

The Way of the Whitewater Park  
Artificial whitewater parks riding wave of popularity  
Risa Shimoda and Paddler Editors

Human beings are tinkerers. When something doesn't fit our needs, it's our nature to change it.

Whitewater paddlers are no different. And whitewater—in the form of man-made whitewater parks—is springing up in towns and cities across the nation, creating a new wave of whitewater enthusiasm in the most unlikely of places: downtown. People who would otherwise never be exposed to whitewater now find it right in their front yard.

In the last decade communities have managed to build dozens of whitewater play parks and slalom training courses, often overcoming a force as indecipherable as nature herself, if not nearly so benign: local bureaucracy. Artificial whitewater courses are popping up across the country, in traditional whitewater towns like Salida, Colo., and less likely locales such as Fort Worth, Texas, and Charlotte, N.C. You can spin and blunt on engineered rapids in Green River, Wyo., and Ogden, Utah, and challenge your slalom skills on a world-class training facility outside of Washington, D.C.

Whether the project is a single play feature added to an existing stream, a diverted channel or a completely self-contained artificial river surrounded by a stadium, artificial courses across the United States are providing local communities with new recreation opportunities.

Judging from the precedent of other outdoor sports, whitewater parks could help fuel a paddling boom. Olympic paddler-turned-course designer Scott Shipley envisions consumers “taking whitewater for a test drive” on artificial courses complete with moveable obstacles and adjustable play features. With the advent of indoor climbing gyms, a new generation of convenience-oriented enthusiasts is now a mainstay of the outdoor sports community.

Established boaters salivate at the thought of quality year-round whitewater just minutes from home or work. While all paddlers can appreciate a convenient spot to paddle for fun and fitness, few hear about the behind-the-scenes wrangling needed to secure permits, water rights and money to bring these water parks to life. With prices ranging from the tens of thousands to the tens of millions, the success of a whitewater park often relies on being able to fund its design and construction.

## Truckee River, Reno, Nevada

The country's best-publicized whitewater park, Reno, Nev., is redefining the whitewater destination. "It's a true source of pride," Reno resident and 2003 world freestyle kayaking champion Jay Kincaid says of Winfield Park's \$1.5 million whitewater course, which includes walking paths and sitting areas.

The park's multiple channels offer something for every paddler, from rodeo boaters to slalom racers and beginners. World-class paddlers convened at this park in May of last year for the invitation-only Grand Opening—an event that was held during drought flows and in which hometown favorite Kincaid narrowly bested current World Champion Eric Jackson. Though the course has yet to see the average 2,000cfs spring flows it was designed for, 30,000 people visited the three-day festival, and the local inner tube concessionaire rang up 10,000 rentals during one three-month period.

Despite its success, the whitewater course was a huge gamble, even by Reno standards. "We'd secured funding through a statewide municipal bond, but we'd planned to start construction before the funds would be available, forcing us to face the possibility of having to wait an entire year," says project manager Jim Litchfield. "We asked the owners of two large hotel casinos, Harrah's of Reno and The Eldorado, to each provide a bridge loan of \$500,000, interest free and unsecured."

Remarkably, the casinos each wagered a half-million dollars that the course would be a success. The Reno city council also put up \$500,000 to show its commitment to the project. The gamble paid off. "I don't know if I could ever accurately portray our stress through this period," says Litchfield.

## Clear Creek, Golden, Colorado

The Clear Creek Whitewater Park in Golden, Colo., has become a centerpiece for the picturesque mountain town, a source of municipal pride and—most importantly for the development of whitewater parks nationwide—an economic catalyst. Built at an initial cost of \$165,000, economic projections have the park bringing the town more than \$1.4 million every year. That figure has inspired local governments in Colorado and beyond to pursue whitewater parks of their own.

But the Golden course set more than just a profitability precedent. It also has shaped the water-rights landscape in a part of the country where water rights traditionally have flowed to ranches.

Although whitewater parks don't consume water, they do require water to flow downstream. To agricultural interests who count on holding scarce water resources in reservoirs, letting water flow downhill for something as frivolous as kayaking is a major threat (see sidebar). In 2001, Golden went to the Colorado Supreme Court to win guaranteed water releases for its whitewater park. "That decision was the big breakthrough, and Golden has shouldered the burden since as the lightning rod for subsequent water rights cases," says Glenn Porzak, who has represented several Colorado cities in similar court cases. Golden, Vail and Breckenridge all have prevailed in court cases asking for recreational water releases. Gunnison's case is in the courts now, and Steamboat Springs and Salida each have cases that are likely to go to trial. "A municipality's strongest argument is that the use is non-consumptive and beneficial to the community," Porzak says.

The State opposed the City's recreational water demands because it considered the requested flows "excessive and unreasonable," says Colorado Water Conservation Board lawyer Ted Kowalski. "The State is not against recreation. But we don't know how to define a specific flow level as 'reasonable' according to the law on a course that's going to be engineered anyway."

### Gore Creek, Vail, Colorado

Vail, Colo., is no stranger to whitewater, but until 2002, whitewater events such as the Teva Mountain Games were held on the Eagle River outside of town. Tourism is the lifeblood of Vail's ski-town economy, and town planners recognized the value of positioning an outdoor-sports event in the downtown business district, particularly one that can draw visitors long after the snow melts from the ski slopes.

Early in 2002, the Vail Valley Chamber and Tourism Bureau proposed modifying Gore Creek so that freestyle paddling events could take place in the heart of Vail Village. They commissioned a design that provided high-quality whitewater without looking man-made. With the backing of tourism bureau, the \$130,000 project was completed in a matter of months. The park has since played host to the most aggressively promoted annual freestyle competition in the country, part of the Teva Mountain Games.

The Vail park has had a dramatic effect on an otherwise winter-based town. Despite the park's short season, pre-construction studies projected more than \$1 million per year into the local economy. Tourists can watch paddlers in action, and local boaters—while not flocking to the artificial creation when Colorado's natural whitewater is running—give it a solid workout daily.

The park does, however, point out the hubris of trying to improve upon nature. Sedimentation from the yearly cycle of high water often neutralizes man-made features, requiring periodic maintenance. Sediment has already affected two of Vail's features. The town is currently looking at ways to re-engineer the project, says Ian Anderson of the Vail Valley Chamber & Tourism Bureau. "We compromised too much of the project for aesthetics," says Anderson, also an avid paddler. "With proper planning venues can be built to be both structurally sound and aesthetic."

#### Upper Ocoee: An Olympian Effort

When the Ocoee River was tapped to host the 1996 Olympic slalom competition, engineers, led by John Anderson and Rick McLaughlin, converted the shallow shoals above the traditional put-in into one of the world's premier slalom courses. The \$7.7 million facelift to the river bed—plus more for a visitor's center and other amenities—also created some excellent play spots, including the challenging hole above the aptly named drop Humongous.

Olympic organizers came to the U.S. Forest Service, which manages the Ocoee, with exacting requirements. "The course had to fit into the environment, it had to be a world-class venue, and if it cracked one-eighth of an inch we were done, as it needed to withstand periodic flooding of 30,000 cfs or more," says Paul Wright, who managed the project for the U.S. Forest Service. On top of all that, it couldn't cost the Atlanta Olympic organizers a dime.

U.S. wildwater team member David Jones and others rallied unprecedented political momentum, forcing the Forest Service to foot the construction costs and the Tennessee Valley Authority to supply the water. The cost savings allowed Atlanta organizers to sweeten their bid, and the slalom course became a key element in bringing the 1996 Olympics to Atlanta.

The race course and the Olympic slalom competition were both unqualified successes, but four days after the Olympic torch went out, the team that designed and built the course was reassigned. "The Forest Service was tired of dealing with it," Wright says. In

the years after the Olympics the TVA allowed only 10 to 20 releases per year, based on a burdensome fee system.

The last great slalom event planned on the Upper Ocoee, the 2001 Whitewater Slalom World Championships, was cancelled in the wake of Sept. 11. With infrequent releases and world-class play five miles downstream at Hell Hole, the Ocoee park has never established itself as a river-running and playboating attraction. The natural river section just downstream (popularly known as the Lower Ocoee, though technically the Middle Ocoee) hosts thousands of rafters every summer weekend.

Local outfitters and American Whitewater successfully resolved a seven-year effort to secure 54 releases each year on the Upper Ocoee in 2003 which will last for at least the next 15 years. Thanks to these releases, raft trips and non-commercial paddlers are enjoying the Upper Ocoee, and the venue once again has a chance to realize the potential shown during the 1996 Olympics.

## All the Rage

By Raymond Poff, Ph.D.; Bruce A. Larson, Ed.D.; Steve Spencer, Ed.D. and Risa Shimoda

Paddle your community into a new type of experience: the whitewater park

As the demand for outdoor recreation increases, park and recreation professionals must increasingly consider the availability of resources suitable for these activities.

According to the Outdoor Industry Foundation, participation in humanpowered outdoor activities rose six percent from 1998 to 2004, with an overall growth from 126.2 million participants in 1998 to 141 million in 2004.

Canoeing and kayaking were reported as two of the four activities showing an overall increase from 1998 to 2004 with increases of 16.3 percent and 130 percent, respectively.

Some outdoor recreation participants, such as whitewater kayakers and canoeists, require specific recreation environments to participate—namely whitewater. Whitewater is created and influenced by combining factors such as the velocity or speed of the water, the volume or amount of moving water, the river's gradient or amount of elevation drop, and obstacles.

While these factors may be readily available in some areas, many live in areas void of such combinations. Building an artificial whitewater park is one solution to creating or enhancing whitewater recreation environments for your community.

## Trends and Types

The development of whitewater parks is a worldwide trend. According to the Mississippi Whitewater Park Development Corporation, there are approximately 34 whitewater parks completed or under construction in the United States.

In response to a growing need to share information, numerous whitewater developers, architects and citizen groups from around the world gathered in October 2005 for the first conference on whitewater parks, "Whitewater Courses & Parks: Enhancing Communities." Conference attendees visited a number of whitewater parks and met with individuals who helped to develop parks in their communities.

While these parks come in different shapes and sizes, they share the common thread of helping make whitewater sports more readily available to the public. According to Paddler magazine, "These courses across the United States are providing local communities with new recreation opportunities." Whitewater parks create greater accessibility, location wise and financially, to whitewater paddling, allowing people to participate in an environment which may previously have only been available in more remote settings.

A resident from Salida, Colo., home to a new whitewater park, says, "My daughter is a paddler and it is so nice to know that she's right here, close by in a nice setting."

Often these venues are developed in settings where whitewater doesn't naturally exist. Whitewater parks generally fall into one of three categories: 1) in-stream courses that modify existing streambeds to best accommodate flow and gradient to create the course, 2) divided channel courses that are engineered adjacent to existing rivers in order to divert water to the course, and 3) re-circulating courses constructed in areas where no natural riverbed exists and for which the environment would have to be totally constructed.

## Development Process

According to Gary Lacy, owner and professional engineer at Recreational Engineering and Planning, once a decision has been made to pursue a whitewater park in your community the steps involved would include, but not be limited to the following:

Step one: Gaining the support of your local politicians. Visits to successful parks should be a priority. Present information on the economic benefits of having such a park in the area. Contact a design firm to provide some preliminary drawings of the conceptualized project.

Step two: Invite the design firm to public meetings with interested members of the community. Design firms ask questions at these meetings to determine the needs of the community in relation to the park and to ensure adequate park design.

Step three: Construction permits should be obtained from the local city government, land management or other agency, as appropriate. Most design and construction firms can take care of this process as part of their cost.

Step four: Construction phase of the project. Initiate construction when water levels are at their lowest. Make daily visits with the construction supervisor to ensure the design and construction firm is following the design plan.

Step five: Plan a grand opening event to celebrate the completion of the project. It should focus on the recreational features and best practices advised for the safe use of the park and provide for viewing the intended use of the facility.

### Benefits of Whitewater Parks

There are several potential benefits stemming from developing a whitewater park in a community. Probably the most significant benefit for most communities when creating whitewater parks is the increased spending of tourism dollars.

For example, during a three-year period the Clear Creek Whitewater Park in Golden, Colo., was credited with attracting an estimated 45,000 users and creating an economic impact of \$23 million to the community. Tourism operations in housing, service, goods arrangements, accommodations, and transportation will be positively affected.

In addition to direct tourism revenue, related businesses also are created, and can lead to new and different related economic functions throughout the city. In serious whitewater towns, all the accoutrements that go along with the sport are suddenly needed.

Some benefits aren't as measurable, including the cultural benefits and significance of having such a unique venue. It can soon define a city's recreation program. A city having such a venue becomes a destination with all of the benefits associated with significant tourist attractions.

One resident in Gunnison, Colo., says that the town's whitewater park even attracts college students, exposing local businesses to a different clientele.

Whitewater parks can also serve as a catalyst for developing greenways, riverside parks and creating new river recreation opportunities. When a community begins to pay attention to a special feature (such as a river or stream), it can provide education opportunities.

These parks can create a laboratory for applied learning to take place, as well as conservation.

Whitewater parks are being built around the world to accommodate a growing interest and need for accessible whitewater. These parks bring increased opportunities to whitewater paddlers and the communities in which they are found.

As one Salida, Colo., resident says, “The river brings people here from all over; it is one of the most exciting things the city has ever done.”

## Whitewater Parks: Planned or Under Construction

**U.S. National Whitewater Center** - An outdoor adventure center with access to 300+ acres along the Catawba River 10 minutes from downtown Charlotte, North Carolina. Opening date of July 2006 in question due to stalled efforts to develop an access road. Latest news - once the park is open - they will focus on kayaking and exclude riverboarding and riverboarders from use of the facilities in the short term. Several local riverboarding enthusiasts are putting together a petition and asking for meetings with the director to change this policy. **Lend your support.**

**Palisade Whitewater Park** - planned for the Colorado River between Grand Junction and Palisade, CO. River access has been approved by Union Pacific so the permit process and fundraising efforts are starting.

**Glenwood Springs Whitewater Park** - site under consideration is located in West Glenwood Springs with construction beginning as early as winter 2006.

**Stoneycreek Whitewater Park** -Somerset County, Pennsylvania

**Arkansas Whitewater Park** - between Little Rock and Fort Smith, Arkansas

Pueblo Whitewater Park - Arkansas river as it flows through Pueblo, Colorado.

**Susquehanna Whitewater Park Alliance** - group proposing a park along the Susquehanna river near Havre de Grace, MD

**Bowling Green Whitewater Park** - proposal under consideration for a whitewater course along the Barren River. and other possible sites in Kentucky