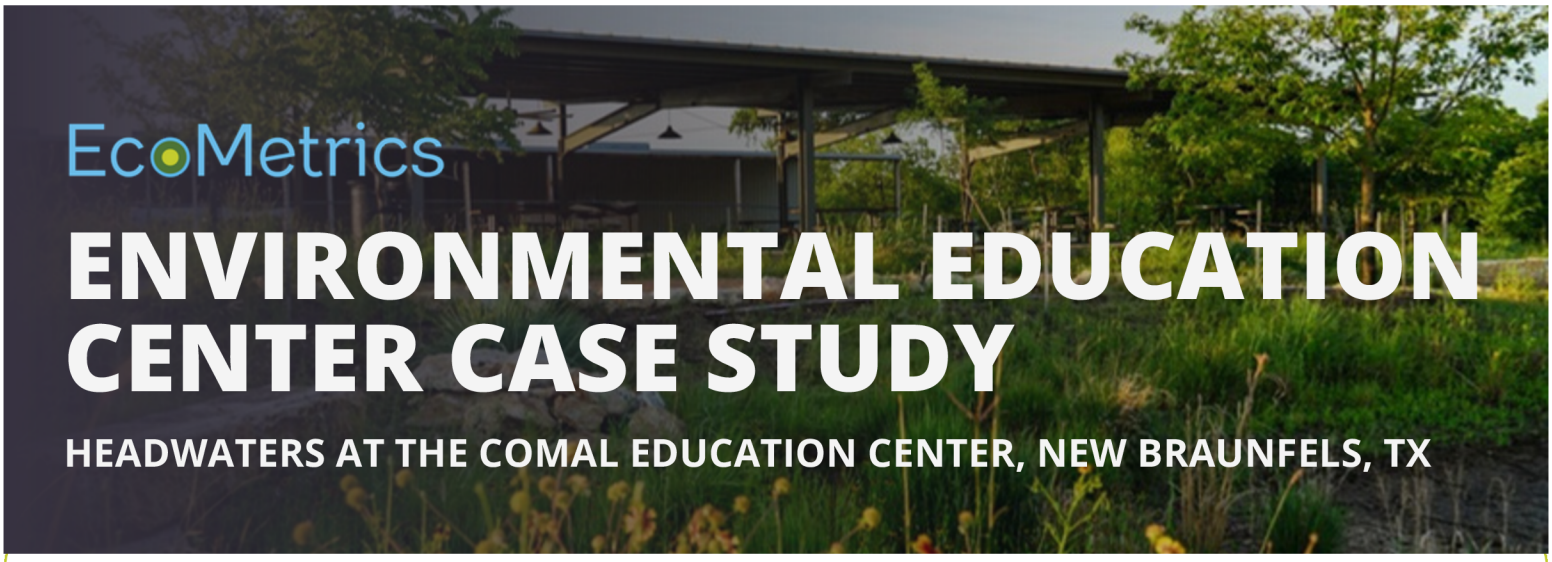

EcoMetrics

ENVIRONMENTAL EDUCATION CENTER CASE STUDY

HEADWATERS AT THE COMAL EDUCATION CENTER, NEW BRAUNFELS, TX

PROJECT SUMMARY

This EcoMetrics analysis summary contains a forecast of the economic, social, and environmental outcomes expected of the Headwaters at the Comal Education Center in New Braunfels, Texas. EcoMetrics identifies, quantifies, and values benefits associated with nature-based solutions. New Braunfels is a city of over 90,000 residents in Comal County, north of the San Antonio Metropolitan Area. The Comal River is the heart and soul of New Braunfels. Headwaters at the Comal's mission is to "strengthen the relationship between the community and nature by showcasing the significance of the Comal Springs. A premier education center inspiring hearts and minds on the importance of conservation to the community." The 16-acre site is on land owned by New Braunfels Utilities (NBU) who utilized it as a maintenance yard from the 1940s until 2004 but has since transferred operation to a non-profit to create a legacy conservation project known as Headwaters at the Comal (Headwaters).

PROJECT GOALS

The Headwaters at the Comal Center and organization has structured its mission and vision around 4 key pillars:

- Create Community
- Educate and Demonstrate
- Partner in Research
- Protect and Conserve

The purpose of the EcoMetrics analysis was to demonstrate that the site would create value for the community in a number of environmental economic, and social outcomes which would result from conservation and restoration instead of developing the site.

KEY FINDINGS

- **Water Quality:** The spring and the Comal River are significantly important to the area and region's water. The protection of the spring site provides an opportunity to enhance and restore the water quality and water balance in the river.
- **General Recreation/Community Value/Physical and Mental Health:** The importance of this site to the community as a natural place of learning, pride, and recreation is reflected in the notable value creation. Evidence of settlement dating back 8000 years was found onsite, proving its value as a local water source.
- **Habitat and Biodiversity:** Restoring the area around the spring protects habitat for key aquatic and land species and allows for a more natural setting in an otherwise urban setting. The Comal Spring is of historical importance in the area as a water supply source, and also serves as habitat for a number of aquatic endangered species.

BENEFITS FOR STAKEHOLDERS

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Environment

due to improved soil formation, erosion control and water retention, water quality improvement (via natural treatment), support of pollinator populations, habitat creation and protection and the biologic control of invasive species

Funder

from enhanced reputation, improved marketing opportunities, and the market value of the carbon sequestered, and the nitrogen and phosphorus retained

Community at Large

(includes adjacent residents and visitors to the Center), from enhanced marketing and outreach opportunities, enhanced reputation and well-being derived from tourism and volunteering, and sense of community pride. Other outcomes include storm flooding protection, air quality improvements, phosphorus and nitrogen retention, carbon sequestration, and cultural, historical and amenity value. In addition, the community benefits widely from enhanced physical and mental health as well as an increased property value

Students and Visitors

for educational purposes, from the value of educational programs and opportunities at the site, and from the future value of educational opportunities such as field trips

Researchers & Academia

from improved earnings from research stipends for enhanced research opportunities in and around the project site

Headwaters of the Comal Center

increased visitors and activities at the center will generate visitor revenue and new sources of grants and donations

VALUE CREATED RELATED TO THE CENTER'S PILLARS

Comal Pillar	Outcomes Sorted by Pillar	Total Value Created (sum of 2022-2024 data)	Projected Value Created in 2030
Create Community	Includes co-benefits such as: general recreation, cultural value, increased community pride, community value, volunteerism value, physical and mental health values, membership dues and wages for the staff	**$136.5M**	**$409.4M**
Educate & Demonstrate	Includes co-benefits such as: educational value, enhanced employment opportunities for interns, master naturalist training value, and scientific education value.	**$1.1M**	**$3.3M**
Partner in Research	Includes co-benefits such as: income from research stipends and citizen science hour value.	**$0.5M**	**$1.4M**
Protect & Conserve	Includes co-benefits such as: erosion control, soil formation, biological control, pollinator support, nitrogen and phosphorus social value and market value, flood protection, air quality, habitat and biodiversity, nutrient cycling, valuing the water resource, etc.	**$5.9M**	**$17.7M**