

# CASE STUDY

<b>Project:</b>	Splash Battle Area
<b>Client:</b>	Flamingo Land Theme Park, North Yorkshire
<b>Project Type:</b>	Splash park with re-circulating system
<b>Project Value:</b>	£490,000.00
<b>Splash Pad Size:</b>	1300m <sup>2</sup>



## The Background

Flamingo Land is the UK's only combined theme park, zoo and holiday village with over 1.75 million visitors each year and facilities spread over 375 acres of North Yorkshire parkland. As part of a programme of expansion and facilities upgrade, Flamingo Land needed a 1300m<sup>2</sup> splash park with large free access space. The facility had to function safely with minimal supervision and complement the new 'Splash Battle' attraction at the park, creating a highly interactive play zone for children ranging in age from toddlers to juniors.

## The Challenge

The splash park installed at Flamingo Land in Yorkshire is amongst the most ambitious schemes to be designed and installed by SSP Waterplay. At 1300m<sup>2</sup>, this is the largest splash pad of its kind in Europe but it wasn't size alone that made this a challenging scheme. The combination of innovative features, complex design and stringent water management requirements called for all of SSP Waterplay's experience and expertise.



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## The Solution

37 interactive water features, including swaying palms that dump water from coconuts, surround the centre-piece of the area, a massive 8m long Pirate Ship with three huge masts that spray water on the unsuspecting crew from the crow's nest. Constructed over a steel sub-frame the ship is formed from a unique form of soft-touch foam with polyurethane covering which provides a robust, water and chemical resistant finish that is extremely UV-stable. This feature is set on top of a two metre high platform with sculptured rock finish. Interactive water-cannons shooting columns of soft, foaming water complete a truly stunning addition to the park.

The whole area is covered in wet pour safety surface that includes a unique additive to inhibit the growth of bacteria and algae for the life of the surface. The result is a non-slip, non-abrasive cushioned finish with vivid colours that create a desert island theme around the ship. Over and under multiple spray jets simulate waves crashing onto the beaches. The various water features are controlled by a combination of six activators offering an infinite number of programmable variations and sequences.

A hopscotch pad was also designed for the toddler zone that included ten Moppet Poppet flush-mounted water-jets working in sequence up and down the pad allowing children to chase or dodge the water.

One of the more innovative features of this water playground is one that is largely hidden from view. SSP designed the water circulation and treatment scheme as a single system that passes water from the splash battle, through UV filters and out to the water features on demand then back to the splash battle ride via a series of sump pumps. This process also provided the variable flow rates demanded by the various features.

The water-flow design allowed the filtration plant to treat the whole of the water used in the ride and associated splash zone. Using knowledge of the water play industry and

PWTAG recommendations SSP created an area at one end of the lake comprised of recently treated water to feed the various features. This was complemented by an area at the other end of the lake where seven skimmers pull water across the lake to create an efficient distribution of treated water. Evidence that the system works effectively is provided in the form of a lake that has stayed crystal clear throughout the whole season despite constant heavy use.



## The Result

Despite the challenges involved and the complexity of the scheme it was delivered on time and on budget ready for the new season. As Nick Buckley, Operations Manager at Flamingo Land commented, "We are delighted with the new facility; the solution designed by SSP for the treatment of the water for the main attraction and the associated splash zone works perfectly. It maintains a high level of water quality, something that is absolutely essential for such a busy site".



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