



# Green Infrastructure & Stormwater Management CASE STUDY

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## Spring Lake Park

**Location:** Aurora, IL

**Client:** Fox Valley Park District

**Design Firm(s):** Upland Design Ltd,  
Robert E. Hamilton Consulting  
Engineers

**Landscape architect/Project contact:**

Michelle A. Kelly, ASLA

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**ASLA Chapter:** Illinois



## Project Specifications

**Project Description:** The Fox Valley Park District undertook a major renovation of this 30-year-old community park as part of a district wide improvement plan. With only a walking trail for the community to use, it was ready for a complete redevelopment. The Park District welcomed community input at public meetings and brought in Upland Design to implement the master plan and get the project built.

Design development included positioning green elements to work on improving the 20-acre, on-stream detention lake within the park. Sustainable design elements include a 60-car permeable paving parking lot that drains into bioswales and rain gardens. A great deal of the stormwater infiltrates into the ground instead of being conveyed directly into pipes and catch basins.

Additionally, the project brought amenities to the lake to create more recreational opportunities including fishing and boating. New park elements include:

- Boat Themed Playground
- Community Picnic Shelter
- Overlook/Fishing Pier
- Floating Boat Dock
- Small Boat Launch
- Basketball Half-Court
- Soccer Fields
- Walking Loop

- Backstop
- Restroom Building
- Permeable Paving Parking Lot
- Interpretive Signage
- Rain Gardens
- Native Prairie Plantings

**Project Type:**

Open space - Park

Part of a redevelopment project

**Design features:** Bioswale, downspout removal, porous pavers, and curb cuts.**This project was designed to meet the following specific requirements or mandates:**

Local ordinance, to meet funding criteria, developer/client preference

**Impervious area managed:** 5,000 sq/ft to 1 acre**Amount of existing green space/open space conserved or preserved for managing stormwater on site:** 5,000 sq/ft to 1 acre**The regulatory environment and regulator was** supportive of the project.**Did the client request that other factors be considered, such as energy savings, usable green space, or property value enhancements?** No**Cost & Jobs Analysis****Estimated Cost of Stormwater Project:** \$10,000-\$50,000 (Public funding: State, local)**Related Information:** Total bid project was \$1,300,000. Sustainable components and stormwater items include: \$170,000 - permeable paving parking lot for 60 cars, \$11,667 - catch basins and drainage pipes, \$15,200 - plants in bioswales/rain gardens, \$30,000 - estimated excavation/grading for above**Was a green vs. grey cost analysis performed?** No

**Cost impact of conserving green/open space to the overall costs of the site**

**design/development project:** The entire site is a park so it was all preserved as green space.

**Cost impact of conserving green/open space for stormwater management over**

**traditional site design/site development approaches (grey infrastructure)?** Slightly

increased. There was an increase in cost to install permeable paving parking in place of asphalt parking, but the overall amount of catch basins was most likely reduced. Additionally, rain garden and bioswale plantings increased the overall costs, but add to the look of the park site. Long term, the permeable paving may cost less if it does not need replacement as asphalt would require.

**Number of jobs created:** Not available

**Job hours devoted to project:** Not available

Planning and Design: Not available

Construction: Not available

Annual Maintenance: Not available

## Performance Measures

**Stormwater reduction performance analysis:**

Data not available.

**Community & economic benefits that have resulted from the project:** The project is only 18-months old, so long term economic benefits are hard to gauge. The overall use of the site has increased significantly as it had few amenities prior to the project. The park site has been well received by the community.

## Additional Information

**Links to images:** [http://www.uplanddesign.com/wp-content/uploads/upland\\_park\\_springlake.pdf](http://www.uplanddesign.com/wp-content/uploads/upland_park_springlake.pdf)

Interpretive signs were added to share the story of sustainable design and the habitat that is being protected by using the green initiatives.