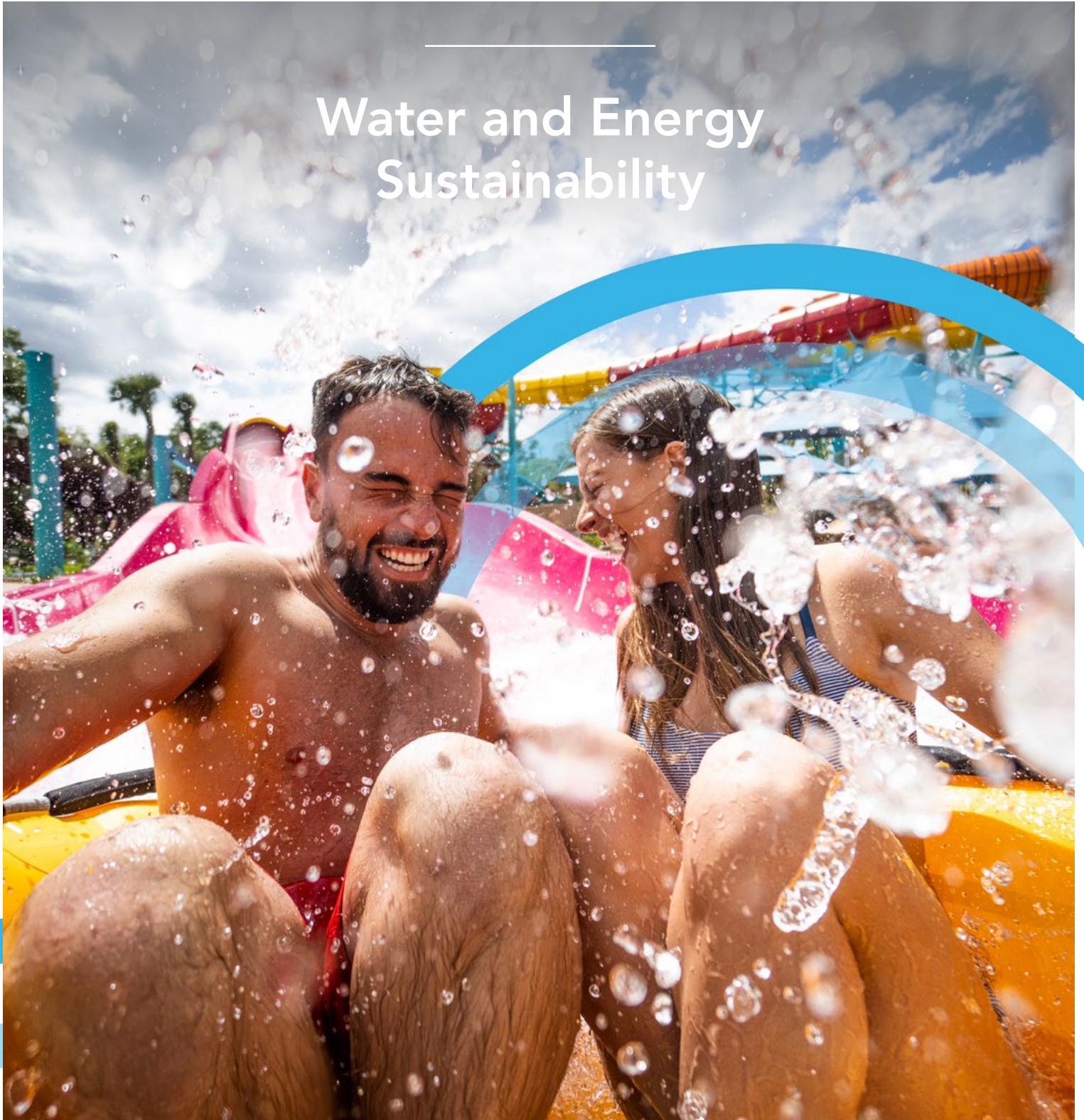




WHITEWATER®

Entertain the Possibilities

# Water and Energy Sustainability







## Save water, power, and money

With droughts a constant concern as water becomes a scarcer resource and its costs continue to rise, water parks are developing a slight image problem. How does a water park change the perception that it's a water hog, greedily consuming hundreds of thousands of gallons of water a day while its neighbours are banned from watering their lawns?

Understanding just how much water your park consumes and where it's being lost can help you make informed decisions when creating your own water conservation strategies, in addition to educating your guests with the facts.

It's true that water parks use a lot of water, hundreds of thousands of gallons in fact, but water use is not the same as water consumption. Water use is the amount of water within your park's water system necessary for operations. Water, just as any other ride component would, requires maintenance, such as filtering, chemicals, and top ups. These top ups are required because of water consumption—water lost on a daily basis to evaporation or to the sanitary system because of splash out, backwash, and deck wash downs.





## The water consumption reality

Most people would be surprised to learn that water parks only consume about 2% to 3% of their water daily; for a 100,000 square foot water park that might be around 125,000 to 160,000 gallons of water per day. When compared to a golf course, which consumes an average of 300,000 to 500,000 gallons of water per day, depending on region, water parks are not the water wasters they are often thought to be.<sup>1</sup>

The reason for this minimal daily water consumption comes down to smart design. The aim of any water park is to reuse as much of its water as possible by minimizing all of the ways it can be lost. While water loss cannot be eliminated entirely, smart design can help by requiring less water to begin with and by doing a better job of preventing splash out. By doing so, water parks can not only reduce their environmental costs, but their financial ones as well.

1. Hansen, Eric B. "Is Water Conservation at Waterparks considered Oxymoronic?"  
Hotel & Leisure Advisors. [http://hladvisors.com/docs/default-source/Publication-PDFs/water\\_oxymoronic.pdf](http://hladvisors.com/docs/default-source/Publication-PDFs/water_oxymoronic.pdf)



## How WhiteWater helps reduce water consumption

Our slides are designed to use less water, from start tub to run-out lane

At WhiteWater, we design our slides with water and energy efficiency in mind. Each step of the water slide experience is considered, from beginning to end.

### LOW WATER ENTRY TUBS

All of our vehicle water slides have an innovative entry tub design that requires less water at the start (while still allowing for self-dispatch) which means that the slide uses less water overall.

### PROPRIETARY SIMULATIONS

As guests ride down one of our family raft rides, they will thrill in the higher climbs around turns on our pioneering risers, designed using proprietary simulation tools.

### MINIMAL SPLASH RISERS

Different riser types are deployed to not only ensure maximum water splash-out containment, but to also provide guests with an even more exhilarating ride.

### WAVE CATCHER RUN-OUT LANES

For vehicle slides that terminate in run-out lanes, we also provide patent-pending to patented lane terminations to contain wave splash over and provide guests with safe and convenient exit points.

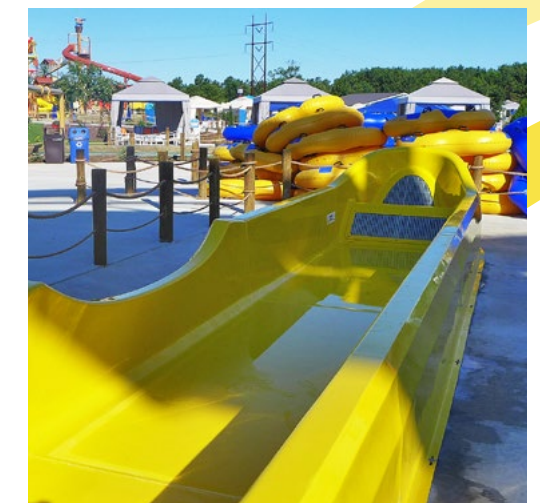




## Use water only when you need it with award-winning Smart Blast technology

Always innovating, WhiteWater has also found ways to save parks money when operating their Master Blaster and Mat Blaster slides with our Smart Blast technology, which won the 2016 IAAPA Brass Ring Award for technology. In the past, the jets used to power guests uphill on these rides would have been continuously on, pumping water non-stop, resulting in an inefficient use of power and water.

We have solved this uneconomical use of energy by developing our Smart Blast technology which uses variable frequency drives (VFDs) and a proprietary control algorithm to dynamically adjust pump speeds while the ride is in operation. The new system saves significant power by only ramping up motor speed when it's needed to drive riders uphill. It also reduces the wear and tear on the mechanical equipment and is more energy efficient because the motor is not constantly running at a set speed.



## Technology to save \$1,000s

According to Ron Sutula, the former GM of Schlitterbahn Galveston, WhiteWater's Smart Blast technology has resulted in significant savings for his park: "We measure MASSIV's power consumption independently of all other rides. Over eight days of operation this year, the water coaster used \$3,000 worth of power. Had it not been equipped with Smart Blast water propulsion jets, we would have paid \$6,000 over the same time period."



## Lower costs for your park

Because WhiteWater water slides use less water flow, there is less water to lose to evaporation and fewer pumps and valves required, resulting in lower power consumption and utility costs. The reduced water flow also requires smaller water vaults, which in turn lowers construction and maintenance costs. Less water also means that there is less water to treat so not as many chemicals are needed.

	WHITEWATER	COMPETITOR A	COMPETITOR B
Freefall	300 USGPM	396 USGPM	1,000 USGPM
Inner Tube Boomerango	1,300 USGPM	1,233 USGPM	2,500 USGPM
4-Lane Mat Racer	200 USGPM	1,056 USGPM	2,000 USGPM
Abyss	3,600 USGPM	4,579 USGPM	4,800 USGPM

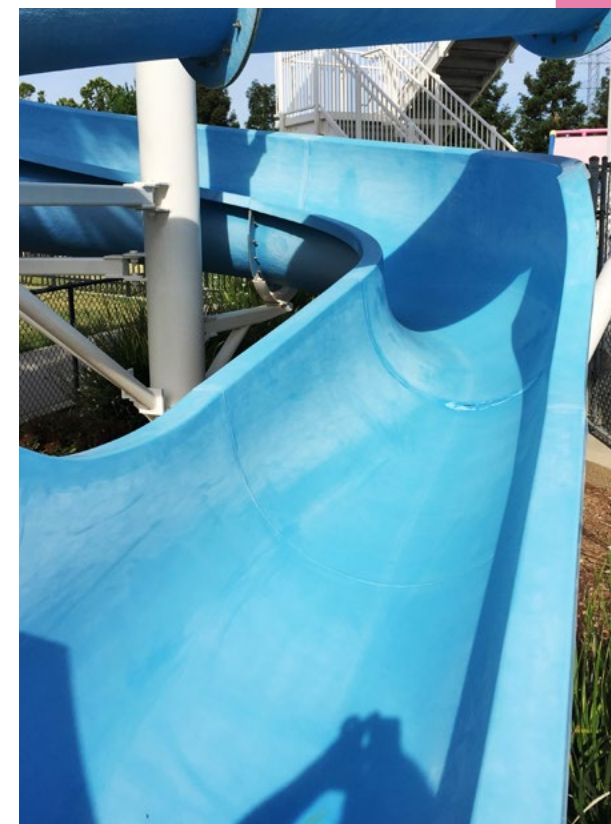


## Ensure longevity and high-performance with regular maintenance

Extending the life of your attractions is not only cost effective but also helps to reduce the amount of waste that ends up in landfills. While our attractions have been built to last, with best-in-class fiberglass, steel, and surfacing, they do require regular maintenance to ensure safety and durability.

## Keep your attractions running smoothly

Our Customer Service team is here to make sure that parks learn how to best care for the attractions so that they can enjoy them for years to come.





## Develop your water conservation plan

There are many factors that can affect your park's overall water conservation plan, each one playing an important role in decreasing your daily water consumption. When choosing your rides, be sure to select slides that have been designed for optimal efficiency to not only help the environment, but to also positively impact your bottom line. And then be sure to share with your guests the steps you are taking to proactively conserve water, it may well win you a few more likes in the battle for hearts and minds.





# WHITEWATER®

EST. 1980

WhiteWater was born in 1980 with one clear purpose, to create places where families unite and make joyful lasting memories.

We achieve this by standing alongside our customers from concept to completion of award-winning attractions, from slides to water rides and everything in between. We aim to inspire our clients by unleashing our creativity to realize their ambitions; we craft solutions which make each park unique. We are dedicated to making products that operators can count on, because we understand the importance of reliability and efficiency on the bottom line.

As market leaders, we put our success down to our attitude, in all our years we've never once forgotten why we're here – to help parks solve problems, create immersive experiences, and delight guests all over the world.

We're here to create places where fun thrives.

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