

REFORESTATION AND COASTAL RESTORATION CASE STUDY

LAKE MAUREPAS AND LAKE SALVADOR, LOUISIANA

PROJECT SUMMARY

This report contained an EcoMetrics analysis of a Restore the Earth Foundation (REF) bald cypress reforestation project in the Lake Maurepas and Lake Salvador areas of the Louisiana coast. The project consists of nearly 26,000 acres in segments of four Wildlife Management Areas (WMA) operated by the Louisiana Department of Wildlife and Fisheries (LDWF). Today, the area is primarily accessible by boat and is a destination for hunting, fishing, birding, and wildlife viewing for people across the state and gulf coastal region.

This area of coastal Louisiana is directly impacted by the state's ongoing coastal land loss crisis and has seen many of the native forested wetlands gradually turn into marsh and open water since the early 20th century. This is largely due to human activities in the region, particularly the construction of a vast network of access canals, predominately for oil and gas companies, which cut into coastal wetlands, facilitating the intrusion of saltwater and degradation of native ecosystems, especially freshwater cypress forest.

PROJECT GOALS

These acres represent an overall REF goal of restoring one million acres of lost forest in the Mississippi Alluvial Valley (MAV). The project involves planting bald cypress trees in coastal marsh areas. The intent is to have the restored forested wetlands stabilize the area and reverse the trend of land loss due to storm erosion and sediment starvation caused by channeling the river. It is believed that the marsh would ultimately disappear and leave the area exposed. Organizations investing in this reforestation effort are interested in the various benefits resulting from this work such as carbon sequestration, water quality improvement, biodiversity enhancement, and a number of other socio-economic benefits.

KEY FINDINGS

- The SROI analysis of the anticipated outcomes for each stakeholder group shows a significant social return associated with the reforestation. **An investment of \$139M creates approximately \$15.3B of net social impact over 40 years**, resulting in an indicative SROI ratio of 110:1.
- **Additionally, \$95M in net direct market value is returned to funders, a direct market return of \$0.68 for every dollar invested.**
- **In sum, with an initial investment of \$139M, the community and funding stakeholders see a return of \$15.4B over 40 years.**
- **The project has generated transactable credits in carbon, water quality, water quantity, and biodiversity.**

Environment

which benefits all stakeholder groups but in ways that are not immediately apparent

Volunteers

who will benefit from the enhanced sense of accomplishment and wellbeing from connection to the project, and will gain an enhanced awareness of the importance of ecosystem restoration

Employed Directly and Indirectly by the Project

including state and federal wildlife managers and local business owners; who benefit from the enhanced business opportunities and job creation.

Government Agencies

who will benefit from the enhanced coastal protection and future savings in storm recovery time and cost

Conservation Organizations

who benefit from the enhanced ecosystem benefits that the projects provide to the broader ecological region

Corporate Sponsors

who will benefit from an enhanced social license to operate in coastal Louisiana, and are assigned the carbon, water quality and quantity offsets for the project

Education and Research

that benefits from opportunities to increase in education programs

Communities Near the Site

including property and land owners; who benefit from improved water and air quality, storm protection, and soil stabilization due to the reforestation as well as those who benefit from an enhanced sense of community pride, the restoration of historical landscapes that can be used for cultural traditions. Also included are recreational users

Distribution of Value-by Outcome

- 26,000 acres historic cypress restoration creates **5,600,000 mt CO2e** offsets
- **8.5 billion gallons/yr** water stored
- **550 tons/yr** of Nitrogen and Phosphorus retained
- Cost for implementation: **\$130 million (2022)**
- **Delivers ~ \$15.4 billion** in market (ROI) & non-market (SROI) value created over 40 years
- **\$1 investment returns \$110** in SROI/ROI
- Provides for Integrated Reporting on a Financial Balance Sheet

