
**BULL'S NATURE TRAIL:
USF FOREST PRESERVE
BOARDWALK
INITIATIVE**



TEAM



Grace-Ann Aarons

Project Lead Intern



Leila

Programs Assistant-
ECORE System



Nicole Brand

Director of
Conservation and
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Jason Gosch

Associate Director-
USF Outdoor REC

ABOUT US

The Bull's Nature Trail boardwalk project is a collaborative effort between USF's ECORE and Outdoor Recreation, the supporting partners for Grace-Ann and Leila. Our team is comprised of dedicated USF faculty, staff, and students, including Dr. Craig Huegel, Head Curator (USF Botanical Gardens), all committed to environmental preservation and sustainable development. By combining expertise from diverse fields, we are working together to ensure the successful completion of the boardwalk, by enhancing access to the USF Forest Preserve while preserving its natural beauty.

Objectives

Primary objective is to support USF's target of achieving a 20% reduction in carbon emissions by 2025.

- Develop a half-mile boardwalk within the USF Forest Preserve and Ecological Area.
- Enhance sustainability by improve accessibility, creating pedestrian-friendly infrastructure that reduces vehicle reliance.
- Promote environmental education, research, and community recreation.



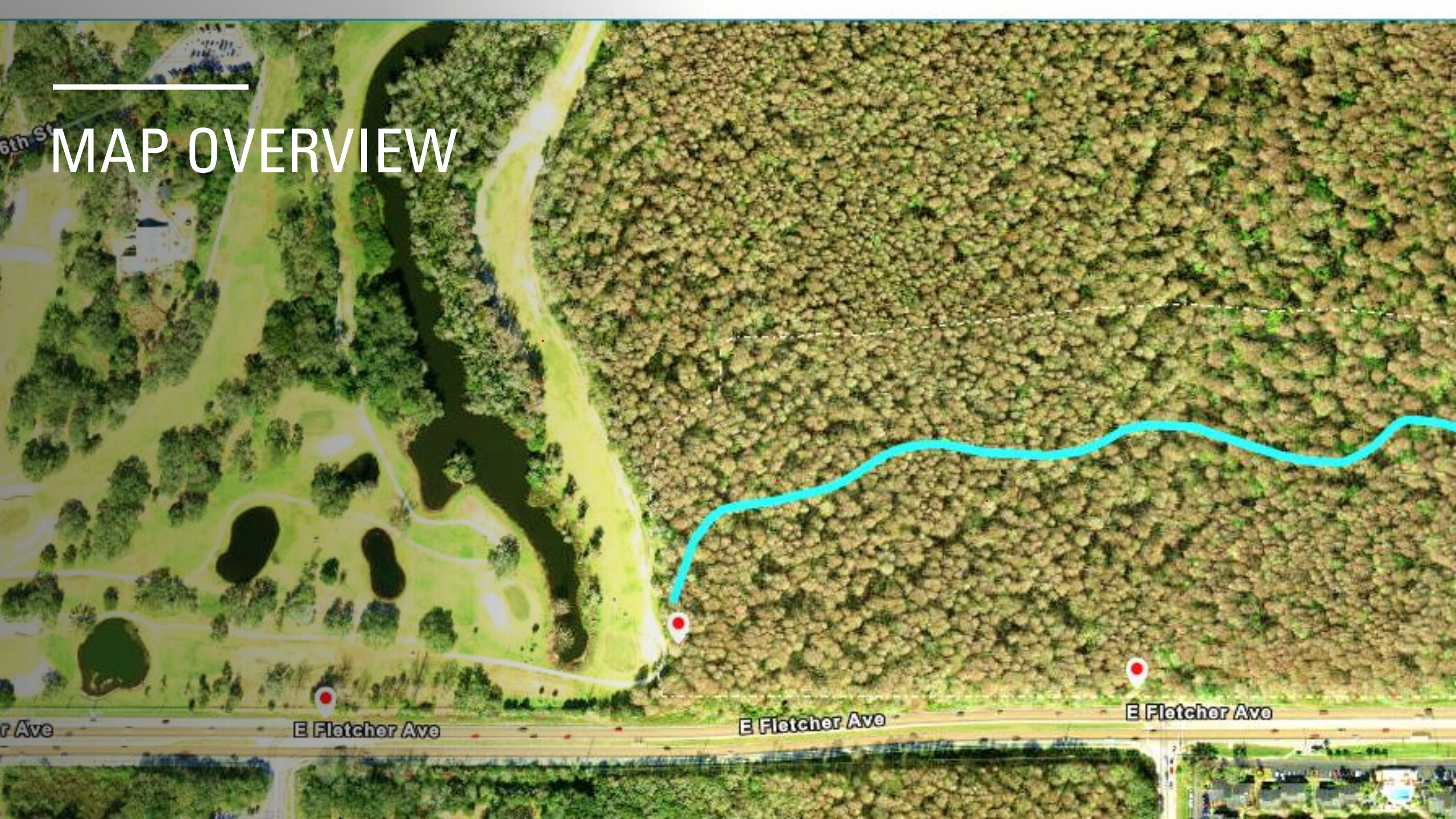
PROJECT OVERVIEW

- Location: Western edge of the USF Forest Preserve, 1.5 miles east of the main campus.
- Boardwalk length: Estimated 2,700 linear feet.
- Connection to existing sidewalks and trails near Claw Golf Course and Riverfront Park.
- Phased 1 approach for completion, with long-term goal to establish a research class/lab and center.

Providing an accessible, pedestrian-friendly route connecting the campus with the preserve and the park



MAP OVERVIEW



MAP OVERVIEW

The Claw
at USF

11 Clubhouse
Operations
Building

Seventeen MI Run

Sevente

E Fletcher Ave

E Fletcher Ave

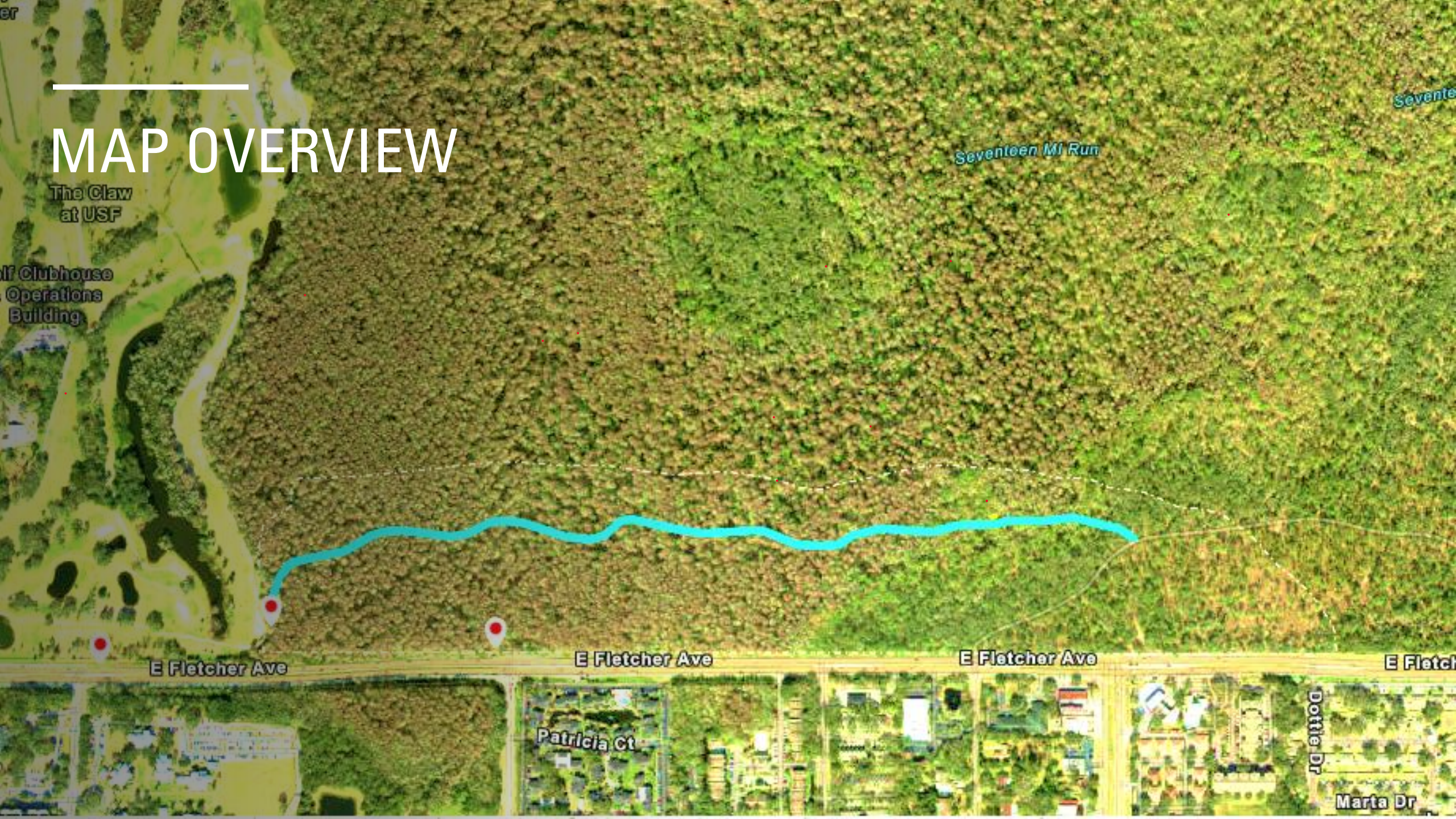
E Fletcher Ave

E Fletch

Patricia Ct

Dottie Dr

Marta Dr



PROBLEMS



Limited Accessibility: Difficult to access, despite their proximity to campus. Restricts student and community engagement with the natural environment.



Lack of Pedestrian Infrastructure: No pedestrian-friendly route, leading to over-reliance on personal vehicles, which contradicts USF's climate action goals.



Underutilization of Natural Resources: The Forest Preserve's educational and research potential is underused. Limiting opportunities for hands-on learning and field studies.



Environmental Awareness Gaps: Students and community members have limited exposure to the unique ecosystems within the preserve, reducing awareness of conservation efforts and environmental stewardship.



Threats to Habitat Conservation: The risk of habitats being overlooked or even endangered by future development, undermining its ecological value.



Disconnect from Climate Action Goals: The lack of sustainable infrastructure to access the preserve hinders the university's efforts to reduce its carbon footprint and promote sustainable transportation as part of its Climate Action Plan.



POSITIVE ENVIRONMENTAL IMPACT

- Preservation of sandhill uplands and wetland habitats.
- Protection of biodiversity, including hundreds of protected plant species and wildlife.
- Contribution to carbon sequestration efforts by maintaining forested areas.
- Reduced reliance on motor vehicles by encouraging walking to the preserve.
- Enhances environmental awareness and education through interactive, hands-on learning for students and the community.

GROWTH SUCCESS

Enhanced Educational Programs & Research Opportunities



Community Engagement



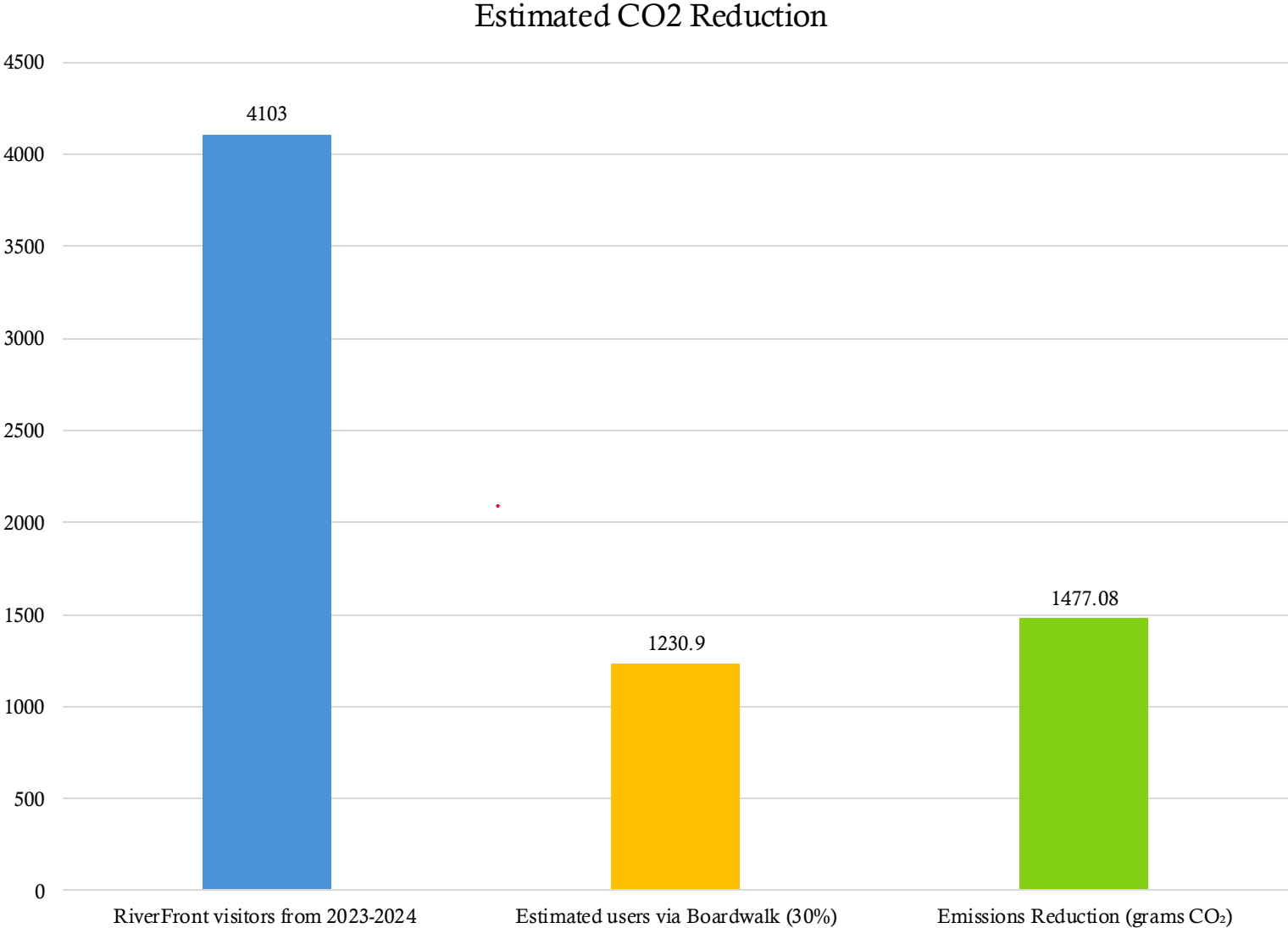
Carbon Footprint Reduction



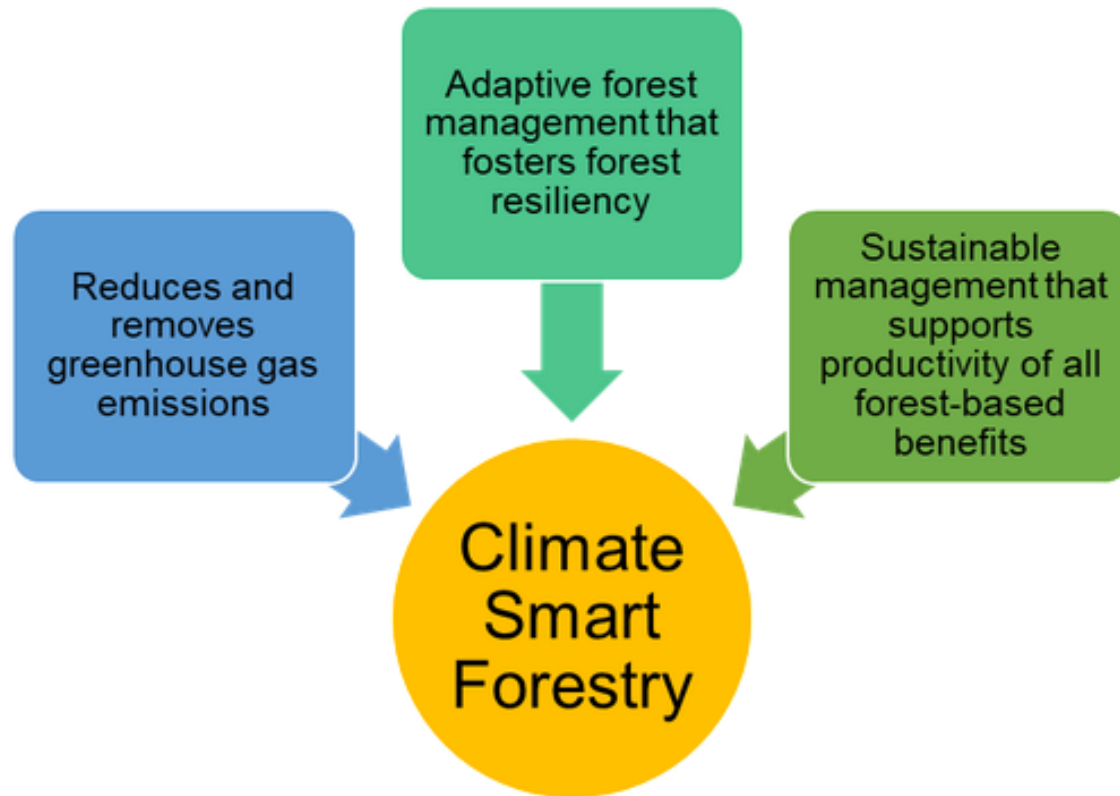
Institutional Recognition and Reputation

ESTIMATE BREAKDOWN

- **CO2 emissions per mile:** 400 grams (0.4 kg) of CO2 per mile.
- **Distance from campus to Riverfront Park:** 1.5 miles each way (3 miles round trip).
- **Annual Attendance:** 4,103 people attended Riverfront Park events (boating or special USF REC events) in the 2023-2024 academic year.
- **Boardwalk usage:** 30% of the 4,103 attendees (approximately 1,231 people) will walk using the boardwalk instead of driving.
- **We save 1.48 metric tons of CO2** annually.



CLIMATE SMART FORESTRY

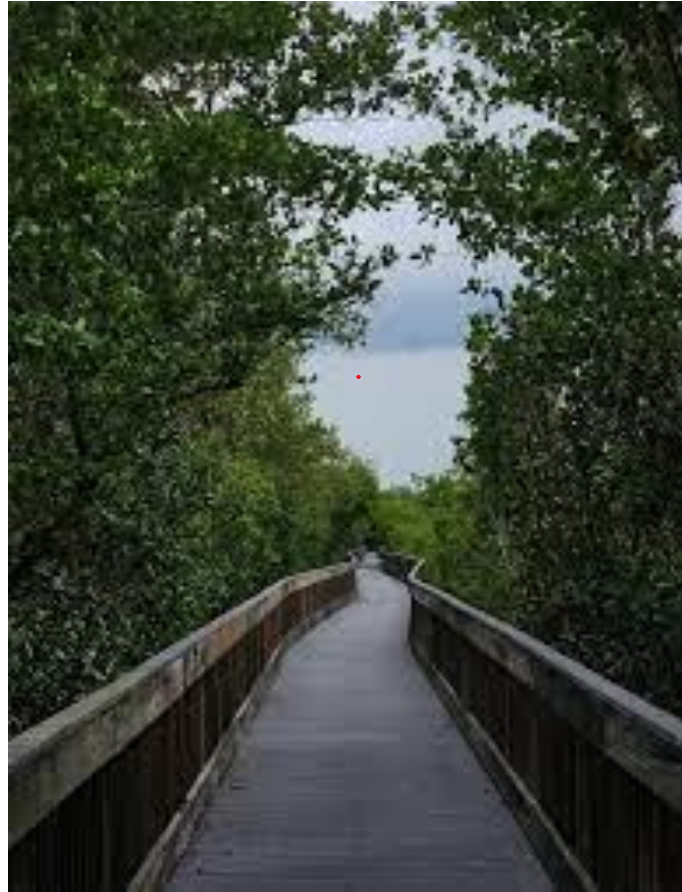


- **Climate Smart Forest** is a strategy that integrates forest management practices to enhance carbon sequestration, foster resilience against climate impacts, and improve ecosystem health.

- [CSF source](#)

WEEDON ISLAND PRESERVE

- **Weedon Island Preserve (Pinellas County):** With 3,000 acres of managed natural space, this preserve balances public access with conservation, using boardwalks to guide visitors through diverse ecosystems.
- Our boardwalk will also provide controlled access to USF's sandhill uplands and hardwood swamps, reducing foot traffic in sensitive areas, preventing soil compaction, and fostering a balance between public enjoyment and habitat protection.



METHODOLOGY

- **Sustainable Design:**

- Use materials and construction techniques that minimize environmental impact, such as elevated structures to allow for natural water flow and wildlife movement.
- Design the boardwalk to follow natural contours and high points to reduce soil disturbance and the need for extensive foundations.

- **Environmental Monitoring:**

- Implement a monitoring program to track the impact of the boardwalk on local flora and fauna. Adjust management practices as needed to mitigate any negative effects.

- **Community Engagement:**

- Involve local communities and stakeholders in the planning and monitoring process. Educational programs can help visitors understand the importance of preserving the sandhill ecosystem.

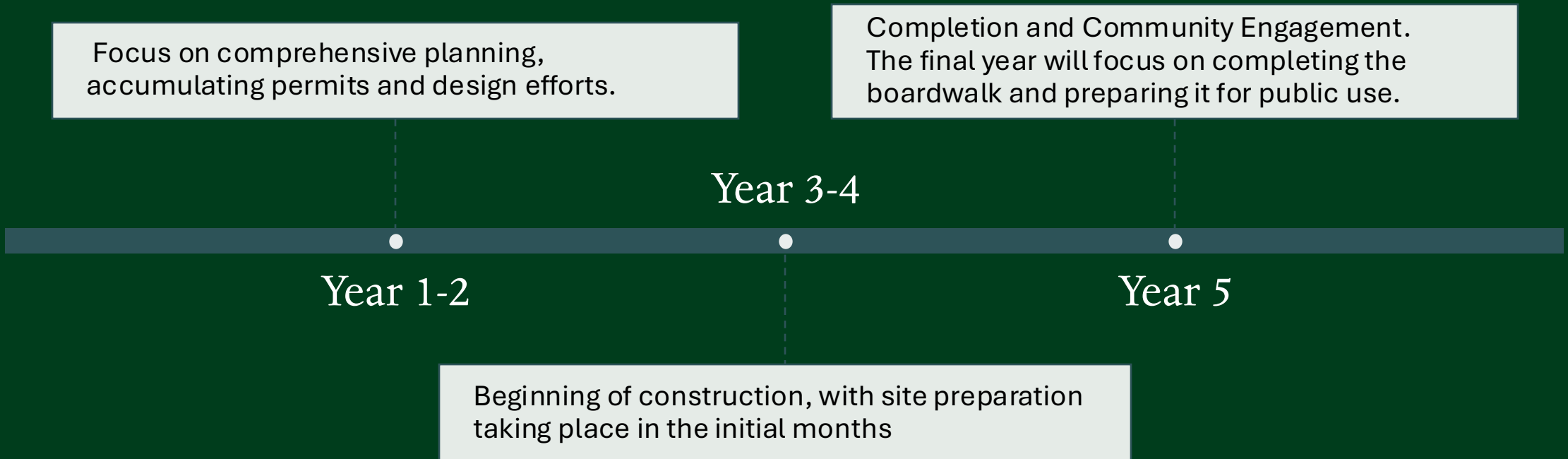
- **Regulatory Compliance:**

- Ensure that all construction and operational activities comply with local, state, and federal environmental regulations, including obtaining necessary permits and conducting required environmental assessments.
- Minimize environmental disturbance
- Construction should be designed to protect these plants and animals. For example, if a boardwalk is replaced and dunes are damaged, they must be restored.
- Using top down Construction method

PHASE 1 ANTICIPATED BUDGET

	Year 1	Year 2	Year 3
Budget Estimate			
DRMP Preliminary Engineering Report:	47,954.80		
Student OPS	\$2,600		
Administrative Fees	\$3,033		
Total	\$53,587		

Timeline



THANK YOU!

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