# about forests and carbon

#### PROFESSIONAL FOREST MANAGEMENT ENHANCES CARBON CAPTURE

Across the nation and in Indiana, many groups are studying the efficacy of carbon sequestration through conservation of forest lands, reforestation, and carbon farming. Sequestration is a strategy to reduce the amount of carbon dioxide in the atmosphere, which is widely believed to contribute to climate change.

Although some organizations advocate leaving all forests untouched to grow older and increase sequestration, the reality is that professional management of these forests and reforestation are among the most cost-effective climate change mitigation measures.



## **DIVERSE FORESTS ARE BEST**

MANY LANDOWNERS ARE WILLING TO MANAGE MORE ACTIVELY TO CAPTURE MORE CARBON IF GIVEN INCENTIVES.

AT THE SAME TIME, THE BUSINESS SECTOR SEEKS OPPORTUNITIES TO INVEST IN CLIMATE CHANGE MITIGATION.

- Professional management focused on increasing the diversity and ages of tree species enhances the ability for forests to adjust to changes in climate.
- Newly planted trees can be compared to bank accounts that accumulate growing amounts of interest over time. They provide both immediate and long-term benefits.
- Professionally managed, older forests remain healthier, so they can continue to provide carbon capture benefits, otherwise, they begin to capture less carbon with age.
- Wood products made from trees harvested from sustainably managed forests store carbon for the lives of those products. They are an environmentally friendly replacement for more energy intensive and non-renewable materials. The regeneration and improved growth of trees where the harvesting took place can continue to sequester more carbon.



### BEST OPTIONS FOR MAXIMUM CARBON CAPTURE

- Protect the health of existing forests with active professional management.
- Focus on the long-term health of the ecosystem, so short-term strategies do not exacerbate long-term problems.
- Actively regenerate forests by natural regeneration and planting to promote species diversity and age classes.
- Reforest areas where historical forests have been cleared.
- Avoid conversion of existing forests to other land uses.

## FOREST MANAGEMENT IS KEY

- Forest management best practices are powerful tools for responding to climate change.
- Planting trees and conserving forests can help, but unmanaged forests can suffer carbon release caused by deforestation, tree decay and death, forest fires, or decomposition of soil organic matter.
- Professional forest management can prepare forests to better withstand the negative effects of climate change and capture more carbon. Some of these management strategies include periodic timber harvests, controlling invasive species, thinning and tree planting.
- Forest certification ensures accountability, verification, environmental stewardship, and sustainable performance, enhancing the reliability of carbon offsets.
- Professional timber harvesting and management in Indiana does not involve widespread clear cutting that leads to the conversion of the forest to non-forest uses.

PROFESSIONAL FORESTERS UNDERSTAND HOW TO BEST MANAGE FORESTS TO MITIGATE THE NEGATIVE EFFECTS OF CLIMATE IMPACTS. THEY ALSO UNDERSTAND HOW TO MANAGE SIMULTANEOUSLY FOR OTHER IMPORTANT OBJECTIVES, AMONG THEM PROTECTING WATER QUALITY, SUPPORTING WILDLIFE, ENHANCING RECREATION, AND PROVIDING RENEWABLE SOURCES FOR WOOD PRODUCTS.

THEY USE STRATEGIES TO REDUCE THE IMPACT OF DISTURBANCES SUCH AS STORMS, FIRES, DROUGHT, INVASIVE SPECIES, AND INSECT INFESTATIONS THAT WOULD OTHERWISE CAUSE REDUCTIONS IN CARBON STORAGE.

IN Forests Forever is a coalition of wildlife and forestry organizations with a common interest in supporting the health of Indiana's forests and the use of science-based management to sustain and enhance those forests and the wildlife they support. We are committed to increasing public understanding of Indiana's wonderful woodlands, and supporting the use of the most current science and firsthand experience to manage them for the benefit of all.