

The Ohio State University
Campus as a Living Laboratory

The Wilma H. Schiermeier Olentangy River Wetland Research Park: Community Involvement

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Executive Summary

This paper discusses the importance of the Wilma H. Schiermeier Wetland Research Park to The Ohio State University and the College of Food, Agricultural and Environmental Sciences. This wetland facility faces a variety of problems and the main focus of this paper is solutions to the lack of student involvement and interest in the wetland facility. To solve this problem a student organization will be established and will be affiliated with the Wetland Research Park. This student organization will organize volunteers who will maintain and preserve the wetlands. In addition to the organization of student volunteering, our solution will provide tools to monitor the wetland. The organization will also be actively involved in increasing the exposure of the wetlands to all OSU students. This opportunity will allow more students to learn about the benefits of wetland ecosystems. Utilizing volunteers can also temper maintenance costs.

Our research also gives examples of other universities with wetlands or research parks similar to the facility at Ohio State University as well as student organizations that are affiliated with wetlands. This plan also discusses why Ohio State's facility is considered to be superior to the other university wetlands. Ohio State officials and students need to know why this wetland research park is worthy of attention and volunteer hours, and how they can participate in such activities. Additionally, this paper addresses possible solutions and recommendations regarding Sasaki's final plans to move the CFAES campus to main campus and how the Wetland Research Park can be influential in this move. The importance of this wetland is crucial and students *should* be interested in this facility.

Introduction

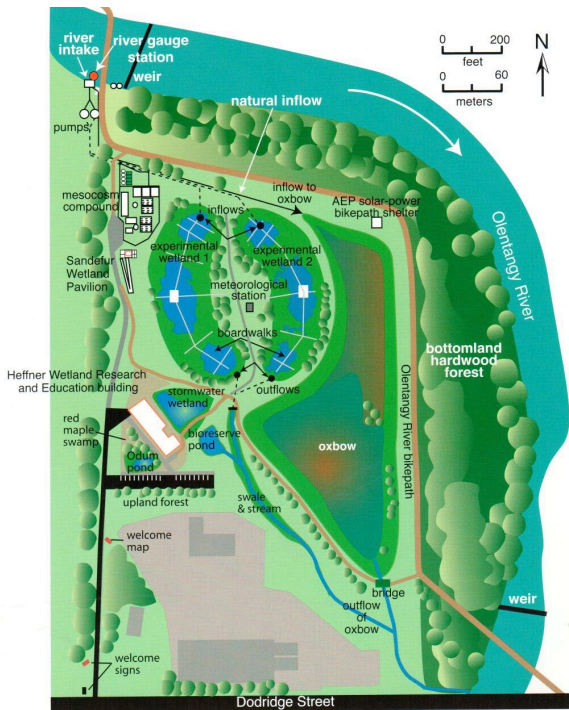
The Ohio State University's School of Environment and Natural Resources assists and participates in managing the Wilma H. Schiermeier Olentangy River Wetland Research Park. This is a 52-acre urban wetland research park has four different areas that make up the region. It contains an oxbow wetland, two experimental wetland basins, a bottomland hardwood forest, and a mesocosm compound (SENR, 2013). Located at the center of this park is the Heffner Teaching and Research Building. It contains a teaching laboratory as well as one wet laboratory and one classroom. The classroom can hold 65 students, and a typical teaching lab can hold about 25 students. The Ohio State University's Wetland Research Park (OSU WRP) is a unique asset that a majority of Ohio State students are unaware of. According to a survey conducted by

our group, 66% of undergraduate students surveyed are unaware that Ohio State has a Wetland Research Park. Due to the lack of knowledge, many students haven't taken advantage of its resources. The lack of participation in the form of volunteering and research at the site is a missed opportunity and underscores that the OSU WRP is an underappreciated asset. This park can provide many learning opportunities for students.

Our research suggests that there is significant interest in volunteering at the park but there are too few ways to participate. By establishing a student organization, several activities would be organized to increase opportunities for involvement that would benefit students. According to Dr. Alexander Astin "a highly involved student is one who, for example, devotes considerable energy to studying, spends much time on campus, participates actively in student organizations, and interacts frequently with faculty members and other students. Conversely, a typical uninvolved student neglects studies, spends little time on campus, abstains from extracurricular activities, and has infrequent contact with faculty members or other students" (Astin, 1999). Similar programs have been successful elsewhere. For example, Louisiana State University is currently having success with students volunteering at nearby wetlands even though they don't have their own wetland research park affiliated with the campus (Stroud, 2008). LSU students and faculty work closely with K-12 students on maintaining local wetlands. Through a personal email, Molly Reid of LSU stated that, "over the past five years we've seen an increase [in participation] of 12 area school districts as well as a large percentage of college students."

Our research concluded that student organizations and volunteers at wetland facilities are highly beneficial. According to the Environmental Protection Agency, "the involvement of volunteers in ecological monitoring programs is a realistic, cost-effective, and beneficial way to obtain important information which might otherwise be unavailable due to lack of resources at government agencies" (Involvement of Volunteers in Wetland Monitoring, 2012). Throughout our research, our group has corresponded with Lynn McCready (OSU WRP Director) about how to increase involvement at the wetland facility. She has stated that increased involvement at the wetlands is a priority and it also fits in well with Sasaki's Master Plan of moving the College of Food, Agriculture and Environmental Sciences over to main campus because it would increase awareness about the facility, and therefore create more student interest in the college. The most difficult obstacle ahead for Sasaki and CFAES decision makers is the lack of student

involvement at the wetlands. This can be resolved through creating a student organization to arrange volunteer activities and promote the wetlands.



Ohio State Wetland Research Park

How this relates to Sasaki’s Master Plan

Sasaki’s master plan of moving the CFAES campus will result an increase of exposure to the College by building it closer to main campus. Involving as many students as possible with the OSU WRP will assist Sasaki by highlighting another aspect of CFAES. Increasing student involvement at the research park will show students a unique facility that few universities in the United States posses. Increased involvement will further connect CFAES and SENR to the rest of main campus. An increase in involvement will draw students to the Olentangy River and give CFAES larger prominence on the western and northern areas of campus. This along with the completion of the Olentangy River restoration project will extend environmental education to a considerable part of campus.

Discovery Themes

The CFAES Master Plan includes the following Discovery Themes that relate to our solution. The master plan incorporates Health and Wellness, Food Safety and Security, and

Energy and the Environment. Our topic pertains mainly to the Energy and Environment discovery theme. These discovery themes were created in 2012 when members of the Ohio State community examined the role that the university plays in correcting the world's most tenacious issues. The three themes were decided on as long-term goals of the university through teaching, research, and engagement.

Regarding Energy and Environment, wetlands are fascinating ecosystems and are scarce and not well studied. Wetlands have several benefits to other ecosystems and to the biosphere as a whole. This ecosystem provides benefits such as flood protection, water purification, shoreline stabilization, groundwater recharge, and the maintenance of stream flow. Wetlands also provide habitats for local fish and wildlife species, some of which include rare or endangered species. These benefits of wetland ecosystems directly relate to the goals of this Discovery Theme. The research park provides many opportunities to research the effects of the need for energy and how those needs affect the environment. Increased energy can negatively effect the environment due to increased greenhouse gas emissions including carbon dioxide. Wetlands can assist in offsetting these emissions due to their ability to absorb the carbon and filter the water to have less of an impact on the environment (FAQs for Wetland Restoration Carbon Offset Projects: Tierra Resources, 2014).

In the case of the Wilma H. Schiermeier Research Park, this urban wetland consists of a large oxbow wetland in close proximity to the Olentangy River. This helps with river water purification plus flood and overflow protection. The Olentangy River and its surrounding corridor are home to hundreds of fish and wildlife species, which are a huge attraction for shorebirds and water birds. An urban river and wetland is an extreme rarity, which sets this wetland facility above most others. The wetlands are home to rare bird species that typically do not live in urban environments, such as the Great Blue Heron, American Bittern, and White Heron, which are typically found near large bodies of water, such as the Great Lakes. This wetland research park is an invaluable ecosystem in Ohio, and is a significant part of the environment and biosphere. The college can benefit from increased student involvement because it would increase interest in the College of Food, Agriculture and Environmental Sciences.

Other University Wetlands

There are a number of notable university wetlands in the United States apart from The Ohio State University's Wetland Research Park in Columbus. The top two university wetlands that are closest to Ohio State in terms of impact, diversity, and size include the University of Florida's Howard T. Odum Wetlands and the Duke University Stream and Wetlands Management Assessment Park. These two universities have had major impacts in wetland science and research but they are mainly one-dimensional facilities, as compared to Ohio State's wetlands, which are multi-faceted and located close to main campus. In terms of student organizations, the University of Minnesota has a Fisheries, Wildlife and Conservation Biology Club. This club organizes wetland management and restoration activities at Sarita Wetland near campus.

The University of Florida's wetlands are part of a pre-existing area and cover significantly more land than the Ohio State Wetland Research Park. The University of Florida's wetland facility has two main distinguishing features, including a certificate program and the institution's involvement with the Environmental Protection Agency. First, the University of Florida's facility has instituted a certificate program into the facility, so that anyone who attends the University of Florida can receive a certification in Interdisciplinary Concentration in Wetland Sciences. This facility has also been the subject of many studies conducted by the EPA since the agency's creation in 1973. There have been several studies conducted at all of the university wetlands mentioned, but the scale of research at the University of Florida is unmatched. This can be expected due to a large portion of the state of Florida consisting of wetland and marsh habitat.

The Duke University wetlands are restored similar to those at Ohio State. Duke University has eight acres of restored wetlands that sit on a river with a gravel walking-trail connecting the wetlands to the university. This facility distinguishes itself from the others by providing educational posters along the trail that connect the site to the university. Duke University's nature trail is far more undisturbed by human contact than the Olentangy Trail near Ohio State's campus. This may be easier to accomplish for their institution, considering Duke University is not incorporated into a large city, which makes their campus less urban. Duke University's trail is nationally recognized for bird watching and the educational signage along the trail is second to none.



Duke University Wetland Research Park



University of Florida: Florida Everglades

The University of Minnesota's Fisheries, Wildlife and Conservation Biology Club (FWCB) has been in operation since the fall of 2005. This organization has been involved in the removal of invasive species and promotes planting of native vegetation. They have been successful in not only restoring and maintaining the wetlands, but also have received multiple grants to assist them in making a larger impact on the environment. According to the FWCB website, the group received \$2000 grants in 2006, 2007 and 2008 from the BU Day Committee. Each grant was used to plant approximately 50 trees throughout the bottomland hardwood forest. The group received \$500 grants in 2009 and 2010. No further data has been provided online since 2010, but the structure of this club may suggest parallel opportunities at Ohio State.

Why Ohio State's Wetland is Superior to Others

According to the Ramsar convention on wetlands, the Ohio State Wetlands Research Park was recognized as the United State's 24th Ramsar wetland of international importance. This award goes to wetland facilities that "show excellence in cooperation for the conservation and wise use of wetlands and their natural resources" (Ramsar, 2013). The university wetlands mentioned previously are world-class facilities, but Ohio State's Wilma H. Schiermeier Olentangy River Wetland Research Park has features that these other university wetlands do not possess. The other university wetlands discussed are unique, but they all share one common theme that differs from that of Ohio State's Wetland Research Park, which is the singular dimensionality of their wetlands and facilities. The University of Florida's wetlands are pre-existing and they are all freshwater marshes. Duke University's wetlands are restored and are entirely bottomland hardwood forest (Duke University Wetland Center, 2013). Ohio State's

Wetland Research Park has four components that comprise its 52-acre facility (The Wilma H. Schiermeier Wetlands Research Park, 2013). An oxbow wetland occurs “when a meandering river changes course and leaves a portion of its channel isolated except when the river floods” (Wetland Monitoring Manual, 2013). Bottomland hardwood forests are forested, alluvial wetlands occupying broad floodplain areas that flank large river systems (Bottomland Hardwood Forests, 2005). A mesocosm compound can be classified as an experimental enclosure and provide a means of conducting ecosystem-level experiments under replicated, controlled, and repeatable conditions (Ahn, 2012). They allow repeatability of hypothesis-driven experiments at a much lower cost than do large, field ecosystem studies (Ahn, 2012). OSU WRP is known for its “biologically diverse assemblage of different wetland and riverine habitats both representative and unique to the region; high-quality university teaching, research, and publishing related specifically to wetland ecology and management; and significant wetland ecotourism and outreach for an urban community where few wetlands remain” (Ramsar, 2013). At 52 acres, OSU’s Wetland Research Park is over six times larger than Duke University’s establishment (The Wilma H. Schiermeier Wetlands Research Park, 2013). The size of Ohio State’s facility is important, but the main distinguishing factor is the diversity provided. It is important to mention that Ohio State’s facility is located in a climate where few wetlands exist naturally as opposed to the climates of Florida and North Carolina. Although Ohio State’s location doesn’t have as many wetlands, the park is a world-class facility. The Ohio State University Wetland Research Park also has teaching and research facilities, which sets this institution apart from other universities. Both the University of Florida and Duke University’s research and teaching facilities are located on campus far away from the actual wetlands. Each of these other university wetlands contain vital constituents to a wetland but Ohio State’s park combines all of these critical features. While this facility is not fortunate enough to be situated next to the Florida Everglades such as Florida Gulf Coast University (Florida Gulf Coast University Everglades Wetland Research Park, 2014), the research park has managed to develop a superior facility through restoration and Ohio State’s endless drive to succeed.

Proposed Solution

In order to increase the number of students that participate in research and volunteering at the Wetland Research Park, we propose that a student organization be established, which will

organize volunteer efforts at the wetlands. This group will be established through the Ohio Union and will follow a four-step procedure to be recognized as a student organization. There is a minimum of five students required to start an organization, and three students are required to serve on the board. According to Lynn McCready, there is a need for 20-50 students to volunteer at the wetlands per month. Our student organization will advertise the volunteer openings, organize the volunteering and monitoring events, and provide all essential materials to make these volunteer events successful. In order to ensure that the group is successful for many years to come, we will make sure that the president and executive members receive letters of recommendation from senior SENR faculty. This would help students in the future when needing a recommendation for internships, graduate programs or jobs. And with an increase in student and community involvement at the wetland facility, there could be an increase in student interest in the College of Food, Agricultural and Environmental Sciences, which in turn could create an increase in funding for research.

Establishing a Student Organization

Ohio State has over 1,000 student organizations that better the university in many different ways. Although there are many different organizations to join, there is not one that is affiliated with the wetland research park. A student organization that assists and organizes volunteers at the research park would be a great addition to traditional SENR student organizations. “Friends of Stone Lab” is another student organization on campus that organizes student events for our island campus on Lake Erie. Our group would be similar to “Friends of Stone Lab.” The University of Wisconsin and the University of Minnesota both have long standing student organizations involved in wetland monitoring by means of volunteering. These examples of successful student involvement serve as a template for the foundation of our student organization. The University of Wisconsin’s Wetlands Association has been in operation since 1982, while the University of Minnesota’s comparable program has been around since 2005. Ramsar highlights “The Wisconsin Wetlands Association (WWA) as a leader in communicating about, and promoting education, participation and awareness of wetlands and the Ramsar Convention in the United States” (Ramsar, 2013). Ramsar also states that “WWA’s strength also lies in strong communication and awareness programs focused on engaging participation of students and government bodies” (Ramsar, 2013). WWA identifies the possible success that can

come from focusing on the participation of students and if one Big Ten school can make it work, then Ohio State has a great opportunity to do likewise and even expand on the strengths of the WWA. We do have our own Wetland Research Park while these two universities simply hold volunteering events at national and state parks in their respective areas. For our organization to aid in increasing student involvement at the wetlands, the authors of this publication, along with other members of SENR who are interested in the wetlands research park, have begun the process of establishing Ohio State's first wetlands research park student organization called S.W.R.P. This acronym stands for Students for the Wetlands Research Park.

The university provides two windows for students to create new student organizations, one in the spring and one in the fall. S.W.R.P. is currently in the process of determining its executive members, a preliminary stage in becoming a recognized campus club. To create a new club Ohio State requires minimum membership of five current students, three of whom hold officer roles including President, Vice President, and Treasurer. Our student organization will also include a secretary. The president will be responsible for all executive decisions, for running the meetings, and for communicating with essential OSU faculty. The President of the organization will attend bi-weekly OSU WRP faculty meetings to ensure strong communication between students and faculty. The Vice President will be responsible for planning all meetings, communicating with students involved in the organization by email, and planning volunteering and outreach events. On the second Saturday of every month, the Vice President will organize a volunteering event at the OSU WRP for students to monitor, preserve, and learn about the wetlands. The Treasurer will be required to handle all aspects of finance for the group. They will acquire the materials needed to run volunteering events, they will ask potential sponsors for grants, and they will determine the most cost effective ways to promote the group. The Secretary of our organization will be responsible for recording meetings and heading all promotional activities. In addition to the organization's website, the forms of promotion will include social media, flyers on campus, and visits to SENR and other university buildings to talk to students about wetlands volunteering. The officers are required to attend leadership trainings along with an organization advisor who is a member of Ohio State faculty or staff. The next step in creating S.W.R.P. is to draft a constitution or guidebook to hand in to the university. This organization will meet once a month in a reserved room in Kottman Hall for the meetings. There will be four main responsibilities of S.W.R.P., including informing more students about the wetlands,

encouraging them to become involved, organizing volunteer opportunities at the wetlands, and providing the proper equipment for volunteers.

To inform and educate more members of the Ohio State community about the wetlands, S.W.R.P. members will reach out to students through social media, the Internet, flyers, and making announcements in classrooms. S.W.R.P. will be a near replica of the University of Minnesota's F.W.C.B. with the exception that we have the unique distinction of having our own research park on campus. The Minnesota club has a website that specifies officers of their club, meeting times and minutes, volunteering events, and organizational meetings. S.W.R.P.'s website will model Minnesota's but ours will be more student friendly. We will allow students to register for volunteering events directly through our website. The simplicity of our registration process will allow the maximum number of students to be involved in the organization. The registration system would include a place to indicate the organization wishing to volunteer as well as possible dates that they are available. They would then receive an email or phone call from a member of S.W.R.P. to schedule the volunteering. The only cost associated would be the cost to be added to the Research Park's website.

Over 94% of first year college students use social networking including Twitter and Facebook (Junco, 2010). S.W.R.P.'s use of both of these social media sites would allow more students to interact and learn about the research park. Different opportunities can be advertised through these sites, which will increase student knowledge and encourage more students to become involved. Advertisements will also be added to the monitor in 210 Kottman Hall, emailed out to students, and posted on the CFAES and SENR homepage websites. Emailing students about opportunities will allow Ohio State students to gain formal information on their own time and create a form of communication for undergraduates to get involved in S.W.R.P. Finally, members of the group will make an announcement in various classes with students who would benefit from interacting with the wetlands. These announcements will be similar to those made by students promoting Stone Lab or study abroad and will inform students about ways to become involved in volunteering and research at the wetland research park. This student organization will also provide the proper tools and equipment for the volunteers to use while helping at the research park. This will include gloves, rakes, shovels, saws and similar tools. To obtain these supplies, S.W.R.P. will reach out to various stores and ask for donations. They will also reach out to Ohio State Alumni and explore options within the CFAES budget. While the

student organization will be vital in the set up of the volunteering activities and promoting the wetland, the main benefits of this organization will lie in the work provided by volunteers at these events.

Roles of Volunteers

Student volunteers will assist at the wetlands one time per month. Lynn McCready has described many ways that volunteers would help, including the trimming of shrubs, weeding, limb removal, trash pickup, etc. She said this would be especially helpful during the growing season. Monthly, about 20-50 volunteers can be utilized at the research site for maintenance work. McCready has confirmed the demand for these student volunteers to assist at the wetlands.

One of the things that volunteers will focus on is the removal of invasive species from the area. Although this includes a few fish and insects, the main focus will be honeysuckle. This plant came to the United States in the late 1800s and has caused a decrease in the health of many native plants. The shrubs shade out natural vegetation and are able to outcompete plants for nutrients and sunlight (Smith & Smith, 2010). Volunteers will also assist in pollution control and trash pickup. With the increase in involvement, there can also be a possible increase in pollution and foot traffic. Volunteers will be in charge of checking the trails and wetlands for waste. Removing waste helps keep the research park healthy and allows many different species to thrive. Limb removal will include removing branches attached to vegetation as well as picking up fallen brush. By assisting in weeding, volunteers can help control plants that are harmful to native plants to live within the wetlands.

Lack of Involvement

Statements made by both Lynn McCready, the interim director of the Wetland Research Park, and CFAES indicate that an increase in student involvement is needed at the wetland. According to a survey conducted by our group members through emailing a sample of undergraduate students at Ohio State, 76% of respondents have not been to the wetland research park. It is noteworthy to mention that a large percentage of the students who contributed to the survey are in the School of Environment and Natural Resources (SENR). Although the research park is associated with the CFAES and SENR, it can potentially benefit students in all majors and colleges. The survey results showed that less than 10% of students in majors outside of

CFAES and SENR have been to the Ohio State wetlands. Other undergraduates that will benefit from partaking in activities at the research park specifically include students in the department of Evolution, Ecology and Organismal Biology (EEOB), Chemistry majors, and Environmental Engineering majors. The opportunity to participate is volunteering and research at the park will give students hands on experience with ecosystems and water chemistry, as well as with various plants and animals.

According to Lynn McCreedy, a majority of the student involvement at the Ohio State wetland facility is conducted through graduate student research or a small number of undergraduate classes. Classes such as Stream Ecology (ENR 5280) and Methods in Aquatic Ecology (ENR 5345) are currently taught to undergraduate students in the Heffner Building, providing those students with experience in wetland science. Unfortunately, this is one of the only ways undergraduates gain this valuable experience at the wetlands. Additionally, a select group of about 20 high school students are introduced to the wetlands through an event held by the School of Environment and Natural Resources called *Go Green, Go Buckeye*. This experience provides these high school students the opportunity to tour the wetlands as well as engage in activities such as electrofishing. They also get the chance to meet with some members of the faculty and staff in SENR. According to our survey, every student that attended this event said that the event assisted in making his or her final decision to attend Ohio State and pursue a major in SENR. Furthermore, the way that a majority of current Ohio State students interact with the wetland facility is through volunteering; however, these volunteer activities are scarce and unorganized. Often times the volunteers are left with improper equipment or lack of tools causing them to not be as productive while there.

Lack of Exposure and Student Interest

One of the reasons there is a lack of involvement at the wetland research park is lack of exposure. Many Ohio State students have seen signs or advertisements for Ohio State's Stone Laboratory, an island campus located on Lake Erie. Students from the Friends of Stone Lab often make announcements in classrooms to describe opportunities available at Stone Lab. Students are encouraged to attend the Lake Erie campus by the plethora of signs, emails and flyers that are posted throughout campus. There are currently 25 undergraduate classes offered there, along with a variety of research opportunities (About Stone Laboratory, 2009). Throughout the

hallways of Kottman Hall there are currently 15 posters advertising Stone Lab. This translates to about four posters per floor, many of which are located by main offices or on bulletin boards across from the elevators. There are also one to two advertisements for Stone Lab on many of the CABS buses that circulate campus. There are currently zero posters advertising the Wetland Research Park throughout Kottman Hall or on the CABS buses. Both undergraduate and graduate level research and courses are available through the Wilma H. Schiermeier Olentangy River Wetland Research Park, which is located just down the street from main campus. Although there are fewer classes currently offered at the wetlands, the proximity to campus allows this facility to be more easily utilized by Ohio State students. As of today, it is not only difficult to encourage student interest in the wetlands but it is also challenging to spread the word about this facility and the abundant opportunities it has for Ohio State students.

To combat the lack of students who have been exposed to the wetland facility, we have developed multiple solutions to increase awareness. First, advertising in CFAES and SENR buildings such as Kottman Hall, the Agricultural Administration Building, and the Agricultural Engineering Building can help spread the word about this facility. Secondly, advertising on the monitor located in 210 Kottman Hall, a hub of undergraduate advising for current and potential SENR students, can also spur more interest in the facility. Additionally, Ohio State students receive emailed newsletters and advertisements for Stone Laboratory, for undergraduate research opportunities, and for study abroad, so a few emailed advertisements about the wetland facility can be in newsletters or sent out individually as well. Along these lines, advertisements or a webpage on CFAES, SENR, EEOB, and Environmental Sciences Network web pages will be helpful as well to spread the word about the wetland facility to broader audiences from different backgrounds. Students from S.W.R.P. will visit various classes to discuss the wetland facility and possible research or volunteer experiences available at this location, similar to the students who visit classes to discuss Stone Laboratory, the Ohio EPA, or study abroad. Lastly, we will add OSU WRP signs onto all CABS busses to compete with Stone Lab's exposure. First year survey classes in departments such as CFAES, EEOB, and SENR can also benefit from students involved in S.W.R.P. visiting their classes to discuss opportunities at the wetlands.

Lack of Funding

Ohio State's Wetland Research Park is a top-notch facility but part of the reason it is under used is because of lack of funding. Currently the Wilma H. Scheirmeier Wetlands operate on \$200,000 per year. The majority of this cost is dedicated to maintenance, which costs about \$88,000 per year. This money pays for utilities, maintenance, janitorial, and grounds crews. The second largest expense at the facility is the director's salary; Lynn McCready makes \$57,000 per year. These do not seem to be unreasonable costs for such a world-renowned facility. The concern is that Ohio State's wetland facility does not receive the necessary funding for a facility of this stature. Since its completion, the facility has received the Wilma Endowment, which provides the research park with \$65,000 per year. The facility also manages to raise about \$10,000 on an annual basis from small donations and by renting out the conference room. This still leaves the research park with an annual deficit of \$125,000 per year. The large deficit comes directly out of the university's pocket and prevents the expansion of the wetland facility. In comparison, Duke University's wetlands are roughly a sixth the size of Ohio State's wetlands, and yet they operate on 10 million dollars per year. Much of this expense goes to staff salaries, but there is still a major disparity between the two facilities, even though Ohio State's facility is superior.

The monetary concerns at the wetlands mean that S.W.R.P. must operate financially independently from the research park. All advertising, outreach events, and supplies must be provided by the organization. To ensure that this is a possibility, we have examined the University of Minnesota's model. Our treasurer will be responsible for raising grants from local donors. We are confident that this method of acquiring grants will be successful because it has been accomplished at other institutions. The University of Minnesota's F.W.C.B. club was able to obtain over \$6,000 in grants over four years to support their volunteering efforts (F.W.C.B. Club, 2014). The city of Columbus has many companies that will benefit from being affiliated with an environmental based student group at Ohio State. This can help us accumulate grant funds with as much or more success than seen in Minnesota.

Discussion

The Ohio State University's Wetland Research Park is an invaluable asset to The Ohio State University as well as to the College of Food, Agricultural and Environmental Sciences.

While many Ohio State students have not heard of this facility, the wetland park can offer recreation, educational experiences, and volunteering opportunities to a large portion of Ohio State students, faculty, and staff. With the creation of volunteering programs, S.W.R.P. will be able to involve 450 students per school year. This is the number of students who can be directly involved with the volunteering. The number of people who will be informed about the wetlands through their peers and through the increased signage on campus will also increase significantly.

Our main focus in this paper is establishing a student organization to address lack of involvement at the OSU WRP, and our solution will help combat and repair this issue. A student organization called Students for the Wetland Research Park (S.W.R.P.), will be in charge of increased exposure at the wetlands, maintenance and equipment needs, and Ohio State student involvement through volunteer opportunities. The use of student volunteers will assist with maintenance at the wetland facility in an effort to lessen the costs of maintenance that the wetland facility pays annually. Involving students in the volunteering program will not only directly introduce them to the wetlands; it will indirectly introduce the people around them to the wetlands. A leading marketing charts website states that 42% of people report positive experiences they have encountered to the people around them (MarketingCharts, 2013). This shows that volunteers will be inclined to inform their friends, relatives, and potential donors about the wetlands. This will increase wetlands exposure exponentially. With the creation of this organization, the issue of a lack of student involvement can be reduced.

CFAES and SENR invest a large amount of money into this facility annually. It would be wise to feature this facility in the movement of the CFAES campus across the river. Sasaki decision makers have previously expressed interest in including this facility in their master plan; by bringing students to the wetlands, the student organization will in turn bring more students to the Olentangy River area in general. More students in the Olentangy River area ensures that more people will be exposed to the new site of the CFAES campus. Our plan helps achieve the goals of the college and it is also a very plausible solution to the current problems at the wetlands. While other proposals are relevant to Sasaki's master plan and also include good ideas, S.W.R.P.'s setup and purpose make it a realistic and cost effective proposal.

Conclusion

This paper has discussed the current state of affairs at the Wilma H. Schiermeier Olentangy River Wetland Research Park, as well as introduced the student organization, S.W.R.P., which will help solve some of the main OSU WRP issues.

To solve the lack of involvement issue, we propose a three-part solution. First, we will establish an Ohio State student based organization. This group will organize outreach and student involvement at the wetland research park and help supply volunteers with proper equipment during volunteer and maintenance activities. Second, the use of volunteers on a monthly basis will help alleviate additional large maintenance costs that the wetland facility faces each year. While the student organization will not have access to the funds that will be saved from maintenance, the research park will be able to use this money to address other pressing matters that have not been implicitly addressed in this paper. With this reduction in expenses, the additional revenue could be used to fund future research projects or the construction of more classroom and laboratory space at the Heffner Building. Third, the student organization will increase the exposure of the wetland facility through a marketing campaign with a budget that is comparable to the amount of funding that the organization is able to raise via grants. This small-scale marketing campaign will be used mainly for the purpose of reaching potential volunteers but the effects may result in increased funding for the site from donors that will also be introduced to the wetlands.

Much of the future of the wetland facility is currently dependent on the amount of funding they receive. The concrete truth for now is that this facility is important and unique to Ohio State, the College of Food, Agricultural and Environmental Sciences, and the School of Environment and Natural Resources. The wetland research park has abundant potential and with a large-scale increase of student involvement, this park can be a more noteworthy piece of the new CFAES campus.

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