Location of the Project

The Rotary Centennial Arboretum is located adjacent to Riverside Park at the Urban Ecology Center (UEC), south of Locust Avenue on the east bank of the Milwaukee River, on part of the property owned by the late Pieter Godfrey. In 2010, the UEC in conjunction with Rotary Club of Milwaukee, River Revitalization Foundation (RRF), City of Milwaukee, Milwaukee County, private business, and local landowners received the opportunity for extensive river restoration under EPA Great Lakes Restoration Initiative (GLRI). The result is the Rotary Arboretum, resting between Locust Street and North Avenue, following the east bank of the Milwaukee River in Milwaukee, Wisconsin. The Arboretum consists in the restoration of forty acres of
forest, returning to native species and creating an ecological corridor known as the Milwaukee River Greenway.

Project History

The beginning of the restoration and remediation efforts along the Milwaukee River at Riverside Park began in 1991 with the creation of the UEC. Environmental and social degradation occurred in the park until the neighborhood came together in proactive measures to combat these problems. Concerned neighbors united over the abuses and misuses of the park, river, and river basin (UEC, 2013). The community yearned to improve environmental education and ecological literacy. The work began with revitalization of fifteen acres of Riverside Park along the Milwaukee River Corridor. With success of growth and momentum, the UEC worked with partners in the community to further remediate the degradation in the MKE River via removal of the North Avenue Dam in 1997. Additionally, the UEC is one of the founding members of the Milwaukee River Greenway Coalition, an organization working to promote the shared responsibility of the river space by protecting 800 acres of Milwaukee River Greenway (UEC, 2013). The UEC continues to expand the scope of its activities.
In 2007, the UEC proposed an idea for the centennial anniversary of Rotary Club of Milwaukee. The project aimed at the expansion of Riverside Park in order to add continuity to the Milwaukee River corridor. The project was accepted and the Rotary Centennial Arboretum was born. Adjacent to Riverside Park, lies the property of Pieter Godfrey who, through his generous donation of his property, has made the expansion of the ecological corridor. Despite his death in 2011, the vision of Pieter Godfrey lives on. One of Godfrey’s buildings has been demolished and the earth has been reshaped to replicate the bluffs that would have existed along the river in old Milwaukee. The property adds an additional twenty-five acres to the Park along the Milwaukee River.

Today, it remains to be seen what will happen to the final landholdings of Mr. Godfrey. His property includes a warehouse and building site in between the arboretum and the Urban Ecology Center and Riverside Park. The UEC hopes to obtain this property in order to increase continuity of the wild space.

The Arboretum maintains prominent social significance. It serves as an educational tool, an outdoor classroom or laboratory, for the community, a place to learn, share, and grow with each other, both human and non-human. We can be better acquainted with our animal, plant, and human companions – birds, bees, bluffs, black-eyed Susan’s. Through continued interaction, we can teach one another to care for the environment by facilitating the education of children, education of teens, education of adults, and education of elders. The Arboretum adds to the aesthetic value of the City of Milwaukee.
Furthermore, the Arboretum increases the sense of community and sense of place in the City, the Milwaukee Estuary, and Earth. This fosters a responsibility to Earth, plants, animals, including humans--all fellow beings. Those who know Earth love and respect Earth. Nature serves as a reflection of our relationships with one another and ourselves. The park also allows for public spaces for communication which may help to bridge the gap between neighbors and communities. Additionally, interactions with nature satisfy internal urges, natural impulses, or primal necessities for a relationship with Earth. Spending time in Nature is shown to reduce stress and anxiety. These interactions are both relaxing and therapeutic and lead to stimulating mental activity and growth.

The Arboretum holds significant ecological importance. It will aid carbon sequestration, provide areas of significant urban runoff to the Milwaukee River and Lake Michigan, minimize erosion on the banks and bluffs along the river, and increase tree diversity and distribution. Additionally, the project will facilitate the inventory and characterization of the existing plant communities and plant species along the Milwaukee River. The Arboretum also provides habitat for an array of birds, small mammals, bats, frogs, turtles, insects, and snakes. One such snake is the state-endangered species, Butler’s Garter Snake. Moreover, the Arboretum will add to the area of land dedicated to the one of the most threatened ecosystems, the oak savanna.

Timeline of Project

The Rotary Centennial Arboretum began construction and planting in 2010 and will continue indefinitely. On September 28, 2013, the Arboretum will publically open. However, it must be recalled that the space will not yet look complete. While the GLRI grant only lasts three years, the work and progress at the Arboretum will come for years to come. Future generations
will live in and with the mature ecosystem (Leinbach, 2013). The Arboretum will not reach full maturity at least for fifty to one hundred years.

Funding

The EPA granted restoration funding to the Rotary Arboretum and the UEC for a period of three years, beginning September 2010 continuing through September 2013. After this point the funding awarded due to the GLRI will end, and the progression will require helpful donations. Total cost for the arboretum is estimated at approximately $8,000,000 (Zeleske, 2013). The project received $953,450 from the EPA for application in the arboretum. The UEC works with a local network of partnering organizations (government, non-profit, private), skilled workforce, volunteers, and community members. As a non-profit, UEC can obtain discounts and donations of skilled labor (UEC, 2013). The Rotary Club of Milwaukee has committed $400,000 to habitat restoration of the three years; Wisconsin Paperboard has committed to trees; local native nurseries and Milwaukee County Parks to donate trees; PY Godfrey LLC to donate earthmoving and land sculpting services, the salary of project coordinator, grow plants, and a wildlife biologist (Rotary, 2013). The volunteer donation estimate is important for the project.

Expected Outcomes

The restoration of habitat will result from the project, including 5,280 feet of riparian corridor and forty acres of forest, savanna, and prairie. The fifteen acres under UEC management will be restored to high quality land and habitat. The UEC will manage and control six acres of invasive monoculture, and plant six acres of forest on currently barren land (UEC, 2013). In addition, the improvement thirteen acres of degraded forest and improve habitat for Butler’s Garter snake all whilst improving native biodiversity and soil conservation.
Furthermore, the forty-acre arboretum will contain 3.7 miles of trails, including a wheel chair accessible two-mile loop (Zeleske, 2013). The Oak Leaf Trail will be improved functionally with clear paths and aesthetically with sculptures and other art. At the outset of the project, the UEC and partners intended on planting more 1000 native trees and shrubs, 100,000 herbaceous plants and millions of seeds within the forty acres (UEC, 2010). The Arboretum will include three outdoor learning areas designed for schoolchildren. Amenities such as a pedestrian bridge, a fishing dock, and a wheel chair accessible canoe launch will be added. The Rotary Club of Milwaukee estimates about 300,000 Arboretum visitors annually. To ensure the continuation of the Arboretum, the Rotary Club will install an endowment of at least $200,000 (Rotary Club, 2011). When complete, the Arboretum will be the most significant and biologically diverse native ecosystem in Southeastern Wisconsin. It also will serve as an important recreational, teaching and research center.

The arboretum will serve as one main entry point to the 800 acres of urban wilderness of the Milwaukee River Greenway. The placement of the arboretum in the center of Milwaukee offers many potentials and possibilities for the awareness of the project. As placed in the center of the city, the arboretum serves as focal point and creates a high-profile status for the new park.

Stakeholders

The Rotary Centennial Arboretum is a collaboration of many organizations and people. The major partners in this remediation effort are The Rotary Club of Milwaukee, Urban Ecology Center, River Revitalization Foundation, Godfrey LLC, Milwaukee Urban Rivers Foundation,
Milwaukee Country Park Department, the Environmental Protection Agency as part of the Great Lakes Restoration Initiative, Wisconsin Department of Natural Resources, the City of Milwaukee, and Milwaukee River Greenway Coalition (UEC, 2013). Additional support comes from Milwaukee Public School, local Colleges and Universities, Milwaukee Area Workforce Youth Initiative, and the Fund for Lake Michigan. Further, private businesses, local landowners, and community members are essential in this restoration project. People and organizations maintain interest for economical, ecological, sociological, psychological, educational, recreational, ethical, and communal benefit.

Outreach

With the help of the Urban Ecology Center, the Rotary Centennial Arboretum engages in extensive community outreach. The project works to continue environmental education and ecological literacy. One major component of the Urban Ecology Center is the Neighborhood Environmental Education Project (NEEP). Through NEEP, the UEC reaches more than forty-four schools in the Milwaukee area (UEC, 2013). The three locations serve an ever-growing number of schools. The arboretum is part of the outdoor classroom at the Riverside branch of the UEC. The arboretum received the designation of a “Children’s Forest” by the USDA Forest Service (Zeleske, 2013), which means that it has the special task of engaging and educating children about the natural world. This designation is exceptional; especially considering the forest is in the middle of major city.

The UEC interacts with the community in a variety of ways. They center sponsors the Urban Adventures Program in which they lead programs doing various outdoor activities (walking, skiing, rock climbing, kayaking, snowshoeing, etc). It is an active way the community outdoors participating in recreation with family and friends. To monitor remediation progress
and participate in the restoration and management processes the UEC maintains initiatives such as the Community Land Stewardship Program and the Citizen Science Project. Both volunteer-driven programs are involved with Riverside Park, Milwaukee River Greenway, and the Rotary Centennial Arboretum focusing on management and restoration efforts and monitoring the effects of restoration. Projects such as the arboretum work to create and establish a relationship between human and the environment (city or otherwise) in order to realize the interconnection and emphasize the importance of said connection. With the connection, we create a sense of belonging, of place, of integration, of familiarity, and investment in the community.

As part of the GLRI grant from the EPA, the UEC committed to a minimum of three community workshops on topics related to the information gained with continued remediation processes. The topics include “surveying vegetation and characterizing plant communities, planting to attract wildlife, and monitoring and managing storm water runoff with native plantings” (2010). The focus of these efforts is promoting and aiding the native communities of plants and animals, easing life for all members. With this information, people are able to practically apply the native knowledge to their home landscape and improve overall cityscape and wildlife habitat. In addition, the UEC hosts monthly lecture series based on the research, findings, and information of the Citizen Science Program.

The public also receives updates through writings in the community. The UEC publishes River Reflections, a bimonthly newspaper reaching more than 3,500 households. The Rotary Club and the UEC also publish online updates via their websites. Additionally, information regarding the arboretum is published in correspondences such as Riverwest Currents and Outpost Exchange Magazine. A thorough effort to reach the public and increase awareness exists.
Support for the Rotary Arboretum continues in the community. The project is currently about 6 months behind schedule, but working towards the final goals. In 2012, earth moving began, replicating berms that may have been similar to those of the glaciers. Within the next few months, more earth moving will occur and additional trees are to be planted. Today, the total number of trees to be planted is 2,200 for a representation of 72 species in addition to the 28 species currently residing in Riverside Park (UEC, 2013). These species include Shagbark Hickory, White Oak, Black Oak, Burr Oak, Swamp Oak, and Chinkopin Oak, just to name a few (Zeleske, 2013). Regardless of the progress, the Arboretum will open September 28, 2013 in commemoration of the Rotary Club’s 100th anniversary. It must be remembered the arboretum is a long-term project. It will need continued help and support as long as it is in existence.

Most recently, the Rotary Centennial Arboretum applied for a grant via the DNR Knowles-Nelson Stewardship Program. The arboretum applied for the $1.2 million grant in May 2012 and received notice of reception in March 2013. The Knowles-Nelson program provides funding to organizations with the goals of conservation, natural habitat restoration, and recreation development (Zeleske, 2013). The funds will be dispersed in the next several months, after earthwork construction and environmental contamination remediation are complete (2013). Two pieces of land were purchased with the Knowles-Nelson grant money, the site where the oak savanna is being established and a patch of land on the west side of the river, where the River Revitalization Foundation will headquarter the operation.

Reflection and Evaluation

I cannot claim to know everything about the workings of the Urban Ecology Center; I am not an employee nor am I a member of the board of directors. I am simply a volunteer, a
Marquette student, and a concerned citizen of Milwaukee and the larger Great Lakes community. However, from my time working with the UEC in these roles, I have found a deep appreciation and admiration for the center’s mission and interactions. The UEC is an accessible organization, striving to help the community and work to make the waterways and land of the Milwaukee environment safe for the community. Moreover, the UEC and its Rotary Centennial Arboretum partners are open with the public about its current progress and plans for the future. Many resources and means of communication are available to the public.

The remediation efforts in the Milwaukee River Greenway, including the Rotary Centennial Arboretum, are phenomenal. A variety of remediation efforts are taking place and doing so in a timely manner. The arboretum broke ground in 2010, and one can already see significant changes. The team took active leadership in attaining Phase I and Phase II environmental land site assessments. The project works to increase habitat for one of the most endangered ecosystems in the United States, the oak savanna. Additionally, the project works with only native species, allowing an opportunity for native plant and animal communities to flourish. The processes strengthen nature’s resilience, with native plants taking root to work for the betterment of itself and the members of the community. The decision to use only native plant species is both prudent and wise, as native species are best adapted to the climate, soil, water, etc. of the Milwaukee River. I feel the monitoring approaches designation an active approach to restoration and remediation in the estuary. All partners of the project are putting their full time and attention to remediating the greenspace along the Milwaukee River. This effort and attention brings justice to the Milwaukee River ecosystem and the underrepresented native plant and animal communities. Moreover, the remediation and collaboration is well-thought and intelligently planned.
The Milwaukee River Greenway, and subsequently the Rotary Centennial Arboretum, allows a chance to escape from the busyness of city life and retreat to the sanctuary of nature. One of the goals of the Greenway is to create a stretch of river by which no skyscrapers or other tall buildings are possible (Gliffe, 2013). While one peruses the Milwaukee River, with its lush vegetation and plentiful animals, one’s time is suppressed of stress and anxieties. The time spent along the river may help to restore the sense of simplicity and sanctity of the natural world.

Moreover, the restoration allows for further recreation, fostering internal joy and appreciation. The UEC focuses on education. The entire community holds possibilities for greater education via its existence. The arboretum and the UEC, draw attention from people who may not otherwise take the time to notice. This helps people to reclaim their roles in the ecosystem and engage in the systemic interaction. Interaction and communion lead to understanding and commitment. Importantly, the arboretum and the UEC work to engage and educate children to the importance of the natural world and the need to connect with it. The process facilitates future scientists, leaders, and nature lovers. The process also creates a sense of place and brings pride to Milwaukeeans, young and old. By working with children especially, we are focusing on the sustainability of the future generations and not simply concerned with the immediate issues at hand. The most important crisis today is creating an ecological ethos for humanity (while it may differ from individual to individual) and instilling it in the minds of the young and old.

One immediate area I see lacking is the incorporation of native peoples and native understanding to the Rotary Centennial Arboretum. The Native American communities were the original inhabitants of these lakes, rivers, and bluffs. They have ancient stories connecting the land, air, water, animals, plants, and people. From this perspective comes a unique understanding and oneness with all other parts of the whole of the ecosystem and Earth system. Furthermore,
there is a sense of knowing and sense of place arising from this type of close connection and kinship. It would be interesting to see the incorporation of Native American knowledge via signage, Native American maps, or mound recreations.

However, this is not to say that the Native community is forgotten entirely. The Urban Ecology Center serves as a meeting place for all the community. In months past, groups such as Idle No More convened at UEC Riverside Park in order to gain support and reclaim identity. In recent weeks, the UEC has collaborated with the Penokee people in northern Wisconsin who inhabit the land around the site of the proposed Penokee dam. There seems to be evermore interaction and association with the Native American peoples of the state. It would be appropriate to label the site of ancient Native American mounds and historic encampments. Demarking the areas of pre-European heritage could help to demonstrate the sanctity of the land, the respect one ought have for the land, and the timelessness of Earth herself. There must be remaining memory among native peoples who would be able to add to the educational aspects of the Native American peoples. This memory ought be shared so long as it is done in a respectful, courteous manner, and the Native peoples wish to share the knowledge. I feel the sharing of this knowledge would bring about greater understanding and consciousness.

The Urban Ecology Center is a place one can experience the wildness remaining in Milwaukee. The UEC and the Arboretum offer children, teens, adults, and elders opportunities to build a close relationship to the natural world. When one has this deep bond, a sense of closeness and interaction with the natural world, it becomes easier to work towards mutual flourishing. I truly feel the Urban Ecology center and the Rotary Arboretum are exceptional, understanding, thoughtful, reflective projects. They help us all to reclaim our place in the natural world, beginning with the reclamation, remediation, and restoration of our borders of the Milwaukee
River. This is most certainly only the beginning of a life-long process. Nature is our classroom, our laboratory, where we learn about the surrounding world and ourselves. The time now comes for the arboretum and the community to grow together, and strive towards relationships of shared responsibility and mutual flourishing.

Figure 5: Future Rendering by Amanda Kingsbury (Urban Ecology Center, 2013)