



**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 Missouri.

#### Missouri's Wetland Forests Are Worth \$7.7 Billion

- Worth could increase up to \$1.3 billion by investing in conservation
- Wetland Forest Gem: Mingo National Wildlife Refuge
- Nearly 7000,000 acres of wetland forest, including 24 named swamps and 5,245 named streams in the state<sup>1</sup>

### Protection From Extreme Events: Missouri's Wetland Forests Provide \$2.3 Billion

- Value in protection from extreme events and water flow regulation could increase up to \$370 million by investing in conservation
- Six flood events amassing over a billion dollars in damages each since 1980<sup>2</sup>
- Since 1851, there have been 14 major Mississippi river floods, impacting states along the river like Missouri<sup>3</sup>

#### Aesthetics, Tourism, and Recreation: Missouri's Wetland Forests Provide \$1.9 billion

- Value in aesthetics and recreation could increase up to \$340 million by investing in conservation
- Missouri had 41.7 million visitors in 2016, which contributed \$13.1 billion in visitor spending and supported 307,937 tourism jobs<sup>4</sup>
- Nearly sixty percent of residents participated in wildlife-related recreation, spending \$2.7 billion in 2011<sup>5</sup>

# Water Supply and Waste Treatment: Missouri's Wetland Forests Provide \$1.7 Billion

- Value in water supply and waste treatment could increase up to \$310 million 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 treatment<sup>6</sup>
- Almost twenty percent of residents rely on private water sources like wells. Residents rely on forests to naturally filter pollutants from their water supply<sup>6</sup>

#### Food and Pollination: Missouri's Wetland Forests Provide \$1.1 Billion

- Value in food and pollination could increase up to \$190 million by investing in conservation
- Wetland forests provide habitat for pollinators of agricultural crops
- Over a million residents in the state hunt or fish<sup>5</sup>
- In 2016, hunters purchased over 500,000 deer hunting licenses<sup>7</sup>
- In 2016, hunters harvested over 500,000 ducks and geese within the state<sup>8</sup>

# Regulating Services: Missouri's Wetland Forests Provide \$664 Million

- Value in climate regulation, air quality, soil formation, and erosion control could increase up to \$42 million by investing in conservation
- There are an estimated 17 million megagrams of carbon stored in the state's wetland forests, and continual carbon storage reduces the worst impacts of climate change

# Raw Materials: Missouri's Wetland Forests Provide \$49 Million

• Wetland forests currently provide raw materials worth \$49 million in ecosystem services value, and investing in conservation could increase the worth to \$50 million



There are 141,413,000 megagrams of carbon stored in Missouri wetland forests.



Missouri has 700,000 acres of protected wetland forest (green), with an additional 1,450,000 acres of wetland forest proposed (purple) to be protected.

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