in good condition
	Developed and connected for <1.9 km	2,633	<0.1%	
	Sidewalk	3,535	<0.1%	
↓ Low	Not identified as a trail, sidewalk, or other path	33,107,020	98.8%	
	Area not evaluated for this indicator	397,003	1.2%	
	Total area	33,520,202	100%	

# Terrestrial

## Imperiled amphibians & reptiles

This indicator identifies potential habitat to support amphibian and reptile Regional Species of Greatest Conservation Need (RSGCN). Using a rarity-weighted richness approach, it prioritizes places important for species that are restricted to smaller ranges, such as narrow endemics, which are therefore more vulnerable to habitat loss or change. RSGCN are regional priority species derived from the list of SGCN identified in Southeast State Wildlife Action Plans as most in need of 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 uses models from the U.S. Geological Survey Gap Analysis Project that are based on known species ranges, specieshabitat relationships, and landcover.

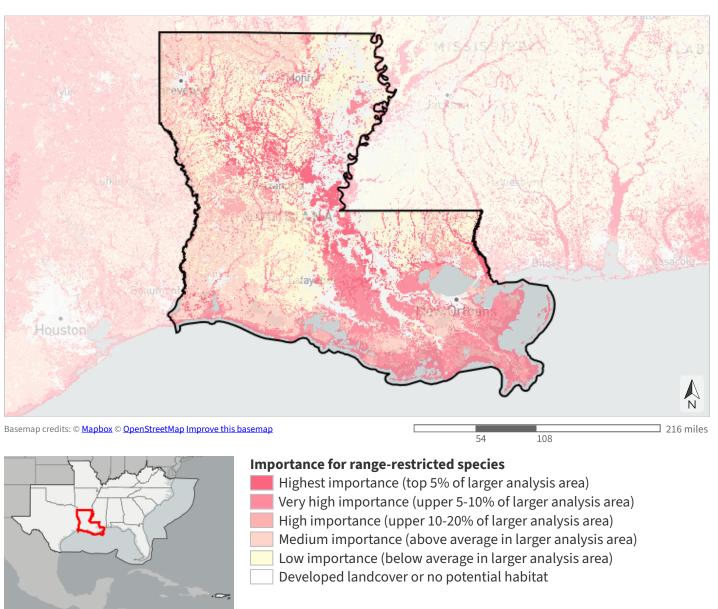


Table 11: Indicator values for imperiled amphibians & reptiles within Louisiana. A good condition threshold is not yet defined for this indicator.

	Indicator Values: Importance for range-restricted species	Acres	Percent of Area
↑ High	Highest importance (top 5% of larger analysis area)	2,780,848	8.3%
	Very high importance (upper 5-10% of larger analysis area)	5,422,242	16.2%
	High importance (upper 10-20% of larger analysis area)	3,638,153	10.9%
	Medium importance (above average in larger analysis area)	5,534,749	16.5%
	Low importance (below average in larger analysis area)	7,444,470	22.2%
↓ Low	Developed landcover or no potential habitat	5,603,221	16.7%
	Area not evaluated for this indicator	3,096,520	9.2%
	Total area	33,520,202	100%

# Terrestrial Imperiled mammals

This indicator identifies potential habitat to support mammal Regional Species of Greatest Conservation Need (RSGCN). Using a rarity-weighted richness approach, it prioritizes places important for species that are restricted to smaller ranges, such as narrow endemics, which are therefore more vulnerable to habitat loss or change. RSGCN are regional priority species derived from the list of SGCN identified in Southeast State Wildlife Action Plans as most in need of 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 uses models from the U.S. Geological Survey Gap Analysis Project that are based on known species ranges, species-habitat relationships, and LANDFIRE landcover.

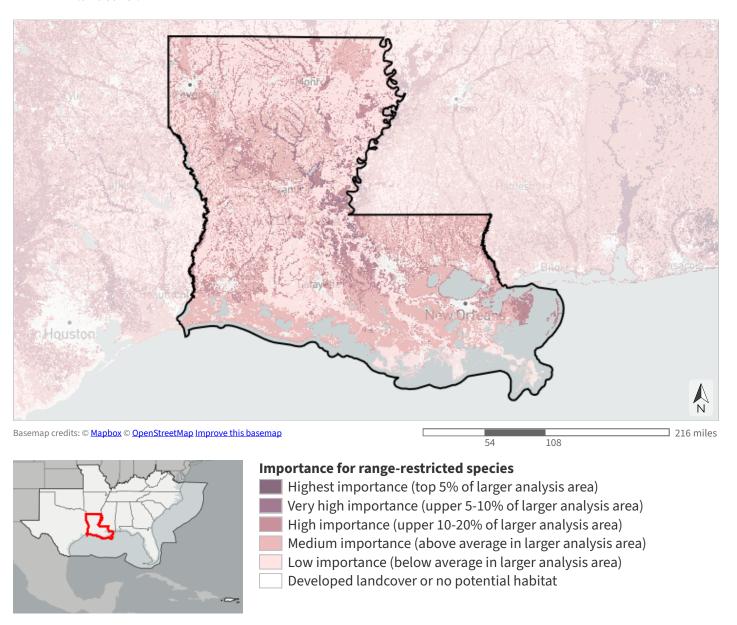


Table 12: Indicator values for imperiled mammals within Louisiana. A good condition threshold is not yet defined for this indicator.

	Indicator Values: Importance for range-restricted species	Acres	Percent of Area
↑ High	Highest importance (top 5% of larger analysis area)	0	0%
	Very high importance (upper 5-10% of larger analysis area)	1,069,802	3.2%
	High importance (upper 10-20% of larger analysis area)	4,367,936	13.0%
	Medium importance (above average in larger analysis area)	9,635,482	28.7%
	Low importance (below average in larger analysis area)	10,835,913	32.3%
↓ Low	Developed landcover or no potential habitat	4,514,549	13.5%
	Area not evaluated for this indicator	3,096,520	9.2%
	Total area	33,520,202	100%

# 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.

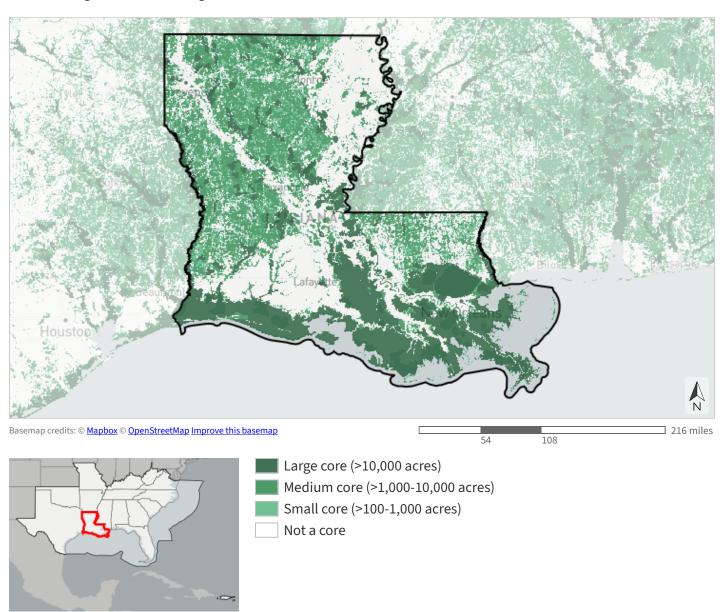


Table 13: Indicator values for intact habitat cores within Louisiana. Good condition thresholds reflect the range of indicator values that occur in healthy, functioning ecosystems.

	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%	↑ In good condition
↓ Low	Not a core	14,936,622	44.6%	↓ Not in good condition
	Area not evaluated for this indicator	362,461	1.1%	
	Total area	33,520,202	100%	

# 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 combines data from multiple sources, including the National Land Cover Database; various data on grasslands, mines, quarries, and reservoirs; ideas from the Florida Critical Lands and Waters Identification Project's approach for evaluating land use intensity; and more.

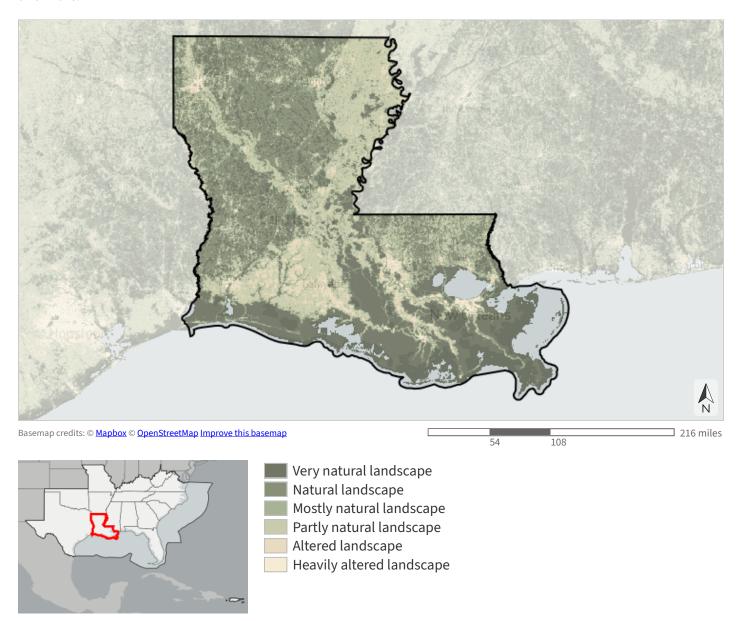


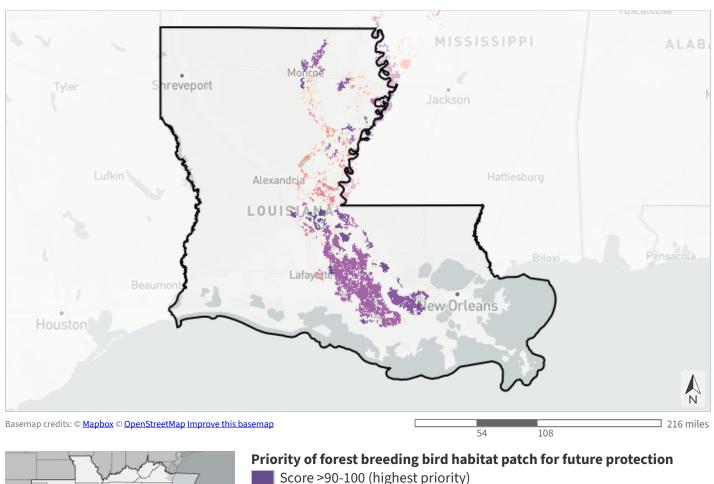
Table 14: Indicator values for landscape condition within Louisiana. Good condition thresholds reflect the range of indicator values that occur in healthy, functioning ecosystems.

	Indicator Values	Acres	Percent of Area	
↑ High	Very natural landscape	8,425,521	25.1%	
	Natural landscape	8,505,819	25.4%	
	Mostly natural landscape	4,723,303	14.1%	↑ In good condition
	Partly natural landscape	6,902,082	20.6%	→ Not in good condition
	Altered landscape	1,640,249	4.9%	
↓ Low	Heavily altered landscape	226,290	0.7%	
	Area not evaluated for this indicator	3,096,937	9.2%	
	Total area	33,520,202	100%	

# Terrestrial Missis

## 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.



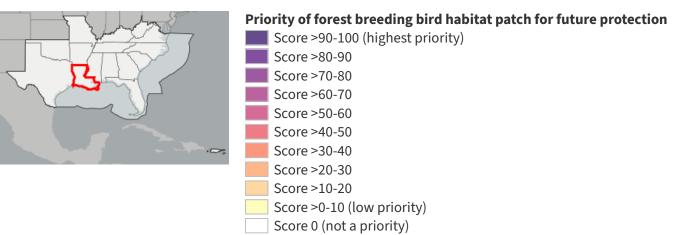


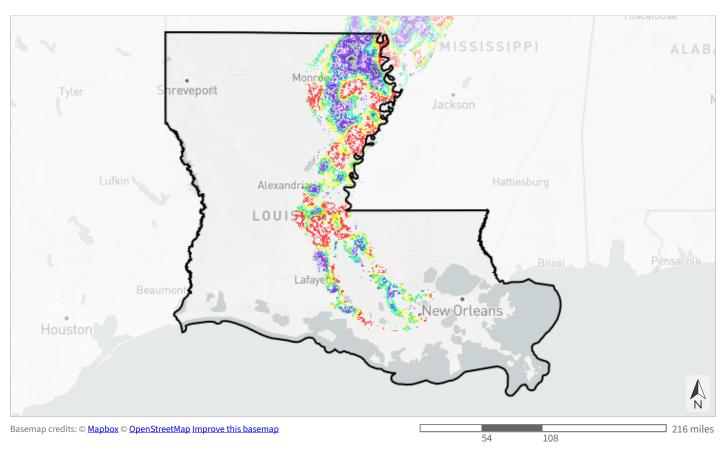
Table 15: Indicator values for Mississippi Alluvial Valley forest birds - protection within Louisiana. A good condition threshold is not yet defined for this indicator.

	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%
	Area not evaluated for this indicator	25,953,169	77.4%
	Total area	33,520,202	100%

#### 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 (≥90th percentile)

Most likely (80th to <90th percentile)

More likely (70th to <80th percentile)

Less likely (60th to <70th percentile)

Least likely (50th to <60th percentile)

Least likely (40th to <50th percentile)

Least likely (30th to <40th percentile)

Least likely (20th to <30th percentile)

Least likely (10th to <20th percentile)

Least likely (<10th percentile)

Not a priority for reforestation

Table 16: 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 (≥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%
	Area not evaluated for this indicator	25,952,219	77.4%
	Total area	33,520,202	100%

# Potential access to parks

This cultural resource indicator prioritizes places to create new parks that would fill gaps in 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.

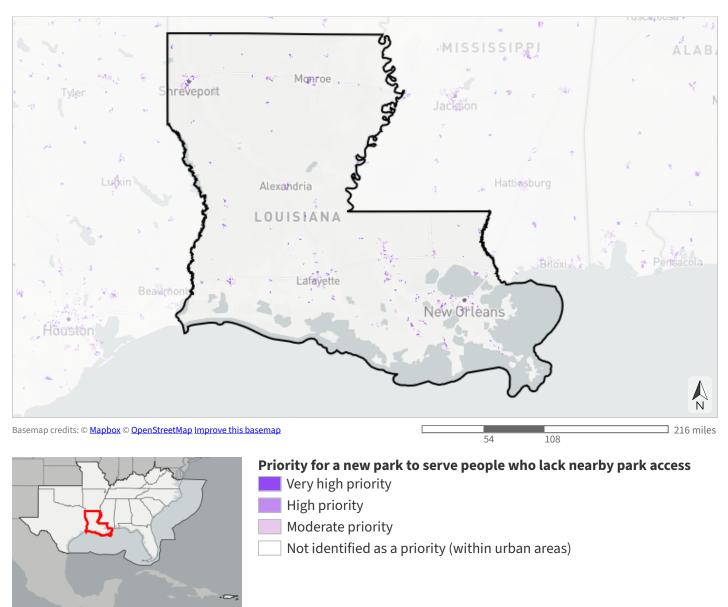


Table 17: Indicator values for potential access to parks within Louisiana. A good condition threshold is not yet defined for this indicator.

	Indicator Values: Priority for a new park to serve people who lack nearby park access	Acres	Percent of Area
↑ High	Very high priority	73,832	0.2%
	High priority	110,634	0.3%
	Moderate priority	135,093	0.4%
↓ Low	Not identified as a priority (within urban areas)	29,829,611	89.0%
	Area not evaluated for this indicator	3,371,032	10.1%
	Total area	33,520,202	100%

# 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.

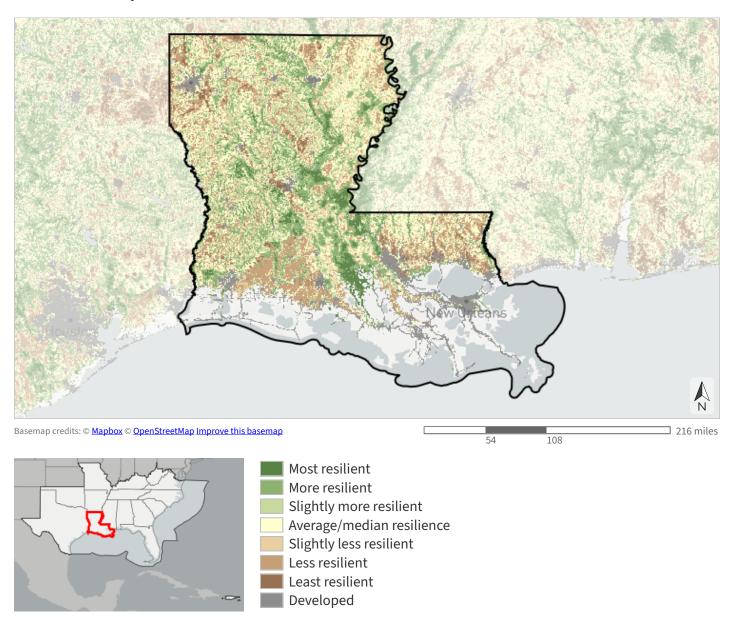


Table 18: Indicator values for resilient terrestrial sites within Louisiana. A good condition threshold is not yet defined for this indicator.

	Indicator Values	Acres	Percent of Area
↑ High	Most resilient	764,221	2.3%
	More resilient	3,444,013	10.3%
	Slightly more resilient	3,196,991	9.5%
	Average/median resilience	5,682,702	17.0%
	Slightly less resilient	2,964,903	8.8%
	Less resilient	3,335,255	9.9%
	Least resilient	529,156	1.6%
↓ Low	Developed	1,413,443	4.2%
	Area not evaluated for this indicator	12,189,518	36.4%
	Total area	33,520,202	100%

# Terrestrial River cane restoration

This indicator represents priority places for river cane restoration and co-stewardship near the lands of federally recognized Tribes. River cane is a bamboo species native to the Southeast. Historically, it was abundant and widespread, forming dense patches called canebrakes that could stretch for miles within the floodplain. Today, it has been reduced to less than 2% of its former extent. River cane not only provides significant habitat value and ecosystem services, but many Southeastern Native American Tribes consider it a cultural keystone species important to the continuity of traditional lifeways. This indicator combines data from multiple sources, including Natural Resources Conservation Service soils data, the Environmental Protection Agency's estimated floodplain, lands of federally recognized Tribes lands from the U.S. Census Bureau, and more.

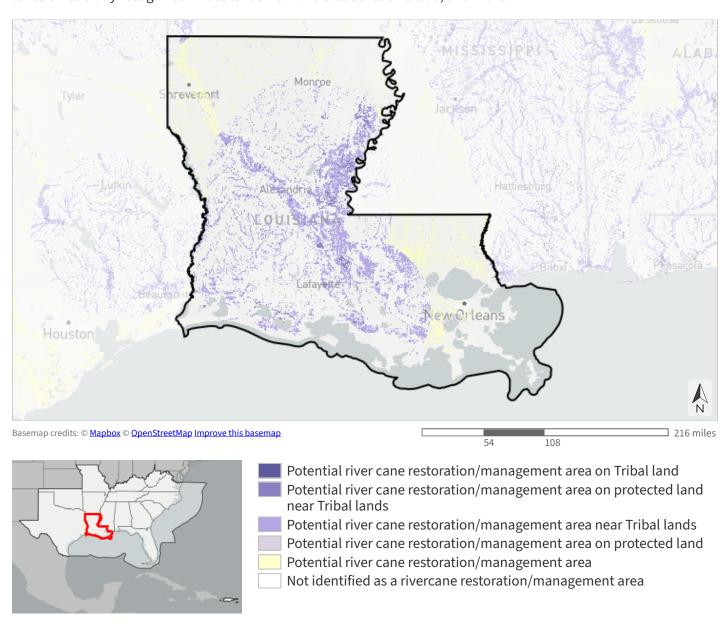


Table 19: Indicator values for river cane restoration within Louisiana. A good condition threshold is not yet defined for this indicator.

	Indicator Values	Acres	Percent of Area
↑ High	Potential river cane restoration/management area on Tribal land	430	<0.1%
	Potential river cane restoration/management area on protected land near Tribal lands	481,402	1.4%
	Potential river cane restoration/management area near Tribal lands	3,715,866	11.1%
	Potential river cane restoration/management area on protected land	149,170	0.4%
	Potential river cane restoration/management area	1,864,885	5.6%
↓ Low	Not identified as a rivercane restoration/management area	23,933,974	71.4%
	Area not evaluated for this indicator	3,374,475	10.1%
	Total area	33,520,202	100%

## 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, U.S. Census Bureau urban areas, and the National Land Cover Database.

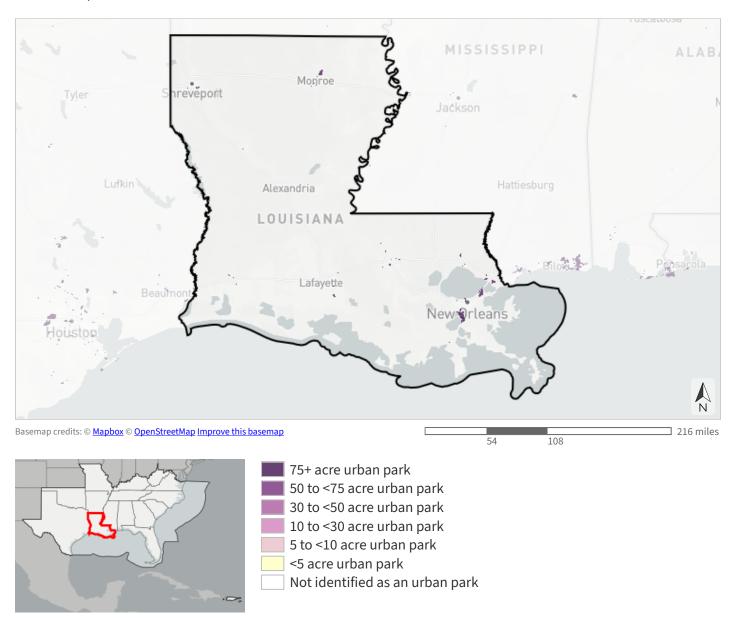


Table 20: Indicator values for urban park size within Louisiana. A good condition threshold is not yet defined for this indicator.

	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%
	Area not evaluated for this indicator	263,936	0.8%
	Total area	33,520,202	100%

#### Terrestrial West

#### 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.

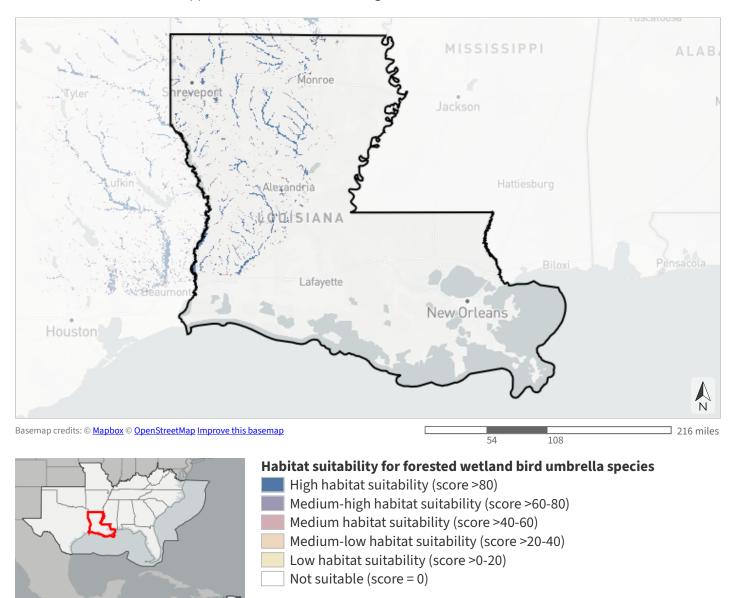


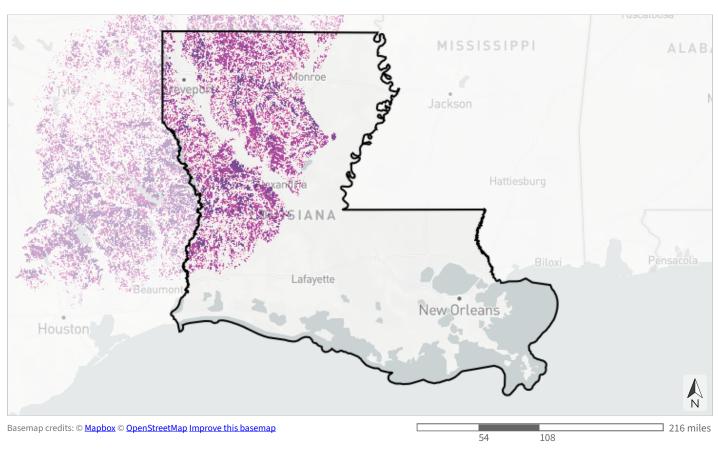
Table 21: Indicator values for West Coastal Plain & Ouachitas forested wetland birds within Louisiana. A good condition threshold is not yet defined for this indicator.

	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%
↓ Low	Not suitable (score = 0)	9,764,315	29.1%
	Area not evaluated for this indicator	22,039,376	65.7%
	Total area	33,520,202	100%

#### Terrestrial West

#### 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 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

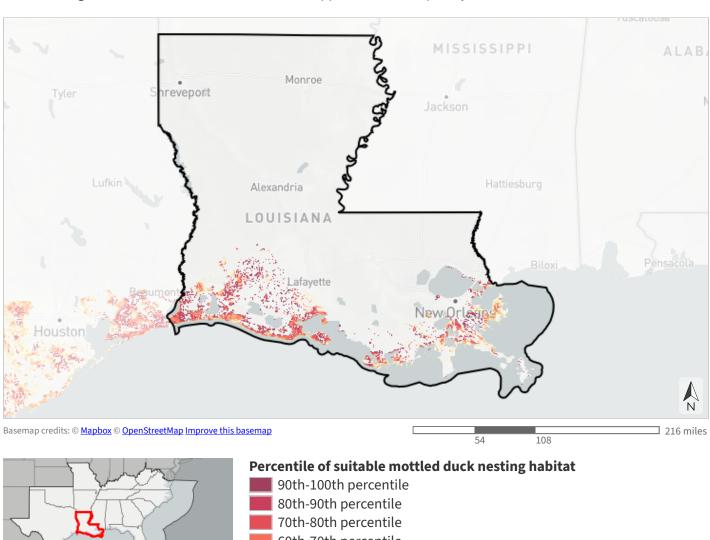
Table 22: Indicator values for West Coastal Plain & Ouachitas open pine birds within Louisiana. A good condition threshold is not yet defined for this indicator.

	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%
↓ Low	Pine patch too small and isolated to support a population of any species or not an upland pine patch	6,747,278	20.1%
	Area not evaluated for this indicator	22,039,402	65.7%
	Total area	33,520,202	100%

#### 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.



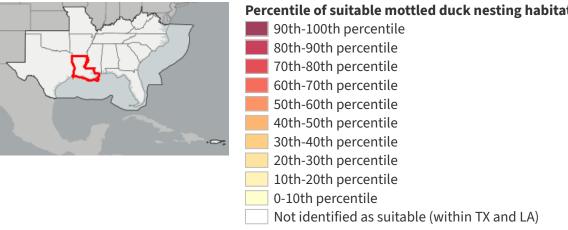
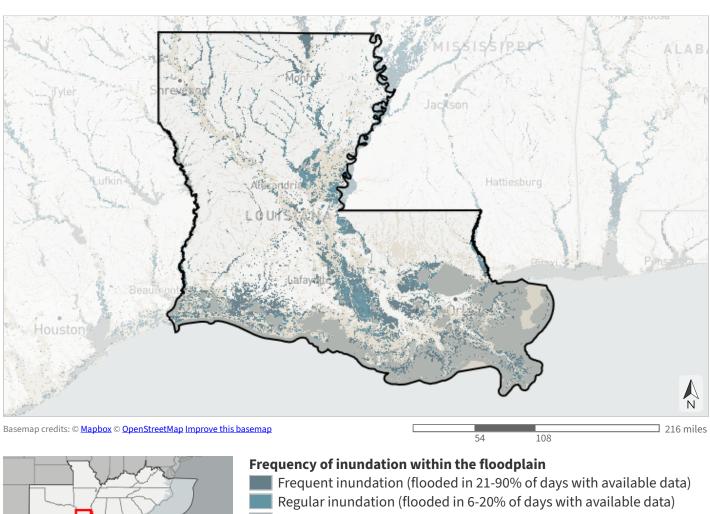


Table 23: Indicator values for West Gulf Coast mottled duck nesting within Louisiana. A good condition threshold is not yet defined for this indicator.

	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%
	Area not evaluated for this indicator	25,820,876	77.0%
	Total area	33,520,202	100%



This indicator uses the frequency of inundation to measure the hydrologic function of the floodplain. In a natural floodplain, water can move freely from mainstem rivers and lakes onto different parts of the floodplain. This cycle of frequent, but not persistent, flooding supports many aquatic species and habitats, like fish, waterfowl and swamp forests. It also provides essential ecosystem services such as nutrient retention and downstream flood control. When parts of the floodplain stay constantly wet or dry, this may signal negative impacts from structures like dikes, dams, and levees, which disconnect waterbodies from their adjacent floodplains. This indicator is based on Sentinel-2 satellite imagery and methods developed by Yvonne Allen of the U.S. Fish and Wildlife Service.



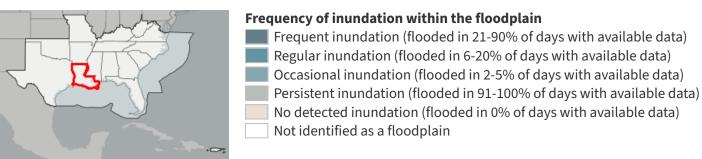


Table 24: Indicator values for floodplain inundation within Louisiana. Good condition thresholds reflect the range of indicator values that occur in healthy, functioning ecosystems.

	Indicator Values: Frequency of inundation within the floodplain	Acres	Percent of Area	
↑ High	Frequent inundation (flooded in 21-90% of days with available data)	2,926,242	8.7%	
	Regular inundation (flooded in 6-20% of days with available data)	1,983,339	5.9%	↑ In good condition
	Occasional inundation (flooded in 2-5% of days with available data)	951,514	2.8%	→ Not in good condition
	Persistent inundation (flooded in 91-100% of days with available data)	5,562,522	16.6%	
	No detected inundation (flooded in 0% of days with available data)	6,162,455	18.4%	
↓ Low	Not identified as a floodplain	15,927,903	47.5%	
	Area not evaluated for this indicator	6,228	<0.1%	
	Total area	33,520,202	100%	

### Freshwater

#### Gulf migratory fish connectivity

This indicator captures how far upstream migratory fish in the Gulf of America 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).

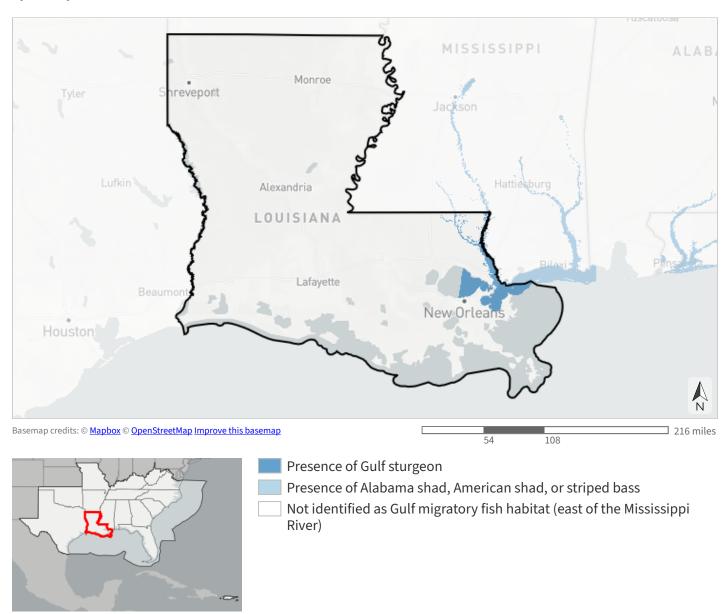
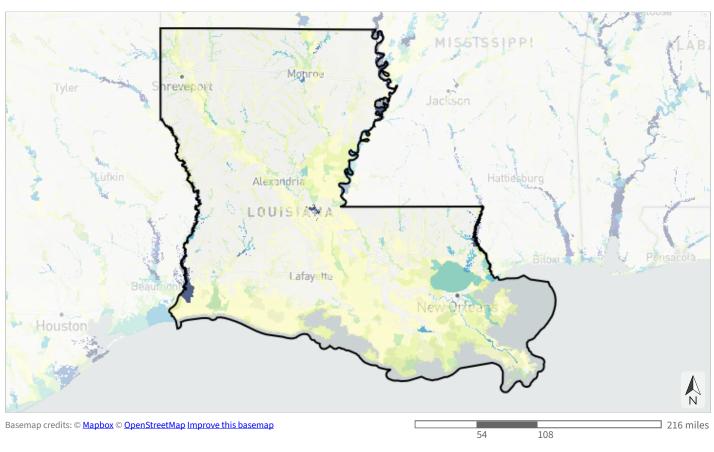


Table 25: Indicator values for Gulf migratory fish connectivity within Louisiana. Good condition thresholds reflect the range of indicator values that occur in healthy, functioning ecosystems.

	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%	↑ In good condition
↓ Low	Not identified as Gulf migratory fish habitat (east of the Mississippi River)	3,004,751	9.0%	↓ Not in good condition
	Area not evaluated for this indicator	29,878,656	89.1%	
	Total area	33,520,202	100%	

## 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 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).



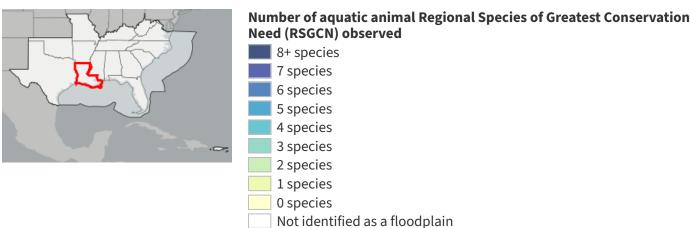


Table 26: Indicator values for imperiled aquatic species within Louisiana. A good condition threshold is not yet defined for this indicator.

	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%
↓ Low	Not identified as a floodplain	15,927,839	47.5%
	Area not evaluated for this indicator	3,374,475	10.1%
	Total area	33,520,202	100%

### Freshwater Lakes & reservoirs

This indicator assesses the condition of lakes and reservoirs based on the amount of natural landcover within the upstream watershed. Higher scores go to lakes and reservoirs with less surrounding urban and agricultural development (including intensive forest management for timber production), which negatively impact drinking water quality and quantity and fish habitat. This indicator uses waterbody and watershed data from the LAGOS-LOCUS dataset, as well as landcover from the National Land Cover Database and LANDFIRE.

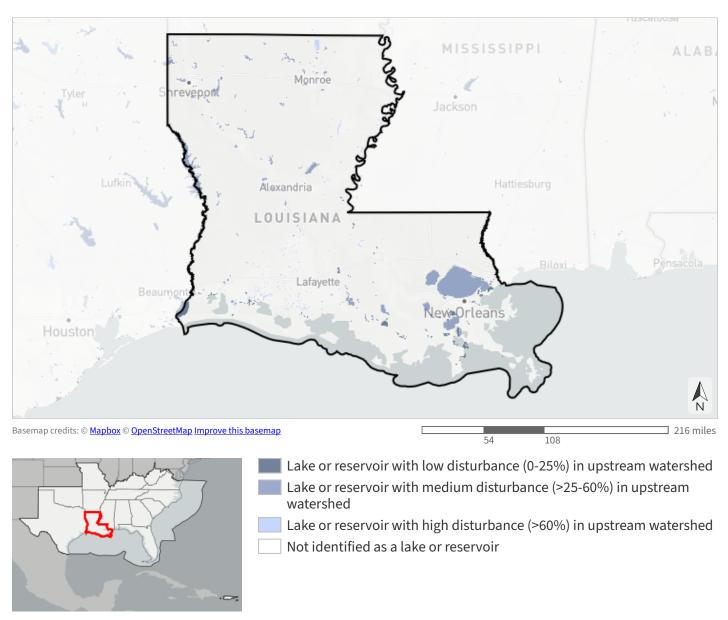
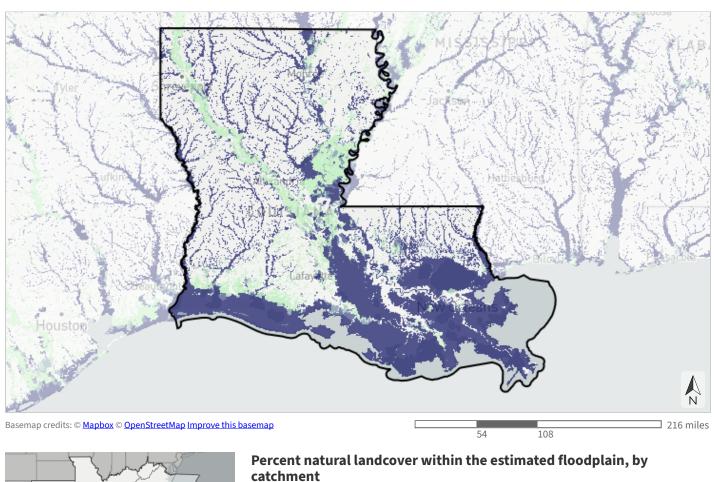


Table 27: Indicator values for lakes & reservoirs within Louisiana. Good condition thresholds reflect the range of indicator values that occur in healthy, functioning ecosystems.

	Indicator Values	Acres	Percent of Area	
↑ High	Lake or reservoir with low disturbance (0-25%) in upstream watershed	262,893	0.8%	↑ In good condition
	Lake or reservoir with medium disturbance (>25-60%) in upstream watershed	918,187	2.7%	→ Not in good condition
	Lake or reservoir with high disturbance (>60%) in upstream watershed	213,143	0.6%	
↓ Low	Not identified as a lake or reservoir	31,763,519	94.8%	
	Area not evaluated for this indicator	362,461	1.1%	
	Total area	33,520,202	100%	

### 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).



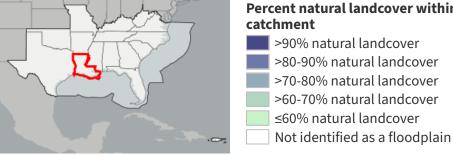


Table 28: Indicator values for natural landcover in floodplains within Louisiana. Good condition thresholds reflect the range of indicator values that occur in healthy, functioning ecosystems.

	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%	↑ In good condition
	>70-80% natural landcover	556,771	1.7%	→ Not in good condition
	>60-70% natural landcover	452,807	1.4%	
	≤60% natural landcover	2,311,986	6.9%	
↓ Low	Not identified as a floodplain	15,927,903	47.5%	
	Area not evaluated for this indicator	3,374,411	10.1%	
	Total area	33,520,202	100%	

## 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).

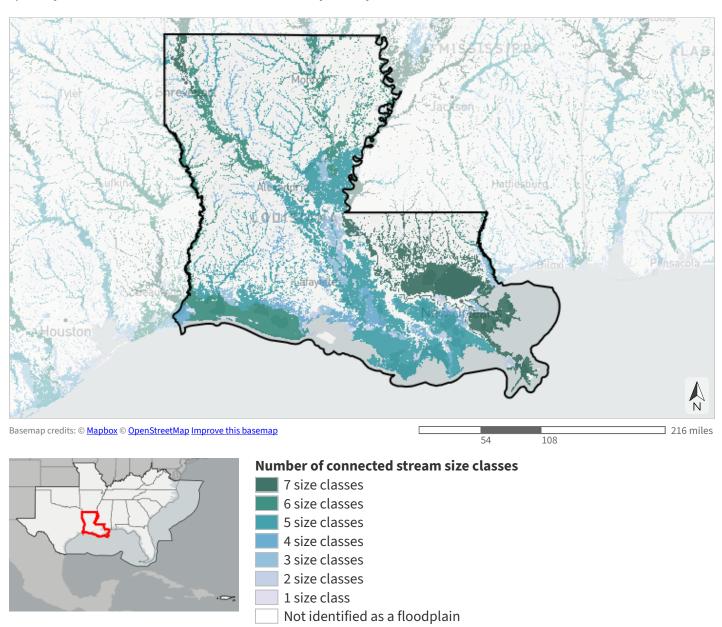
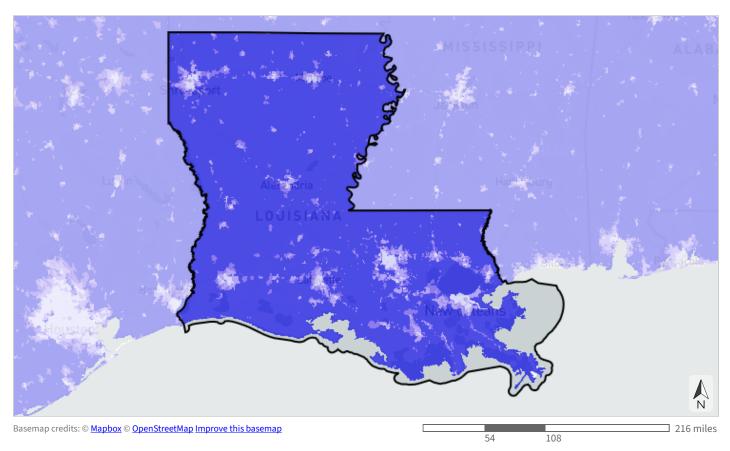


Table 29: Indicator values for network complexity within Louisiana. Good condition thresholds reflect the range of indicator values that occur in healthy, functioning ecosystems.

	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%	↑ In good condition
	3 size classes	824,746	2.5%	↓ Not in good condition
	2 size classes	566,952	1.7%	
	1 size class	593,335	1.8%	
↓ Low	Not identified as a floodplain	15,932,255	47.5%	
	Area not evaluated for this indicator	3,847,319	11.5%	
	Total area	33,520,202	100%	



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 30: 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%	
	Area not evaluated for this indicator	3,374,475	10.1%	
	Total area	33,520,202	100%	

## Coastal & marine Coastal shoreline condition

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

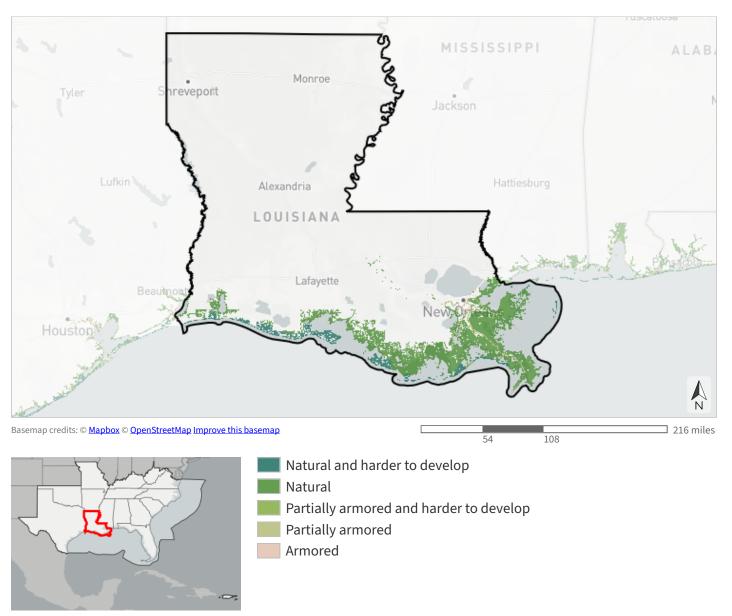


Table 31: Indicator values for coastal shoreline condition within Louisiana. Good condition thresholds reflect the range of indicator values that occur in healthy, functioning ecosystems.

	Indicator Values	Acres	Percent of Area	
↑ High	Natural and harder to develop	54,739	0.2%	
	Natural	482,949	1.4%	↑ In good condition
	Partially armored and harder to develop	242	<0.1%	↓ Not in good condition
	Partially armored	5,794	<0.1%	
↓ Low	Armored	7,457	<0.1%	
	Area not evaluated for this indicator	32,969,021	98.4%	
	Total area	33,520,202	100%	

## 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.

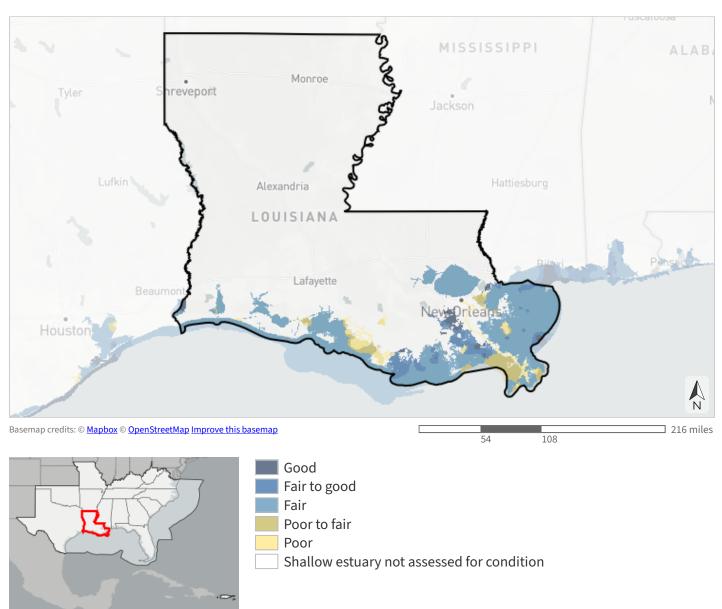


Table 32: Indicator values for estuarine coastal condition within Louisiana. Good condition thresholds reflect the range of indicator values that occur in healthy, functioning ecosystems.

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

### Coastal & marine Gulf coral & hardbottom

This indicator predicts the presence of coral and hardbottom in the Gulf of America 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.

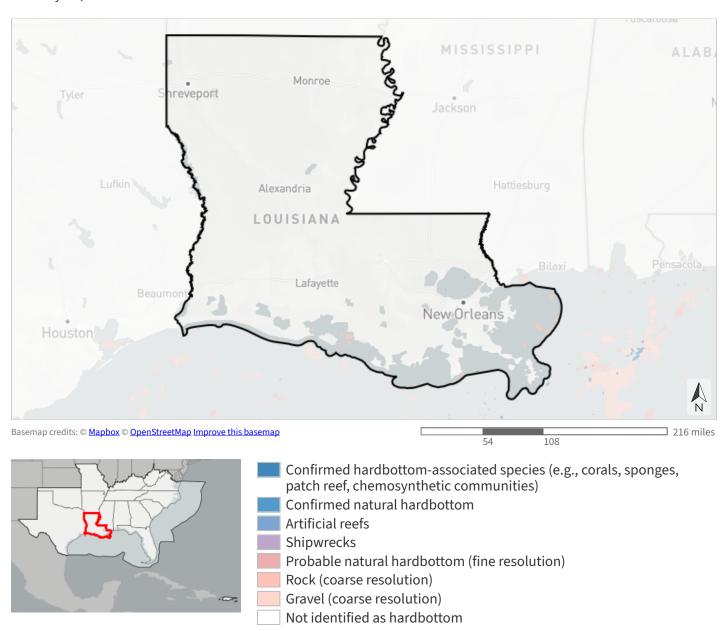
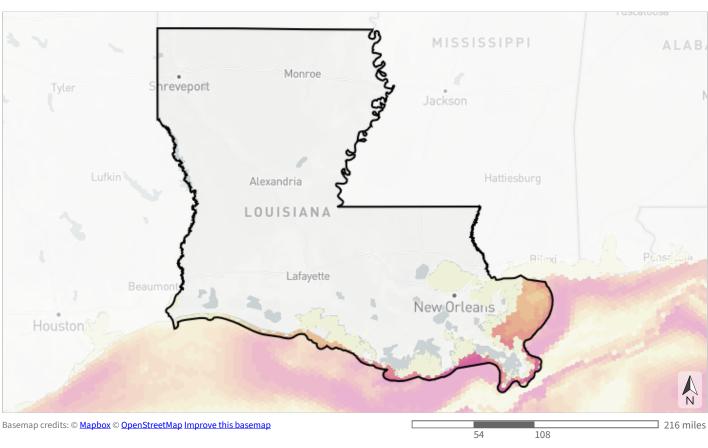


Table 33: Indicator values for Gulf coral & hardbottom within Louisiana. A good condition threshold is not yet defined for this indicator.

	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%
	Area not evaluated for this indicator	23,259,066	69.4%
	Total area	33,520,202	100%



This indicator identifies important areas in the Gulf of America 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).



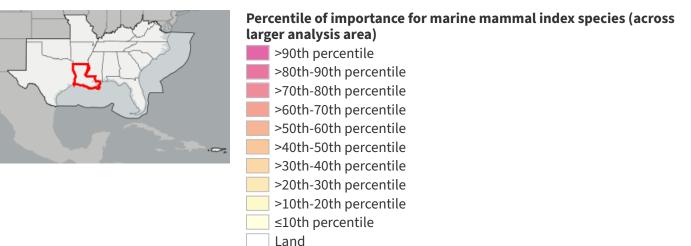
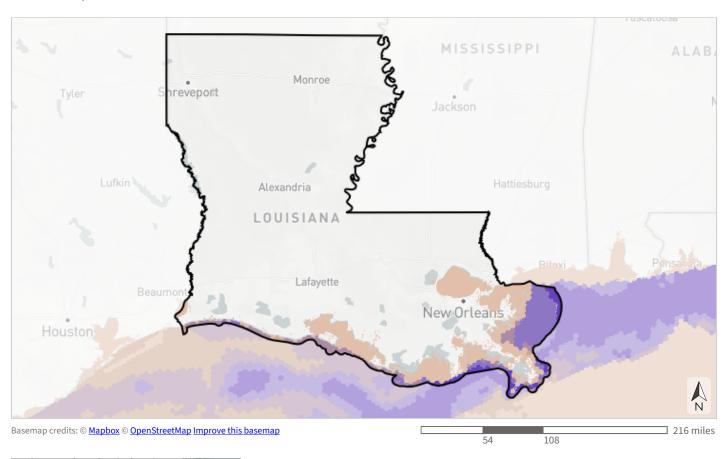


Table 34: Indicator values for Gulf marine mammals within Louisiana. A good condition threshold is not yet defined for this indicator.

	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%
	Area not evaluated for this indicator	29,726,787	88.7%
	Total area	33,520,202	100%



This indicator identifies important areas in the Gulf of America 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).



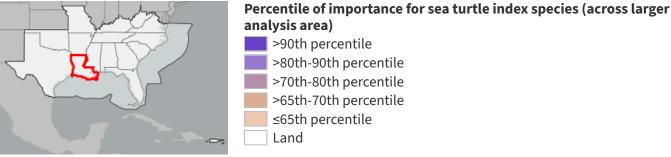


Table 35: Indicator values for Gulf sea turtles within Louisiana. A good condition threshold is not yet defined for this indicator.

	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%
	Area not evaluated for this indicator	27,975,300	83.5%
	Total area	33,520,202	100%



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.

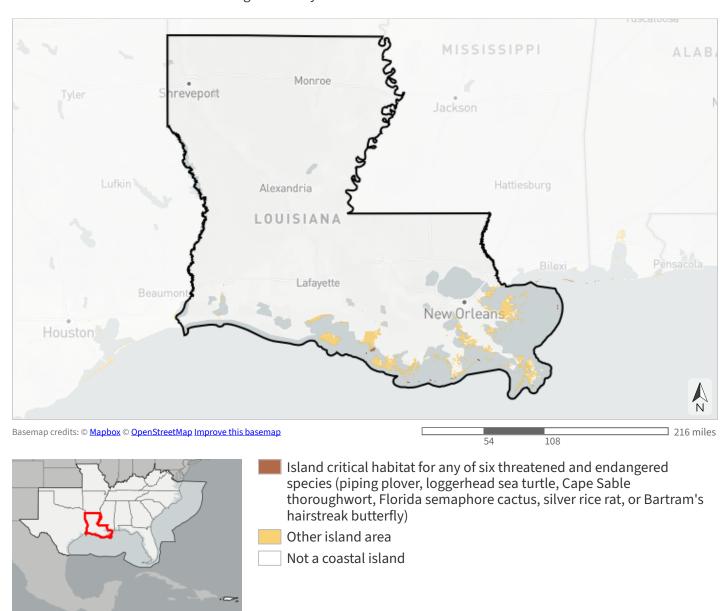
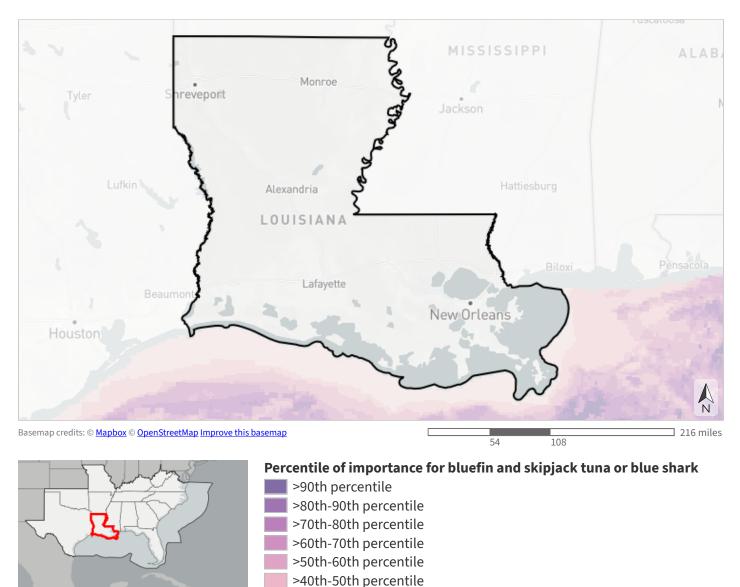


Table 36: Indicator values for island habitat within Louisiana. A good condition threshold is not yet defined for this indicator.

	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%
	Area not evaluated for this indicator	20,425,793	60.9%
	Total area	33,520,202	100%

# 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 America. 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.



>30th-40th percentile ≤30th percentile

Table 37: 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%
↓ Low	≤30th percentile	16,199	<0.1%
	Area not evaluated for this indicator	33,504,003	100.0%
	Total area	33,520,202	100%

# 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.

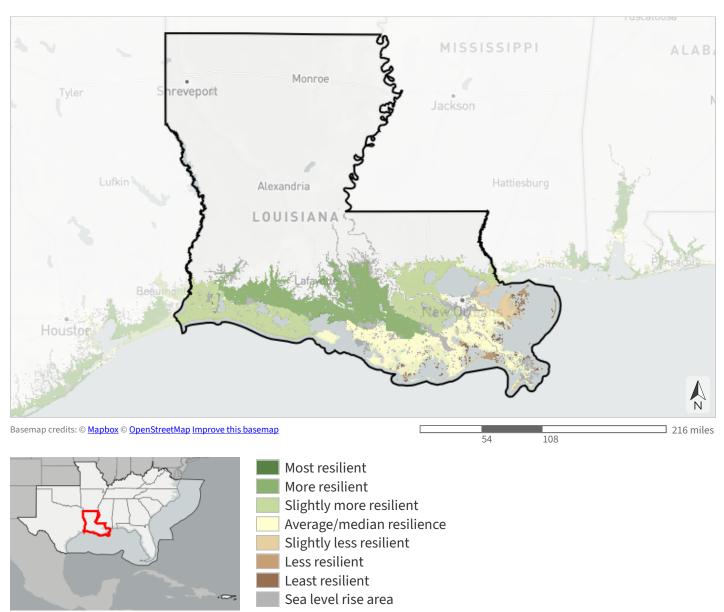


Table 38: Indicator values for resilient coastal sites within Louisiana. A good condition threshold is not yet defined for this indicator.

	Indicator Values	Acres	Percent of Area
↑ High	Most resilient	0	0%
	More resilient	1,841,654	5.5%
	Slightly more resilient	1,976,563	5.9%
	Average/median resilience	1,363,200	4.1%
	Slightly less resilient	158,214	0.5%
	Less resilient	34,599	0.1%
	Least resilient	28,889	<0.1%
↓ Low	Sea level rise area	654,573	2.0%
	Area not evaluated for this indicator	27,462,511	81.9%
	Total area	33,520,202	100%



This indicator represents the presence of seagrass in the Atlantic Ocean and Gulf of America. 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.

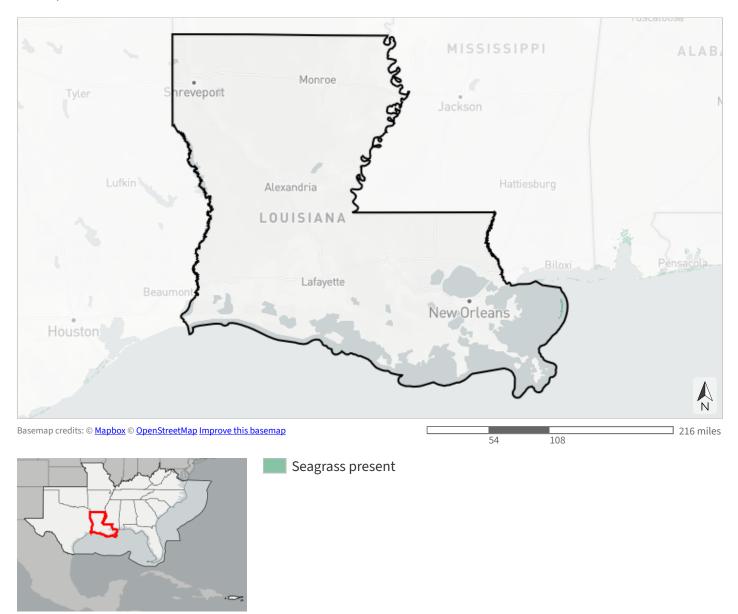


Table 39: Indicator values for seagrass within Louisiana. A good condition threshold is not yet defined for this indicator.

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

# 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.

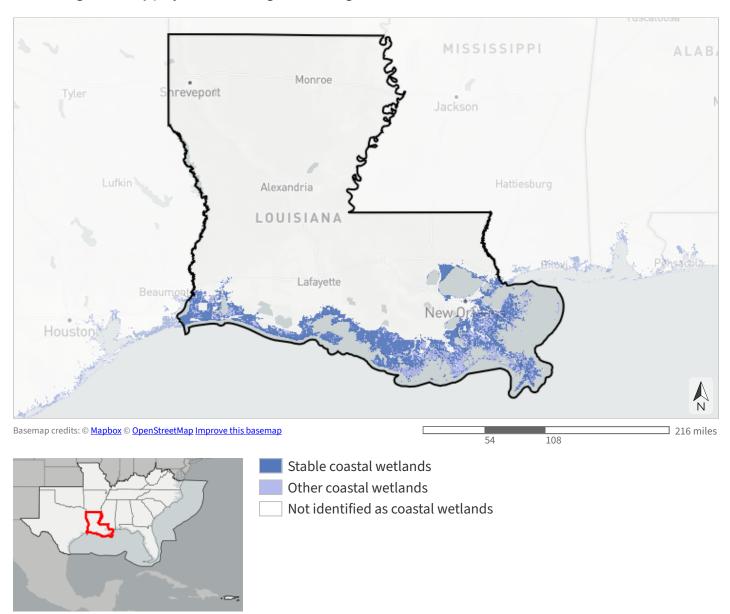


Table 40: Indicator values for stable coastal wetlands within Louisiana. Good condition thresholds reflect the range of indicator values that occur in healthy, functioning ecosystems.

	Indicator Values	Acres	Percent of Area	
↑ High	Stable coastal wetlands	1,890,699	5.6%	
	Other coastal wetlands	488,270	1.5%	↑ In good condition
↓ Low	Not identified as coastal wetlands	4,377,789	13.1%	→ Not in good condition
	Area not evaluated for this indicator	26,763,443	79.8%	
	Total area	33,520,202	100%	

# **More Information**

# **Priority Amphibian and Reptile Conservation Areas**

Priority Amphibian and Reptile Conservation Areas (PARCAs) are 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. 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.

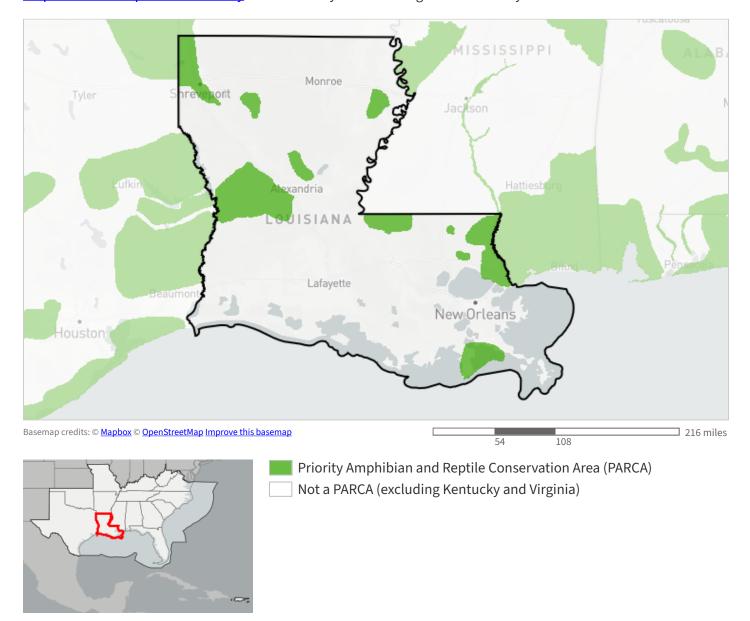


Table 41: Extent of Priority Amphibian and Reptile Conservation Areas within Louisiana.

Priority Amphibian and Reptile Conservation Areas status	Acres	Percent of Area
Priority Amphibian and Reptile Conservation Area (PARCA)	3,622,097	10.8%
Not a PARCA (excluding Kentucky and Virginia)	29,851,335	89.1%
Total area	33,520,202	100%

# Priority Amphibian and Reptile Conservation Areas at this location:

### **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.

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

## **Protected Areas**

Protected areas include a variety of public lands owned or managed by federal, state, and local agencies and nonprofit organizations, as well as some private conservation lands and conservation easements. Protected areas are derived from the <u>Protected Areas Database of the United States</u> (PAD-US v4.1) and include Fee, Designation, Easement, Marine, and Proclamation (Dept. of Defense lands only) boundaries.

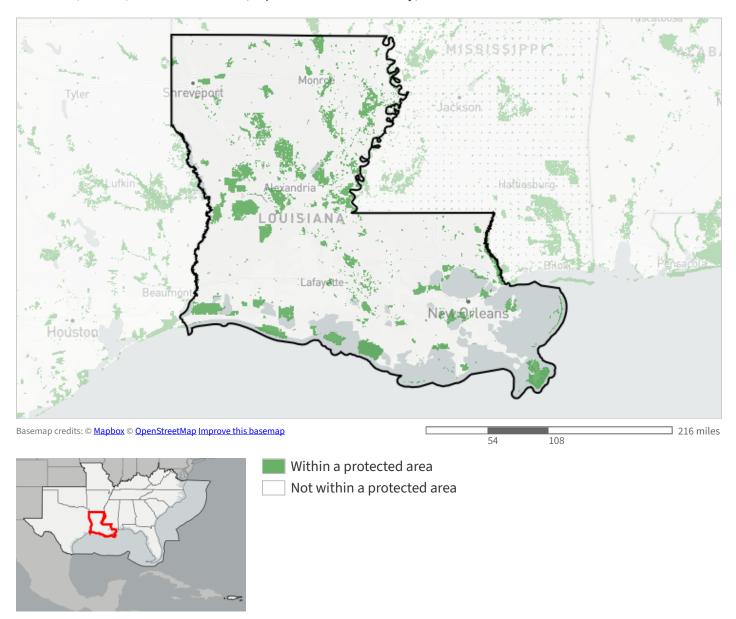


Table 42: Extent of protected areas within Louisiana.

Protected area status	Acres	Percent of Area
Not within a protected area	29,993,285	89.5%
Within a protected area	3,526,917	10.5%
Total area	33,520,202	100%

#### Protected areas at this location:

- Kisatchie National Forest (USDA Forest Service; 607,482 acres)
- Fort Johnson (240,294 acres)
- Atchafalaya Delta Wildlife Management Area (State Department of Natural Resources; 137,719 acres)
- Atchafalaya Delta Wildlife Management Area and Game Preserve (137,719 acres)
- Sabine National Wildlife Refuge (124,848 acres)
- Sabine National Wildlife Refuge (US Fish and Wildlife Service; 123,836 acres)
- Pass A Loutre Wildlife Management Area (State Fish and Wildlife; 115,322 acres)
- Rockefeller Wildlife Refuge (State Department of Natural Resources; 85,813 acres)
- Tensas River National Wildlife Refuge (US Fish and Wildlife Service; 77,878 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)
- Maurepas Swamp Wildlife Management Area (State Fish and Wildlife; 67,502 acres)
- Dewey W Wills Wildlife Management Area (State Fish and Wildlife; 64,316 acres)
- West Bay Wildlife Management Area (Private Institution; 63,810 acres)
- Upper Ouachita National Wildlife Refuge (US Fish and Wildlife Service; 54,570 acres)
- Boise Vernon Wildlife Management Area (Private Institution; 54,442 acres)
- Boeuf Wildlife Management Area (State Fish and Wildlife; 52,237 acres)
- Delta National Wildlife Refuge (US Fish and Wildlife Service; 50,273 acres)
- Delta National Wildlife Refuge (50,262 acres)
- Dow Donation (State Department of Natural Resources; 50,072 acres)
- Red River Wildlife Management Area (State Fish and Wildlife; 45,140 acres)
- Sherburne Wildlife Management Area/atchafalaya National Wildlife Refuge/bayou Des Ourses Area (usacoe) (State Fish and Wildlife; 44,878 acres)
- Wetlands Reserve Program (WRP), Madison, LA (42,044 acres)
- Biloxi Wildlife Management Area (Private Institution; 40,735 acres)
- Red Dirt National Wildlife Refuge (40,233 acres)
- ... and 1,418 more protected areas ...

Note: areas are listed based on name, ownership, and boundary information in the Protected Areas Database of the United States, which may include overlapping and duplicate areas.

## 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 <u>Sea Level Rise Viewer</u>.

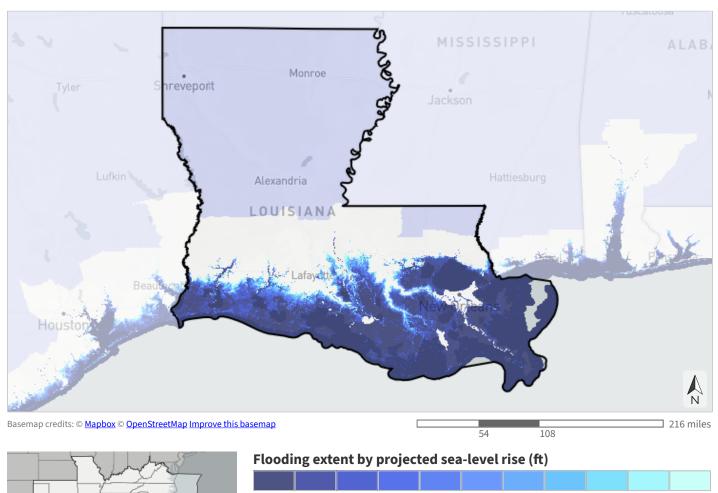




Table 43: Extent of flooding by projected average highest daily tide due to sea level rise within Louisiana. Values from the NOAA sea-level rise inundation data.

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%
Not projected to be inundated by up to 10 feet	6,867,470	20.5%
Sea-level rise unlikely to be a threat (inland counties)	15,069,511	45.0%
Sea-level rise data unavailable	334,458	1.0%
Total area	33,520,202	100%

Table 44: 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.

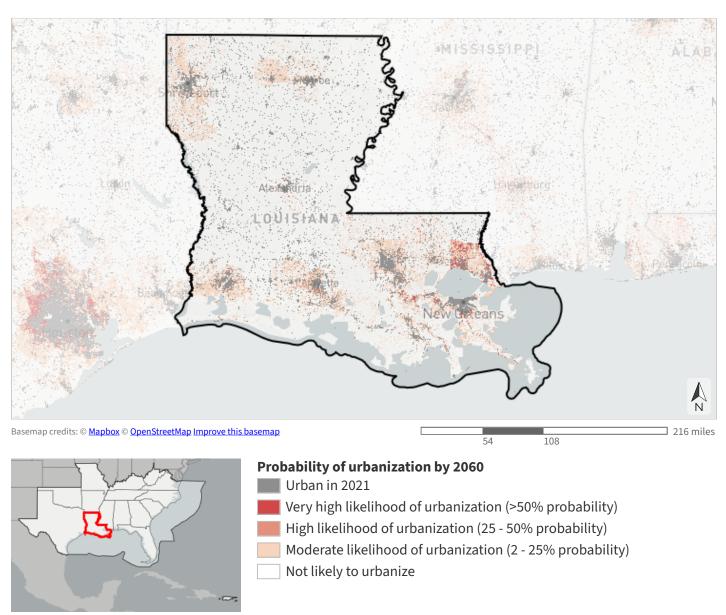


Table 45: Extent of projected urbanization by decade within Louisiana. Values from <u>FUTURES model</u> <u>projections for the contiguous United States</u> developed by the <u>Center for Geospatial Analytics</u>, NC State University. 2060 corresponds to the <u>SECAS goal</u>: a 10% or greater improvement 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%
Not projected to urbanize by 2100	30,849,992	92.0%
No urbanization data available	46,769	0.1%
Total area	33,520,202	100%

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.

By 2060, the size of the urban footprint is projected to increase **11%** over 2021 levels.

## Wildfire Likelihood

Wildfire likelihood data originate from the Wildfire Risk to Communities project developed by the U.S. Forest Service. This layer depicts the probability of wildfire burning in a specific location in any given year. Annual burn probabilities in the United States range from 0-14%, but do not exceed 8% in the Southeast. Wildfire likelihood is based on fire behavior modeling across thousands of simulations of possible fire seasons. In each simulation, factors contributing to the probability of a fire occurring (such as weather, topography, and ignitions) vary based on patterns derived from observations in recent decades. Wildfire likelihood is not predictive and does not reflect any forecasted future weather or fire danger conditions. It also does not say anything about the intensity of fire if it occurs. To explore additional wildfire risk information, please see the Wildfire Risk to Communities website.

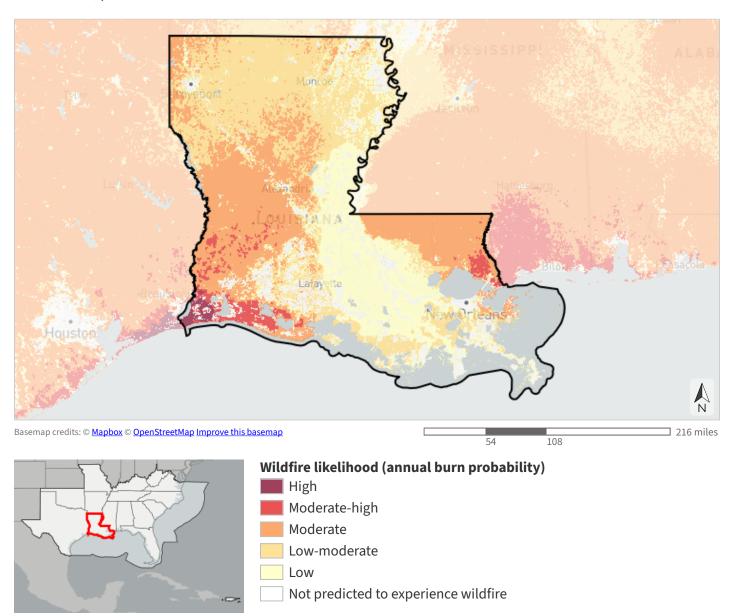


Table 46: Area in each wildfire probability category within Louisiana. Values from the <u>Wildire Risk To Communities</u> project developed by the USDA Forest Service.

Wildfire likelihood (annual burn probability)	Acres	Percent of Area
Not predicted to experience wildfire (0% probability)	7,974,652	23.8%
Low (>0 - 0.01% probability)	6,591,653	19.7%
Low-moderate (>0.01 - 0.02154% probability)	2,932,898	8.7%
Low-moderate (>0.02154 - 0.04642% probability)	6,211,456	18.5%
Moderate (>0.04642 - 0.1% probability)	3,324,512	9.9%
Moderate (>0.1 - 0.21544% probability)	2,691,666	8.0%
Moderate (>0.21544 - 0.46416% probability)	2,402,546	7.2%
Moderate-high (>0.46416 - 1% probability)	674,922	2.0%
Moderate-high (>1 - 2.15443% probability)	212,551	0.6%
High (>2.15443 - 4.64159% probability)	149,810	0.4%
High (>4.64159% probability)	21,607	<0.1%
No wildfire risk data available	331,929	1.0%
Total area	33,520,202	100%