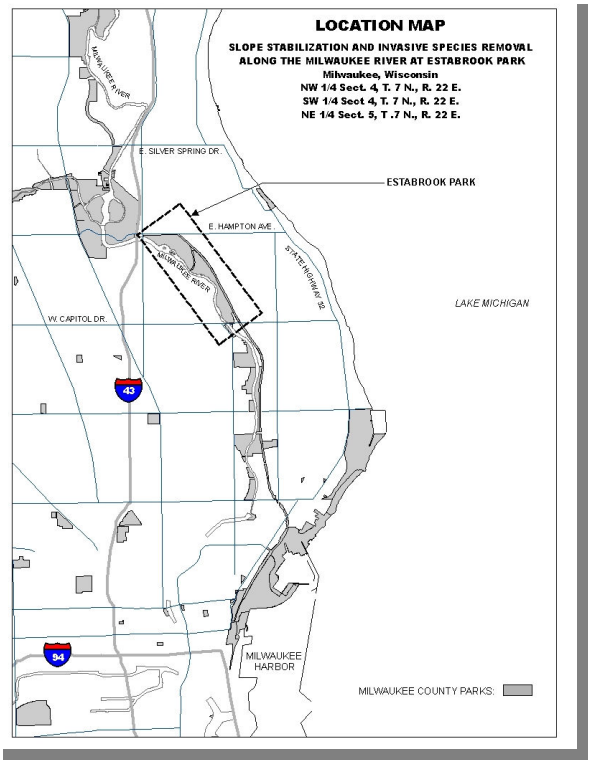
Part III

Management Discussion of Major Projects

Estabrook Park

History and Current Conditions



Estabrook Park is situated along the east side of the Milwaukee River, between Hampton Ave. and Capital Dr., within the City of Milwaukee. Being in a highly urbanized area the park is heavily utilized for many different types of activities. The Oak Leaf Trail traverses the length of the park from north to south and is used year-round as a commuting route. The Milwaukee River offers additional recreation opportunities. A Milwaukee Urban Water Trail canoe launch is located just south of the Estabrook Dam. Down stream of the canoe launch is a rapids that has become a fishing hotspot, especially during the fall salmon spawning run. A "nature trail" runs alongside the river and extends from Hampton Ave. nearly 2/3 of the way to Capital Dr. This trail is heavily used by walkers, bird watchers, joggers, and mountain bikers, alike. Partially as a result of this activity, much of the trail has been engulfed by a couple of invasive tree and shrub species, namely common buckthorn (*Rhamnus cathartica*) and bush honeysuckle (*Lonicera spp.*). This project is aimed at addressing several problems created by these aggressive plants on the steep slopes along the river.

The Problem

This project is located on the slopes of the Milwaukee River just south of the "overlook" that is adjacent to the rapids south of the dam. It is a location that receives heavy usage by park patrons. The dense leaf canopy created by the invasive trees and shrubs in this area has created several problems. First, due to the dense shade, light conditions at the soil surface are minimal, resulting in little to no herbaceous plant growth. Factor in the 50% slopes on the site and the potential for significant sheet and gully erosion becomes evident. Second, severe encroachment on the trail by these unwanted trees and shrubs have left many portions of the trail isolated and inaccessible in the event of an emergency, creating unsafe conditions for trail users. This project is meant to address both of these conditions.

GULLY EROSION

TRAIL ENCROACHMENT

Management Objectives and Methods

The objectives of this project are fourfold. First, this project will improve trail safety by increasing visibility of the path from the asphalt trail that extends along the top of the slope. Second, it will decrease sheet and gully erosion on the site, leading to less nutrient loading of the Milwaukee River and improved slope stability. Third, this project will promote a diverse suite of deep rooted native herbaceous plants over a monoculture of non-native plants. This diversity will help attract a wider variety wildlife, in addition to being a stabilizing force on the

slope. Finally, this project will be an aesthetic improvement, as park patrons will actually be able to see the Milwaukee River from the overlook area at the top of the slope by the comfort station.

The conditions of this site were extremely challenging and the extent of work done would certainly have been much less had not the Crew received the significant assistance from the Milwaukee Conservation Leadership Corps (MCLC) kids. As mentioned previously, these 30 high school kids did the vast majority of the tree and shrub removals. All of this work was performed by hand, a painfully slow and tedious process. As the woody plant material was removed from the slopes the Crew followed up with herbicide treatments of the stumps. The herbicide prevents resprouts and aids in establishment of the native plants on the site.

SCA KIDS CLEARING INVASIVES @ ESTABROOK

THE SITE AFTER BEING CLEARED.

Upon the completion of the vegetation removal the Crew used various erosion control techniques to limit offsite movement of soil. Over 12,000 ft.^{2} of coir (coconut fiber) erosion control matting was installed. As this is a pilot project of sorts, two different methods were used for vegetating the site. The first method involved installing the 2.5" native plant plugs through the erosion control matting. In the fall, a group of 8 Americorps volunteers assisted in planting nearly 5,500 herbaceous plugs from over 30 species (species list on next page). Again, without this significant labor input the scope of this project would have been greatly reduced.

PLANTING THROUGH EROSION CONTROL FABRIC

Herbaceous Plug Species List	
Wildflowers	
Lavender Hyssop	Mountain mint
Wild Columbine	Smooth penstemon
Drummond's aster	Purple prairie clover
Smooth blue aster	Tall cinquefoil
New England aster	Yellow coneflower
White wild indigo	Brown-eyed susan
Prairie goldenrod	*Royal catchfly*
Sand coreopsis	Rosin weed
Pale purple coneflower	Prairie dock
Upland boneset	Ohio goldenrod
Western sunflower	Ironweed
Prairie blazingstar	
Early sunflower	**Grasses/ Sedges**
Sessile blazing-star	Bicknell's sedge
Wild lupine	Brown fox sedge
Wild quinine	

Native Seed Mix Species List	
Wildflowers	**Grasses**
Bee Balm	Little Bluestem
Black-eyed Susan	Sideoats Grama
Blue vervain	Indian Grass
Brown-eyed Susan	Canada Wild Rye
Evening primrose	Annual Rye (cover)
Lanceleaf coreopsis	
Long coneflower	
Partridge pea	
Purple coneflower	
Purple prairie clover	
White prairie clover	
Wild sunflower	
Yellow coneflower	

In addition to the seeding and planting the Crew installed a live fascine row (approximately 100 ft.) in the middle of the slope. Live fascines are bundles of live shrub cuttings, in this case gray and red-osier dogwoods, that are buried perpendicular to the flow of water on the slope (see photos below). A live fascine is an effective slope stabilization technique. It immediately reduces surface erosion and it protects the slope against shallow slides.

LIVE FASCINE ASSEMBLY

LIVE FASCINE INSTALLATION

Monitoring and Future Work

The work of restoring this site will continue this coming year. Additional planting and/ or seeding will take place in the spring and fall. Also, an additional 9,000 ft.^{2} of erosion control matting still needs to be installed, as well as several thousand more herbaceous plugs. The Crew will also monitor the site throughout the year for the reestablishment of undesirable plants. Permanent photo points will help document the project's progress through time. As a part of this monitoring process, the Crew will assess the vegetative conditions of the surrounding naturalized areas. One aspect of this will be performing sweeps through adjacent areas to eradicate potential unwanted seed sources. It is, of course, impossible to eliminate all such seed sources, however, without this action there is little hope for project success. In the long-term, proper management of this site is going to be critical if the site is to be prevented from reverting to its previous conditions. One tool that will be instrumental in preventing this is the ability to perform controlled burns on the site. Approval within the County for such a management technique has, in the past, not been forthcoming. Controlled burns are an efficient, cost-effective, and safe means of natural lands management. A reversal in the County's attitude toward this method may be required to move forward.

As with every project, funding is going to be critical. Currently, this project is being funded out of the Crew's general operating budget. A grant to the Great Lakes Commission to fund the purchase of materials was applied for in 2006, but was denied. Additional grant sources will be investigated, however, the Crew has had some difficulty in utilizing existing grant funds for other projects. Spending authority on grants needs to be clarified within Parks if the Crew is going to apply for additional grant funds. In the end, this project will serve as a type of slope/ bluff stabilization demonstration project . The successful implementation of this project could open the door for similar projects that exist on Parks property throughout the County.

Summary
Or
Where do we go from here?

There are, obviously, many other issues related to trails and natural areas management that have not been addressed in this report. Many of the Crews activities cannot be neatly categorized. In general, the Crew has done a good job of stepping in where needed to fill in voids. Much work still needs to be done, but the direction for the management of Parks' trails and natural areas has now been somewhat set. The list of issues that need particular attention is long (basic invasive species removal along waterways, trail grooming, special events co-ordination, grant co-ordination, etc.), but the Crew now has a set of tools for dealing with each issues as it arises. In the short-term the Crew will continue to expand upon its current management methods of targeted, manageable projects. This is just the beginning and the Crew has made a good start. Continued improvement is the key. The challenge before us is to not backslide but to continue to expand the Crew to ensure long-term success!

Thanks for reading! I hope that this report has been informative. If you have any suggestions, concerns, or comments please send communications to Paul Kortebein, 9480 Watertown Plank Rd., Wauwatosa, 53226, or to pkortebein@milwcnty.com.

Appendix A

Friends Groups and Volunteers

The Natural Areas and Trails Crew would like to acknowledge the significant assistance provided by the following groups in support of The Crew's activities. Without the injection of these financial and physical resources The Crew's accomplishments would have been severely diminished. A special "Thank You!" goes out to each and every group.

Americorps (National Civilian Community Corps)
Eagle Scouts
Friends of Franklin Park
Friends of Grant Park
Friends of Jacobus Park
Friends of Lake Park
Groundworks Milwaukee
Milwaukee Conservation Leadership Corps
River Revitalization Foundation
Student Conservation Association
The Park People
WeedOut!