NATURE'S VALUE IN

THE OHIO RIVER BASIN

IMPACT SUMMARY



130.5 MILLION ACRES

in the Ohio River Basin across

14 STATES



69 MILLION ACRES

of natural ecosystems



\$50 BILLION PER YEAR

in ecosystem services benefits, and

\$1.17 TRILLION

over 30 years in benefits

Protecting and restoring natural ecosystems of the Ohio River Basin is essential for long-term resilience and economic success.

The Ohio River Basin (ORB) encompasses portions of 14 states and is home to over 30 million people. It contains over 250,000 miles of streams and rivers, including the Wabash, Allegheny, Monongahela, and Tennessee Rivers. The 981-mile-long Ohio River, the third-longest river in the U.S., provides drinking water for 5 million people. The Ohio River is a working river, moving roughly 200 million tons of barge cargo through 140 river terminals every year.

The Ohio River Basin is heavily polluted but is not designated as a federally protected water system. There are over 200,000 miles of streams in the Ohio River Basin assessed for water quality by the states. Of the assessed streams, about 140,000 stream miles are listed as water quality impaired. The main cause is human activity e.g. farm runoff and wastewater from industrial processes, such as steel production which is laden with mercury. Harmful algal blooms impact the Ohio River at certain times of the year and more persistently in the lakes and reservoirs of the basin. Water quality-related health risks prevent recreation and fishing and 60 aquatic invasive species threaten native species and ecosystems.

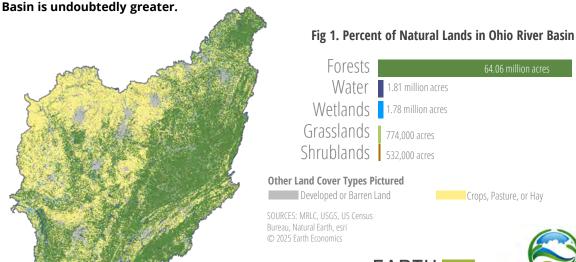
The Ohio River Basin Alliance is a unified voice of a broad coalition of stakeholders and states that recommends strategies and advocates for water resource priorities of the Ohio River Basin. The goal is to build sustainable, healthy ecosystems and river communities with vibrant economies dependent on our 'world class' water resources.

The well-being of every community grows from nature. Healthy ecosystems—forests, wetlands, grasslands, rivers, and lakes—produce streams of benefits to people, known as ecosystem services. These include clean and accessible water, clean air, food, recreational opportunities, and other vital goods and services.

Natural ecosystems also protect us from disasters: wetlands capture and store water during rain events, reducing the damage caused by flooding; trees in urban areas cool communities during heat waves.

Our communities receive these services for free, and so nature's benefits are often ignored in decision-making. Over the past several decades, economists have developed a variety of ways to estimate "non-market" value.

Natural ecosystems in the ORB produce at least \$50 billion in benefits on an annual basis, and \$1.17 trillion in benefits over 30 years at a 2% discount rate. This is a conservative estimate based on a model that estimates a high-level value for a limited set of ecosystem services. The true value of the Ohio River



ECONOMICS

OHIO RIVER BASIN

INDIANA NEW YORK PENNSYLVANIA OHIO 18.95M acres within the basin 1.23M acres within the basin **10M** acres within the basin 18.95M acres within the basin 5.1M natural ecosystem 0.86M natural ecosystem 6.57M natural ecosystem 7.4M natural ecosystem acres within the basin **acres** within the basin **acres** within the basin acres within the basin **\$83.91B** in benefits over 30 **\$265.24B in benefits** over 30 \$51.76B in benefits over 30 **\$99.41B** in **benefits** over 30 years (net present value, "NPV") **MARYLAND** NY **ILLINOIS** 0.27M acres within the basin 7.1M acres within the basin 0.19M natural ecosystem **acres** within the basin 1.51M natural ecosystem acres within the basin **\$1.31B** in benefits over 30 years (net present value, "NPV") **\$38.68B** in benefits over 30 vears (net present value, "NPV") **KENTUCKY** MD 25.03M acres within the basin WEST VIRGINIA 13.71M natural ecosystem 13.22M acres within the basin acres within the basin 11.14M natural ecosystem **\$174.23B** in benefits over 30 **acres** within the basin years (net present value, "NPV") \$29.28B in benefits over 30 years (net present value, "NPV") **TENNESSEE** (Jane 21.52M acres within the basin **VIRGINIA** 13.05M natural ecosystem **4.61M acres** within the basin acres within the basin 3.19M natural ecosystem \$256B in benefits over 30 years **acres** within the basin (net present value, "NPV") **\$17.96B** in benefits over 30 years (net present value, "NPV") MISSISSIPPI 0.27M acres within the basin **NORTH CAROLINA** 0.20M natural ecosystem 3.99M acres within the basin acres within the basin 3.2M natural ecosystem \$4.24B in benefits over 30 years **acres** within the basin (net present value, "NPV") \$83.14B in benefits over 30 years (net present value, "NPV") Non-profit, Earth Economics, has valued ecosystem services for over ALABAMA **GEORGIA** two decades. Their mission is to quantify and value the benefits nature provides. They ensure ecosystem services are included in the 4.37M acres within the basin 0.96M acres within the basin decision-making process at all levels, so communities can mitigate 2.15M natural ecosystem 0.7M natural ecosystem risk, increase resilience, and protect their natural capital wealth. acres within the basin **acres** within the basin In 2024, Earth Economics developed the Ecosystem Services Valuation \$46.79B in benefits over 30 \$18.07B in benefits over 30 Tool (ESVT) for the Land Trust Alliance. The tool values eleven services years (net present value, "NPV") years (net present value, "NPV") across nine ecosystem categories, including wetlands, forests, grasslands, shrublands, rivers, and lakes. SOURCES: US Census Bureau, Natural Earth, esri © 2025 Earth Economics MILES

© 2025 Earth Economics and Ohio River Basin Alliance Funded by the Kresge Foundation.

Reproduction of this publication for educational or other non-commercial purposes is authorized without prior writte permission from the copyright holder provided the source is fully acknowledged. Reproduction of this publication for resale or other commercial purposes is prohibited without prior written permission of the copyright holder.

