

St. Edward State Park Environmental Education and Research Center Final Report Executive Summary



Advancing public understanding, connection with nature, scientific understanding and stewardship of Northwest Ecosystems for our youth and families.

The St. Edward Environmental Education and Research Center (EERC) provides a unique opportunity to build upon existing education and research programs in and around St. Edward State Park; to explore and deepen knowledge and understanding of the natural assets of the park; and to tap into a deeply rooted community interest in maintaining a healthy, resilient natural environment within the park.

This report outlines the planning process undertaken to explore program options, potential partnerships, and community support for the an environmental learning center that would be created as part of Daniels Real Estate’s redevelopment of the St. Edward Seminary.

After months of research, public engagement and meetings with partners and other experts in the field, the Planning Team recommends the creation of a teaching center using a student-led mentoring model to facilitate both environmental education and research within the park.

Under this arrangement, a lead university partner would build out education programs within the park, incorporating disciplines beyond basic environmental science and STEM (science, technology, engineering and math), including education, social sciences, and more. Field research in the park would help inform K-12 curricula aligned with Next Generation Science Standards (NGSS) and best practices in FieldSTEM.

The biodiversity and intact forest, wetland, stream and shorefront habitats at the park provide multiple opportunities for K-12 students to engage in authentic field-based science inquiry. A partnership with a research-based institution would provide K-12 students the opportunity to learn about and participate in elements of active research appropriate to their grade band, supported by university students and adult volunteers.

St. Edward EERC Vision

The EERC is a living laboratory where experience transforms learning and stewardship takes root.

St. Edward EERC Mission

To provide integrated environmental education and research experiences to a broad and diverse community, with the purpose of advancing public understanding, connection with nature, scientific knowledge and skills, and stewardship of Pacific Northwest ecosystems.

Community science would be an important element of the EERC program, with teachers, faculty, and students working closely with local community members. Data collected in faculty-led and community-supported research would be shared broadly, including with Washington State Parks, to help inform parks management and habitat restoration. The EERC would also coordinate community volunteer events to maintain and enhance the ecological integrity of the park's natural environment.

The collection and interpretation of data provides an opportunity to create exhibits and materials for display in the EERC and throughout the community about what people are learning in the park, how visitors can explore the park, and how field inquiry is inspiring stewardship.

Environmental education and the STEM-based learning proposed here work best when students are exposed over a period of time to a variety and depth of inquiry and experience. Moreover, when research topics are tied to real-world problem solving, students come away with a sense of empowerment and a deeper understanding. The EERC, in collaboration with larger teaching and research institutions, would provide a full continuum of learning and inquiry opportunities for young people, college students, adult volunteers and other park visitors so that a connection to St. Edward State Park is affirmed and reinforced time and time again.

This report includes program recommendations that detail these opportunities, as well as a five-year business plan offering a start-up path to sustainability through a mix of university support, earned revenue, grants and contributions. Beginning with basic programming and fund development in the first year, the business plan gradually ramps up public outreach, education and community science activity until the fifth year, when a cadre of volunteer docents is providing public programming in the park and coordinating the creation of new outreach materials for park users; when hundreds of K-12 students are engaged in deep, sustained learning the park; and when an active community of volunteer scientists is augmenting and complementing the work of undergraduate students and local faculty.

As the Planning Team discovered during its research, there are numerous benefits to a university-led EERC model:

- ✓ A portfolio of environmental educational programs that reaches a variety of age groups and audiences, unified by a common theme of place-based inquiry;
- ✓ Community engagement that supports the vision, mission, strategic and development plans of Washington State Parks by providing students and community members with a sustained and deeply rooted means of better understanding and exploring their state park;
- ✓ New interpretative materials, targeted to families and general park users, educating them about the natural, historic and cultural resources of the park, bringing to life the ways in which the community is connecting with the park through exploration, learning and science inquiry;
- ✓ Increased community-based efforts to improve and enhance park resources and the visitor experience;

- ✓ K-12 to college educational pathways in natural resource management and other environmental fields; and
- ✓ Standards-aligned FieldSTEM curricula that support Washington state’s increasing emphasis on career-connected learning in Green Economy fields, including natural resources management.

Our research and conversations with the public indicate there is strong support for the concept of the St. Edward EERC as a university-led teaching and research center. Conversations with Washington State Parks and UWB indicate interest in exploring the idea further. This report concludes with the next steps required to advance this idea, beginning with the extension of a formal partnership between Washington State Parks and the University of Washington Bothell to develop the programming, administrative and financial infrastructure necessary to support environmental education and community science at the St. Edward EERC.

Saint Edward EERC: Projected Year Five Targeted Program Outcomes

Education	Community Engagement	Community Research
<ul style="list-style-type: none"> – 750 PreK-12 students participate in science learning experiences – 250 PreK-12 students engaged in the classroom – 20 high school interns participate in field-based mentorship projects – 10 adult volunteers trained to serve as leaders for K-12 learning – 25 educators and undergraduate students annually trained at EERC in field inquiry practices. – Awareness surveys document increase in understanding, and stewardship. 	<ul style="list-style-type: none"> – 500 visitors to EERC both at community events or EERC on-site displays, annually – 100 participants in interpretive tours, annually – Partnership with five organizations to bring youth to the park for introductory experiences. – More than 100 volunteers support restoration work projects and events each year. – Restoration volunteers participate in designing research to support monitoring habitat improvement. 	<ul style="list-style-type: none"> – Four-fold increase in the number of faculty and students utilizing the park for teaching and research. – Four research projects ongoing in the Park, incorporating undergraduate research, community participation and K-12 groups. – At least two data sets in place to inform park management decisions regarding plant and animal species in the park.