

# Analyzing the Market and Determining Economic Feasibility for Waterpark Projects

David J. Sangree, MAI, CPA, ISHC  
President

Hotel & Leisure Advisors, LLC  
14805 Detroit Avenue, Suite 420  
Cleveland, OH 44107

Phone: 216-228-7000 ext. 20  
Email: [dsangree@hladvisors.com](mailto:dsangree@hladvisors.com)  
Web: [www.hladvisors.com](http://www.hladvisors.com)



David J. Sangree, MAI, CPA, ISHC  
President

Hotel & Leisure Advisors, LLC  
14805 Detroit Avenue, Suite 420  
Cleveland, OH 44107

Phone: 216-228-7000 ext. 20

Email: [dsangree@hladvisors.com](mailto:dsangree@hladvisors.com)

Web: [www.hladvisors.com](http://www.hladvisors.com)



## Waterpark Development Requires Research of Various Factors:

- Supply and Demand Demographics
  - Income Levels
- Potential Per Capita Spending
  - Attached Hotel Occ. & ADR
    - Potential Attendance
    - Profitability Levels
    - Feasibility Analysis
- Economic Impact Analysis



# Hotel with Indoor Waterpark:

- A lodging establishment with an attached 10,000 to 30,000 square-foot aquatic facility inclusive of amenities such as slides, tubes, and a variety of indoor water play features
- The indoor waterpark serves as an amenity of the hotel as opposed to an independent destination.



# Indoor Waterpark Destination Resort:

- A resort with more than 30,000 square feet of indoor waterpark space inclusive of amenities such as slides, tubes, and a variety of indoor water play features
- It is considered a true destination resort, which families frequent on a year-round basis primarily to utilize the waterpark and secondarily to visit other attractions or events in the area.



# Resort with Outdoor Waterpark:

- A lodging establishment with an outdoor aquatic facility featuring three or more waterpark elements requiring lifeguards such as slides, lazy rivers, or wave pools
- The outdoor waterpark is utilized primarily by hotel guests but can also be open to the public.



# Standalone Indoor Waterpark:

- A freestanding aquatic facility with a minimum of 10,000 square feet of indoor waterpark space inclusive of three or more amenities such as slides, tubes, and a variety of indoor water play features



# Outdoor Waterpark:

- An outdoor aquatic facility with three or more water slides and other aquatic facilities.
- These parks often offer additional splash features for younger children as well.





# What is a Feasibility Study?

- Purpose
- Necessity
- Scope of assignment
- Extensive research and realistic conclusions of performance
- Analysis of specific design plans or recommendations for size and plans



# Economic Characteristics and Trends

- Demographics and economic trends
- Major employers and local demand generators
- Tourist attractions in area
- Local attractions and draws
- Highway infrastructure and traffic counts
- Groups and conventions in market
- Corporate market demand
- Airport statistics
- Population and income within 3 hours



# Demographic Analysis

Maximum typical travel distance:

- Indoor waterpark resort: 180 miles
- Outdoor waterpark: 60 miles

- Families within drivable distance
- Children within drivable distance
- Proposed site vs. existing waterpark resort areas
- Compare number of rooms and waterpark size to number of family households



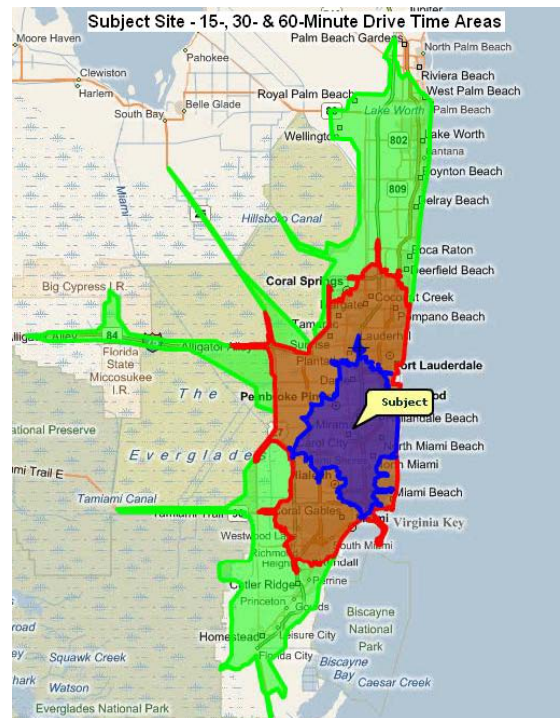
## Ratio of Family Households to Indoor Waterpark Hotel Rooms within 180 Miles of Example City, Wisconsin Dells & Sandusky

	<u>Example</u>	<u>Wisconsin Dells</u>	<u>Sandusky</u>
2015 Est. Family Households, 180-mile radius	9,012,310	4,273,443	6,647,145
Number of Existing and Under-Construction Hotels with Indoor Waterparks	11	34	14
Total Rooms	2,360	9,599	4,039
Family Households per Indoor Waterpark Hotel Room	3,818.8	445.2	1,645.7

Sources: ESRI, Hotel & Leisure Advisors



# Population Drive Time



# Outdoor Waterpark Supply to Population Analysis

Outdoor Waterpark and Population Comparison

Region	Number of Waterparks	Population	Number of People per Waterpark
Northeast	73	56,283,891	771,012
Midwest	272	67,907,403	249,660
South	275	121,182,847	440,665
West	124	76,044,679	613,264
<b>Total</b>	<b>744</b>	<b>321,418,820</b>	<b>432,015</b>

Source: Hotel & Leisure Advisors 2016 count of waterparks and U.S. Census Bureau



# Site Analysis

- Site and nearby land uses
- Site visibility and access
- Nearby tourism attractions
- Nearby amenities (state and national parks, etc.)
- Access to corporate demand generators
- Site size and potential for expansion
- Site zoning



# Recommendations to Consider

- Product concept
- Branding
- Hotel affiliation
- Management company
- Acreage
- Sizing
- Amenities
- Facility configuration
- Phasing
- Development costs





# Competitive Supply Analysis

- Local hotel/waterpark market
- Scales of local hotels (e.g., budget, midscale, resort)
- Quality level of local hotels and resorts
- Supply of waterpark resorts within region
- New hotel supply in local market
- Proposed waterpark resorts within region
- Demolitions of existing hotels and waterparks
- Convention and Visitors' Bureau information



# Demand Analysis

- Local hotel supply occupancy & ADR
- Rising demand for both hotels and waterpark resorts
- Regional hotels & waterpark resorts occupancy & ADR
- Demand interviews with potential users
- Induced demand from existing properties' fill days
- Future demand growth for hotels and resorts
- Regional and national trends in the waterpark industry
- Regional waterparks statistics and performance



# Projected Financial Performance

- Occupancy and ADR
- Waterpark usage including day passes
- Other revenue departments including food and beverage, arcade, spa, gift shop, rentals, parking, telephone
- Expense categories including rooms, food and beverage, waterpark, arcade, spa, telephone, gift shop
- Undistributed expenses including administrative, marketing, maintenance, energy, taxes
- Projection of net operating income for forecast period
- How financial projections are utilized in income capitalization approach of an appraisal
- Discount rate and capitalization rates



# U.S. Waterpark Standings



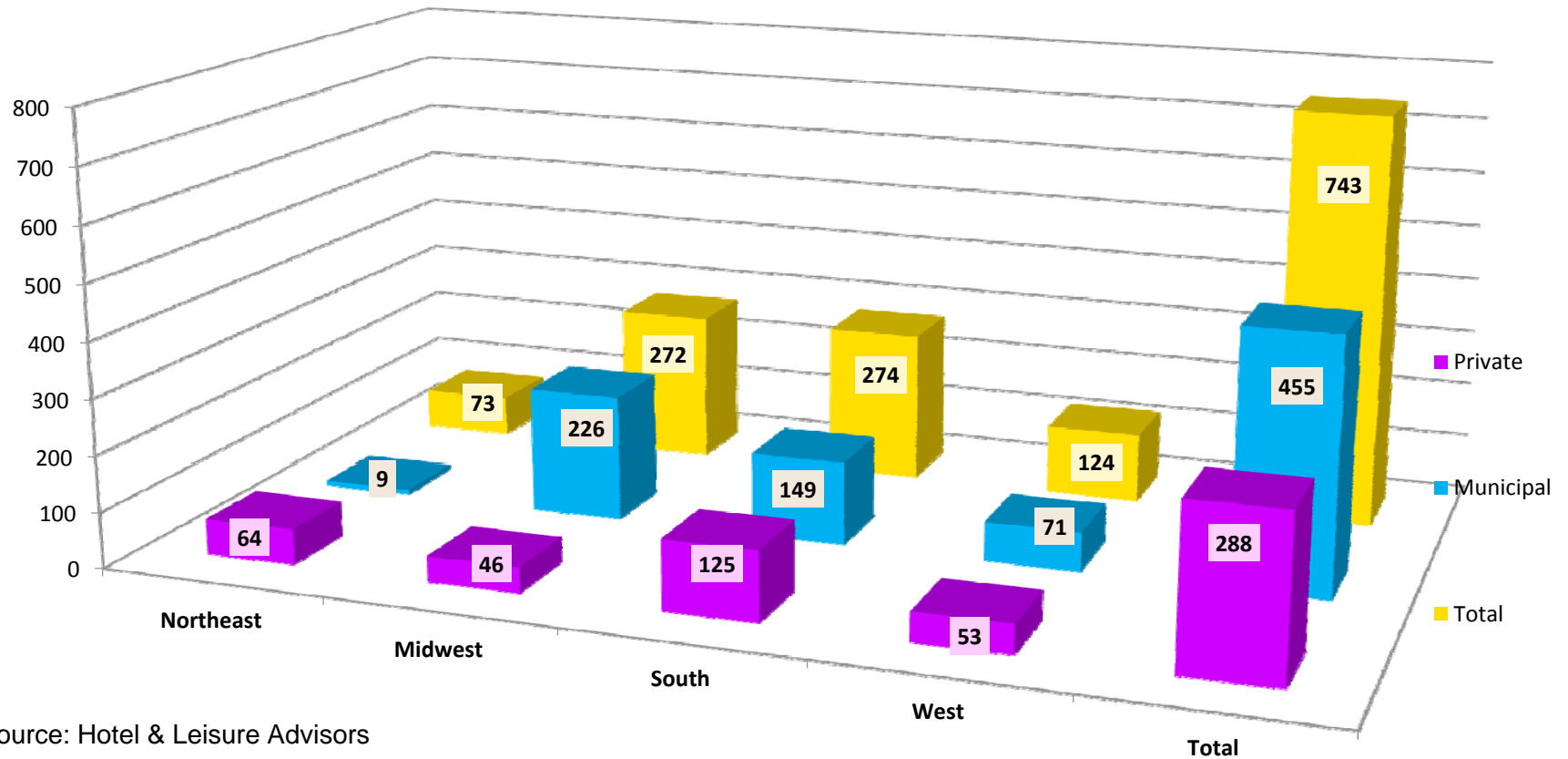
# Combined Total Number of U.S. Waterparks as of October 2015:

# 1017

- The majority of these are outdoor



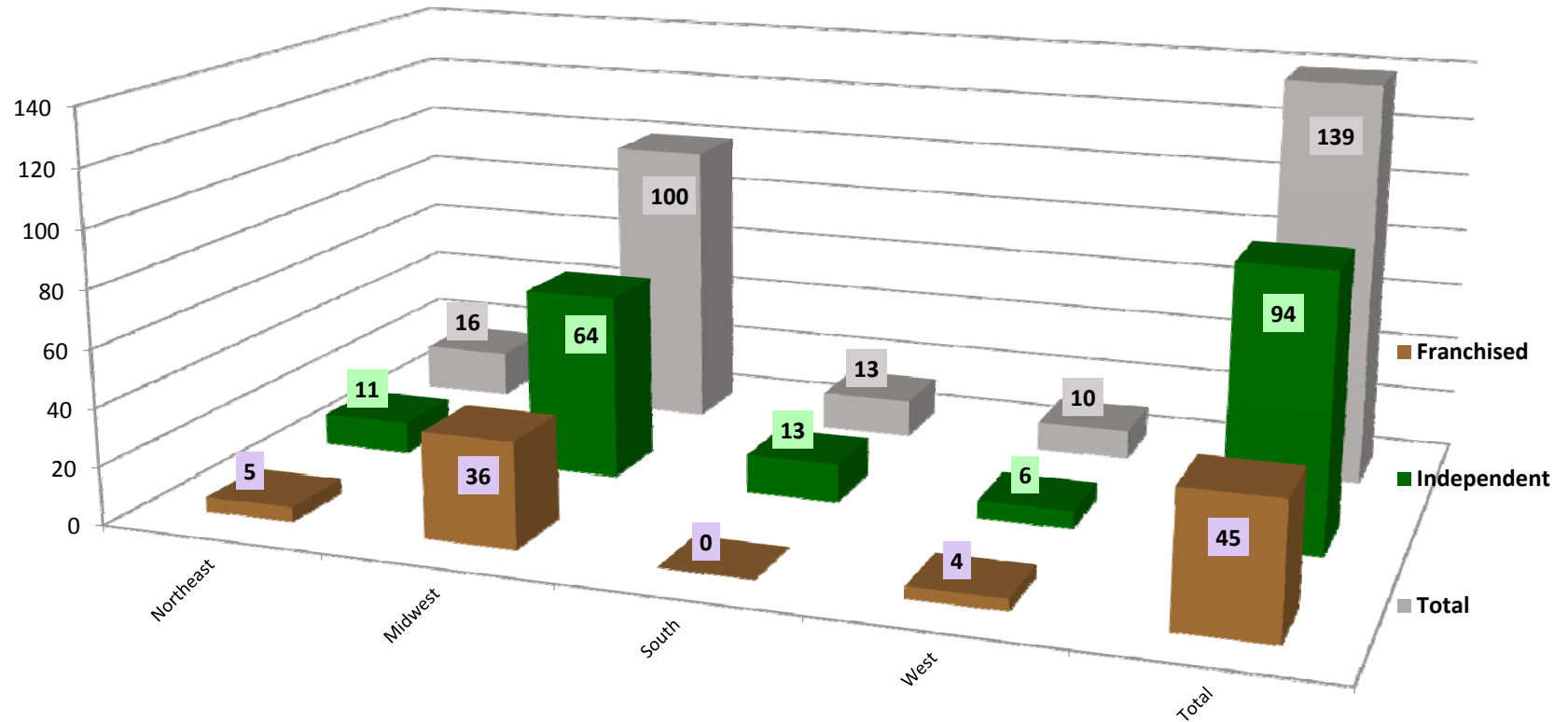
# U.S. Outdoor Waterparks



Source: Hotel & Leisure Advisors



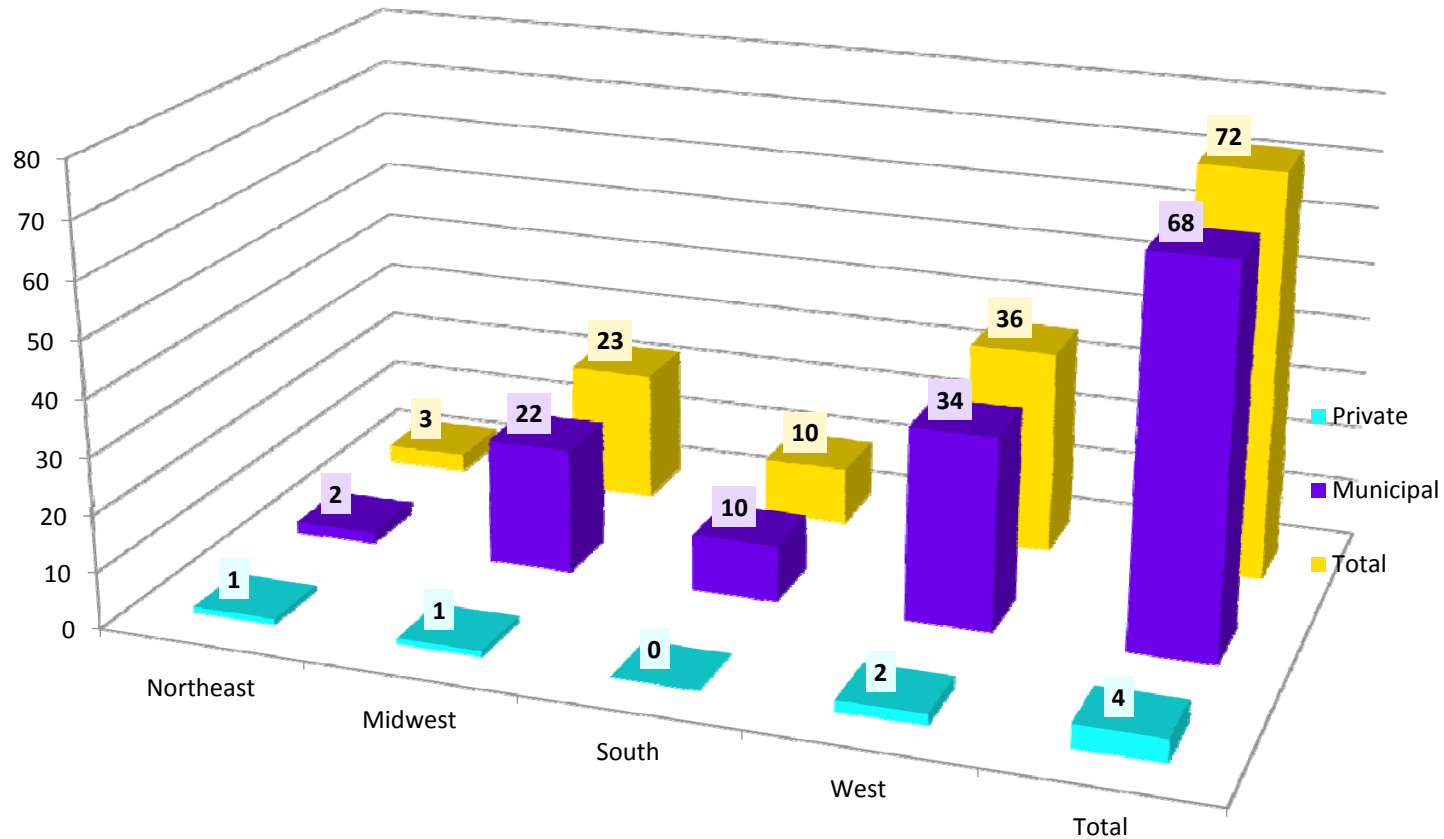
# U.S. Indoor Waterpark Resorts



Note: Independent includes Great Wolf Lodge

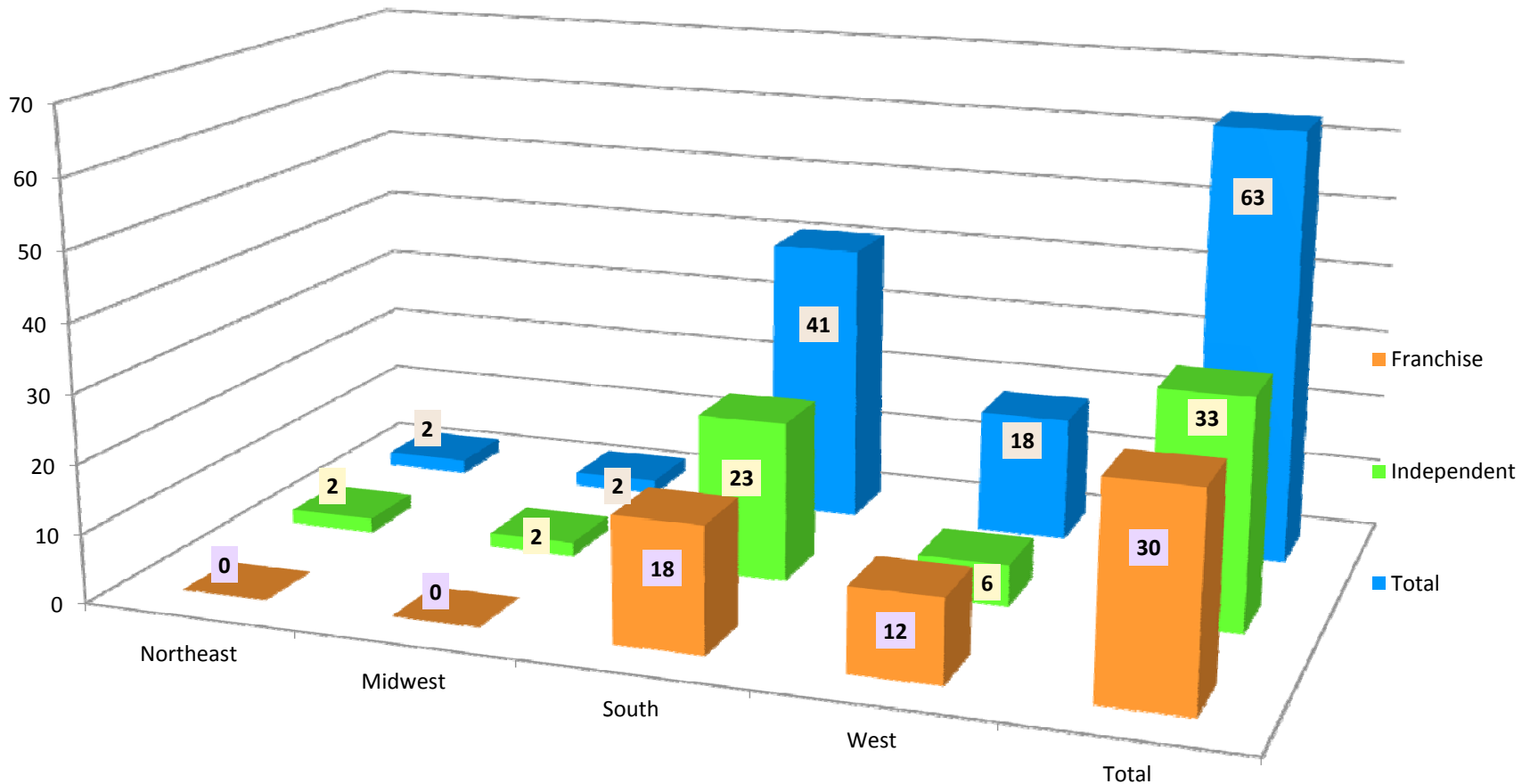


# U.S. Standalone Indoor Waterparks





# U.S. Resorts with Outdoor Waterparks



Note: excludes resorts that have both indoor and outdoor waterparks as those are counted as Indoor Waterpark Resorts



- The Midwest boasts the largest number of indoor waterparks.
- The South has the largest number of outdoor waterparks with the Midwest close behind. It offers few indoor waterparks indicating potential opportunity
- The Northeast has the fewest number of outdoor waterparks and the fewest combined indoor waterparks (resorts and stand-alone), indicating potential opportunity.



- The majority of outdoor waterparks are municipal due to the Midwest having so many municipal outdoor waterparks
- There are more private outdoor waterparks than municipal in the Northeast.
- The majority of standalone indoor waterparks are municipal.
- All indoor waterpark resorts are private



### Indoor Waterpark Additions & Indoor Waterpark Resorts Opened in 2015

Indoor Waterparks and Resorts	City	State /Prov	New Rooms	Indoor Waterpark Sq. Ft.
Holiday Inn Express/Raptor Reef/Triple Play Laser Tag Arena and Ropes Course Addition	Hayden	ID	0	0
Camelback Lodge and Aquatopia Indoor Waterpark	Tannersville	PA	453	125,000
Kalahari Resort	Pocono Manor	PA	457	106,000
New Residence Inn at WaTiki Indoor Waterpark Resort	Rapid City	SD	144	0
Brookings Days Inn Waterpark Addition	Brookings	SD	0	12,000
Wilderness at the Smokies Boomerango Addition to OWP	Sevierville	TN	0	0
<b>Total</b>			<b>1,054</b>	<b>243,000</b>

Note: Resorts have a minimum of 10,000 square feet of indoor waterpark space  
 Source: Hotel & Leisure Advisors, LLC



**Indoor Waterpark Additions & Indoor Waterpark Resorts Open or Projected to Open in 2016**

<b>Indoor Waterparks and Resorts</b>	<b>City</b>	<b>State / Prov</b>	<b>New Rooms</b>	<b>Indoor Waterpark Sq. Ft.</b>
Great Wolf Lodge Southern California	Garden Grove	CA	603	105,000
Great Wolf Lodge Colorado Springs	Colorado Springs	CO	311	50,000
Ascend Hotel and Parrot Cove Indoor Waterpark	Garden City	KS	96	20,000
Expansion of Cape Codder Resort	Hyannis	MA	0	20,000
Holiday Inn Express Expansion	Baxter	MN	25	3,000
Hampton Inn & Suites	Marshall	MN	75	10,000
Treasure Island Resort Waterpark Addition	Welch	MN	0	30,000
Sahara Sams Expansion	West Berlin	NJ	0	10,000
Great Wolf Lodge addition of Wolf Tail Waterslide	Niagara Falls	ON	0	0
Hershey Lodge Water Works Addition	Hershey	PA	0	30,000
Valcartier Vacation Village Indoor Waterpark Resort	Valcartier	QC	153	102,000
<b>Total</b>			<b>1,263</b>	<b>380,000</b>

Note: Resorts have a minimum of 10,000 square feet of indoor waterpark space  
 Source: Hotel & Leisure Advisors, LLC



### Outdoor Waterpark 2015 Openings

	Park	Location	Total Slides
<b>Private</b>			
	Splash Kingdom	Nacogdoches TX	8
	<b>Total</b>		<b>8</b>
<b>Municipal</b>			
	Parrot Island Waterpark	Fort Smith AR	7
	Del Mar Family Aquatic Center	Aurora CO	3
	Paradice Island	Commerce City CO	5
	Surf Lagoon	Pooler GA	4
	Freedom Springs	Greenwood IN	4
	River Run Family Waterpark	New Albany IN	5
	West River Community Center	Dickinson NC	3
	Hillside Aquatics Center	Bismarck ND	3
	Lyons City Pool	Lyons NE	3
	Avon Municipal Aquatic Facility	Avon OH	5
	Alameda Waterpark	Butler PA	3
	Splash Island at D.W. Wilson Community Center	Tullahoma TN	3
	Doug Russell Pool	Midland TX	7
	Strawberry Park Pool	Pasadena TX	5
	Kaiser Pool Renovation	Wausau WI	5
	Surf 'n Fun Waterpark	San German PR	14
	<b>Total</b>		<b>79</b>

Source: Hotel & Leisure Advisors



## Outdoor Waterpark 2016 Openings

Park	Location	Total Slides
<b>Private</b>		
Laguna Splash at DelGrosso's Amusement Park	Tipton PA	10
Sandy Harbor Family Fun Center at Ocean Lakes	Myrtle Beach SC	3
JadeWaters Resort Waterfront	Dallas TX	2
Splash Kingdom	Greenville TX	6
Typhoon Texas	Katy TX	20
NLand Surf Park*	Austin TX	
<b>Total</b>		<b>41</b>
<b>Municipal</b>		
Cabot Aquatic Park	Cabot AR	4
Pocahontas Aquatic Center	Pocahontas AR	5
Portland Waterpark	Portland IN	2
Long Branch Lagoon	Dodge City KS	6
Midwest Health Aquatic Center	Topeka KS	5
American Legion Water Park	Elizabethtown KY	4
Carlsbad Waterpark	Carlsbad NM	5
Kingston Community Pool	Kingston PA	3
Alice Natatorium and Water Park	Alice TX	6
Memorial Pool Renovation	Wausau WI	3
<b>Total</b>		<b>43</b>

\* Projected opening by end of year

Source: Hotel & Leisure Advisors



We are currently tracking 32 indoor and outdoor waterpark projects with planned openings in 2017 including:

1. 100,000 square foot and 520-room expansion of the Kalahari Resort in Pocono Manor, Pennsylvania.
2. 98-room Summit at Country Cascades Smoky Mountain Resort in Pigeon Forge, Tennessee featuring an outdoor waterpark.
3. 31,000 square foot Emerald Glen Recreation and Aquatic Complex in Dublin, California.
4. 80,000 square foot Apex Centre Aquatics and Fitness Facility in McKinney, Texas.





**Top 20 U.S. Waterparks  
by Annual Attendance**

<b>Rank</b>	<b>Park</b>	<b>Location</b>	<b>2015 Attendance</b>	<b>2014 Attendance</b>	<b>% Change over 2014</b>
1	World	Orlando, FL	2,294,000	2,185,000	5.0%
2	World	Orlando, FL	2,107,000	2,007,000	5.0%
3	Aquatica	Orlando, FL	1,600,000	1,569,000	2.0%
4	Wet 'n Wild	Orlando, FL	1,310,000	1,284,000	2.0%
5	Schlitterbahn	New Braunfels, TX	1,037,000	1,037,000	0.0%
6	Water Country USA	Williamsburg, VA	726,000	726,000	0.0%
7	Adventure Island	Tampa, FL	663,000	644,000	3.0%
8	Schlitterbahn	Galveston, TX	551,000	551,000	0.0%
9	Six Flags Hurricane Harbor	Arlington, TX	549,000	523,000	5.0%
10	Six Flags White Water	Marietta, GA	541,000	510,000	6.1%
11	Hyland Hills Water World	Denver, CO	527,000	527,000	0.0%
12	Splish-Splash	Calverton, NY	513,000	421,000	21.9%
13	Wet N' Wild Splashtown	Houston, TX	501,000	497,000	0.8%
14	Wet N' Wild	Phoenix, AZ	481,000	467,000	3.0%
15	Six Flags Hurricane Harbor	Jackson, NJ	440,000	423,000	4.0%
16	Camelbeach	Tannersville, PA	437,000	334,000	30.8%
17	Zoombezi Bay	Powell, OH	423,000	416,000	1.7%
18	Dollywood's Splash Country	Pigeon Forge, TN	416,000	408,000	2.0%
19	Raging Waters	San Dimas, CA	403,000	429,000	-6.1%
20	Wet N' Wild Emerald Point	Greensboro, NC	402,000	398,000	1.0%

Source: TEA 2015 Theme Index, The Global Attractions Attendance Report (released 2016)



## Performance Figures for Indoor Waterpark Resorts

- Occupancy levels among indoor waterpark hotels/resorts of all sizes range from 35% to 85%, while ADRs range from \$75 to \$375.
- Great Wolf Lodge resorts (11 properties) achieved an average occupancy of 66.4% within ADR of \$261.55 in 2012 according to their SEC filings.
- Hotels and resorts that have added indoor waterparks typically see improvements in occupancy with some gaining as many as 16 points. They have also experienced \$10 to \$100 increase in ADR.
- Wide range of performance is due to location, size of waterpark, resort amenities, management, marketing, performance of existing hotel supply, and number of nearby family leisure attractions.



# Waterpark Challenges

- Smaller properties generally struggle: three Ohio smaller indoor waterpark resorts attempted to sell via auction in 2016 at low prices
- CocoKey Waterpark Resort in Waterbury, Connecticut closed in 2016 due to poor performance and will be torn down for a new use
- Weather affects outdoor waterpark performance
- Too much competition can affect performance



# Conclusion

- Opening of Great Wolf Lodge in Garden Grove, California has increased awareness of higher quality indoor waterpark resorts in the West
- Continued growth in interest in the waterpark segment with increased numbers of new stories in various magazines, television, and newspapers
- Waterpark demand continues to grow for both indoor and outdoor facilities



- Both private developers and municipalities continue to introduce new indoor and outdoor waterparks across the U.S.
- The development of an outdoor waterpark is less expensive than an indoor waterpark and can add seasonal recreation to a property.
- Waterpark designers will continue to come out with new rides and attractions
- Balancing revenues versus costs



# Questions?



David J. Sangree, MAI, CPA, ISHC  
President

Hotel & Leisure Advisors, LLC  
14805 Detroit Avenue, Suite 420  
Cleveland, OH 44107  
Phone: 216 228 7000  
Fax: 216-228-7320  
Email: [dsangree@hladvisors.com](mailto:dsangree@hladvisors.com)  
Web: [www.hladvisors.com](http://www.hladvisors.com)

