



LOUISIANA



Thirty-five million acres of wetland forests provide valuable ecosystem services for people living in the US South, including:

- Protection from extreme events
- Recreation, tourism, and aesthetics
- Water filtration and waste treatment
- Food and pollination
- Climate regulation
- Raw materials.

Wetland forest ecosystem services are worth more than \$500 billion per year. But wetland forests are constantly under siege by external forces, including urban expansion, invasive species, increased demand for timber, conversion to intensively managed plantations or

agriculture, pollution, sea-level rise, and the changing climate. Over the next 30 years, how will we protect the valuable services our Southern wetland forests provide? What can we gain if we do the right thing? And what do we stand to lose if we do not invest in our forests?

We investigated how the value of wetland forests in the US South would increase if we protected more land, extended natural riparian buffers, and managed forests more responsibly. Here are the best facts from Louisiana.

Louisiana's Wetland Forests Are Worth \$79 Billion

- Worth could increase up to \$6.5 billion by investing in conservation
- Wetland Forest Gem: 260,000 acre Atchafalaya Swamp, the largest wetland and swamp in the United States
- 5.2 million acres of wetland forest, including 280 named swamps and 4,121 named streams in the state¹

Protection From Extreme Events: Louisiana's Wetland Forests Provide \$23.8 Billion

- Value in protection from extreme events and water flow regulation could increase up to \$1.9 billion by investing in conservation
- Eight flood events amassing over a billion dollars in damages each since 1980²
- Since 1851, there have been 14 major Mississippi river floods, impacting states along the river like Louisiana³
- Between 1851 and 2004, 49 hurricanes and 18 major hurricanes (categories 3-5) made landfall on the Louisiana coastline⁴

Aesthetics, Tourism, and Recreation: Louisiana's Wetland Forests Provide \$20 billion

- Value in aesthetics and recreation could increase up to \$1.7 billion by investing in conservation
- Louisiana had 28.9 million visitors in 2015, who spent \$11.5 billion and supported 171,000 tourism jobs⁵
- Almost half of residents participated in wildlife-related recreation, spending \$2.2 billion in 2011⁶

Water Supply and Waste Treatment: Louisiana's Wetland Forests Provide \$18.3 Billion

- Value in water supply and waste treatment could increase up to \$1.6 billion by investing in conservation
- More than seventy percent of residents rely on public sewer systems. Many public facilities rely on natural infrastructure to reduce costs of waste and water treatment⁷
- Over ten percent of residents rely on private water sources like wells. Residents rely on forests to naturally filter pollutants from their water supply⁷

Food and Pollination: Louisiana's Wetland Forests Provide \$11.5 Billion

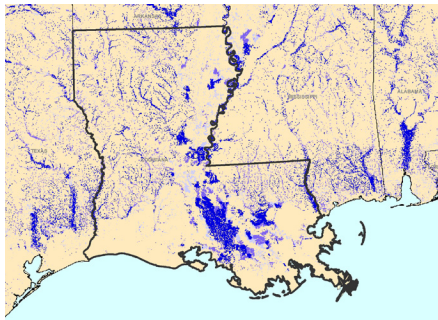
- Value in food and pollination could increase up to \$1 billion by investing in conservation
- Wetland forests provide habitat for pollinators of agricultural crops
- Over 800,000 residents in the state hunt or fish⁶
- In 2016, hunters purchased nearly 200,000 deer hunting licenses⁸
- In 2016, hunters harvested almost a million ducks and geese within the state⁹

Regulating Services: Louisiana's Wetland Forests Provide \$5.73 Billion

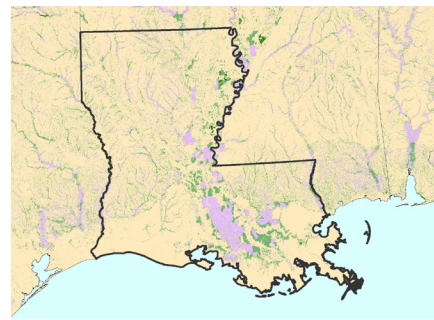
- Value in climate regulation, air quality, soil formation, and erosion control could increase up to \$218 million by investing in conservation
- There are an estimated 214 million megagrams of carbon stored in the state's wetland forests, and continual carbon storage reduces the worst impacts of climate change

Raw Materials: Louisiana's Wetland Forests Provide \$170 Million

- In 2011, there were 40 forest product mills (e.g., pulp and timber) employing 7,139 people in the state¹⁰
- Wetland forests currently provide raw materials worth \$170 million in ecosystem services value, and investing in conservation could increase the worth to \$300 million



There are 213,797,000 megagrams of carbon stored in Louisiana wetland forests.



Louisiana has 5.2 million acres of protected wetland forest (green), with an additional 2,357,000 acres of wetland forest proposed (purple) to be protected.

REFERENCES

1. Louisiana Physical Features. Available at: <http://louisiana.hometownlocator.com/features/category,c.physical.cfm>. (Accessed: 15th September 2017)
2. NOAA National Centers for Environmental Information. US Billion-Dollar Weather and Climate Disasters. (2017). Available at: <https://www.ncdc.noaa.gov/billions/events/US/1980-2017>. (Accessed: 11th September 2017)
3. Wikipedia contributors. Mississippi River floods. Wikipedia, The Free Encyclopedia (2017). Available at: https://en.wikipedia.org/w/index.php?title=Mississippi_River_floods&oldid=785414607. (Accessed: 15th September 2017)
4. US Mainland Hurricane Strikes by State, 1851-2004. Available at: <http://www.nhc.noaa.gov/paststate.shtml>. (Accessed: 15th September 2017)
5. Louisiana Tourism Forecast 2016-2019. (University of New Orleans Hospitality Research Center, 2016).
6. US Fish & Wildlife Service & US Census Bureau. 2011 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation. (US Fish & Wildlife Service, 2014).
7. Census of Housing - Housing Characteristics In The US - Tables. Available at: <https://www.census.gov/hhes/www/housing/census/histcensushg.html>. (Accessed: 18th September 2017)
8. Antler Nation. Realtree Available at: <https://www.realtree.com/deer-hunting/antler-nation>. (Accessed: 18th September 2017)
9. Harvest Trends | Flyways.us. Available at: <https://flyways.us/regulations-and-harvest/harvest-trends>. (Accessed: 18th September 2017)
10. The Southern Forest Products Industry. Available at: <http://usfs.maps.arcgis.com/apps/MapSeries/index.html?appid=7f8429df087e4c86951a7e69d93207a7>. (Accessed: 18th September 2017)