

# Be smart when you splash and spray

Site selection, layout and type of water system are all important factors when picking the right water recreation facilities for your community.

A “sprayground,” also referred to as a “splash-pad,” is a recreation area designed to provide interaction with various types of water features. While there are countless options for sprayground application, spraygrounds are commonly associated with public parks, trail systems, aquatic centers, retail areas and recreation centers. Sprayground layouts vary greatly dependent upon specific application, budget and space available.

When considering a sprayground, the first decision is how the water will be circulated through the features. The two types of configurations being used are pass-through systems and recirculation systems. A pass-through system uses a potable water source to deliver water to the features. After the water has been sprayed it is drained directly to a wastewater system. A recirculation system utilizes stored water. The stored water is continually treated and filtered in the same manner as a swimming pool. A separate pump supplies the treated water to spray elements.



Below are some characteristics that differentiate the systems.

## Pass-through system:

- Typically, there is no need for a sanitation system
- Water consumption is generally much greater than a recirculation system
- Flow and pressure requirements are limited by capacity of potable water source
- During periods of draught, water use restrictions may limit operation of the sprayground

## Recirculation System

- Flow and pressure requirements are virtually limitless
- Water consumption is greatly reduced compared to a pass-through system
- Regular maintenance requirements are increased
- Water costs should be reduced compared to a pass-through system

After determining the most appropriate water delivery system for the sprayground, the next step is to evaluate the remaining design elements. Below is a list of considerations a municipality should thoroughly examine before putting shovels in the dirt.

## Site Selection

- Look for a secure, convenient and accessible location
- Provide ample space for a sprayground and its associated mechanical equipment
- Locate near the necessary utilities, i.e. water, electrical, sewer
- Consider space for future expansion
- Position the mechanical and chemical equipment so it is accessible for service staff

## Layout and element sections:

- Establish a working budget
- Incorporate a variety of spray elements; i.e. spray elements to entertain a range of age groups
- Include shaded areas, seating and observation zones
- Design in lighting, especially for after-hours security

## Operation and maintenance:

- Analyze splash zones, overspray and wind to reduce potential water loss
- Design gravity drainage for operation and winterization
- Analyze the available wastewater system capacities
- Design mechanical systems and operational programming within achievable hydraulic capacities
- Incorporate an off-hours bypass to prevent contamination of re-circulated water
- Select materials and equipment with long lifecycles

Spraygrounds are an excellent alternative to conventional swimming pool facilities. They are relatively simple to maintain, low cost to operate, and do not require a lifeguard to be on duty to be open to the public. The success of a sprayground and the ease with which it can be operated and maintained is directly credited to key points in the design of the sprayground system. With careful planning, a sprayground can become a popular and successful amenity to any community.

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Published in the May 2011 Edition of the Arkansas Municipal League's *City & Town Magazine*

