EDUCATION & OUTREACH

Gambles Mill Corridor Restoration | Earth Lodge 2016-1017

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Abstract

The Gambles Mill Corridor is 0.4 mile long trail that begins behind the steam plant on University of Richmond's campus and runs between the Little Westham Creek and Country Club of Virginia Golf Course to the River Road shopping center. The steam plant was built in 1914 and, until our conversion to natural gas in 2011, used coal to generate energy. During that time, the Gambles Mill Corridor was used as a service road to transport coal to the power plant. Since, it has fallen into a state of neglect and disrepair. Although overgrown and unsightly in areas, the trail retains significant potential to become a well-loved outdoor classroom and community space. The goal of this proposal is to provide a thoroughly researched, student perspective on how the school can do so effectively and sustainably. This paper will outline how we plan to encourage higher usage of the trail, stimulate community engagement, and educate those who use the trail through a series of education and outreach initiatives, including maps of the corridor, signs and light fixtures, a website and informational video, engagement with on-campus student organizations, and a grand opening event to showcase the renovated corridor. We have also compiled student feedback on what would incentivize them to use the trail.

Table of Contents

INTRODUCTION

The University of Richmond's 2011 Master Plan emphasizes the idea of "creating new, and enhancing existing social and intellectual spaces for gathering and study outside of residences and classrooms" (Ayers, 2011). To this end, we propose an education and outreach strategy that considers its audience to be all members of the Richmond community, not simply those who have preexisting ties to the project through the sustainability or science departments. We have observed the success of the signage around the Westhampton lake, and hope to translate their creators' efforts to transform the Gambles Mill Corridor into an interdisciplinary space that is available and relevant to students across schools, majors, and interests. With this approach, coupled with outreach and engagement efforts such as a website and educational video, we believe the Gambles Mill Corridor will actualize its potential to connect students with nature, each other, and the community.

TRAIL MAPS

We created two trail maps to orient trail users within their surroundings and to clarify the proposed locations of the signs we designed. We hope that the former incentivizes students to explore the areas directly off campus, such as the River Road shopping center and the James River.

figure 1. map of area surrounding the trail

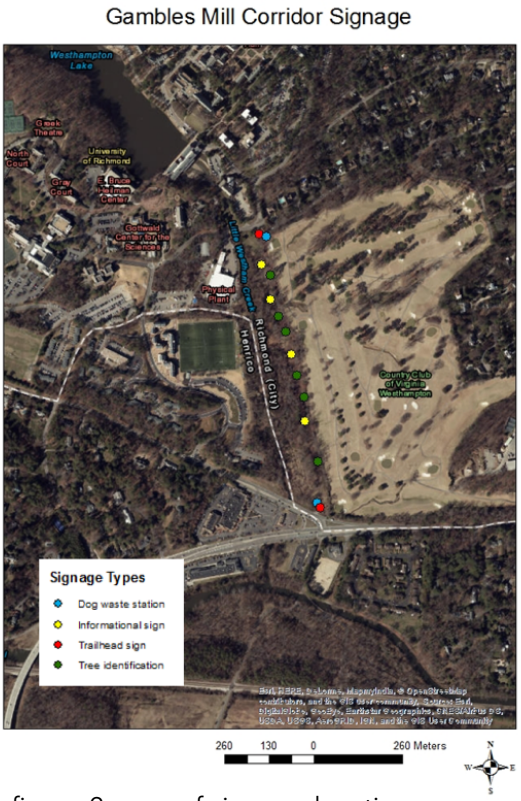


figure 2. map of signage locations

SIGNAGE

In the pursuit of transforming the Gambles Mill Corridor into an outdoor classroom, we developed trail signs to encourage interaction and provide educational opportunities for adults, students, and children alike. In *Lessons from US Fossil Parks for Effective Informal Science Education*, Clary and Wandersee make the distinction between "appreciation of a geological site" and "facilitated visitor understanding." The former is enhanced by the aesthetics of the information presented and an emphasis on the area's uniqueness. We applied this philosophy while developing the history sign. The latter is a deeper level of interaction between person and place, and is brought about when learners take the information given to them and make connections to their preexisting knowledge. We followed this paradigm in developing the watershed sign. In doing so, we hope to provide trail users of all ages with the opportunity to meaningfully interpret and interact with their surroundings.

Trailhead Signs

The trailhead signs contain a map of the Gambles Mill Corridor and general information about the trail. From a survey of the student body, we received feedback that even those who used the trail regularly were not aware of its title. We hope this sign, prominently placed both on campus and on River Road, will publicize and make common knowledge the corridor's name and set the tone for the trail being a fun, educational space.

The Office of Sustainability's Community Garden

Benefits of Organic Vegetable Gardening

- Grow healthy, fresh, and nutritious food with your own hands
- Eat better and enjoy getting exercise outside
- Save money
- Promote and support a healthy ecology
- Limit pesticide pollution and fertilizer run-off in local river systems
- Learn and discover the science of botany
- Enjoy time with family and friends while developing community

Important Reminders for Gardeners

- Please remember to close the gate when you leave the garden. We ask that you be sure to not lock anyone inside. Deer could quickly destroy the garden.
- Please return hoses to the hooks after you have finished. watering. Please do not use any automatic sprinkler systems.
- The compost located at the far end of the garden is available for use.

Lists obtained from the Office of Sustainability's website

Request to join the UR Community Garden's Facebook group

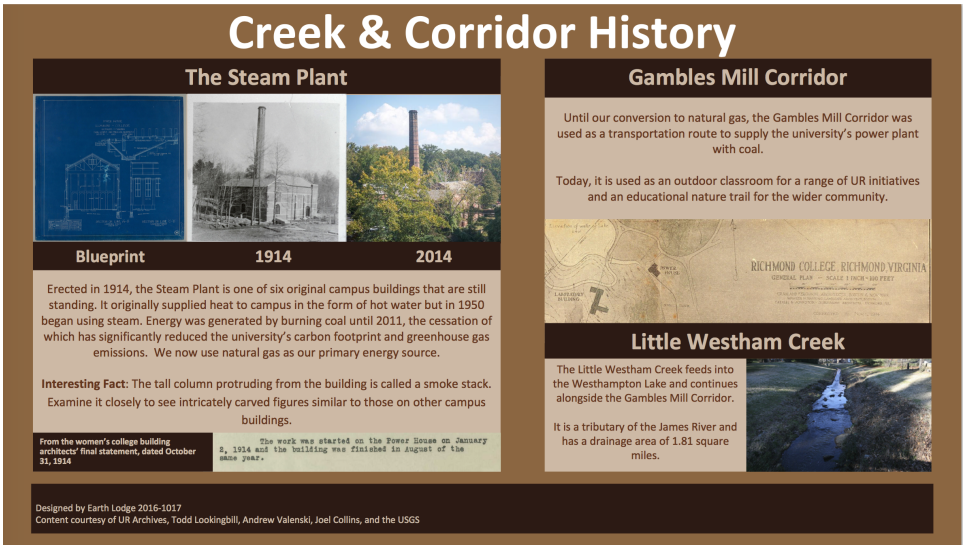
Recommended Planting Dates

Designed by Earth Lodge 2016-1017
Content courtesy of UR's Office of Sustainability and Todd Lookingbill

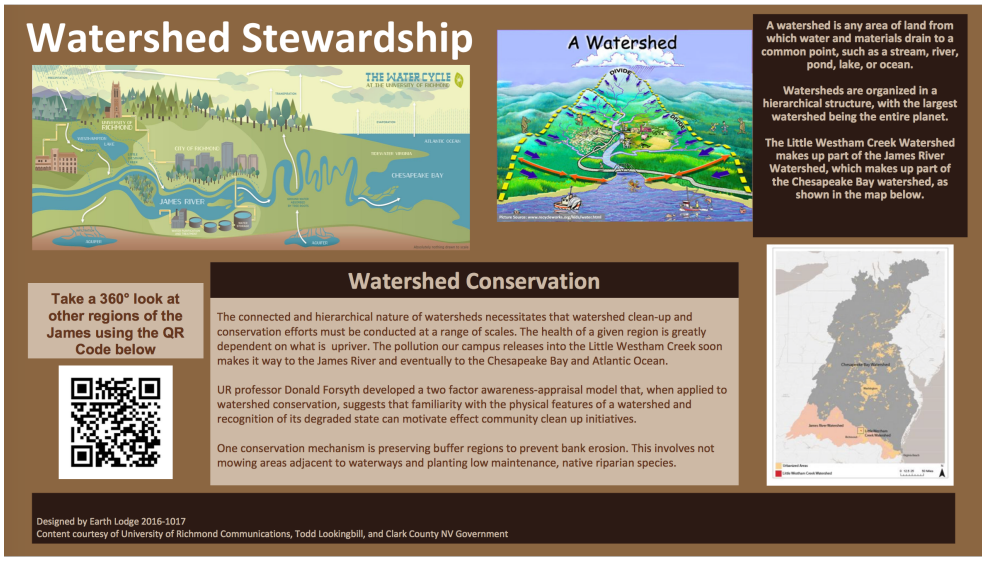
The community garden (left) holds a unique potential to provide students with the opportunity to connect outside the classroom, develop a green thumb, improve their health, and meet community members. However, it is currently not widely known around campus nor in the greater community. Thus, we provided both the benefits of and ways to get involved in organic community gardening all of which are provided by the UR Office of Sustainability.

History

As the Corridor is a relatively unknown part of campus, it is important to educate trail-goers on why this trail is here and what its significance has been and is to campus. We also took this opportunity to advertise the UR Archives.



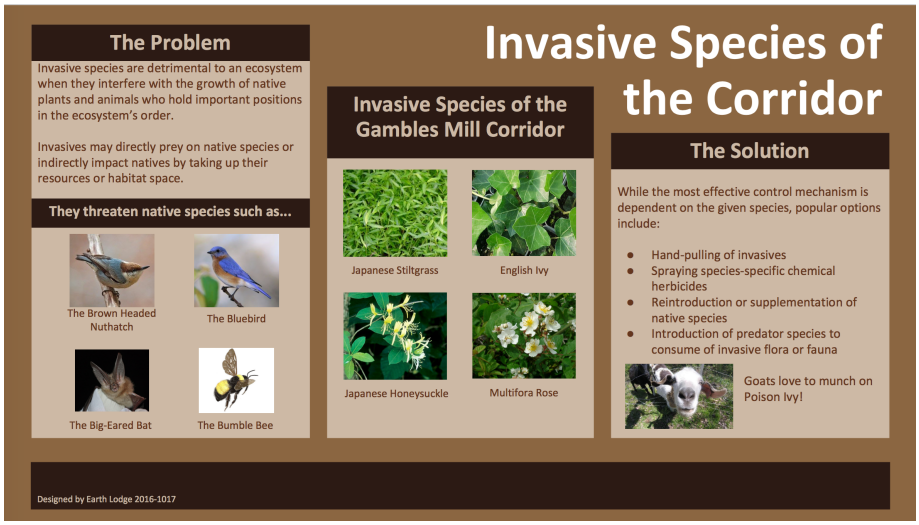
Watershed Stewardship



According to the article "Watershed Pollution and Preservation: The Awareness Appraisal Model of Environmentally Positive Intentions and Behaviors," the average citizen does not what the word "watershed" even means (Forsyth 2004). The Little Westham Creek Watershed is a part of the James River Watershed, which flows into the Chesapeake Bay Watershed. Therefore, the pollution released here--on the University of Richmond campus--into Little Westham Creek, slowly makes it way into the James River and beyond to the watershed that is the entire planet, of which 71% is water. In this way, the environmental impacts of our actions do not stop at an imaginary boundary; the surrounding places and regions are connected, and our daily actions have long-lasting, ripple effects that we cannot definitively predict nor reverse. Thus, it is imperative that we prevent as much pollution as possible.

Invasive Species

This sign has a dual purpose of informing trail-users of the problem invasive species pose and presenting them with the benefits of invasive species removal. We also included appropriate methods of removing invasives in case that information is of interest or use to readers.

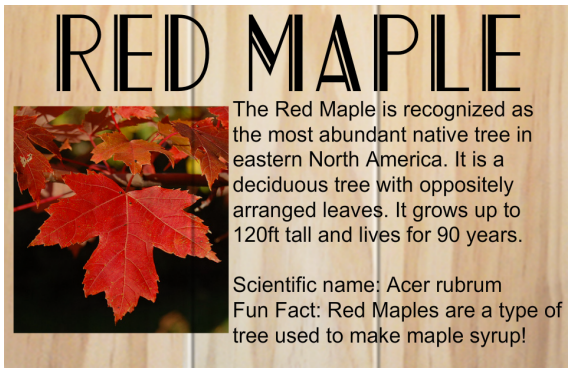


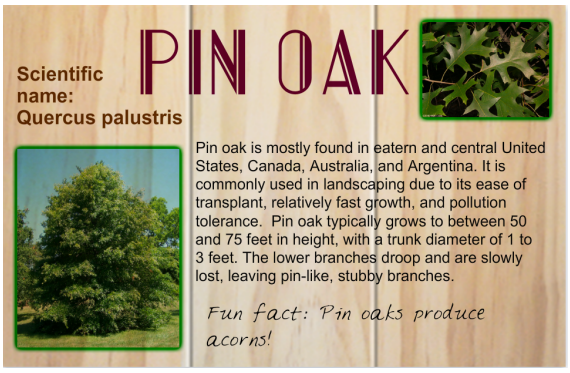
Pet Waste

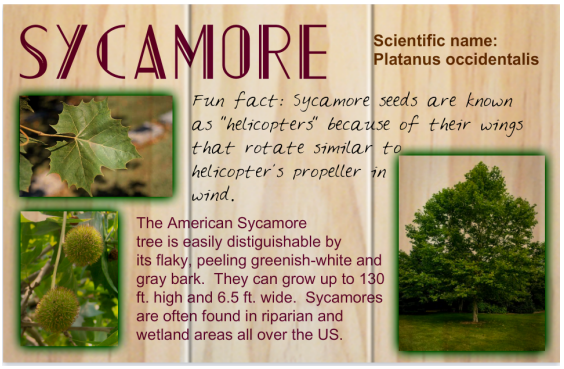
There will be two signs explaining the dangers of pet waste accompanying receptacle stations near both entrances of the trail. This is a critical inclusion because pet waste has a large impact on the surrounding environment, especially to bodies of water. The Gambles Mill Corridor runs parallel to Little Westham Creek, which feeds into the James River. If pet waste is left on the ground, it easily makes its way into waterways in the form of runoff and groundwater. Pet waste contains high levels of nutrients such as nitrogen and phosphorus that stimulate blooms in aquatic algae populations. This lowers dissolved oxygen levels in the water and decreases the amount of sunlight that penetrates the water surface, making it very hard for species to survive (Stormwater Center). According to the State of the James, levels of phosphorus levels have been steadily declining.In encouraging community usage of the trail, we must be sure to remind people of proper environmental practices so as to not counteract our sustainability efforts nor those of the JRA.

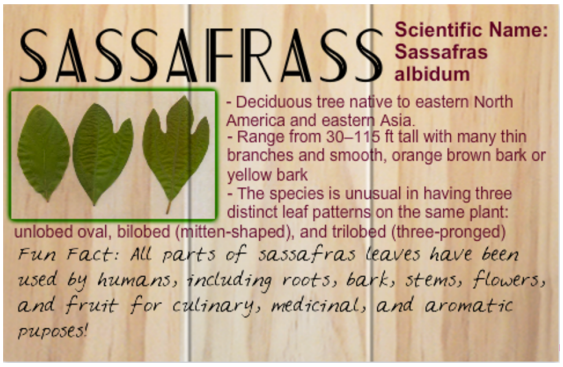
Tree Identification Signs

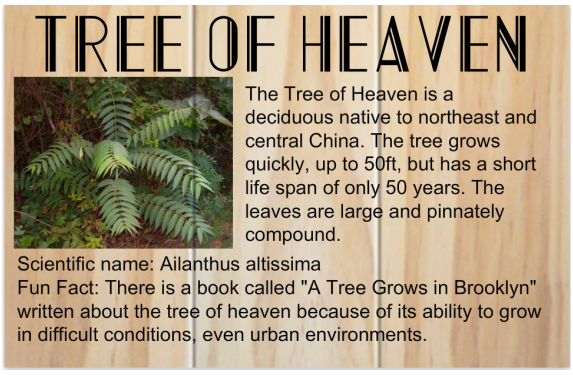
We designed a series of tree identification signs to educate users on seven of the most commons tree species along the trail: the Red Maple, Sycamore, Mimosa, Sassafras, Tree of Heaven, Pin Oak, and the American Sweetgum. We decided to include two invasives to emphasize their prevalence along the corridor. Even though they may be removed in the future, they are inherently part of the Gambles Mill Corridor. Each sign will be printed on a 16.5 inch by 10.5 inch plaque of wood. For seven signs at $69 per sign, the total cost of the tree identification signs will be roughly $500. The information on each sign includes the scientific name, a brief description of the tree, a fun fact, and pictures of the tree. One of the fun facts included is that the mimosa tree is able to fold its leaves to deter predators!











COMMUNITY ENGAGEMENT

Student Body

We surveyed the student body to gage their level of familiarity with the corridor. The survey confirmed our expectation that the knowledge of the corridor is very low on campus (figure 3). One respondent commented, “I never knew the name but I actually use it all the time to run! A nice path without the puddles and sitting water would be great.” These emphasize the need for both a prominent trailhead sign, a well advertised grand opening, and incorporation of the trail into a range of disciplines to increase awareness. Additionally, we asked students what would motivate them to use the trail and got a wide range of responses, many of which our class has incorporated into our proposal. These include “better signage,” “a running path,” and “flat pavement.” They also introduced new ideas such as water fountains, benches, picnic tables, and mile markers for runners. Overall, excitement levels with regards to the trail appear high. One student responded, “I didn't know this existed! I wish I was told about this my freshman year. Water fountains and trash cans could be useful, maybe a map for students to take? As a freshman I was so excited to explore but had no car - this would have been a cool thing to check out.”

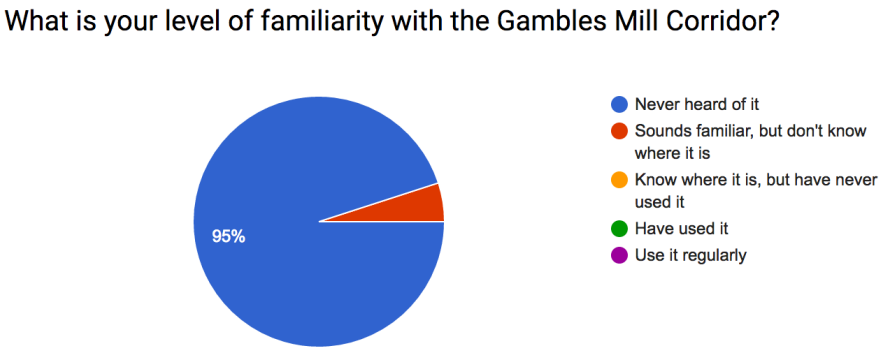


figure 3. student survey results

Additionally, we hope to collaborate with a wide range of academic departments and student groups to reinforce the multidisciplinary relevance of the trail. Ways different student groups can get involved include:

Earth Lodge: We imagine that Earth Lodge will continue to oversee all aspects of the trail development and encourage the engagement of other student groups.

Sustainability Advocates: They can act as consultants for the corridor contractors while also learning from professionals.

Greeks Going Green: This club organizes weekly sustainability competitions for members of the greek community. We could suggest they implement an activity that involves usage or maintenance of the trail.

American Marketing Association: They could continue to develop and help see through community outreach and student engagement campaigns.

Center for Civic Engagement: They could encourage students to perform invasive removal and trash clean up along the trail.

Center for Student Involvement: In the same way that students can rent out video games, they should be able to rent out gardening tools.

GreenUR and Geography club should also be contacted about possible contributions.

Community Members

We found that community members are slightly more aware of the trail than are students (figure 4). As the trail also serves to greatly benefit them, we propose close collaboration with the surrounding community groups such as the Westhampton Citizens Association. The only comment we received from the community member survey was with regards to the corridor's status as a bike trail. Thus, when marketing to community members we should emphasize that aspect of the corridor's functionality.

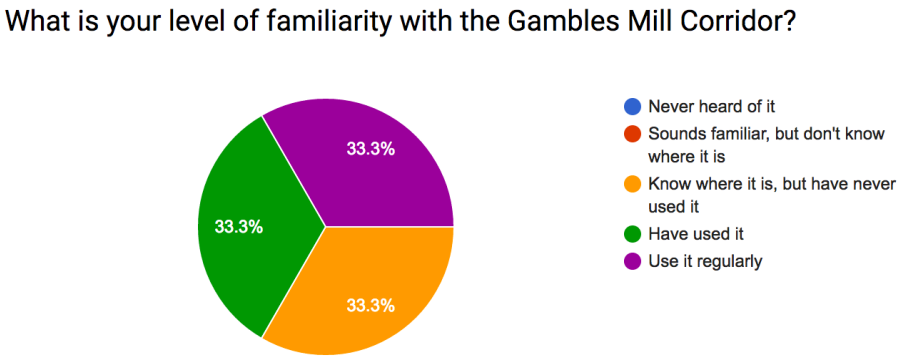


figure 4. community responses to survey

River Rd Shopping Center

We included the River Road shopping center on the Surrounding Area map featured on the trailhead sign in the hopes of encouraging students to use the trail as a connector to shops such as Starbucks. In this pursuit, we propose the school contact select business to set up student discounts.

Grand Opening & 5k

We propose the school host a grand opening for the trail, complete with a fun run or 5k that begins and ends at the corridor entrance. The day could include invasive species removal instruction, guided nature walks, and community garden demonstrations.

Website

In a meeting with Cassandra Collins in the Office of Sustainability, plans have been made to include information about the corridor to the current Sustainability website. On the webpage, we will be including the following: location of the corridor, history, renovation information, and its importance to the environment, campus, and community. The website will also include our promotional video as well as additional links to important projects on the corridor. This information will be added once the renovations are finalized.

Educational Video

We created an educational video that summarizes the history of the trail and our current renovation efforts. It can be circulated around the student body and to community members to increase knowledge of and excitement for the trail. The video is on the outreach page of the website, assessable through the QR code to the right, and available at the following link: https://vimeo.com/213698281.

CONCLUSION

Overall, the Gambles Mill Corridor holds the potential to be a welcoming destination for students, teachers, and community members alike to learn about their surroundings while interacting with the natural environment. We believe the first priority for education should be installing the signs and for outreach increasing trail awareness on campus through social media efforts. Challenges to implementing our proposal may include the extent to which the landscape will shift during renovations. However, we have designed the signs to be applicable regardless of location along the trail.

In conclusion, we believe these efforts will produce a community space in which students can relax, learn, and connect, all the while reaffirming the University's commitment to sustainability.

ACKNOWLEDGEMENTS

We would like to extend our gratitude to several University of Richmond faculty members and students who allowed us to speak with them about our proposed project: Cassandra Collins (Communications Coordinator), Rob Andrejewski (Director of Sustainability), Andy Bennett (executive secretary of the Westhampton Citizens Association), Don Edmonds (student), and Natalie Somerville (student). We would also like to thank our professor Dr. Todd Lookingbill for his support and guidance with this project.

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