WETLAND PARK AND GREEN EXIT
Northside
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Goal(s)

One of the major projects highlighted in the Northside/South Cumminsville framework plan was the development of a wetland park. The site would be located at the realigned I-74 Colerain Ave Exit. The development would ultimately act as an anchor for both Northside and South Cumminsville, a physical gateway that both communities are striving for. As mentioned in the framework plan, there is a strong need for balanced neighborhood identities. Creating a centralized drawing point that would ultimately benefit both communities. The first major benefit would be the potential for economic development. As the new Colerain Ave exit nears completion in the next few years, both Colerain and Blue Rock Road are going to corridors of development. With the addition of a centralized wetland park node, economic development will be a major beneficiary. Thus, creating various opportunities for neighborhood redevelopment. With a gateway, such as the wetland park, in place, both neighborhoods will be looking to benefit from its recent economic prowess. Vacant lots and blighted structures will now be looked upon as opportunities sites for neighborhood improvement. However, the major benefit with the wetland park would be the associated with environmental improvements. In term of
neighborhood identity, both Northside and South Cumminsville will now have claim to the first “green exit” in Cincinnati. One of the parks main goals is to generate a green theme, ultimately trickling down into each neighborhood, redefining town character. The park will also be a main catalyst in mitigating the regions flood problems. By creating collector ponds for stormwater runoff, the park will serve to the neighborhoods flood and water management needs.

The development of a wetland park is exactly what neighboring communities need to sanction them into the sustainable world. The project will put Northside and South Cumminsville on the sustainable map by covering three basic principles of social, economic, and environmental.

Environmental: Bioswales - Reforestation - Stormwater Runoff Collection - Flood Management - Native Vegetation - Livable Noise Barriers
Social: Healthy Lifestyle - New Identity - Gateway - Recreation - Resident Interaction - Community Anchor - Connect Communities
Economic: Green Infrastructure Funds - Spark Development - Sustainable Water Source - Revenue - Property Value - Allocate Funds
Upon full build-out efficiency, the project will provide a solution to three main goals; creating an anchor for both communities, stormwater management, and flood management. The 35-acre park will be built around 2 major collector ponds. The first is located at the north side of the site, replacing existing recreational fields. Positioned at the lowest grade of the 100-year flood plan corridor, the larger of the two lakes will be run parallel with West Fork Road (Figure 1).
The second collector pond will be located in the inner circle of the existing Beekman canal system. The project plans to remove the interior canal wall, allowing water to collect into a central lake.

The redesigned canal system will provide access to multiple levels of pathways. Depending on the weather, the below grade canal system may be used as a trail system running along the current grade tree-lined trail network (Figure 2). Also, the remodeled canal system is designed to accent the existing tag-art that fills the canal walls today. The beautiful example of Northside’s artist culture will act as a catalyst for pedestrian traffic.

The diverse types and soil and land surrounding each of the lakes will play a large role in the overall health of the wetland. Each zone is unique and responsible for different roles within the system. The zone surrounding the water is the shallow marsh zone. This section is mainly made up of heavily saturated plants and fast rates of permeability. The next zone is the tall grass and shrub zone, usually made up of moderate saturation and soil moisture. The rest of the groundcover will full under the classification of native grass. This section is most responsible for runoff funnelling and woodland features. Lastly, the project will involve a vast system of trail networks, highlighted by the pedestrian cross at the base of the realigned exit (Figure 3).
Rationale
The site itself is prone to flooding as its natural features induce large amount of runoff. On top of its profitable topography, the soil composition is mainly made up of silt. The silt characteristics make way for increased ground saturation and wetland potential. This might be one of the reasons that UDA chose to depict the area as a water collection site in its recent presentation. When Tim Jeckering, President of the Northside Community Council, saw this, it immediately opened his eyes to a great opportunity for his community. After meeting with him several times, his position feedback regarding the project was the main reason I chose to develop the idea further. His support and overall motivation toward the wetland park ultimately convinced me of the proposal. One of the main themes he stressed to me was the importance of acting “now” on a project like this.
With the completion of the I-74 realignment scheduled for 2012, the timeframe for a project like this to get underway was now.

**Implementation/Funding Strategies**

Tim also pointed out the importance of a professional partnership in order to make the project a reality. An implementation partnership for the project would depend on three major stakeholders; Ohio Department of Transportation (ODOT), Metropolitan Sewer District (MSD), and the community. ODOT is committed to site for construction purposes. They also obtain several properties along the south side of Colerain Ave, which will act as potential land for the wetland park. With this in mind, their partnership with MSD is even more important, for they are the ones who could provide funding. Cincinnati Metropolitan Sewer District is committed to stormwater management techniques, especially green infrastructure opportunities. Such programs as the Wet Weather Improvement Plan proves this.

The program is designed as a Stormwater Management Plan approved by the EPA. The plan is to fix the CSO overflow problem in the city, deadline 2017. $3 Billion was allocated for program, assigning $70 Million to Northside and South Cumminsville. The document lays out three goals for the plan; Source Control, Conveyance and Storage,
and Product Control. The wetland park accomplishes each of the three goals on the suburban level. First being source control, the park will separate the natural stream and stormwater runoff by collecting them in large pond. By separating the natural runoff, the CSO overflow will be stabilized by reducing the amount of fluid entering the system.

Next is Conveyance and Storage; the park will create a more feasible solution to some proposals made in recent years. One solution proposed by MSD is to build a 30-foot-wide tunnel 150 feet beneath the Mill Creek River, estimating a cost of $1 Billion. The wetland system would create a less expensive, neighborhood level solution to the tunnel overhaul proposal. The third goal is Product Control. MSD’s current solution for this problem is to install several EHRT’s, small wastewater treatment plant located in various neighborhoods. This solution seems to be a very tough idea to convince suburbanites, the wetland park is an alternate solution.

With additional funds from the Revive-75 Project and the Green Infrastructure Program, it would feasible for MSD and ODOT to invest in this project. Along with economic incentives, MSD has the political power to influence ODOT and the community of a project like this.

**Precedent Studies**

The first precedent wetland park I looked into was the Hong Kong Wetland Park. Although the size of the park is considerably larger at 150 acres, the park was useful for its natural features. It is located in the natural floodway just outside downtown Hong Kong. The best practices used in the Northside...
Wetland Park are as followed: its vicinity to downtown and urban culture, its use of public space, and diversity of vegetation.

The next case study I looking into was the South Los Angeles Wetland Park. Coming in at about the third of the Northside Park, it was a good example of stormwater management and new green development. The size itself is located on an old bus yard, re-adapted as a constructed wetland. The best practices used in the Northside Wetland Park are as followed: its suburban location, the physical transformation of land, and the extensive network of trails and recreation.

**Bibliography**

The source for most of my research came from online databases. In order to understand the dynamics of a wetland, I had to do educate myself on the system.

**Wetland Research**

- [http://www.epa.gov/wetlands/watersheds/cwetlands.html](http://www.epa.gov/wetlands/watersheds/cwetlands.html)
- U.S. Environmental Protection Agency Wetland Design.pdf
- Constructed Wetland Stormwater Wetlands.pdf
- Various UDA Plans

**Implementation Research**

MSD-

- [http://www.msdgc.org/](http://www.msdgc.org/)
ODOT-

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CASE STUDIES

Los Angeles Wetland Park-


South LA Wetland Park.pdf

Hong Kong Wetland Park-


IMAGES ON BOARD

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Existing Images-

Bing and Google

Mapping-

GIS, CAGIS Database

ADDITIONAL SOURCES

Tim Jeckering, President of Northside Community Council